From: Noelle Clarke <nclarke@rouxinc.com>
To: Chad Staniszewski <crstanis@gw.dec.state.ny.us>
CC: <joseph.a.abel@exxonmobil.com>
Date: 4/5/2011 1:33 PM
Subject: RE: Former Buffalo Terminal - OU1 Construction Certification Report

Chad,

The topsoil came from the following supplier:

Brenon Top Soil
5530 Killian Road
North Tonawanda, NY 14120

Based on information from the vendor, the topsoil is virgin soil from farm land and wooded areas.

Please let me know if you need any additional information.

Noelle M. Clarke, P.E.
Principal Engineer

Remedial Engineering, P.C.
Roux Associates, Inc.

209 Shafter Street
Islandia, New York 11749
Phone: (631) 232-2600
Fax: (631) 232-9898
Web page: www.rouxinc.com

-----Original Message-----
From: Chad Staniszewski [mailto:crstanis@gw.dec.state.ny.us]
Sent: Tuesday, April 05, 2011 10:11 AM
To: Noelle Clarke
Cc: joseph.a.abel@exxonmobil.com
Subject: Former Buffalo Terminal - OU1 Construction Certification Report

Hi Noelle,

I reviewed the Final Construction Certification Report for OU-1 dated March 17, 2011. One piece of information that I could not find:

1. What was the source of topsoil used to backfill the 2010 excavation? I located the analytical data but I need to know the source (Facility/Address and the original source).

Let me know and hopefully we can finally put this to rest.

Thanks,
Chad

Chad Staniszewski, PE
Environmental Engineer II
NYS Department of Environmental Conservation
Region 9
270 Michigan

Buffalo, NY 14203-2999

Office Phone: (716) 851-7220
Office Fax: (716) 851-7226

ExxonMobil
Refining & Supply Company
1001 Wampanoag Trail
East Providence, Rhode Island 02915
401 434 2900 Telephone
401 431 4028 Facsimile

CRS ____

ExxonMobil
Refining & Supply

March 18, 2011

Mr. Chad Staniszewski
New York State Department of
Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203

RE: EXXON MOBIL OIL CORPORATION
FORMER BUFFALO TERMINAL
625 ELK STREET
BUFFALO, NEW YORK
BROWNFIELD SITE #C915201
OPERABLE UNIT 1
FINAL CONSTRUCTION CERTIFICATION REPORT

Dear Mr. Staniszewski:

Attached, please find the "Final Construction Certification Report" dated March 17, 2011 for Operable Unit 1 for the above referenced site.

If there are any questions please call me at (401) 434-7356.

Sincerely,

J.A. Abel

Project Manager

March 17, 2011

FINAL CONSTRUCTION CERTIFICATION REPORT

ExxonMobil Former Buffalo Terminal
Buffalo, New York

Prepared for:

EXXONMOBIL OIL CORPORATION
1001 Wampanoag Trail
Riverside, Rhode Island 02915

Remedial Engineering, P.C.
Environmental Engineers

and ROUX ASSOCIATES, INC.

209 Shafter Street, Islandia, New York 11749 ♦ 631-232-2600

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 SITE SETTING AND HISTORY 4
- 2.1 General History of the OU-1 4
- 2.2 Former and Current Structures on Parcels No. 4 and No. 5 5
- 2.3 Zoning and Land Use of OU-1 5
- 2.4 Spills/Releases 6

3.0 SUMMARY OF ENVIRONMENTAL CONDITIONS 7
- 3.1 Previous Investigations to Delineate Impacts from the 1976 Release at Former Tank 60 7
- 3.2 Additional Investigation Completed in August 2006 9
  - 3.2.1 Temporary Monitoring Wells 9
  - 3.2.2 Soil Sampling 10
  - 3.2.3 Water Level Gauging 11
  - 3.2.4 Groundwater Sampling 11
  - 3.2.5 Data Usability Summary Report 12
- 3.3 Additional Investigation Completed in November 2006 12
  - 3.3.1 Soil Sampling 13
- 3.4 Results of All Investigations in OU-1 13
  - 3.4.1 Geology 13
  - 3.4.2 Hydrogeology 14
  - 3.4.3 Soil Quality 15
  - 3.4.4 Groundwater Quality 17
  - 3.4.5 Separate-Phase Product 18

4.0 SUMMARY OF REMEDIAL ACTION 19
- 4.1 Remedial Goals and Remedial Action Objectives 19
- 4.2 Standards, Criteria and Guidance 20
- 4.3 Mobilization/Site Preparation 21
- 4.4 Traffic Control 21
- 4.5 Storm Water Management and Erosion Control 22
- 4.6 Health and Safety and Community Air Monitoring 22
- 4.7 Dust Control 23
- 4.8 Excavation and Offsite Disposal 24
- 4.9 Temporary Staging and Stockpiling 26
- 4.10 Waste Characterization Sampling 26
- 4.11 Post-Excavation Sampling 27
- 4.12 Backfilling 29
- 4.13 Equipment Decontamination and Disposal of PPE and Construction Water 30
- 4.14 Demobilization and Site Restoration 30
- 4.15 Institutional Controls 31

5.0 ENGINEER'S CERTIFICATION 32

TABLE OF CONTENTS

(Continued)

TABLES

1. Summary of Spills/Releases at Operable Unit 1 of the Buffalo Terminal
2. Summary of Soil Quality Criteria
3. Summary of Volatile Organic Compounds in Waste Characterization Samples
4. Summary of Semivolatile Organic Compounds in Waste Characterization Samples
5. Summary of Total Petroleum Hydrocarbons in Waste Characterization Samples
6. Summary of Metals in Waste Characterization Samples
7. Summary of TCLP Metals in Waste Characterization Samples
8. Summary of TCLP Volatile Organic Compounds in Waste Characterization Samples
9. Summary of TCLP Semivolatile Organic Compounds in Waste Characterization Samples
10. Summary of TCLP Pesticides in Waste Characterization Samples
11. Summary of Corrosivity, Reactivity and Ignitability in Waste Characterization Samples
12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples
13. Summary of Metals in Post-Excavation Soil Samples
14. Summary of Volatile Organic Compounds in Backfill Samples
15. Summary of Semivolatile Organic Compounds in Backfill Samples
16. Summary of Metals in Backfill Samples
17. Summary of Polychlorinated Biphenyl Compounds in Backfill Samples
18. Summary of Pesticides in Backfill Samples
19. Summary of Volatile Organic Compounds in Topsoil Samples
20. Summary of Semivolatile Organic Compounds in Topsoil Samples
21. Summary of Metals in Topsoil Samples
22. Summary of Polychlorinated Biphenyl Compounds in Topsoil Samples
23. Summary of Pesticides in Topsoil Samples

FIGURES

1. Site Location Map
2. Definition of Operable Units and Brownfield Site Boundaries for the ExxonMobil Former Buffalo Terminal
3. Geographic Areas of the Former Buffalo Terminal
4. Investigation Sample Locations
5. Zoning Map
6. Revised Excavation Map

APPENDICES

A. Daily Construction Reports
B. Daily CAMP Summary
C. Waste Profile

TABLE OF CONTENTS

(Continued)

APPENDICES (Continued)

D. Waste Manifests *(Located on the CD in the Back of the Report)*
E. Photo Documentation
F. Waste Characterization Analytical Reports *(Located on the CD in the Back of the Report)*
G. Post Excavation Analytical Reports *(Located on the CD in the Back of the Report)*
H. Data Usability Summary Report *(Located on the CD in the Back of the Report)*
I. Backfill Analytical Reports *(Located on the CD in the Back of the Report)*
J. NYSDEC Approval Letters for Backfill and Topsoil and Mining Permit for Sand/Gravel Material Used in 2010

PLATE

1. Distribution of SVOCs and Metals in Soil Compared to Part 375 Commercial and Industrial Criteria

1.0 INTRODUCTION

On behalf of ExxonMobil Oil Corporation (ExxonMobil), Remedial Engineering, P.C (Remedial Engineering) and Roux Associates, Inc. (Roux Associates) have prepared this Final Construction Certification Report (FCCR; formerly referred as the Final Engineering Report (FER) for the portion of the ExxonMobil former Buffalo Terminal (Site) designated as Operable Unit 1 (OU-1) located north of Elk Street. This FCCR is a revised version of the FER dated December 7, 2007 which incorporates the following:

- New York State Department of Environmental Conservation (NYSDEC) comment letter dated April 3, 2008;
- Remedial Engineering response letter dated May 29, 2008;
- NYSDEC emailed comments dated July 22, 2008;
- Remedial Engineering response letter dated September 3, 2008;
- NYSDEC emailed comments dated November 14, 2008;
- Discussions between ExxonMobil, NYSDEC, Remedial Engineering and Groundwater& Environmental Sciences (GES) regarding OU-1 held during meetings in January and June 2009;
- Remedial Engineering response letter dated August 27, 2009;
- NYSDEC letter entitled "OU-1 Construction Certification Report" dated November 10, 2009; and
- Remedial Engineering response letter dated January 8, 2010.

The former ExxonMobil Buffalo Terminal and offsite areas currently and formerly owned by ExxonMobil located at 625 Elk Street, Buffalo, New York are shown on Figure 1.

In order to address the environmental conditions, ExxonMobil entered into a Brownfield Site Cleanup Agreement with the NYSDEC on April 3, 2006. Under this agreement, the Site entered into New York State's Brownfield Cleanup Program (BCP). The Site is defined, for the purposes of the BCP, as the area within the limits of the five Operable Units (OUs) as shown in Figure 2. In addition, the Site was divided into nine geographic areas for the purpose of assessing environmental conditions and reporting the results of area-specific activities (Figure 3). These geographic areas were designated according to the historical primary operations that occurred in

each portion of the Site. The area of the Site that is the subject of this FCCR is within Operable Unit 1 (OU-1) within the area previously designated as the Elk Street Properties Area (ESPA).

The portion of the Site south of Elk Street is currently operating as a petroleum products storage and distribution facility owned and operated by Buckeye Terminals, LLC (Buckeye) with the surrounding non-operating area (formerly part of historic operations) owned by ExxonMobil. The requirements and recommendations of the NYSDEC guidance document, Draft Brownfield Cleanup Program Guide (May 2004), were incorporated into this FCCR in addition to the requirements and recommendations of the NYSDEC "Draft DER-10 Technical Guidance for Site Investigation and Remediation (DER-10)," dated December 25, 2002 (DER-10 has since been revised on May 3, 2010; however, the bulk of the remedial activities were completed prior to the revision).

All remedial activities and were performed in accordance with the directives and guidelines contained within the following documents:

- Title 6 of the New York Code of Rule and Regulations (6 NYCRR) Part 375 (Part 375) dated December 14, 2006;
- NYSDEC draft BCP Guide dated May 2004;
- Draft DER-10 dated December 2002;
- The Alternatives Analysis Report/Remedial Action Work Plan for Operable Unit 1 dated January 8, 2007; and
- Response to NYSDEC February 15, 2007 Comment letter on the AAR/RAWP for OU-1 dated March 13, 2007.

The primary objective of the remediation, as stated in the February 15, 2007 response to comment letter, was to implement Remedial Alternative 2 presented in the AAR/RAWP, which would achieve a Track 2 Commercial Use scenario for OU-1, as selected by the NYSDEC.

Clean Harbors was the general contractor for the remediation. Under the direct supervision of Remedial Engineering P.C., GES provided field oversight of the specified remedial activities and implemented the required Community Air Monitoring Plan (CAMP) during all excavation activities.

The remainder of the FER is organized as follows:

- Section 2.0 describes the Site and its history;
- Section 3.0 describes the results of the previous environmental investigation, including site geology and hydrology, soil quality, groundwater quality, and regulatory status;
- Section 4.0 provides a summary of the remedial construction activities performed at the Site, including soil excavation and disposal; and
- Section 5.0 presents the Engineer's Certification.

2.0 SITE SETTING AND HISTORY

The historical information presented in this section was obtained from the document entitled "History of Operations at Buffalo Terminal" (Roux Associates, 2000).

The site refinery and terminal operations occurred south of Elk Street in an area of approximately 89 acres. The petroleum refining operations at the Site began during 1880. The majority of the Site was purchased by Standard Oil Company of New York (SOCONY), ExxonMobil's predecessor, in 1892. Throughout the Site's history, the areal extent of property owned by ExxonMobil changed as portions of property were acquired or sold for various reasons. In May 1981, the Site terminated all refinery operations. The Site continued as an ExxonMobil distribution terminal, receiving product via a pipeline and barge until May 2005. The active petroleum products storage and distribution terminal portion of the Site was sold on May 4, 2005 and is now owned and operated by Buckeye. The area of Buckeye's active terminal is approximately 35.8 acres. The area within the current ExxonMobil property boundary is approximately 43.6 acres.

2.1 General History of the OU-1

There are two parcels associated with OU-1, which are located on the north side of Elk Street (Figure 2). The total area of OU-1 is 1.8 acres. The following is a description of Parcels No. 4 and No. 5 of OU-1, including locations of the parcels and the previous and current structures located on these parcels.

- Parcel No. 4. This parcel measures 106 feet by 115 feet (0.28 acres) and is located on the northwest corner of Elk Street and Winona Street. Prior to 1976, this parcel was occupied by residential structures. Parcel No. 4 was purchased by Mobil following a product release from Tank 60, which occurred on March 12, 1976 and is described in detail in Section 2.3. The residential structures were demolished following the release. Since 1976, Parcel No. 4 has remained vacant; however, it was being used for parking during portions of this time period. The History Document indicated that Parcel No. 4 of OU-1 was occupied by Trico Products Corp.; however, it is currently vacant and enclosed by a fence installed by ExxonMobil in July 2000.

- Parcel No. 5. This parcel measures 208 feet wide and 325 feet long on its eastern boundary with Bradford Street and 295 feet long on its western boundary with Winona Street (1.5 acres). Parcel No. 5 is located on the north side of Elk Street between Winona Street and Bradford Street. Prior to 1976, this parcel was partially occupied by residential structures. Parcel No. 5 was purchased by Mobil following a product release from Tank 60, which occurred on March 12, 1976 and is described in detail in Section 2.3.

The residential structures were demolished following the release. Since 1976, Parcel No. 5 has remained vacant; however, it was being used for parking during portions of this time period. The property is currently vacant and enclosed by a fence installed by ExxonMobil in July 2000.

2.2 Former and Current Structures on Parcels No. 4 and No. 5

Following the release incident from former Tank 60 in 1976, ExxonMobil purchased and demolished the residential structures present on Parcels No. 4 and No. 5. The structure that had existed to the north of the northwest portion of Parcel No. 5 was demolished at some point between 1974 and October 1976, but was not related to the ExxonMobil purchase and demolition due to the release incident. Figure 4 shows the buildings present at the time of the release that were subsequently demolished and buildings that are still present. Information on Figure 4 was developed based on a 1974 aerial photograph and a 1976 aerial photograph. Since 1976, Parcels No. 4 and No. 5 have remained vacant; however, they were used for parking during portions of this time period.

Currently, Parcels No. 4 and No. 5 are vacant and are enclosed by a chain link fence installed by ExxonMobil (shown on Figure 4).

2.3 Zoning and Land Use of OU-1

The zoning of OU-1 is M1 (light industrial district). A figure obtained from the City of Buffalo website showing the zoning for OU-1 is provided as Figure 5. Based upon an inquiry to the City of Buffalo zoning department in June 2006, the use of OU-1 for residential purposes occurred prior to any zoning ordinance taking effect.

Until recently, there was no comprehensive development plan in place for this portion of Buffalo. However, ExxonMobil and other stakeholders in the area have undertaken an evaluation of the best future use of the property and surrounding areas of this portion of Buffalo known as the "Elk Street Corridor." In October 2008, the results of the evaluation were documented in a final report entitled "Elk Street Corridor Redevelopment Plan" dated October 2008. The proposed land use for the Site based on the preferred redevelopment incorporated the following general goals for the corridor:

- Maintaining four anchor properties in the area, one of which is the Buckeye Terminal;

- Building the proposed "Southtowns Connector" to connect areas south of the Buffalo River to Interstate 190; and
- Providing a green space setback of 100 feet from the Buffalo River shoreline, as well as other green space areas.

The proposed zoning for OU-1 in the preferred redevelopment plan is light industrial. ExxonMobil has no current plans for OU-1. The reasonably anticipated future use of OU-1 will be vacant land surrounded by a fence, which is consistent with the zoning of the property.

2.4 Spills/Releases

Only one release has been documented to have impacted OU-1 (Table 1). The information and documentation for this release were provided by current and/or former ExxonMobil employees, contractors, residents, photographs taken at the time, and NYSDEC Spill Report Form for Spill No. 9314016, dated February 1, 1994.

The release occurred on March 12, 1976. The roof of Tank 60 ruptured when hot cracking stock for the Thermofor Catalytic Cracking (TCC) unit entered the tank from the crude unit. The hot product contacted ice in the bottom of the tank, causing it to expand, increase the pressure within the tank, and damage the roof. The cracking stock spilled onto Elk Street and Parcels No. 4 and No. 5. At that time, Parcels No. 4 and No. 5 were partially occupied by residential structures, as described above. The structures present were affected by the release. ExxonMobil cleaned up the cracking stock by vacuuming off excess product and then mixing the remaining material with sand, excavating the material, and disposing of it offsite. Subsequently, ExxonMobil purchased Parcels No. 4 and No. 5 and demolished the structures present. Property and structures located to the north of Parcels No. 4 and No. 5 were not impacted by the release and, therefore, were not purchased by ExxonMobil (Figure 4). Soil sampling was not conducted as part of the cleanup or demolition effort in 1976.

3.0 SUMMARY OF ENVIRONMENTAL CONDITIONS

Data regarding environmental conditions on OU-1 were obtained from a review of the results of previous investigations, the additional investigations completed in August and November 2006 in response to the NYSDEC requests, and the ongoing monitoring program at the Site. Figure 4 presents sampling locations from all investigations completed in OU-1, currently existing buildings that were present during the incident at former Tank 60, and former buildings that were present prior to the Tank 60 incident and subsequently demolished. This section includes a summary of the major findings and conclusions of the investigations completed in OU-1.

3.1 Previous Investigations to Delineate Impacts from the 1976 Release at Former Tank 60

Investigation activities performed during the 1993 GTI Site Assessment, the 1998 Site Facility Investigation (SFI), the 1999 Site Facility Investigation Completion (SFI Completion), and the 2001 ESPA (OU-1) Investigation Completion completed the delineation of the impacts on Parcels No. 4 and No. 5 of OU-1 resulting from the 1976 release at former Tank 60. The scope of work for the various investigations is described briefly below.

Environmental Site Assessment, conducted by Groundwater Technology, Inc. (GTI) in October 1993 (GTI, 1994)

This Site assessment included:

- Installation of 15 shallow and five deep soil borings;
- Collection and inspection of soil samples from the upper two feet of each boring;
- Analysis of one composite soil sample from the one to two foot below grade depth interval (designated SS#1 through SS#4) from four groups of five borings for total petroleum hydrocarbons (TPH) by Gas Chromatograph Flame Ionization Detector (GC-FID), chloride, and metals (a different color symbol is used on Figure 4 to represent each group of five borings that contributed to the four composite samples analyzed);
- Installation of temporary well points at the five deep soil boring locations (TWP-01 through TWP-05); and
- Groundwater sampling at four of the five temporary well locations (TWP-02 through TWP-05) for TPH, chloride, and metals.

Site Facility Investigation conducted by
Groundwater & Environmental Services, Inc.
from June through August 1998 (Roux Associates, Inc., 1998)

This investigation included:

- Completion of 12 soil borings (ESL-1 through ESL-12);
- Collection of 12 surface soil samples from ESL-1 through ESL-12 from 0-0.5 feet below any surface concrete, asphalt, or debris present and analysis for semivolatile organic compounds (SVOCs) and metals;
- Collection of three soil samples from 1.5-2 feet below surface material at ESL-4, ESL-8/ESL-W1, ESL-12, and analysis for volatile organic compounds (VOCs);
- Collection of one soil sample from 8-10 feet below land surface (bls) at ESL-8/ESL-W1 and analysis for SVOCs, VOCs and metals; and
- Installation and groundwater sampling of one soil boring/temporary well (ESL-8/ESL-W1) and analysis for SVOCs and VOCs. ESL-8/ESL-W1 was abandoned by removing the screen and casing and grouting the hole following the completion of the SFI.

Site Facility Investigation Completion conducted by
Groundwater & Environmental Services, Inc. and
Roux Associates from July through October 1999 (Roux Associates, Inc., 1999)

This investigation included:

- Completion of eight soil borings, ESL-13 through ESL-20 (five borings on OU-1 and three borings on properties to the north of OU-1), to depths up to four feet bls; and
- Collection of soil samples in three depth ranges (0-0.5 feet, 1-2 feet, and 2-3 feet below any concrete, asphalt, or debris material present at the boring location) and analysis for SVOCs and metals.

Elk Street Properties Area Investigation Completion conducted by
Groundwater & Environmental Services, Inc. and
Roux Associates on December 14, 2001 (Roux Associates, Inc., 2002)

This investigation included:

- Completion of six soil borings, ESL-21 through ESL-26 (three borings on Parcel No. 4 and three borings to the north of Parcel No. 5), from land surface to three feet bls;
- Collection of soil samples in two depth ranges (0-0.5 feet and 2-3 feet below any concrete, asphalt, or debris material present at the boring location) and analysis for SVOCs and reduced Target Analyte List (TAL) metals for cadmium, chromium, lead, mercury, nickel, selenium, thallium, and vanadium; and
- Samples were not analyzed for VOCs based on previous sample results.

3.2 Additional Investigation Completed in August 2006

The following section describes additional soil and groundwater sampling activities in OU-1 that were completed in August 2006 in response to the comments contained in the NYSDEC letter dated June 1, 2006 regarding the RAWP for OU-1 dated May 12, 2006 and that were discussed during the meeting held at NYSDEC offices in Buffalo on June 26, 2006. The additional investigation work was conducted in accordance with the Work Plan for Additional Investigation in OU-1, Site #C915201 dated July 12, 2006 and subsequent letter regarding Modifications to the Work Plan for Additional Investigation in OU-1 dated July 24, 2006. The goal of the additional investigation performed in August 2006 was to complete the delineation of constituents that were not analyzed during previous investigations (selected metals, PCBs, pesticides, herbicides) and for delineation of VOCs that were only analyzed to a limited extent during previous investigations.

3.2.1 Temporary Monitoring Wells

Three temporary groundwater-monitoring wells were installed on August 9, 2006, in the locations shown on Figure 4. One well was installed in Parcel No. 4 and two wells were installed in Parcel No. 5 of OU-1. The wells were designated MW-OU1-1, MW-OU1-2, and MW-OU1-3, as shown on Figure 4.

In accordance with ExxonMobil and Roux Associates' ground disturbance protocols, each location was cleared to a depth of five feet bls using an ExxonMobil approved method (i.e., hand auger). The monitoring wells were drilled using a hollow-stem auger drill rig with 4.25-inch augers. Continuous split-spoon sampling was performed from five feet bls to up to 13 bls, depending upon the conditions observed, as described below. Split spoon soil samples were field-screened for VOCs using a portable photoionization detector (PID) and logged for lithology.

Proposed monitoring wells were constructed of 2-inch diameter polyvinylchloride (PVC) casing and riser with five feet of 2-inch diameter PVC screen. The screen slot size was 0.010 inches (10 slot).

In accordance with the work plan, since saturated conditions were not observed above the clay layer, the entire five-foot screen was set within the clay. The bottom of the well was set at 10.5 to

13 feet bls. A gravel pack consisting of number 0 size Morie gravel extended to one foot above the top of the screen. The well annulus was sealed with bentonite pellets to the top of the clay to seal the clay layer off from the geologic units above. The remainder of the borehole was backfilled with drill cuttings from the top of the clay to land surface.

Since the wells were located within the fully fenced areas of OU-1 and since the wells were temporary, protective casings were not installed over the PVC stickups. However, a locking cap was provided for each well. The temporary wells were surveyed for measuring point and horizontal location on August 25, 2006.

The temporary monitoring wells were developed on August 11, 2006 by bailing until dry. Approximately five gallons of water were removed from MW-OU1-1 and approximately one gallon each was removed from MW-OU-2 and MW-OU-3 during development.

3.2.2 Soil Sampling

Up to three soil samples were collected from each of the three temporary monitoring well locations and each of the three soil boring locations shown on Figure 4.

The following samples were collected from each of the following depth intervals, above the clay layer:

- Zero to one foot bls at all six locations;
- One to two feet bls at all six locations; and
- Greater than two feet bls at SB-OU1-2 (two to three feet bls) and SB-OU1-3 (three to four feet bls).

At MW-OU-1 through MW-OU1-3 and SB-OU1-1, the clay layer was encountered at shallower than three to four feet bls; therefore, only two samples were collected.

The samples were analyzed for all parameters shown in "Table 375-6.8(b): Restricted Use Soil Cleanup Objectives" of Part 375 dated December 14, 2006 according to the following methods:

- Herbicides by United States Environmental Protection Agency (USEPA) method SW-846-8151A.

- Pesticides and polychlorinated biphenyls (PCBs) by USEPA methods SW-846-8081A/8082.
- VOCs by USEPA method SW-846-8260.
- SVOCs by USEPA method SW-846-8270.
- Arsenic, barium, beryllium, cadmium, copper, cyanide, lead, manganese, nickel, selenium, silver, thallium, vanadium, and zinc by USEPA method SW-846-6010B).
- Total mercury by USEPA method SW-846-7471.
- Total chromium, hexavalent chromium, and trivalent chromium method SW-846-7196A.

The samples for all analytical parameters except VOCs were collected as a composite of each interval. VOCs were collected as a grab sample from the top of the interval since no PID readings or petroleum-related impacts (i.e., staining, sheen, odor) were observed. In accordance with the Quality Assurance Project Plan (QAPP) for Additional Investigation in OU-1 for the investigation that was included as Attachment 1 to the letter regarding Modifications to the Work Plan for Additional Investigation in OU-1 dated July 24, 2006, the samples were sent under chain of custody to TestAmerica Analytical Testing Corporation in Nashville, Tennessee for analysis.

Quality Assurance/Quality Control (QA/QC) samples, including duplicates, trip blanks, and matrix spike/matrix spike duplicate (MS/MSD) samples were collected in accordance with the QAPP. The field blank was inadvertently omitted.

3.2.3 Water Level Gauging

Water levels within the newly installed temporary groundwater monitoring wells in the clay were gauged prior to and following sampling on August 14, 2006 and August 31, 2006, respectively. In addition, three monitoring wells (B-1MW, MW-34, and MW-35) on the main portion of the former Buffalo Terminal property south of Elk Street were gauged at the same time to provide an indication of the groundwater flow direction in the vicinity of OU-1.

3.2.4 Groundwater Sampling

Groundwater was sampled from each temporary well. One unfiltered sample and one filtered sample (through a 0.45-micron pore size filter) were collected from each well. The filtered samples were intended to remove suspended particulate matter that may contain or carry the target

parameters. Each groundwater sample was analyzed for the same list of parameters as the soil samples. As noted in the work plan, the filtered samples were not analyzed for VOCs.

QA/QC samples, including duplicates, trip blanks, field blanks, and MS/MSD samples were collected in accordance with the QAPP for Additional Investigation in OU-1.

3.2.5 Data Usability Summary Report

A data usability summary report (DUSR) was completed for the additional investigation samples conducted in August 2006 by Data Validation Services (DVS) of North Creek, New York. The DUSR was submitted under separate cover as Addendum No. 1 to the AAR/RAWP and was dated November 14, 2006 and was included in the Revised AAR/RAWP as Appendix B. In the instances where DVS suggested adding a qualifier to the laboratory data or that data is rejected, the summary tables were modified to reflect that qualification and resubmitted with the DUSR. The revised tables, where applicable, were included in the January 8, 2007 AAR/RAWP and were noted as "revised" in the title. A thorough description of the rationale related to the data validation is provided in the narrative of the DUSR included as Appendix B of the AAR/RAWP.

3.3 Additional Investigation Completed in November 2006

The following section describes additional soil sampling activities in OU-1 that were completed in November 2006 in response to the comments contained in the NYSDEC email dated October 30, 2006 regarding the AAR/RAWP for OU-1 dated October 17, 2006. The additional investigation work was conducted in accordance with the Work Plan for Additional Investigation in OU-1, Site #C915201, dated July 12, 2006 and Addendum No. 1 to Work Plan for Additional Investigation in OU-1, Site #C915201, dated November 7, 2006. The goal of the additional investigation completed in November 2006 was to aid in the evaluation of a Track 2 cleanup scenario for OU-1, as requested by NYSDEC. The additional investigation activities in OU-1 were intended to help to better define the amount of soil exceeding the Part 375 commercial criteria for arsenic and lead in the one to two foot below grade interval, thus potentially reducing the amount of soil that would need to be removed to achieve a Track 2 cleanup. The discrete sampling data collected in August and November 2006 supersedes the composite data collected in 1993 in the one to two foot depth interval by GTI.

3.3.1 Soil Sampling

One soil sample in the one to two foot below grade interval was collected from each of the six soil boring locations shown on Figure 1. The locations were selected to provide additional data in portions of Parcels No. 4 and No. 5 where only composite sample data from the 1993 GTI investigation was available.

The samples were collected as a composite of the one to two foot depth interval. The two samples in Parcel No. 4 (OU-1 SS-5 and OU-1 SS-6) and the two samples in the middle third of Parcel No. 5 (OU-1 SS-3 and OU-1 SS-4) were analyzed for arsenic and lead only by USEPA method 6010 since these were the only parameters that exceeded the Part 375 commercial criteria in the composite samples in these locations. The two samples in the southern third of Parcel No. 5 (OU-1 SS-1 and OU-1 SS-2) were analyzed for arsenic only since this was the only compound that exceeded the Part 375 commercial criteria in the composite sample at this location. Quality Assurance/Quality Control samples were collected in accordance with the QAPP.

3.4 Results of All Investigations in OU-1

The following sections provide a summary of all investigations completed in OU-1.

3.4.1 Geology

The former Buffalo Terminal is located within the Erie-Ontario Lowland physiographic region of the Interior Plains Division. In general, the region is underlain by Silurian and Devonian age interbedded shales, siltstones, sandstones, limestones, and dolomites, dipping approximately 0.50 degrees to the south.

According to data from the well and soil boring logs from previous investigations, three unconsolidated deposits exist at OU-1. The first is a fill layer that consists of black cinders, silt, gravel, sand, slag, brick, coal, and wood. The second unit consists of alluvial deposits of silts, silts and clays, sands, and sands and gravel. The third unit is a gray to brown glacio-lacustrine clay. Based upon the boring log from ESL-8/ESL-W1, which was completed to a depth of 16 feet bls, the fill layer was approximately two-feet thick and was underlain by a layer of silt and clay from 2-4 feet bls and clay from 4-16 feet bls. Based upon the boring logs from ESL-13 through ESL-26, which were completed to depths up to four feet bls, fill thickness ranged from one foot to

four feet. Fill was underlain by silts, sands, and gravel intermixed with clay. Bedrock was not encountered in any of the borings installed in OU-1 prior to August 2006.

The more recent monitoring wells and soil borings installed in August 2006 to depths up to 13 feet bls indicate that topsoil/fill ranged in thickness from 0.5 to two feet and is underlain by a gray to brown silty clay (MW-OU1-1, MW-OU1-2 and SB-OU1-1 through SB-OU1-3) ranging in thickness from zero to 10.5 feet or gray to brown clay (MW-OU1-3) approximately 3.5 feet thick. At MW-OU1-3, the gray to brown clay was underlain by 5.5 feet of silty clay and finally by 1.5 feet of gravel and sand from nine to 10.5 feet bls. Bedrock may have been encountered at 10.5 feet bls at MW-OU1-3 where refusal occurred and dark limestone with white crystals was present in the drill cuttings.

3.4.2 Hydrogeology

The water table was encountered at approximately five feet bls at ESL-8/ESL-W1 during its installation. No additional depth to water measurements were recorded at this well. This temporary well was abandoned by removing the screen and casing, and grouting the hole following the completion of the SFI.

The water table was encountered at approximately five feet bls at MW-OU1-1, at between 7.5 and nine feet bls at MW-OU1-2 and between 7 and 8 feet bls at MW-OU1-3. The water table elevations on OU-1 range from 577 to 579 feet above mean sea level and suggest a hydraulic gradient toward the east. However, based upon the direct observation of the lithology and the limited yield of the wells on OU-1, it is clear that the clay layer beneath OU-1 is not a significant water bearing formation. MW-OU1-1 produced only 5 gallons of water before it was bailed dry and MW-OU1-2 and MW-OU1-3 each produced only 1 gallon before they were bailed dry. Recharge in all of these wells was extremely slow, with MW-OU1-2 and MW-OU1-3 requiring sampling over three work days to accumulate sufficient water to collect the necessary groundwater sample volume. Attempting to draw meaningful conclusions regarding flow direction beneath OU-1 based on the available water level data from these wells would be questionable.

As discussed in prior reports, groundwater flow beneath the area is generally expected to be toward the Buffalo River. The water table elevations in the three wells measured on the northern

portion of the Site south of Elk Street (B-1MW, MW-34 and MW-35) range from 584 to 585 feet above mean sea level. Due to the differences in construction of the new wells on OU-1 (i.e., wells were screened entirely within the clay) compared to the existing wells on the main portion of the Site (wells were installed with screens straddling the fill layer and the clay layer), a direct comparison of water level elevations is not appropriate.

3.4.3 Soil Quality

Tables 3 through 7 of the January 8, 2007 AAR/RAWP (not duplicated in this report) summarize analytical results for SVOCs, metals, VOCs, PCBs and pesticides/herbicides, respectively, for the soil samples collected during all investigations on OU-1. Soil quality data from all investigations has been compared to the Part 375commercial and industrial soil quality criteria, which are each protective of human health and the environment and which are consistent with the Part 375commercial and industrial criteria for protection of human health presented in Part 375 dated December 14, 2006. This comparison enables identification of areas that may pose a potential risk under a commercial land use scenario, which is an upgrade to the current zoning and reasonably anticipated future use of OU-1 or an industrial land use scenario, which is consistent with the zoning and reasonably anticipated future use of OU-1.

A summary map (Plate 1) was prepared using the analytical database and MapInfo™ Geographic Information System (GIS) Software to show soil concentration data any compound from previous investigations that exceeded the Part 375 commercial and/or industrial cleanup criteria. The maps only present data for the target analytes that exceeded the Part 375 commercial and/or industrial criteria in at least one sample. The only compounds that exceeded the criteria were six SVOCs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, chrysene, dibenzo[a,h]anthracene and indeno[1,2,3-cd]pyrene) and three metals (arsenic, cadmium and lead).

As discussed previously, the goal of the investigations completed on Parcels No. 4 and No. 5 of OU-1 prior to August 2006, was to delineate the nature and extent of soil impacts from the historic release of product from former Tank 60 in 1976. The goal of the additional investigation completed in August and November 2006 was to complete the delineation of constituents that were not analyzed during previous investigations (selected metals, PCBs, pesticides, herbicides), for delineation of VOCs that were only analyzed to a limited extent during previous investigations,

and to provide additional data for arsenic and/or lead in portions of Parcels No. 4 and No. 5 where only composite sample data from the 1993 GTI investigation was available and exceeded the proposed criteria.

The major findings regarding soil quality throughout Parcels No. 4 and 5 of OU-1 and properties to the north of Parcel No. 5 are summarized below.

- VOCs were not detected above the Part 375 commercial or industrial criteria in any of the samples collected.

- Consistent with the type of product released during the historic 1976 incident (i.e., heavy end cracking stock), SVOCs were detected above the Part 375 commercial and/or industrial criteria in the northeast portion of Parcel No. 5 (ESL-12, ESL-13, ESL-14, and ESL-15). Exceedances of these criteria were generally an order of magnitude higher in this area than at the other locations. The only SVOC with exceedances of the Part 375 commercial or industrial criteria outside of the northeast portion of Parcel No. 5 is benzo[a]pyrene. The exceedances of benzo[a]pyrene are randomly distributed and are indicative of background influences (i.e., residential uses, previous and current property owner usage, regional industrial influences, nearby highways, and urban fill).

- Concentrations of SVOCs decrease with depth. Outside the northeast portion of Parcel No. 5, no exceedances of the Part 375 commercial and/or industrial criteria were observed below 1 foot indicating that impacts due to background influences are confined to the upper one foot of soil. However, in the northeast portion of Parcel No. 5, elevated SVOC concentrations extended deeper than in other areas. In the northeast portion of Parcel No. 5 in the greater than two feet bls interval, higher SVOC concentrations (up to an order of magnitude greater) exceeding the Part 375 commercial and/or industrial criteria were observed at ESL-13 through ESL-15 than at other sample locations. Impacts from the incident at former Tank 60 likely do not extend below an approximate depth of four feet bls, where the clay layer is encountered based upon the decrease in concentrations and the type of product released.

- Metals are not constituents of concern for the type of product released from former Tank 60, however arsenic, cadmium and lead are present above the Part 375 commercial criteria and arsenic is present above the Part 375 industrial criteria due to background influences (i.e., residential uses, previous property owner usage, regional industrial influences, nearby highways, and urban fill).

- Arsenic is present above the Part 375 commercial and industrial criteria at one location on Parcel No. 4 in the shallow interval. Based upon the 1993 GTI composite borings, arsenic was present above both criteria at three of the four 1993 composite sample locations (one on Parcel No. 4 and two on Parcel No. 5) in the one to two foot bls depth interval. However, based upon the historic and recent sampling of individual locations in the one to two foot depth interval, arsenic was not present above either criteria in Parcel No. 4 and was present above both criteria at only one location in the middle third of OU-1 (OU-1 SS-4) and one location in the bottom third of OU-1 (OU-1 SS-2), in Parcel No. 5.

- The only location where cadmium is present above the Part 375 commercial criteria is at ESL-11 in the shallow interval in Parcel No. 5. The concentration of cadmium at this location is 9.7 ppm compared to the Part 375 commercial criteria of 9.3 ppm (only 1.04 times the criteria).

- Lead is present above the Part 375 commercial criteria at two locations within OU-1 (one on each parcel) in the shallow interval. Based upon the 1993 GTI composite borings, lead was present above the Part 375 industrial criteria at two of the four 1993 composite sample locations (one on each parcel). However, based upon historic and recent sampling of individual locations in the one to two foot interval, lead is present above the Part 375 commercial criteria at only one location in parcel No. 5 (ESL-14).

Based upon the results of the investigations, the remaining impacts attributable to the historic release from former Tank 60 and the impacts due to background influences have been delineated. The impacts due to the historic release are the elevated SVOC concentrations present in the northeast portion of Parcel No. 5 (ESL-12, ESL-13, ESL-14, and ESL-15) and the impacts due to background influences are the concentrations of benzo[a]pyrene, arsenic, cadmium and lead (as compared to the Part 375 commercial criteria) and of benzo[a]pyrene and arsenic (as compared to the Part 375 industrial criteria) outside of the northeast portion of Parcel No. 5.

The soil quality data from previous investigations indicates that the response actions taken following the release in 1976 (i.e., vacuuming of product from the surface, removal of impacted soil, purchase of properties, and demolition of structures) were effective in removing impacted soil that resulted from the release, except in the northeast portion of Parcel No. 5 of OU-1.

It should be noted, that based upon data collected by New York State Department of Health (NYSDOH) that is summarized in the final technical report entitled "Seneca-Babcock Neighborhood Soil Sampling Program" dated July 1998, the neighborhood surrounding OU-1 is known to have concentrations of metals and SVOCs similar to those observed outside the northeast portion of Parcel No. 5 (the only location where impacts from the 1976 release are still evident).

3.4.4 Groundwater Quality

Tables 9 through 13 of the January 8, 2007 AAR/RAWP (not duplicated in this report) summarize analytical results for SVOCs, VOCs, metals, PCBs, and pesticides/herbicides, respectively, for the groundwater samples collected during all investigations on OU-1. No significant impacts to

groundwater quality in OU-1 have been observed. The following is a summary of the groundwater quality data collected in OU-1:

- Impact to groundwater (as determined by GC FID) was observed at only one out of four locations sampled during the 1993 GTI investigation (TPH = 5.7 µg/L at TWP-03); and
- No VOCs or SVOCs were detected in the groundwater sample collected from ESL-8/ESL-W1 during the SFI, which was located in the vicinity of the temporary well TWP-03.
- No SVOCs, PCBs, pesticides or herbicides were detected in the groundwater samples collected in August 2006.
- Acetone was the only VOC detected in the groundwater samples collected in August 2006 (at MW-OU1-2 and MW-OU1-3). The concentrations did not exceed the NYSDEC AWQSGV.
- Several metals were detected at low levels in the samples collected in August 2006, including barium, beryllium, cyanide, lead, manganese and zinc. However, none of the concentrations exceeded the NYSDEC AWQSGVs. In general, the concentrations of metals in the filtered samples were lower than in the unfiltered samples.

Based upon the groundwater data presented in this section, groundwater has not been impacted by the historic release from former Tank 60 or from background influences. Therefore, groundwater does not require remediation and was not addressed further in the January 8, 2007 AAR/RAWP.

3.4.5 Separate-Phase Product

No separate phase product was detected in any of the wells or temporary well points installed in OU-1.

4.0 SUMMARY OF REMEDIAL ACTION

Provided below is a summary of the remediation activities conducted at the Site, including the scope of work outlined in the remediation plans and the implementation of the plans. The initial phase of the remediation work described herein was performed in accordance with the following documents:

- 6 NYCRR Part 375 dated December 14, 2006;
- NYSDEC draft BCP Guide dated May 2004;
- Draft DER-10 dated December 2002;
- The Alternatives Analysis Report/Remedial Action Work Plan for Operable Unit 1 dated January 8, 2007; and
- Response to NYSDEC February 15, 2007 Comment letter on the AAR/RAWP for OU-1 dated March 13, 2007.

The initial phase of remedial work was conducted between May 7, 2007 and July 20, 2007. However, work was not continuous during this time due to periods of inactivity while waiting for sample results and disposal facility approval.

Additional excavation was completed on May 17 through 19, 2010 to address NYSDEC comments regarding the northern portion of Parcel No. 5 as described in Remedial Engineering's letter dated January 8, 2010.

Daily construction reports completed during the work are presented in Appendix A.

4.1 Remedial Goals and Remedial Action Objectives

The AAR/RAWP described the remedial goals and Remedial Action Objectives (RAOs) for OU-1.

As described in Section 4.1 of the Draft BCP Guide, "the goal of the remedy selection process in the BCP is to select a remedy for a site that is fully protective of public health and the environment, taking into account the current, intended, and reasonably anticipated future land use of the site".

The remedial goal for OU-1 is to meet the Part 375 commercial criteria at any depth above the clay. Consistent with the Draft BCP Guide, the proposed remedy for OU-1 was fully protective of public health and the environment, taking into account the current, intended, and potential future land use. The remedy that was implemented to achieve the Part 375 commercial criteria for protection of human health was an upgrade to the current zoning of the property, which is M-1 (light industrial district) and the light industrial zoning proposed in the Elk Street Corridor Redevelopment Plan.

Based upon the identification of the contaminants and impacted media, as described in previous investigation reports and summarized in Section 3.0, identification of the applicable SCGs, taking into consideration current and potential future land use and identification of the actual or potential public health and/or environmental exposures, the only appropriate RAO for the proposed remedial action is to prevent ingestion/direct contact with impacted soil.

The AAR/RAWP described the implementation of the remediation, provided technical specifications for the work and included the following associated plans required for implementation of the remedy in accordance with NYSDEC guidelines:

- Community Air Monitoring Plan for Operable Unit 1 AAR/RAWP
- Quality Assurance Project Plan for Operable Unit 1 AAR/RAWP

In addition, a Site-Specific Health and Safety Plan (HASP) was prepared, submitted under separate cover to the NYSDEC and New York State Department of Health (NYSDOH) prior to beginning the remedial construction activities.

4.2 Standards, Criteria and Guidance

SCGs are promulgated requirements ("standards" and "criteria") and non-promulgated guidance ("guidance") that govern activities that may affect the environment and are used by the DER at various stages in the investigation and remediation of a site. SCGs incorporate both the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986's (CERCLA) concept of "applicable or relevant and appropriate requirements" (ARARs) and the United States

Environmental Protection Agency's (USEPA) "to be considered" (TBCs) category of non-enforceable criteria or guidance. SCGs applicable to OU-1 are as follows:

SCGs for Soil

The SCGs for soil were developed to remediate impacts that are the result of the historic release of product from former Tank 60 in 1976 and impacts due to background influences based on a commercial use scenario (which is an upgrade to the current zoning) and the reasonably anticipated future use of OU-1 as vacant land surrounded by a fence. Therefore, the SCGs for soil at any depth above the clay layer are the Part 375 commercial cleanup criteria for protection of human health shown on Table 2.

4.3 Mobilization/Site Preparation

The mobilization consisted of transporting necessary equipment to the Site and setting up OU-1 for implementation of the work. Mobilization to the Site occurred on May 7, 2007 for the initial phase of work and on May 17, 2010 for the additional excavation work.

Site preparation included:

- Setting up soil staging areas;
- Installing filter fabric on the fence surrounding Parcels No. 4 and No. 5 as a dust control measure (fabric remained in place after the initial phase of work and was maintained during the 2010 work).
- Installing sediment and erosion control measures;
- Clearing vegetation, as necessary, for access to the excavation area; and
- Marking out excavation areas.

4.4 Traffic Control

Detailed traffic control procedures were implemented in accordance with the contractor's HASP. The primary truck route from the project site to the New York State Thruway, described in the AAR/RAWP, was followed.

4.5 Storm Water Management and Erosion Control

During both phases of work (2007 and 2010), all necessary measures to temporarily control erosion were employed. Erosion control measures were implemented in accordance with the report titled "NYS Guidelines for Urban and Sediment Control" dated April 1997. During the initial phase of work in 2007, silt fence was installed along the northern fence line of Parcel No. 4 and along portions of the northern and eastern fence line of Parcel No. 5 (for erosion and dust control). The silt fence was keyed into the soil at the bottom and extended up the fence to six feet high and fastened to the fence. Silt fence was installed prior to the implementation of the remediation and was maintained throughout the duration of all remedial construction activities. After the completion of topsoil grading and seeding, the filter fabric was cut down to within one foot of land surface and left keyed into the soil. Although vegetation has been established at this point, the silt fence remains in place and was maintained during the second phase of work in 2010.

In addition, the entrance and adjacent street areas were swept and/or cleaned, as necessary, throughout the work day, and at the end of the workday, to keep the streets free of soil or other debris generated from the work site during the duration of all excavation activities.

4.6 Health and Safety and Community Air Monitoring

All remedial construction activities were performed in a manner consistent with 29CFR 1910 and 1926. Each consultant and contractor onsite operated under a site-specific HASP for the project, which was submitted to NYSDEC. The site-specific HASP was readily available during the work. During all phases of Site work, the Contractor monitored safety and health conditions and fully enforced the site-specific HASP. The Contractor was responsible for monitoring general Site conditions and for safety hazards. Specifically, monitoring was performed to verify that all requirements of the Occupational Safety and Health Administration, as outlined on 29 CFR Part 1910 and 1926, were adhered to.

Ambient air was monitored at the site perimeter throughout the course of the work for particulate matter in accordance with the CAMP. Monitoring for VOCs was not conducted as part of the CAMP since VOCs are not constituents of concern for OU-1. During the course of the work, the Contractor took abatement measures, as directed or as otherwise necessary, to minimize the levels

of particulates at the limits of the work. There were no CAMP action level exceedances during the work.

Maps indicating meter locations are provided in Appendix A with the daily construction reports. Daily CAMP data summaries are provided in Appendix B. Downloaded data from the CAMP monitoring are provided in a compact disc located in the back of the report.

4.7 Dust Control

Dust (particulate matter) was controlled at the Site in accordance with the site specific CAMP, the NYSDEC Technical and Administrative Guidance Memorandum #4031 – Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites (TAGM 4031), and all federal, state and local requirements. The Contractor maintained all excavations, stockpiles, and all other work areas to minimize dust that would cause a hazard or nuisance to others. As noted above, as a dust control measure, filter fabric was installed on the northern fence line of Parcel No. 4 and on the fence to the north of the proposed excavation area on Parcel No. 5 adjacent to the existing residence and to the east of the proposed excavation area adjacent to Bradford Street for the length of the excavation since there are occupied structures on the east side of Bradford Street.

Dust was monitored by GES in accordance with the requirements of the Contractor's HASP, the CAMP, and the NYSDEC TAGM 4031. Based on the results of the monitoring, the Contractor implemented necessary measures to control dust to acceptable levels, including but not limited to, one or more of the following measures:

1. misting equipment and excavation fences;
2. spraying water (using atomizer) on buckets during excavation and dumping;
3. hauling materials in tarped or lined containers;
4. reducing speed of vehicles moving through the construction area;
5. covering excavated material stockpiles and/or portions of the stockpile, as necessary, throughout the day and after excavation activities cease each day; and
6. stopping work.

4.8 Excavation and Offsite Disposal

All excavation work was performed in accordance with the specifications and details provided in the AAR/RAWP and HASP. The initial phase of excavation and offsite disposal was begun on May 8, 2007 and was completed on July 18, 2007. However, it should be noted that excavation and disposal work was not continuous during this time, as work was temporarily suspended while awaiting laboratory results or approval from disposal facilities. Additional excavation was completed between May 17 and 19, 2010 to address NYSDEC comments regarding the northern portion of Parcel No. 5 as described in Remedial Engineering's letter dated January 8, 2010. In accordance with the January 8, 2010 letter, this area was excavated laterally to the property line and vertically to the native silty clay and therefore, as approved by NYSDEC, no endpoint samples were collected. GES, under the direction of Remedial Engineering, provided full-time oversight during the excavation and disposal work completed by Clean Harbors.

All impacted soil excavated from the Site was transported by Pariso Trucking of Tonawanda, New York and disposed of in accordance with all applicable federal, state, and local regulations at Allied/BFI Niagara Falls Landfill in Niagara Falls, New York. Copies of the waste profiles for the excavated soil are included in Appendix C. Copies of the waste manifests for the soil removed from the Site are provided in Appendix D (located on a compact disc in the back of the report). Haul vehicles for bulk soil were secured with appropriate covers prior to exiting the construction area to prevent a release of waste.

<u>Originally Proposed Scope of Excavation</u>

As described in the Response to NYSDEC February 15, 2007 Comment letter on the AAR/RAWP for OU-1 dated March 13, 2007, the area requiring excavation to meet the Part 375 commercial criteria was estimated to be approximately 7,150 square feet on Parcel No. 4 and 45,500 square feet on Parcel No. 5. The total area of planned excavation for Parcel No. 4 was entirely within the zero to one foot below grade interval. The total area of planned excavation on Parcel No. 5, was comprised of 26,300 square feet in the zero to one foot below grade interval, 14,500 square feet in the one to two foot below grade depth interval and 4,700 square feet in the two to three foot below grade depth interval. Therefore, the estimated volume of soil to be removed from Parcels No. 4 and 5 in the zero to one foot below grade interval was 1,250 cubic yards, the volume to be removed from Parcel No. 5 in the one to two foot below grade interval was 540 cubic yards

and the volume to be removed from Parcel No. 5 in the two to three foot below grade depth interval was 180 cubic yards for a total of 1,970 cubic yards to achieve the Part 375 commercial use criteria for OU-1 at any depth above the clay.

Actual Scope of Excavation Completed

In addition to the originally proposed scope of work described above, additional excavation in Parcels No. 4 and No. 5 was completed based on the results of post-excavation sample results (described in Section 4.11). The approximate total volume of soil excavated to meet the Part 375 commercial use criteria at any depth above the clay during both phases of work was 5,788 tons (approximately 3,859 cubic yards at 1.5 tons per cubic yard), broken down as follows:

- 5,614 tons (approximately 3,743 cubic yards) during the initial phase of work in 2007
- 174 tons (approximately 116 cubic yards) during the second phase of work on 2010

Of this total, 568 tons (approximately 379 cubic yards) was removed from Parcel No. 4 and 5,220 tons (approximately 3,480 cubic yards) was removed from Parcel No. 5.

The following is a breakdown of the approximate excavation volumes with depth for Parcel No. 4:

- Excavation to one foot bls: 73 tons
- Excavation to 1.67 feet bls: 495 tons

The following is a breakdown of the approximate excavation volumes with depth for Parcel No. 5:

- Excavation to native clay to two feet bls: 1,710 tons
- Excavation to native soil (two to three feet bls): 1,898 tons
- Excavation to native soil (three feet bls): 1612 tons

All excavation areas in Parcels No. 4 and No. 5 were excavated to native silty clay material except the one area in Parcel No. 4 that is noted as being excavated to one foot below grade. The bottom sample from this area, designated OU-1-PEB-4 (0-1'), which was collected on May 10, 2007, met the Part 375 commercial criteria therefore additional excavation was not required. Figure 6 shows the surveyed limits of excavation, with various excavation depths shown in different colors (areas

excavated to native clay are shown identified). Appendix E includes photos of the construction activities.

4.9 Temporary Staging and Stockpiling

During the initial phase of work in 2007, all impacted material was stockpiled in accordance with the specifications, except that a combination decontamination area/staging area was not used (decontamination is described below). Stockpiles were lined and covered with a single layer of minimum 6-mil plastic sheeting. Stockpiles were routinely inspected and broken sheeting covers were promptly replaced. Soil stockpiles were continuously encircled with hay bales. During the additional excavation activities in 2010, soil was excavated and loaded directly into disposal vehicles and transported offsite, therefore staging of soil was not required.

4.10 Waste Characterization Sampling

One sample per 500 cubic yards of material excavated was collected for waste characterization using a hand auger prior to excavation or was composited from excess material available from post excavation samples. In accordance with the QAPP for OU-1, samples were analyzed by TestAmerica. In accordance with the ExxonMobil-approved disposal facility, the samples were analyzed for the following:

- target compound list (TCL) VOCs and SVOCs according to USEPA Methods SW-846 8260 and 8270, respectively;
- TPH for gasoline and diesel range organics (by Method SW-846 8015B);
- reduced TAL metals by Method SW-846 6010 (includes cadmium, chromium, lead, nickel, selenium, thallium, and vanadium) and Method SW-846 7471 for mercury;
- the full list of toxicity characteristics leaching procedure (TCLP) analyses (metals, VOCs, SVOCs, pesticides, and herbicides);
- corrosivity;
- reactivity; and
- ignitability.

The waste characterization samples are summarized in Tables 3 through 11. Waste characterization laboratory data are presented in Appendix F (located on a compact disc in the back of the report).

4.11 Post-Excavation Sampling

In accordance with the AAR/RAWP, initially post excavation bottom sampling (at a frequency of one sample per 2,000 square feet of bottom area) was conducted for constituents that exceeded the Part 375 commercial use criteria in previous sampling events, SVOCs and metals (arsenic, cadmium and/or lead), to confirm that the Part 375commercial criteria were met. Excavation was continued (only to the top of the clay) in areas where the post excavation bottom samples initially indicated concentrations above the Part 375commercial criteria. Excavation did not continue into the clay layer. On June 21, 2007, Chad Staniszewski of the NYSDEC indicated that bottom sampling of the excavations was no longer required based on visual observations of the excavation work. After June 21, 2007, with the concurrence of NYSDEC, excavations were terminated based upon visual observations of native silty clay soil being reached.

Figure 6 present the post excavation composite sample locations at one foot below grade, 1.67 feet below grade, 2 feet below grade and generally 3 feet below grade. Samples that had one or more compounds that exceeded the Part 375commercial criteria are shown in red text. SVOCs were analyzed for STARS list SVOCs only by USEPA method 8270. Metals were analyzed by USEPA method 6010. Post excavation sample results are summarized in Tables 12 and 13 for SVOCs and metals, respectively. Laboratory data reports are included in Appendix G (located on a compact disc in the back of the report).

All excavation areas shown on Figure 6 in Parcels No. 4 and No. 5 were excavated to native silty clay material except the one area in Parcel No. 4 that is noted as being excavated to one foot below grade. The bottom sample from this area, designated OU-1-PEB-4 (0-1'), which was collected on May 10, 2007, met the Part 375 commercial criteria therefore additional excavation was not required. Areas excavated to native clay are shown on Figure 6.

Post-excavation sidewall samples (at a frequency of one sample per 100 linear feet) were collected for constituents that exceeded the Part 375 commercial use criteria in previous sampling events, SVOCs and metals (arsenic, cadmium and lead), to confirm that the Part 375 commercial criteria were met. Excavation was continued laterally (to the OU-1 boundary) in areas where the post excavation sidewall samples initially indicated concentrations above the Part 375 commercial criteria. Lateral excavation was not completed outside the OU-1 boundary. In order to address

NYSDEC comments regarding sidewall sampling along the diagonal sidewall associated with original sample OU1-PES2 (5/14/07;2-3') in the northern portion of Parcel 5, a composite sample was collected from the diagonal sidewall on August 3, 2009. The sample was collected from the full depth of the excavation (3 feet) at two locations along the diagonal sidewall and composited. As requested by the NYSDEC, the samples were analyzed for SVOCs the reduced list of metals (arsenic, cadmium and lead). The results are summarized in Tables 12 and 13 for SVOCs and metals, respectively and the laboratory analytical report is included in Appendix G. Based on the SVOC results and following further discussions regarding the need for further remediation, additional excavation, as described in Section 4.8 was completed between May 17 and 19, 2010. As approved by NYSDEC, no endpoint sampling was conducted following this excavation.

Following discussions with NYSDEC at two meetings held in January 2009 and June 2009, in order to address the NYSDEC comment that original sidewall sample locations OU1-PES-1 (5/17/07; 1-2' and OU1-PES-4 (5/17/07; 1-2') should have been analyzed for SVOCs, these two sidewalls were resampled for SVOCs on August 3, 2009. The samples were identified as OU1-PES-1R (8/3/09; 1-2') and OU1-PES-4R (8/3/09; 1-2'). The results (summarized in Table 12; laboratory analytical report included in Appendix G), for all SVOCs were below the Part 375 commercial criteria for protection of human health. Therefore, no further work was required in this portion of OU-1.

The protocol used to collect bottom and sidewall samples entailed using a stainless steel spatula to collect the soil samples by taking a total of four randomly selected grab samples and compositing them into a Ziploc bag. After being well mixed, a sample portion of the Ziploc bag was transferred into a laboratory provided jar for analysis.

Post-excavation samples were submitted to TestAmerica, a NYSDOH ELAP certified laboratory. Category B laboratory data deliverables, as defined in the analytical services protocol (ASP), were requested. In addition, a Data Usability Summary Report (DUSR) was prepared by Data Validation Services (DVS) of North Creek, New York in accordance with Appendix 2B of DER-10 for samples collected during the initial phase of work. The DUSR is included Appendix H (located on a compact disc in the back of the report). In the instances where DVS suggested adding a qualifier to the laboratory data, the summary tables provided in this report were modified

to reflect that qualification. In summary, sample results are usable as reported, or usable with minor edit or qualification due to typical processing or matrix effects. A thorough description of the rationale related to the data validation is provided in the narrative of the DUSR included as Appendix H.

4.12 Backfilling

During the first phase of the work in 2007, when excavation and removal of the impacted soil was complete, the excavation was backfilled and compacted, to the extent practical, to within six inches of proposed final grade using offsite common fill material followed by six inches of topsoil meeting the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375 and shown on Table 2. The common fill material was free of extraneous debris or solid waste. The common fill material was sampled in accordance with the AAR/RAWP and analytical results were submitted to the NYSDEC for approval prior to use of the common fill. Common fill sample results are summarized on Tables 14 through 18. Laboratory data reports, in electronic format on a compact disc, are included in Appendix I. During the second phase of the work in 2010, when excavation and removal of the impacted soil was complete, the excavation was backfilled and compacted, to within six inches of proposed final grade using offsite gravel/sand material followed by six inches of topsoil. The gravel/sand material was obtained from an approved NYSDEC quarry (mining permit included in Appendix J) and its use was verbally approved by NYSDEC. The topsoil used during both phases of the work was free of extraneous debris or solid waste. The topsoil used during both phases of work was sampled in accordance with the AAR/RAWP. Topsoil material sample results are summarized on Tables 19 through 23. Laboratory data reports, in electronic format on a compact disc, are included in Appendix I. The sample results collected from topsoil material on May 14, 2007 indicated the presence of acetone above the required criteria due to laboratory processing. The results were reported to the NYSDEC and approval was granted to resample the topsoil. As shown on Table 19, the June 8, 2007 results indicated acceptable acetone levels. The topsoil and backfill materials used during the first phase of work were approved for use by the NYSDEC based on two letter correspondences dated June 5, 2007 and July 9, 2007 (see Appendix J). The topsoil origination letter is also provided in Appendix J.

4.13 Equipment Decontamination and Disposal of PPE and Construction Water

The remediation-derived waste (excluding soil) generated during the construction activities included:

- Personal Protective Equipment (PPE); and
- Decontamination water.

PPE generated during the implementation of the remedy was consolidated with PPE from other onsite activities and stored in appropriate bulk containers and temporarily staged at the Site waste storage area within the Site limits south of Elk Street. ExxonMobil coordinates waste characterization and disposal of PPE on a routine basis.

Disposal vehicles were loaded in non-impacted areas of OU-1 and therefore did not require decontamination. Decontamination of the excavator was a two-step process. First, soil was removed from the tracks of the excavator within the limits of OU-1; then the excavator was moved to the main Site decontamination area located south of Elk Street where it was thoroughly decontaminated. Decontamination water was collected from the main decontamination area and transported to ExxonMobil's water treatment system, which is located in the main portion of the former terminal south of Elk Street. The water was treated through the onsite system prior to discharge into the Buffalo Sewer Authority municipal sewer.

4.14 Demobilization and Site Restoration

The Contractor cleaned off the excavator tracks within OU-1 and decontaminated all equipment at the main Site decontamination area south of Elk Street prior to removal from the Site. All temporary work zone controls and staging areas were removed.

After backfilling activities were completed, the work area was graded and seeded with grass on July 28 and 29, 2007 during the first phase of work and on May 19, 2010 during the second phase of work. By the fall of 2007 and fall of 2010, there was approximately 95 percent coverage of vegetation across areas of OU-1 disturbed during the first and second phases of work, respectively. Though no longer needed since vegetation is established, silt fence along the fence lines of Parcels No. 4 and No. 5, as described above, remains in-place.

4.15 Institutional Controls

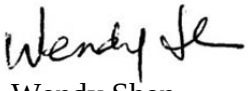
Implementation of the remedial action for OU-1 has achieved a Track 2 cleanup of this area of the Site to the Part 375 commercial criteria presented Table 2. Since the remedy did not achieve an "unrestricted" soil cleanup objective, a Soil Management Plan will be prepared to detail the protocol for potential removal of the remaining on-site contaminated soils once the remediation of all Operable Units associated with the Site is complete.

An environmental easement that subjects the Site to use restrictions that run with the land in perpetuity is also required. An environmental easement is a form of institutional control that acts as an enforcement mechanism to ensure required institutional controls remain in place. The environmental easement will:

- Restrict the use of OU-1 to commercial uses allowable under the zoning as M-1 light industrial;
- Restrict the use of groundwater as a source of potable water; and
- Require an annual certification that certifies the institutional controls remain in place and that they remain effective for the protection of human health and the environment.

The Environmental Easement will be incorporated in all agreements regarding rights to use the land such as leases and licenses. An environmental easement for the Site (including OU-1) will be established and recorded with the City of Buffalo upon acceptance and approval from the NYSDEC following the completion of remediation of all Operable Units.

ROUX ASSOCIATES, INC.



Wendy Shen
Project Engineer

5.0 ENGINEER'S CERTIFICATION

I, Noelle M. Clarke, certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the DER-approved Remedial Action Work Plan and any subsequent changes as agreed to and approved by the NYSDEC (discontinuation of post-excavation bottom sampling after July 21, 2007; no endpoint sampling following the additional excavation work competed in May 2010).

Following completion of remedial activities in all Operable Units of the Site, all use restrictions, institutional controls, engineering controls and/or any operation and maintenance requirements applicable to the Site will be contained in an environmental easement created and recorded pursuant to ECL 71-3605 and that any affected local governments, as defined in ECL 71-3603 will be notified that such easement has been recorded.

Following completion of remedial activities in all Operable Units of the Site, a Site Management Plan will be submitted for the continual and proper operation, maintenance, and monitoring of any engineering controls employed at the Site.

REMEDIAL ENGINEERING, P.C.

Noelle M. Clarke, P.E.
Principal Engineer

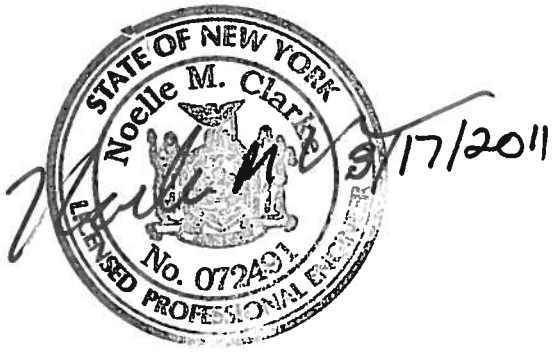


Table 1. Summary of Spills/Releases at Operable Unit 1 of the Buffalo Terminal, ExxonMobil Oil Corporation, Buffalo, New York

Date of Incident	Quantity	Product	Cause/Source of Spill	Geographic Area	Media Affected	Agency Notified	Action Taken/Comments	Source	Date Spill Closed by NYSDEC
3/12/1976	Unknown	Cracking Stock	The top of Tank 60 was damaged when hot product from the crude unit contacted ice on the bottom of the tank causing it to expand. Cracking stock for the TCC unit was released to Elk Street and several properties north of Elk Street.	ESPA/NTYA	Soil	Unknown	Mobil cleaned up the cracking stock by vacuuming off excess product and then mixing the remaining material with sand, excavating the material and disposing it off-site. Residences that were impacted were purchased by Mobil and demolished.	Current and/or Former Mobil Employees	NA
2/1/1994	Unknown	Cracking Stock	NYSDEC documentation refers to the "old spill at Elk Street". The incident referred to was the rupture of Tank 60 (cracking stock) in 1976.	ESPA/NTYA	Soil	NYSDEC - #9314016	NYSDEC Spill Report Form noted that additional investigation and possible remediation would be requested and that this spill would be incorporated into Spill #8808982. Spill closed by NYSDEC on 1/3/96 as site addressed under consent order.	NYSDEC Spills	1/3/1996

Table 2. Standards, Criteria and Guidance Values, ExxonMobil Oil Corporation, Buffalo, New York

Analyte	Part 375 Unrestricted Use Criteria[1]	Part 375 Restricted Commercial Criteria[2]	Part 375 Restricted Industrial Criteria[2]
Semivolatile Organic Compounds (Concentrations in µg/kg)			
1,2-Dichlorobenzene	1,100	500,000	1,000,000
1,3-Dichlorobenzene	2,400	280,000	560,000
1,4-Dichlorobenzene	1,800	130,000	250,000
2-Methylphenol	330	500,000	1,000,000
3&4-Methylphenol	330	500,000	1,000,000
Acenaphthene	20,000	500,000	1,000,000
Acenaphthylene	100,000	500,000	1,000,000
Anthracene	100,000	500,000	1,000,000
Benzo[a]anthracene	1,000	5,600	11,000
Benzo[a]pyrene	1,000	1,000	1,100
Benzo[b]fluoranthene	1,000	5,600	11,000
Benzo[g,h,i]perylene	100,000	500,000	1,000,000
Benzo[k]fluoranthene	800	56,000	110,000
Chrysene	1,000	56,000	110,000
Dibenzo[a,h]anthracene	330	560	1,100
Dibenzofuran	7,000	350,000	1,000,000
Fluoranthene	100,000	500,000	1,000,000
Fluorene	30,000	500,000	1,000,000
Hexachlorobenzene	330	6,000	12,000
Indeno[1,2,3-cd]pyrene	500	5,600	11,000
Naphthalene	12,000	500,000	1,000,000
Pentachlorophenol	800	6,700	55,000
Phenanthrene	100,000	500,000	1,000,000
Phenol	330	500,000	1,000,000
Pyrene	100,000	500,000	1,000,000
Metals (Concentrations in mg/kg)			
Arsenic	13	16	16
Barium	350	400	10,000
Beryllium	7.2	590	2,700
Cadmium	2.5	9.3	60
Copper	50	270	10,000
Cyanide	27	27	10,000
Hexavalent Chromium	1	400	800
Lead	63	1,000	3,900
Manganese	1,600	10,000	10,000
Mercury	0.18	2.8	5.7
Nickel	30	310	10,000
Selenium	3.9	1,500	6,800
Silver	2	1,500	6,800
Trivalent Chromium	30	1,500	6,800
Zinc	109	10,000	10,000

Table 2. Standards, Criteria and Guidance Values, ExxonMobil Oil Corporation, Buffalo, New York

Analyte	Part 375 Unrestricted Use Criteria[1]	Part 375 Restricted Commercial Criteria[2]	Part 375 Restricted Industrial Criteria[2]
Volatile Organic Compounds (concentrations in µg/kg)			
1,1,1-Trichloroethane	680	500,000	1,000,000
1,1-Dichloroethane	270	240,000	480,000
1,1-Dichloroethene	330	500,000	1,000,000
1,2,4-Trimethylbenzene	3,600	190,000	380,000
1,2-Dichloroethane	20	30,000	60,000
1,3,5-Trimethylbenzene	8,400	190,000	380,000
1,4-Dioxane	100	130,000	250,000
2-Butanone	120	500,000	1,000,000
Acetone	50	500,000	1,000,000
Benzene	60	44,000	89,000
Carbon Tetrachloride	760	22,000	44,000
Chlorobenzene	1,100	500,000	1,000,000
Chloroform	370	350,000	700,000
cis-1,2-Dichloroethene	250	500,000	1,000,000
Ethylbenzene	1,000	390,000	780,000
Isopropylbenzene			
Methylene Chloride	50	500,000	1,000,000
MTBE	930	500,000	1,000,000
Naphthalene	12,000	500,000	1,000,000
n-Butylbenzene	12,000	500,000	1,000,000
n-Propylbenzene	3,900	500,000	1,000,000
sec-Butylbenzene	11,000	500,000	1,000,000
tert-Butylbenzene	5,900	500,000	1,000,000
Tetrachloroethene	1,300	150,000	300,000
Toluene	700	500,000	1,000,000
trans-1,2-Dichloroethene	190	500,000	1,000,000
Trichloroethene	470	200,000	400,000
Vinyl chloride	20	13,000	27,000
Xylenes (total)	260	500,000	1,000,000
Polychlorinated Biphenyls (Concentrations in µg/kg)			
Total PCBs	100	1,000	25,000
Pesticides and Herbicides (Concentrations in µg/kg)			
2,4,5-TP	3,800	500,000	1,000,000
4,4'-DDD	3.3	92,000	180,000
4,4'-DDE	3.3	62,000	120,000
4,4'-DDT	3.3	47,000	94,000
Aldrin	5	680	1,400
alpha-BHC	20	3,400	6,800
alpha-Chlordane	94	24,000	47,000
beta-BHC	36	3,000	14,000
delta-BHC	40	500,000	1,000,000
Dieldrin	5	1,400	2,800
Endosulfan I	2,400	200,000	920,000
Endosulfan II	2,400	200,000	920,000
Endosulfan sulfate	2,400	200,000	920,000
Endrin	14	89,000	410,000
gamma-BHC(Lindane)	100	9,200	23,000
Heptachlor	42	15,000	29,000

mg/kg - Milligrams per kilogram
µg/kg - Micrograms per kilogram
MTBE - Methyl Tertiary Butyl Ether

[1] - Unrestricted Use criteria are presented in Table 6.8(a) of Part 375

[2] - Commercial and industrial criteria for protection of human health are presented in Table 6.8(b) of Part 375

Table 3. Summary of Volatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2	WC-1-Composite 05/10/07 -
1,1,1-Trichloroethane		NA	NA	NA	NA	NA	1.96 U
1,1,2,2-Tetrachloroethane		NA	NA	NA	NA	NA	1.96 U
1,1,2-Trichloroethane		NA	NA	NA	NA	NA	4.9 U
1,1,2-Trifluorotrichloroethane		NA	NA	NA	NA	NA	1.96 U
1,1-Dichloroethane		NA	NA	NA	NA	NA	1.96 U
1,1-Dichloroethene		NA	NA	NA	NA	NA	1.96 U
1,2,4-Trichlorobenzene		NA	NA	NA	NA	NA	1.96 U
1,2,4-Trimethylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
1,2-Dibromo-3-chloropropane		NA	NA	NA	NA	NA	4.9 U
1,2-Dibromoethane		NA	NA	NA	NA	NA	1.96 U
1,2-Dichlorobenzene		NA	NA	NA	NA	NA	1.96 U
1,2-Dichloroethane		NA	NA	NA	NA	NA	1.96 U
1,2-Dichloropropane		NA	NA	NA	NA	NA	1.96 U
1,3,5-Trimethylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
1,3-Dichlorobenzene		NA	NA	NA	NA	NA	1.96 U
1,4-Dichlorobenzene		NA	NA	NA	NA	NA	1.96 U
2-Butanone		NA	NA	NA	NA	NA	49 U
2-Hexanone		NA	NA	NA	NA	NA	49 U
4-Methyl-2-pentanone		NA	NA	NA	NA	NA	49 U
Acetone		NA	NA	NA	NA	NA	194
Benzene		1.89 U	1.96 U	1.93 U	3.23	1.9 U	1.96 U
Bromochloromethane		NA	NA	NA	NA	NA	1.96 U
Bromodichloromethane		NA	NA	NA	NA	NA	1.96 U
Bromoform		NA	NA	NA	NA	NA	1.96 U
Bromomethane		NA	NA	NA	NA	NA	1.96 U
Carbon disulfide		NA	NA	NA	NA	NA	4.9 U
Carbon Tetrachloride		NA	NA	NA	NA	NA	1.96 U
Chlorobenzene		NA	NA	NA	NA	NA	1.96 U
Chloroethane		NA	NA	NA	NA	NA	4.9 U
Chloroform		NA	NA	NA	NA	NA	1.96 U
Chloromethane		NA	NA	NA	NA	NA	1.96 U
cis-1,2-Dichloroethene		NA	NA	NA	NA	NA	1.96 U
cis-1,3-Dichloropropene		NA	NA	NA	NA	NA	1.96 U
Cyclohexane		NA	NA	NA	NA	NA	9.8 U
Dibromochloromethane		NA	NA	NA	NA	NA	1.96 U
Dichlorodifluoromethane		NA	NA	NA	NA	NA	1.96 U
Ethylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	1.96 U
Isopropylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	1.96 U
m+p-Xylene		2.84 U	2.94 U	2.9 U	2.96 U	2.86 U	NA

Table 3. Summary of Volatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2	WC-1-Composite 05/10/07 -
Methyl Acetate		NA	NA	NA	NA	NA	9.8 U
Methylcyclohexane		NA	NA	NA	NA	NA	9.8 U
Methylene Chloride		NA	NA	NA	NA	NA	44.8
MTBE		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	1.96 U
n-Butylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
n-Propylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
Naphthalene		4.73 U	4.89 U	4.83 U	4.94 U	4.76 U	NA
o-Xylene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
p-Isopropyltoluene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
sec-Butylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
Styrene		NA	NA	NA	NA	NA	1.96 U
tert-Butylbenzene		1.89 U	1.96 U	1.93 U	1.98 U	1.9 U	NA
Tetrachloroethene		NA	NA	NA	NA	NA	1.96 U
Toluene		1.89 U	2.04	1.93 U	3.86	1.9 U	2.19
trans-1,2-Dichloroethene		NA	NA	NA	NA	NA	1.96 U
trans-1,3-Dichloropropene		NA	NA	NA	NA	NA	1.96 U
Trichloroethene		NA	NA	NA	NA	NA	1.96 U
Trichlorofluoromethane		NA	NA	NA	NA	NA	1.96 U
Vinyl chloride		NA	NA	NA	NA	NA	1.96 U
Xylenes (total)		4.73 U	4.89 U	4.83 U	4.94 U	4.76 U	4.9 U
Total VOCs:		0	2.04	0	7.09	0	240.99

ft bls - Feet below land surface
µg/kg - Micrograms per kilogram
MTBE - Methyl Tertiary Butyl Ether
NA - Not analyzed
U - Not detected
VOCs - Volatile Organic Compounds

Table 3. Summary of Volatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07 -	OU-1 Parcel 5 04/12/10
1,1,1-Trichloroethane		1.95 U	97.3 U	96 U	1.98 U
1,1,2,2-Tetrachloroethane		1.95 U	97.3 U	96 U	1.98 U
1,1,2-Trichloroethane		4.87 U	243 U	240 U	4.96 U
1,1,2-Trifluorotrichloroethane		1.95 U	97.3 U	96 U	1.98 U
1,1-Dichloroethane		1.95 U	97.3 U	96 U	1.98 U
1,1-Dichloroethene		1.95 U	97.3 U	96 U	1.98 U
1,2,4-Trichlorobenzene		1.95 U	97.3 U	96 U	1.98 U
1,2,4-Trimethylbenzene		NA	NA	NA	1.98 U
1,2-Dibromo-3-chloropropane		4.87 U	243 U	240 U	4.96 U
1,2-Dibromoethane		1.95 U	97.3 U	96 U	1.98 L, U
1,2-Dichlorobenzene		1.95 U	97.3 U	96 U	1.98 U
1,2-Dichloroethane		1.95 U	97.3 U	96 U	1.98 U
1,2-Dichloropropane		1.95 U	97.3 U	96 U	1.98 U
1,3,5-Trimethylbenzene		NA	NA	NA	NA
1,3-Dichlorobenzene		1.95 U	97.3 U	96 U	1.98 U
1,4-Dichlorobenzene		1.95 U	97.3 U	96 U	1.98 U
2-Butanone		48.7 U	2430 U	2400 U	49.6 U
2-Hexanone		48.7 U	2430 U	2400 U	49.6 U
4-Methyl-2-pentanone		48.7 U	2430 U	2400 U	49.6 U
Acetone		62.8	2430 U	2400 U	170
Benzene		1.95 U	103	96 U	8.07
Bromochloromethane		1.95 U	97.3 U	96 U	1.98 U
Bromodichloromethane		1.95 U	97.3 U	96 U	1.98 U
Bromoform		1.95 U	97.3 U	96 U	1.98 U
Bromomethane		1.95 U	97.3 U	96 U	1.98 U
Carbon disulfide		4.87 U	243 U	240 U	4.96 U
Carbon Tetrachloride		1.95 U	97.3 U	96 U	1.98 U
Chlorobenzene		1.95 U	97.3 U	96 U	1.98 U
Chloroethane		4.87 U	243 U	240 U	4.96 U
Chloroform		1.95 U	97.3 U	96 U	1.98 U
Chloromethane		1.95 U	97.3 U	96 U	1.98 U
cis-1,2-Dichloroethene		1.95 U	97.3 U	96 U	1.98 U
cis-1,3-Dichloropropene		1.95 U	97.3 U	96 U	1.98 U
Cyclohexane		9.75 U	486 U	480 U	9.92 U
Dibromochloromethane		1.95 U	97.3 U	96 U	1.98 U
Dichlorodifluoromethane		1.95 U	97.3 U	96 U	1.98 U
Ethylbenzene		1.95 U	97.3 U	96 U	1.98 U
Isopropylbenzene		1.95 U	110	96 U	1.98 L, U
m+p-Xylene		NA	NA	NA	NA

Table 3. Summary of Volatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07 -	OU-1 Parcel 5 04/12/10
Methyl Acetate		9.75 U	2440	480 U	9.92 L, U
Methylcyclohexane		9.75 U	1970	480 U	9.92 U
Methylene Chloride		9.75 U	486 U	480 U	9.92 U
MTBE		1.95 U	97.3 U	96 U	1.98 U
n-Butylbenzene		NA	NA	NA	NA
n-Propylbenzene		NA	NA	NA	NA
Naphthalene		NA	NA	NA	NA
o-Xylene		NA	NA	NA	NA
p-Isopropyltoluene		NA	NA	NA	NA
sec-Butylbenzene		NA	NA	NA	NA
Styrene		1.95 U	97.3 U	96 U	1.98 U
tert-Butylbenzene		NA	NA	NA	NA
Tetrachloroethene		1.95 U	97.3 U	96 U	1.98 U
Toluene		1.95 U	97.3 U	96 U	9.17
trans-1,2-Dichloroethene		1.95 U	97.3 U	96 U	1.98 U
trans-1,3-Dichloropropene		1.95 U	97.3 U	96 U	1.98 U
Trichloroethene		1.95 U	97.3 U	96 U	1.98 U
Trichlorofluoromethane		1.95 U	97.3 U	96 U	1.98 U
Vinyl chloride		1.95 U	97.3 U	96 U	1.98 U
Xylenes (total)		4.87 U	529	240 U	4.96 U
Total VOCs:		62.8	5152	0	187.24

ft bls - Feet below land surface
µg/kg - Micrograms per kilogram
MTBE - Methyl Tertiary Butyl Ether
NA - Not analyzed
U - Not detected
VOCs - Volatile Organic Compounds

Table 4. Summary of Semivolatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2
1,2,4-Trichlorobenzene		NA	NA	NA	NA	NA
1,2-Dichlorobenzene		NA	NA	NA	NA	NA
1,3-Dichlorobenzene		NA	NA	NA	NA	NA
1,4-Dichlorobenzene		NA	NA	NA	NA	NA
2,4,5-Trichlorophenol		NA	NA	NA	NA	NA
2,4,6-Trichlorophenol		NA	NA	NA	NA	NA
2,4-Dichlorophenol		NA	NA	NA	NA	NA
2,4-Dimethylphenol		NA	NA	NA	NA	NA
2,4-Dinitrophenol		NA	NA	NA	NA	NA
2,4-Dinitrotoluene		NA	NA	NA	NA	NA
2,6-Dinitrotoluene		NA	NA	NA	NA	NA
2-Chloronaphthalene		NA	NA	NA	NA	NA
2-Chlorophenol		NA	NA	NA	NA	NA
2-Methylnaphthalene		NA	NA	NA	NA	NA
2-Methylphenol		NA	NA	NA	NA	NA
2-Nitroaniline		NA	NA	NA	NA	NA
2-Nitrophenol		NA	NA	NA	NA	NA
3&4-Methylphenol		NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine		NA	NA	NA	NA	NA
3-Nitroaniline		NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol		NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether		NA	NA	NA	NA	NA
4-Chloro-3-methylphenol		NA	NA	NA	NA	NA
4-Chloroaniline		NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether		NA	NA	NA	NA	NA
4-Nitroaniline		NA	NA	NA	NA	NA
4-Nitrophenol		NA	NA	NA	NA	NA
Acenaphthene		65.6 U	65.8 U	66.4	66.8 U	67 U
Acenaphthylene		NA	NA	NA	NA	NA
Anthracene		250	65.8 U	193	88.5	147
Benzo[a]anthracene		1130	122	637	370	546
Benzo[a]pyrene		1190	151	579	342	560
Benzo[b]fluoranthene		1100	144	626	384	605
Benzo[g,h,i]perylene		825	121	351	251	679
Benzo[k]fluoranthene		979	134	455	289	539
Bis(2-chloroethoxy)methane		NA	NA	NA	NA	NA

Table 4. Summary of Semivolatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2
Bis(2-chloroethyl) ether		NA	NA	NA	NA	NA
Bis(2-chloroisopropyl) ether		NA	NA	NA	NA	NA
Bis(2-ethylhexyl) phthalate		NA	NA	NA	NA	NA
Butylbenzyl phthalate		NA	NA	NA	NA	NA
Carbazole		NA	NA	NA	NA	NA
Chrysene		1260	155	638	422	605
Di-n-butyl phthalate		NA	NA	NA	NA	NA
Di-n-octyl phthalate		NA	NA	NA	NA	NA
Dibenzo[a,h]anthracene		274	65.8 U	152	101	186
Dibenzofuran		NA	NA	NA	NA	NA
Diethyl phthalate		NA	NA	NA	NA	NA
Dimethyl phthalate		NA	NA	NA	NA	NA
Fluoranthene		2360	205	1230	634	1080
Fluorene		106	65.8 U	80.7	66.8 U	67 U
Hexachlorobenzene		NA	NA	NA	NA	NA
Hexachlorobutadiene		NA	NA	NA	NA	NA
Hexachlorocyclopentadiene		NA	NA	NA	NA	NA
Hexachloroethane		NA	NA	NA	NA	NA
Indeno[1,2,3-cd]pyrene		721	102	342	232	547
Isophorone		NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine		NA	NA	NA	NA	NA
N-Nitrosodiphenylamine		NA	NA	NA	NA	NA
Naphthalene		65.6 U	65.8 U	65.1 U	66.8 U	80.3
Nitrobenzene		NA	NA	NA	NA	NA
Pentachlorophenol		NA	NA	NA	NA	NA
Phenanthrene		1380	89.1	740	367	833
Phenol		NA	NA	NA	NA	NA
Pyrene		2190	223	1090	656	1040
Total SVOCs:		13765	1446.1	7180.1	4136.5	7447.3

ft bls - Feet below land surface
µg/kg - Micrograms per kilogram
NA - Not analyzed
U - Not detected
SVOCs - Semivolatile Organic Compounds

Table 4. Summary of Semivolatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-1-Composite 05/10/07 -	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07	OU-1 Parcel 5 04/12/10
1,2,4-Trichlorobenzene		324 U	328 U	1630 U	1650 U	325 U
1,2-Dichlorobenzene		324 U	328 U	1630 U	1650 U	325 U
1,3-Dichlorobenzene		324 U	328 U	1630 U	1650 U	325 U
1,4-Dichlorobenzene		324 U	328 U	1630 U	1650 U	325 U
2,4,5-Trichlorophenol		811 U	820 U	4080 U	4130 U	812 U
2,4,6-Trichlorophenol		324 U	328 U	1630 U	1650 U	325 U
2,4-Dichlorophenol		324 U	328 U	1630 U	1650 U	325 U
2,4-Dimethylphenol		324 U	328 U	1630 U	1650 U	325 U
2,4-Dinitrophenol		811 U	820 U	4080 U	4130 U	812 U
2,4-Dinitrotoluene		324 U	328 U	1630 U	1650 U	325 U
2,6-Dinitrotoluene		324 U	328 U	1630 U	1650 U	325 U
2-Chloronaphthalene		324 U	328 U	1630 U	1650 U	325 U
2-Chlorophenol		324 U	328 U	1630 U	1650 U	325 U
2-Methylnaphthalene		324 U	328 U	1630 U	1650 U	325 U
2-Methylphenol		324 U	328 U	1630 U	1650 U	325 U
2-Nitroaniline		811 U	820 U	4080 U	4130 U	812 U
2-Nitrophenol		324 U	328 U	1630 U	1650 U	325 U
3&4-Methylphenol		324 U	328 U	1630 U	1650 U	325 U
3,3'-Dichlorobenzidine		650 U	657 U	3270 U	3310 U	650 U
3-Nitroaniline		811 U	820 U	4080 U	4130 U	812 U
4,6-Dinitro-2-methylphenol		811 U	820 U	4080 U	4130 U	812 U
4-Bromophenyl phenyl ether		324 U	328 U	1630 U	1650 U	325 U
4-Chloro-3-methylphenol		324 U	328 U	1630 U	1650 U	325 U
4-Chloroaniline		324 U	328 U	1630 U	1650 U	325 U
4-Chlorophenyl phenyl ether		324 U	328 U	1630 U	1650 U	325 U
4-Nitroaniline		811 U	820 U	4080 U	4130 U	812 U
4-Nitrophenol		811 U	820 U	4080 U	4130 U	812 U
Acenaphthene		324 U	328 U	1630 U	1650 U	395
Acenaphthylene		324 U	328 U	1690	1650 U	325 U
Anthracene		324 U	328 U	2930	1650 U	689
Benzo[a]anthracene		804	679	8060	3090	1790
Benzo[a]pyrene		823	658	7510	3020	1590
Benzo[b]fluoranthene		815	617	6240	2910	1550
Benzo[g,h,i]perylene		644	410	4190	1810	946
Benzo[k]fluoranthene		567	475	6330	2260	1290
Bis(2-chloroethoxy)methane		324 U	328 U	1630 U	1650 U	325 U

Table 4. Summary of Semivolatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-1-Composite 05/10/07 -	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07	OU-1 Parcel 5 04/12/10
Bis(2-chloroethyl) ether		324 U	328 U	1630 U	1650 U	325 U
Bis(2-chloroisopropyl) ether		324 U	328 U	1630 U	1650 U	325 U
Bis(2-ethylhexyl) phthalate		324 U	328 U	1630 U	1650 U	325 U
Butylbenzyl phthalate		324 U	328 U	1630 U	1650 U	325 U
Carbazole		324 U	328 U	1850	1650 U	512
Chrysene		874	652	8440	3400	1970
Di-n-butyl phthalate		324 U	328 U	1630 U	1650 U	325 U
Di-n-octyl phthalate		324 U	328 U	1630 U	1650 U	325 U
Dibenzo[a,h]anthracene		324 U	328 U	1680	1650 U	325 U
Dibenzofuran		324 U	328 U	1630 U	1650 U	325 U
Diethyl phthalate		324 U	328 U	1630 U	1650 U	325 U
Dimethyl phthalate		324 U	328 U	1630 U	1650 U	325 U
Fluoranthene		1760	1200	14600	5860	4100
Fluorene		324 U	328 U	1790	1650 U	403
Hexachlorobenzene		324 U	328 U	1630 U	1650 U	325 U
Hexachlorobutadiene		324 U	328 U	1630 U	1650 U	325 U
Hexachlorocyclopentadiene		324 U	328 U	1630 U	1650 U	325 U
Hexachloroethane		324 U	328 U	1630 U	1650 U	325 U
Indeno[1,2,3-cd]pyrene		540	403	4260	1770	868
Isophorone		324 U	328 U	1630 U	1650 U	325 U
N-Nitrosodi-n-propylamine		324 U	328 U	1630 U	1650 U	325 U
N-Nitrosodiphenylamine		324 U	328 U	1630 U	1650 U	325 U
Naphthalene		324 U	328 U	1630 U	1650 U	325 U
Nitrobenzene		324 U	328 U	1630 U	1650 U	325 U
Pentachlorophenol		811 U	820 U	4080 U	4130 U	812 U
Phenanthrene		950	870	13000	3570	3110
Phenol		324 U	328 U	1630 U	1650 U	325 U
Pyrene		1350	1100	14100	5580	3210
Total SVOCs:		9127	7064	96670	33270	22423

ft bls - Feet below land surface
µg/kg - Micrograms per kilogram
NA - Not analyzed
U - Not detected
SVOCs - Semivolatile Organic Compounds

Table 5. Summary of Total Petroleum Hydrocarbons in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	**Sample Designation:**	Parcel 4 North	Parcel 5 North	Parcel 5 North	Parcel 5 South	Parcel 5 South	WC-1-Composite
	Sample Date:	03/30/07	03/30/07	03/30/07	03/30/07	03/30/07	05/10/07
	Sample Depth (ft bls):	0-1	0-1	2-3	0-1	1-2	-
Diesel		253	27.2	49	79.1	101	53.4
GRO as Gasoline		4.73 U	4.81 U	4.72 U	5.86	4.83 U	4.72 U

ft bls - Feet below land surface
mg/kg - Milligrams per kilogram
NA - Not analyzed
U - Not detected

Table 5. Summary of Total Petroleum Hydrocarbons in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07	OU-1 Parcel 5 04/12/10 -
Diesel		354	448	189	1690
GRO as Gasoline		NA	NA	NA	NA

ft bls - Feet below land surface
mg/kg - Milligrams per kilogram
NA - Not analyzed
U - Not detected

Table 6. Summary of Metals in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	**Sample Designation:** / **Sample Date:**	WC-1-Composite 05/10/07	WC-2 Composite 05/14/07	WC-3 06/21/07	WC-4 06/21/07	OU-1 Parcel 5 04/12/10
Aluminum		NA	NA	NA	NA	8850
Antimony		NA	NA	NA	NA	9.78 U
Arsenic		NA	NA	NA	NA	14.2
Barium		NA	NA	NA	NA	357
Beryllium		NA	NA	NA	NA	0.978 U
Cadmium		1 U	0.965 U	2.88	2.49	7.18
Calcium		NA	NA	NA	NA	56600 B1, B
Chromium		44	23.8	26.5	23.6	29.6
Cobalt		NA	NA	NA	NA	8.81
Copper		NA	NA	NA	NA	115
Iron		NA	NA	NA	NA	33600
Lead		655	263	743	673	862
Magnesium		NA	NA	NA	NA	3850
Manganese		NA	NA	NA	NA	516
Mercury		NA	NA	NA	NA	0.677 MHA
Nickel		19.3	19.9	22.8	15.7	24.3
Potassium		NA	NA	NA	NA	1120
Selenium		2.84	1.93 U	6.7	5	1.96 U
Silver		NA	NA	NA	NA	0.978 U
Sodium		NA	NA	NA	NA	196 U
Thallium		2.01 U	1.93 U	1.9 U	1.98 U	1.96 U
Vanadium		89.7	34.6	17.7	15.9	24.1
Zinc		NA	NA	NA	NA	1090

mg/kg - Milligrams per kilogram
U - Not detected
B1 - Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
B - Analyte was detected in the associated Method Blank
MHA - Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information

Table 7. Summary of TCLP Metals in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2
Arsenic		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Barium		1.34	0.683	0.695	0.507	1.45
Cadmium		0.011	0.01 U	0.044	0.01 U	0.01 U
Chromium		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Lead		4.29	0.05 U	4.15	0.05 U	0.119
Mercury		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Selenium		0.1 U	0.1 U	0.1 U	0.114	0.111
Silver		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U

ft bls - Feet below land surface
mg/L - Milligrams per liter
U - Not detected

Table 7. Summary of TCLP Metals in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-1-Composite 05/10/07 -	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07 -	OU-1 Parcel 5 04/12/10
Arsenic		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Barium		0.521	0.556	1.13	1.16	1.51
Cadmium		0.01 U	0.01 U	0.012	0.017	0.036
Chromium		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Lead		0.313	0.408	0.311	0.358	0.471
Mercury		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Selenium		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Silver		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U

ft bls - Feet below land surface
mg/L - Milligrams per liter
U - Not detected

Table 8. Summary of TCLP Volatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2
1,1-Dichloroethene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
1,2-Dichloroethane		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
2-Butanone		0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Benzene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Carbon Tetrachloride		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chlorobenzene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chloroform		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Tetrachloroethene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Trichloroethene		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vinyl chloride		0.01 U	0.01 U	0.01 U	0.01 U	0.01 U

ft bls - Feet below land surface
mg/L - Milligrams per liter
U - Not detected

Table 8. Summary of TCLP Volatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-1-Composite 05/10/07 -	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07 -	OU-1 Parcel 5 04/12/10
1,1-Dichloroethene		0.01 U	10 U	10 U	10 U	0.01 U
1,2-Dichloroethane		0.01 U	10 U	10 U	10 U	0.01 U
2-Butanone		0.25 U	250 U	250 U	250 U	0.25 U
Benzene		0.01 U	10 U	10 U	10 U	0.01 U
Carbon Tetrachloride		0.01 U	10 U	10 U	10 U	0.01 U
Chlorobenzene		0.01 U	10 U	10 U	10 U	0.01 U
Chloroform		0.01 U	10 U	10 U	10 U	0.01 U
Tetrachloroethene		0.01 U	10 U	10 U	10 U	0.01 U
Trichloroethene		0.01 U	10 U	10 U	10 U	0.01 U
Vinyl chloride		0.01 U	10 U	10 U	10 U	0.01 U

ft bls - Feet below land surface
mg/L - Milligrams per liter
U - Not detected

Table 9. Summary of TCLP Semivolatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	Parcel 4 North 03/30/07 0-1	Parcel 5 North 03/30/07 0-1	Parcel 5 North 03/30/07 2-3	Parcel 5 South 03/30/07 0-1	Parcel 5 South 03/30/07 1-2
1,4-Dichlorobenzene		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2,4,5-Trichlorophenol		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2,4,6-Trichlorophenol		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2,4-Dinitrotoluene		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Hexachlorobenzene		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Hexachlorobutadiene		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Hexachloroethane		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
m-Cresol + p-Cresol		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Nitrobenzene		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Pentachlorophenol		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Pyridine		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U

ft bls - Feet below land surface
mg/L - Milligrams per liter
U - Not detected

Table 9. Summary of TCLP Semivolatile Organic Compounds in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-1-Composite 05/10/07 -	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07 -	OU-1 Parcel 5 04/12/10
1,4-Dichlorobenzene		0.02 U	20 U	20 U	20 U	0.02 U
2,4,5-Trichlorophenol		0.02 U	20 U	20 U	20 U	0.02 U
2,4,6-Trichlorophenol		0.02 U	20 U	20 U	20 U	0.02 U
2,4-Dinitrotoluene		0.02 U	20 U	20 U	20 U	0.02 U
Hexachlorobenzene		0.02 U	20 U	20 U	20 U	0.02 U
Hexachlorobutadiene		0.02 U	20 U	20 U	20 U	0.02 U
Hexachloroethane		0.02 U	20 U	20 U	20 U	0.02 U
m-Cresol + p-Cresol		0.02 U	20 U	20 U	20 U	0.04 U
Nitrobenzene		0.02 U	20 U	20 U	20 U	0.02 U
Pentachlorophenol		0.02 U	20 U	20 U	20 U	0.02 U
Pyridine		0.02 U	20 U	20 U	20 U	0.02 U

ft bls - Feet below land surface
mg/L - Milligrams per liter
U - Not detected

Table 10. Summary of TCLP Pesticides in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/L)	**Sample Designation:** / **Sample Date:**	WC-1-Composite 05/10/07
2,4,5-TP		0.1 U
2,4-D		0.1 U
Chlordane		0.001 U
Endrin		0.0005 U
gamma-BHC(Lindane)		0.0005 U
Heptachlor		0.0005 U
Heptachlor epoxide		0.0005 U
Methoxychlor		0.0005 U
Toxaphene		0.05 U

mg/L - Milligrams per liter
U - Not detected

Table 11. Summary of Corrositivy, Reactivity and Ignitability in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter	Units	**Sample Designation:**	Parcel 4 North	Parcel 5 North	Parcel 5 North	Parcel 5 South	Parcel 5 South
		Sample Date:	03/30/07	03/30/07	03/30/07	03/30/07	03/30/07
		Sample Depth (ft bls):	0-1	0-1	2-3	0-1	1-2
Cyanide	mg/kg		2 U	2 U	2 U	2 U	2 U
Ignitability	Deg F		> 200	> 200	> 200	> 200	> 200
Corrosivity (pH)	pH Units		7.5	7.9	6.7	8.2	7.5
Sulfide	mg/kg		20 U	22	20 U	20 U	20 U

ft bls - Feet below land surface
mg/kg - Milligrams per kilogram
Deg F - Degrees Fahrenheit
U - Not detected
M8 - The MS and/or MSD were below the acceptance limits.

Table 11. Summary of Corrositivy, Reactivity and Ignitability in Waste Characterization Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter	Units	**Sample Designation:** / **Sample Date:** / **Sample Depth (ft bls):**	WC-1-Composite 05/10/07 -	WC-2 Composite 05/14/07 -	WC-3 06/21/07 -	WC-4 06/21/07 -	OU-1 Parcel 5 04/12/10
Cyanide	mg/kg		2 U	2 U	2 U	2 U	2 M8, U
Ignitability	Deg F		> 200	> 200	> 200	> 200	> 200
Corrosivity (pH)	pH Units		8.2	6.8	7.2	6.9	7.4
Sulfide	mg/kg		28	22	20 U	20 U	20 U

ft bls - Feet below land surface
mg/kg - Milligrams per kilogram
Deg F - Degrees Fahrenheit
U - Not detected
M8 - The MS and/or MSD were below the acceptance limits.

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PEB-1	OU1-PEB-1	OU1-PEB-1	OU1-PEB-1	OU1-PEB-1 R
		Sample Date:	05/10/07	05/14/07	05/15/07	05/17/07	05/17/07
		Sample Depth (ft bls):	-	2-3	0-1	0-1	0-1
Acenaphthene	500000		309	66.9 U	63.1 U	208	183
Acenaphthylene	500000		75.9	66.9 U	63.1 U	150	113
Anthracene	500000		657	66.9 U	63.1 U	770	529
Benzo[a]anthracene	5600		1250 V	66.9 U	200	1900	1220
Benzo[a]pyrene	1000		**1080**	81.2	292	**1850**	**1170**
Benzo[b]fluoranthene	5600		1080 V	67.2 V	204	1510 V	925 V
Benzo[g,h,i]perylene	500000		807	69.2	237	1140	695
Benzo[k]fluoranthene	56000		648 V	66.9 UV	203	1500 V	939 V
Chrysene	56000		1080	74.5	274	2000	1250
Dibenzo[a,h]anthracene	560		176	66.9 U	70.9	443	264
Fluoranthene	500000		1940	104	413	4220	2570
Fluorene	500000		328	66.9 U	63.1 U	270	215
Indeno[1,2,3-cd]pyrene	5600		713	66.9 U	151	1070	652
Naphthalene	500000		128	66.9 U	63.1 U	136 V	62.7 UV
Phenanthrene	500000		2060	66.9 U	198	2600	1890
Pyrene	500000		2060	88.5	372	2980	1940
Total SVOCs:			14391.9	484.6	2614.9	22747	14555

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PEB-2	OU1-PEB-2	OU1-PEB-2	OU1-PEB-2	OU1-PEB-2 R
		Sample Date:	05/10/07	05/14/07	05/15/07	05/17/07	05/14/07
		Sample Depth (ft bls):	-	2-3	0-1	0-1	2-3
Acenaphthene	500000		279	66.6 U	63.8 U	65.9	66.3 U
Acenaphthylene	500000		516	66.6 U	63.8	118	66.3 U
Anthracene	500000		940	66.6 U	97.4	249	66.3 U
Benzo[a]anthracene	5600		3310 V	66.6 U	437	765	66.3 U
Benzo[a]pyrene	1000		**2600**	66.6 U	433	753	66.3 U
Benzo[b]fluoranthene	5600		3090 V	66.6 U	438	582 V	66.3 U
Benzo[g,h,i]perylene	500000		2390	66.6 U	299	464	66.3 U
Benzo[k]fluoranthene	56000		1540 V	66.6 U	320	642 V	66.3 U
Chrysene	56000		2690	66.6 U	463	760	66.3 U
Dibenzo[a,h]anthracene	560		458	66.6 U	114	178	66.3 U
Fluoranthene	500000		6070	66.6 U	872	1580	66.3 U
Fluorene	500000		554	66.6 U	63.8 U	128	66.3 U
Indeno[1,2,3-cd]pyrene	5600		2080	66.6 U	274	450	66.3 U
Naphthalene	500000		358	66.6 U	63.8 U	80.4	66.3 U
Phenanthrene	500000		5040	66.6 U	538	1050	66.3 U
Pyrene	500000		5780	66.6 U	714	1230	66.3 U
Total SVOCs:			37695	0	5063.2	9095.3	0

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PEB-2 R	OU1-PEB-3	OU1-PEB-3	OU1-PEB-3	OU1-PEB-4
		Sample Date:	05/15/07	05/10/07	05/14/07	05/15/07	05/10/07
		Sample Depth (ft bls):	0-1	-	2-3	0-1	-
Acenaphthene	500000		66.3 U	183	66.6 U	74.3	63.4 U
Acenaphthylene	500000		72.9	235	66.6 U	423	121
Anthracene	500000		110	614	66.6 U	530	229
Benzo[a]anthracene	5600		434	2020 V	66.6 U	2850	687 V
Benzo[a]pyrene	1000		448	**1660**	66.6 U	**2280**	672
Benzo[b]fluoranthene	5600		475	1630 V	66.6 U	2450	716 V
Benzo[g,h,i]perylene	500000		285	1110	66.6 U	1520	529
Benzo[k]fluoranthene	56000		306	1160 V	66.6 U	1460	663 V
Chrysene	56000		480	1710	66.6 U	2540	707
Dibenzo[a,h]anthracene	560		144	243	66.6 U	**685**	109
Fluoranthene	500000		937	3000	66.6 U	6340	1070
Fluorene	500000		66.3 U	252	66.6 U	185	82.7
Indeno[1,2,3-cd]pyrene	5600		282	1100	66.6 U	1460	514
Naphthalene	500000		66.3 U	116	66.6 U	207	63.4 U
Phenanthrene	500000		549	2400	66.6 U	2390	778
Pyrene	500000		738	3140	66.6 U	5670	1130
Total SVOCs:			5260.9	20573	0	31064.3	8007.7

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PEB-4	OU1-PEB-4	OU1-PES-1	OU1-PES-1	OU1-PES-1
		Sample Date:	05/14/07	05/15/07	05/10/07	05/14/07	05/15/07
		Sample Depth (ft bls):	2-3	0-1	-	2-3	0-1
Acenaphthene	500000		66 U	157	115	63.4 U	826
Acenaphthylene	500000		66 U	293	274	63.4 U	278
Anthracene	500000		66 U	619	588	63.4 U	1840
Benzo[a]anthracene	5600		66 U	1830	2830 V	128	**5970**
Benzo[a]pyrene	1000		66 U	**1530**	**2300**	125	**3070**
Benzo[b]fluoranthene	5600		66 U	1560	2370 V	115 V	4220
Benzo[g,h,i]perylene	500000		66 U	1020	2060	94.9	1950
Benzo[k]fluoranthene	56000		66 U	1150	1490 V	108 V	1620
Chrysene	56000		66 U	1670	2400	143	3310
Dibenzo[a,h]anthracene	560		66 U	374	463	63.4 U	**933**
Fluoranthene	500000		66 U	2510	5060	241	11000
Fluorene	500000		66 U	275	176	63.4 U	1200
Indeno[1,2,3-cd]pyrene	5600		66 U	1010	1780	75.3	1840
Naphthalene	500000		66 U	155	70.4	63.4 U	1440
Phenanthrene	500000		66 U	2020	2320	160	12400
Pyrene	500000		66 U	2550	5170	202	9820
Total SVOCs:			0	18723	29466.4	1392.2	61717

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PES-1	OU1-PES-1R[2]	OU1-PES-2	OU1-PES-2	OU1-PES-2
		Sample Date:	05/17/07	08/03/09	05/10/07	05/14/07	05/15/07
		Sample Depth (ft bls):	0-1	1-2	-	2-3	0-1
Acenaphthene	500000		64.6 U	65.7 U	63.9 U	119	1120
Acenaphthylene	500000		188	NA	63.9 U	610	2890
Anthracene	500000		325	65.7 U	118	673	7130
Benzo[a]anthracene	5600		1260	65.7 U	510 V	2600	**22100**
Benzo[a]pyrene	1000		**1140**	74.6	585	**2790**	**16600**
Benzo[b]fluoranthene	5600		1190 V	75.5	486 V	2470 V	**16500**
Benzo[g,h,i]perylene	500000		707	65.7 U	462	1820	10100
Benzo[k]fluoranthene	56000		823 V	65.7 U	397 V	2020 V	11100
Chrysene	56000		1300	81.4	525	2630	19900
Dibenzo[a,h]anthracene	560		295	65.7 U	202	**682**	**2310**
Fluoranthene	500000		2670	190	793	5090	22700
Fluorene	500000		106	65.7 U	63.9 U	224	2390
Indeno[1,2,3-cd]pyrene	5600		691	65.7 U	368	1700	**10400**
Naphthalene	500000		67.2	65.7 U	63.9 U	95.2	394
Phenanthrene	500000		1500	144	432	1980	31800
Pyrene	500000		2010	146	755	4770	43500
Total SVOCs:			14272.2	711.5	5633	30273.2	220934

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PES-2	OU1-PES-3	OU1-PES-3	OU1-PES-3	OU1-PES-4
		Sample Date:	05/17/07	05/10/07	05/14/07	05/15/07	05/10/07
		Sample Depth (ft bls):	0-1	-	2-3	0-1	-
Acenaphthene	500000		63.4 U	181	576	64.2 U	65.8 U
Acenaphthylene	500000		98.1	531	1080	123	171
Anthracene	500000		179	1060	3020	151	256
Benzo[a]anthracene	5600		611	3970 V	**5640**	574	1040 V
Benzo[a]pyrene	1000		668	**2950**	**5340**	573	986
Benzo[b]fluoranthene	5600		487	2960 V	4030 V	602	974 V
Benzo[g,h,i]perylene	500000		452	1990	2950	320	717
Benzo[k]fluoranthene	56000		575	2070 V	4190 V	365	702 V
Chrysene	56000		614	3210	5170	548	972
Dibenzo[a,h]anthracene	560		160	591	**1200**	64.2 U	262
Fluoranthene	500000		1100	6580	11700	933	1580
Fluorene	500000		63.4 U	330	1340	64.2 U	78.2
Indeno[1,2,3-cd]pyrene	5600		403	1990	2990	302	666
Naphthalene	500000		63.4 U	111	368	64.2 U	65.8 U
Phenanthrene	500000		615	4400	10100	564	881
Pyrene	500000		953	5500	9960	908	1660
Total SVOCs:			6915.1	38424	69654	5963	10945.2

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	OU1-PES-4	OU1-PES-4	OU1-PES-4 R	OU1-PES-4R[3]	P4-PEB-1
		Sample Date:	05/14/07	05/15/07	05/10/07	08/03/09	06/20/07
		Sample Depth (ft bls):	2-3	0-1	-	1-2	-
Acenaphthene	500000		64.7 U	417	73.9	65.9 U	65.3 U
Acenaphthylene	500000		79.8	188	229	NA	65.3 U
Anthracene	500000		242	1150	357	98.3	65.3 U
Benzo[a]anthracene	5600		846	2800	1450 V	253	65.3 U
Benzo[a]pyrene	1000		758	**2020**	**1300**	259	65.3 U
Benzo[b]fluoranthene	5600		718 V	1720	1100 V	318	65.3 UV
Benzo[g,h,i]perylene	500000		485	1040	854	99.6	65.3 U
Benzo[k]fluoranthene	56000		601 V	1590	1070 V	108	65.3 U
Chrysene	56000		852	2270	1290	230	65.3 U
Dibenzo[a,h]anthracene	560		188	403	197	65.9 U	65.3 U
Fluoranthene	500000		1660	5720	2050	506	65.3 U
Fluorene	500000		67.6	510	138	65.9 U	65.3 U
Indeno[1,2,3-cd]pyrene	5600		460	1040	839	86.5	65.3 U
Naphthalene	500000		64.7 U	181	66.3 U	65.9 U	65.3 U
Phenanthrene	500000		805	5330	1310	434	65.3 U
Pyrene	500000		1350	4990	2170	426	65.3 U
Total SVOCs:			9112.4	31369	14427.9	2818.4	0

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	P4-PEB-2	P4-PEB-2 DUP	P4-PEB-3	P4-PES-3	P5-PES-1
		Sample Date:	06/20/07	06/20/07	06/20/07	06/20/07	06/21/07
		Sample Depth (ft bls):	-	-	-	-	-
Acenaphthene	500000		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Acenaphthylene	500000		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Anthracene	500000		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Benzo[a]anthracene	5600		68.8	115	65.7 U	1660 U	65.5 U
Benzo[a]pyrene	1000		88.9	104	65.7 U	1660 U	65.5 U
Benzo[b]fluoranthene	5600		79.3 V	121 V	65.7 UV	1660 UV	65.5 U
Benzo[g,h,i]perylene	500000		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Benzo[k]fluoranthene	56000		68.5 V	93 V	65.7 U	1660 U	65.5 U
Chrysene	56000		80.6	141	65.7 U	1660 U	65.5 U
Dibenzo[a,h]anthracene	560		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Fluoranthene	500000		138	292	65.7 U	1660 U	65.5 U
Fluorene	500000		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Indeno[1,2,3-cd]pyrene	5600		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Naphthalene	500000		66.2 U	65.8 U	65.7 U	1660 U	65.5 U
Phenanthrene	500000		71.4 V	249 V	65.7 U	1660 U	65.5 U
Pyrene	500000		128	217	65.7 U	1660 U	65.5 U
Total SVOCs:			723.5	1332	0	0	0

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 12. Summary of Semivolatile Organic Compounds in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Part 375 Commercial Criteria	**Sample Designation:**	P5-PES-1 DUP	P5-PES-2	P5-PES-3	P5-PES-COMP[4]
		Sample Date:	06/21/07	06/21/07	06/21/07	08/03/09
		Sample Depth (ft bls):	-	-	-	0-3
Acenaphthene	500000		64.6 U	66.2 U	66 U	918
Acenaphthylene	500000		64.6 U	66.2 U	66 U	NA
Anthracene	500000		64.6 U	66.2 U	66 U	2750
Benzo[a]anthracene	5600		64.6 U	66.2 U	214	4370
Benzo[a]pyrene	1000		64.6 U	66.2 U	229	**4020**
Benzo[b]fluoranthene	5600		64.6 U	66.2 U	268 V	4240
Benzo[g,h,i]perylene	500000		64.6 U	66.2 U	162	2220
Benzo[k]fluoranthene	56000		64.6 U	66.2 U	94.8 V	2090
Chrysene	56000		64.6 U	66.2 U	233	3740
Dibenzo[a,h]anthracene	560		64.6 U	66.2 U	66 U	**1000**
Fluoranthene	500000		64.6 U	66.2 U	488	10200
Fluorene	500000		64.6 U	66.2 U	66 U	1100
Indeno[1,2,3-cd]pyrene	5600		64.6 U	66.2 U	203	2170
Naphthalene	500000		64.6 U	66.2 U	66 U	233
Phenanthrene	500000		64.6 U	66.2 U	296	8160
Pyrene	500000		64.6 U	66.2 U	422	8050
Total SVOCs:			0	0	2609.8	55261

µg/kg - Micrograms per kilogram
µg/L - Micrograms per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
SVOCs - Semivolatile Organic Compounds
ft bls - Feet below land surface

[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

[2] - This sample was collected at the same location as OU1-PES-1 (1-2') on 05/17/2009

[3] - This sample was collected at the same location as OU1-PES-4 (1-2') on 05/17/2007

[4] - This sample was a composite of two samples collected along the diagonal sidewall in the northeast portion of Parcel 5 as requested by the NYSDEC based on the result from sample OU1-PES-2 (2-3') on 05/14/2007

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PEB-1	OU1-PEB-1	OU1-PEB-1	OU1-PEB-1	OU1-PEB-1 R
		Sample Date:	05/10/07	05/15/07	05/17/07	05/17/07	05/17/07
		Sample Depth (ft bls):	-	0-1	0-1	1-2	0-1
Arsenic	16		**540**	NA	**24.6**	3.82	**26.5**
Cadmium	9.3		0.984 U	0.986 U	1.95	0.98 U	1.57
Lead	1000		576	911 V	543	119	626

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PEB-2	OU1-PEB-2	OU1-PEB-2	OU1-PEB-2	OU1-PEB-2 R
		Sample Date:	05/10/07	05/15/07	05/17/07	05/17/07	05/15/07
		Sample Depth (ft bls):	-	0-1	0-1	1-2	0-1
Arsenic	16		**54.8**	NA	**21.4**	5.6	NA
Cadmium	9.3		1.76	1.01 U	1.51	0.952 U	0.977 U
Lead	1000		842	733 V	920	650	685 V

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PEB-3	OU1-PEB-3	OU1-PEB-3	OU1-PEB-4	OU1-PEB-4
		Sample Date:	05/10/07	05/15/07	05/17/07	05/10/07	05/15/07
		Sample Depth (ft bls):	-	0-1	1-2	-	0-1
Arsenic	16		10.1	NA	0.977 U	13.9	NA
Cadmium	9.3		1.01 U	0.99 U	0.977 U	1.51	0.962 U
Lead	1000		**1220**	908 V	25.3	975	591 V

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PES-1	OU1-PES-1	OU1-PES-1	OU1-PES-1	OU1-PES-1R[2]
		Sample Date:	05/10/07	05/15/07	05/17/07	05/17/07	08/03/09
		Sample Depth (ft bls):	-	0-1	0-1	1-2	1-2
Arsenic	16		**86.4**	NA	**23.2**	11.7	NA
Cadmium	9.3		1.01 U	1.34	0.998 U	0.982 U	NA
Lead	1000		738	**1750 V**	801	269	NA

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PES-2	OU1-PES-2	OU1-PES-2	OU1-PES-2	OU1-PES-3
		Sample Date:	05/10/07	05/15/07	05/17/07	05/17/07	05/10/07
		Sample Depth (ft bls):	-	0-1	0-1	1-2	-
Arsenic	16		14.7	NA	12.6	12.3	15.4
Cadmium	9.3		1.01 U	0.954 U	1.93	0.963 U	1.19
Lead	1000		578	**1240 V**	**1130**	529	**1280**

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PES-3	OU1-PES-3	OU1-PES-4	OU1-PES-4	OU1-PES-4
		Sample Date:	05/15/07	05/17/07	05/10/07	05/15/07	05/17/07
		Sample Depth (ft bls):	0-1	1-2	-	0-1	1-2
Arsenic	16		NA	12.2	**18**	NA	9.02
Cadmium	9.3		2.33	1.01 U	1.26	2.01	1 U
Lead	1000		**1710 V**	**1080**	**1490**	446 V	300

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	OU1-PES-4 R	OU1-PES-4R[3]	P4-PEB-1	P4-PEB-2	P4-PEB-2 DUP
		Sample Date:	05/10/07	08/03/09	06/20/07	06/20/07	06/20/07
		Sample Depth (ft bls):	-	1-2	-	-	-
Arsenic	16		**16.3**	NA	5.36 V	9.49 V	3.82 V
Cadmium	9.3		1 U	NA	NA	NA	NA
Lead	1000		**1730**	NA	NA	162 V	43.3 V

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	P4-PEB-3	P4-PES-3	P5-PES-1	P5-PES-1 DUP	P5-PES-2	P5-PES-3
		Sample Date:	06/20/07	06/20/07	06/21/07	06/21/07	06/21/07	06/21/07
		Sample Depth (ft bls):	-	-	-	-	-	-
Arsenic	16		NA	NA	NA	NA	NA	NA
Cadmium	9.3		NA	NA	NA	NA	NA	NA
Lead	1000		17.1 V	774 V	21.5	37.8	37.5	236

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 13. Summary of Metals in Post-Excavation Soil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Part 375 Commercial Criteria[1]	**Sample Designation:**	P5-PES-2	P5-PES-2 DUP	P5-PES-COMP[4]
		Sample Date:	07/19/07	07/19/07	08/03/09
		Sample Depth (ft bls):	0-1	0-1	0-3
Arsenic	16		NA	NA	13.8
Cadmium	9.3		NA	NA	0.996 U
Lead	1000		56.8	43.7	**1160**

mg/kg - Milligrams per kilogram
mg/L - Milligrams per liter
U - Not detected
V - Qualifier added based on Data Usability Summary Report
ft bls - Feet below land surface
NA - Not analyzed
[1] - Soil Cleanup Objectives shown are the NYSDEC commercial cleanup objectives for the protection of human health from Part 375 Table 6.8(b).

Table 14. Summary of Volatile Organic Compounds in Backfill Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** **Sample Date:**	Fill-1 05/10/07
1,1,1-Trichloroethane	680		1.96 U
1,1-Dichloroethane	270		1.96 U
1,1-Dichloroethene	330		1.96 U
1,2,4-Trimethylbenzene	3600		6.67
1,2-Dichlorobenzene	1100		1.96 U
1,2-Dichloroethane	20		1.96 U
1,3,5-Trimethylbenzene	8400		2.61
1,3-Dichlorobenzene	2400		1.96 U
1,4-Dichlorobenzene	1800		1.96 U
1,4-Dioxane	100		196 U
2-Butanone	120		49.1 U
Acetone	50		49.1 U
Benzene	60		3.45
Carbon Tetrachloride	760		1.96 U
Chlorobenzene	1100		1.96 U
Chloroform	370		1.96 U
cis-1,2-Dichloroethene	250		1.96 U
Ethylbenzene	1000		1.96 U
Isopropylbenzene	--		1.96 U
Methylene Chloride	50		9.82 U
MTBE	930		1.96 U
n-Butylbenzene	12000		1.96 U
n-Propylbenzene	3900		1.96 U
sec-Butylbenzene	11000		1.96 U
tert-Butylbenzene	5900		1.96 U
Tetrachloroethene	1300		1.96 U
Toluene	700		8.26
trans-1,2-Dichloroethene	190		1.96 U
Trichloroethene	47		1.96 U
Vinyl chloride	20		1.96 U
Xylenes (total)	1600		11.4
Total VOCs:			32.39

µg/kg - Micrograms per kilogram
U - Not detected
VOCs - Volatile Organic Compounds

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 15. Summary of Semivolatile Organic Compounds in Backfill Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** **Sample Date:**	Fill-1 05/10/07
2-Methylphenol	330		325 U
3&4-Methylphenol	330		325 U
Acenaphthene	98,000		325 U
Acenaphthylene	107,000		325 U
Anthracene	500,000		325 U
Benzo[a]anthracene	1,000		325 U
Benzo[a]pyrene	1,000		325 U
Benzo[b]fluoranthene	1,700		325 U
Benzo[g,h,i]perylene	500,000		325 U
Benzo[k]fluoranthene	1,700		325 U
Chrysene	1,000		325 U
Dibenzo[a,h]anthracene	560		325 U
Dibenzofuran	210,000		325 U
Fluoranthene	500,000		325 U
Fluorene	386,000		325 U
Hexachlorobenzene	3,200		325 U
Indeno[1,2,3-cd]pyrene	5,600		325 U
Naphthalene	12,000		325 U
Pentachlorophenol	800		814 U
Phenanthrene	500,000		325 U
Phenol	330		325 U
Pyrene	500,000		325 U
Total SVOCs:			0

µg/kg - Micrograms per kilogram
U - Not detected
SVOCs - Semivolatile Organic Compounds

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 16. Summary of Metals in Backfill Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** **Sample Date:**	Fill-1 05/10/07
Arsenic	16		0.986 U
Barium	400		33
Beryllium	47		0.986 U
Cadmium	7.5		0.986 U
Chromium	--		6.98
Copper	270		9.05
Cyanide	27		2 U
Hexavalent Chromium	19		2 U
Lead	450		7.73
Manganese	2,000		263
Mercury	0.7		0.101 U
Nickel	130		6.37
Selenium	4		1.97 U
Silver	8		0.986 U
Trivalent Chromium	1,500		6.98
Zinc	2,480		44.6

mg/kg - Milligrams per kilogram
U - Not detected

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 17. Summary of Polychlorinated Biphenyl Compounds in Backfill Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** **Sample Date:**	Fill-1 05/10/07
Aroclor-1016			32.6 U
Aroclor-1221			32.6 U
Aroclor-1232			32.6 U
Aroclor-1242			32.6 U
Aroclor-1248			32.6 U
Aroclor-1254			32.6 U
Aroclor-1260			32.6 U
Total PCBs:	1000		0

µg/kg - Micrograms per kilogram
PCBs - Polychlorinated Biphenyl Compounds
U - Not detected

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 18. Summary of Pesticides in Backfill Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** **Sample Date:**	Fill-1 05/10/07
2,4,5-TP (Silvex)	3,800		17 U
4,4'-DDD	14,000		1.67 U
4,4'-DDE	17,000		1.67 U
4,4'-DDT	47,000		1.67 U
Aldrin	190		1.67 U
alpha-BHC	20		1.67 U
alpha-Chlordane	2,900		1.67 U
beta-BHC	90		3.25 U
delta-BHC	250		1.67 U
Dieldrin	100		1.67 U
Endosulfan I	102,000		1.67 U
Endosulfan II	102,000		1.67 U
Endosulfan sulfate	200,000		1.67 U
Endrin	60		1.67 U
gamma-BHC (Lindane)	100		1.67 U
Heptachlor	380		1.67 U

µg/kg - Micrograms per kilogram
U - Not detected

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 19. Summary of Volatile Organic Compounds in Topsoil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** / **Sample Date:**	SP-1 05/14/07	SP-2 05/14/07	SP-3 05/14/07	SP-4 05/14/07	SP-5 05/14/07	SP-1 06/08/07
1,1,1-Trichloroethane	680		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,1-Dichloroethane	270		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,1-Dichloroethene	330		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,2,4-Trimethylbenzene	3600		1.94 U	1.96 U	8.71	1.94 U	1.95 U	NA
1,2-Dichlorobenzene	1100		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,2-Dichloroethane	20		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,3,5-Trimethylbenzene	8400		1.94 U	1.96 U	3.4	1.94 U	1.95 U	NA
1,3-Dichlorobenzene	2400		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,4-Dichlorobenzene	1800		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
1,4-Dioxane	100		194 U	196 U	195 U	194 U	195 U	NA
2-Butanone	120		48.5 U	49 U	48.7 U	48.5 U	48.6 U	NA
Acetone	50		**62.9**	**54.6**	**89.7**	**63.7**	**59**	48.7 U
Benzene	60		1.94 U	1.96 U	5.99	1.94 U	1.95 U	NA
Carbon Tetrachloride	760		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Chlorobenzene	1100		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Chloroform	370		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
cis-1,2-Dichloroethene	250		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Ethylbenzene	1000		1.94 U	1.96 U	2.5	1.94 U	1.95 U	NA
Isopropylbenzene	--		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Methylene Chloride	50		9.71 U	9.8 U	9.75 U	9.71 U	9.73 U	NA
MTBE	930		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
n-Butylbenzene	12000		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
n-Propylbenzene	3900		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
sec-Butylbenzene	11000		1.94 U	1.96 U	6.33	1.94 U	1.95 U	NA
tert-Butylbenzene	5900		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Tetrachloroethene	1300		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Toluene	700		1.94 U	1.96 U	23.3	34.2	2.99	NA
trans-1,2-Dichloroethene	190		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Trichloroethene	47		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Vinyl chloride	20		1.94 U	1.96 U	1.95 U	1.94 U	1.95 U	NA
Xylenes (total)	1600		4.85 U	4.9 U	17.9	4.85 U	4.86 U	NA
Total VOCs:			62.9	54.6	157.83	97.9	61.99	0

µg/kg - Micrograms per kilogram
U - Not detected
VOCs - Volatile Organic Compounds

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 19. Summary of Volatile Organic Compounds in Topsoil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** / **Sample Date:**	SP-2 06/08/07	SP-3 06/08/07	SP-4 06/08/07	SP-5 06/08/07	Topsoil-1A 4/30/2010
1,1,1-Trichloroethane	680		NA	NA	NA	NA	1.98 U
1,1-Dichloroethane	270		NA	NA	NA	NA	1.98 U
1,1-Dichloroethene	330		NA	NA	NA	NA	1.98 U
1,2,4-Trimethylbenzene	3600		NA	NA	NA	NA	1.98 U
1,2-Dichlorobenzene	1100		NA	NA	NA	NA	1.98 U
1,2-Dichloroethane	20		NA	NA	NA	NA	1.98 U
1,3,5-Trimethylbenzene	8400		NA	NA	NA	NA	1.98 U
1,3-Dichlorobenzene	2400		NA	NA	NA	NA	1.98 U
1,4-Dichlorobenzene	1800		NA	NA	NA	NA	1.98 U
1,4-Dioxane	100		NA	NA	NA	NA	198 U
2-Butanone	120		NA	NA	NA	NA	49.4 U
Acetone	50		47.2 U	48.6 U	49.2 U	47.9 U	49.4 U
Benzene	60		NA	NA	NA	NA	1.98 U
Carbon Tetrachloride	760		NA	NA	NA	NA	1.98 U
Chlorobenzene	1100		NA	NA	NA	NA	1.98 U
Chloroform	370		NA	NA	NA	NA	11.3 B
cis-1,2-Dichloroethene	250		NA	NA	NA	NA	1.98 U
Ethylbenzene	1000		NA	NA	NA	NA	1.98 U
Isopropylbenzene	--		NA	NA	NA	NA	1.98 U
Methylene Chloride	50		NA	NA	NA	NA	9.88 U
MTBE	930		NA	NA	NA	NA	1.98 U
n-Butylbenzene	12000		NA	NA	NA	NA	1.98 U
n-Propylbenzene	3900		NA	NA	NA	NA	1.98 U
sec-Butylbenzene	11000		NA	NA	NA	NA	1.98 U
tert-Butylbenzene	5900		NA	NA	NA	NA	1.98 U
Tetrachloroethene	1300		NA	NA	NA	NA	1.98 U
Toluene	700		NA	NA	NA	NA	1.98 U
trans-1,2-Dichloroethene	190		NA	NA	NA	NA	1.98 U
Trichloroethene	47		NA	NA	NA	NA	1.98 U
Vinyl chloride	20		NA	NA	NA	NA	1.98 U
Xylenes (total)	1600		NA	NA	NA	NA	4.94 U
Total VOCs:			0	0	0	0	11.3

µg/kg - Micrograms per kilogram
U - Not detected
VOCs - Volatile Organic Compounds

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 20. Summary of Semivolatile Organic Compounds in Topsoil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** / **Sample Date:**	SP-1 05/14/07	SP-2 05/14/07	SP-3 05/14/07	SP-4 05/14/07	SP-5 05/14/07	Topsoil-1A 4/30/2010
2-Methylphenol	330		312 U	324 U	330 U	315 U	325 U	324 U
3&4-Methylphenol	330		312 U	324 U	330 U	315 U	325 U	324 U
Acenaphthene	98,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Acenaphthylene	107,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Anthracene	500,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Benzo[a]anthracene	1,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Benzo[a]pyrene	1,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Benzo[b]fluoranthene	1,700		312 U	324 U	330 U	315 U	325 U	65.1 U
Benzo[g,h,i]perylene	500,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Benzo[k]fluoranthene	1,700		312 U	324 U	330 U	315 U	325 U	65.1 U
Chrysene	1,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Dibenzo[a,h]anthracene	560		312 U	324 U	330 U	315 U	325 U	65.1 U
Dibenzofuran	210,000		312 U	324 U	330 U	315 U	325 U	324 U
Fluoranthene	500,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Fluorene	386,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Hexachlorobenzene	3,200		312 U	324 U	330 U	315 U	325 U	324 U
Indeno[1,2,3-cd]pyrene	5,600		312 U	324 U	330 U	315 U	325 U	65.1 U
Naphthalene	12,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Pentachlorophenol	800		782 U	810 U	825 U	787 U	812 U	809 U
Phenanthrene	500,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Phenol	330		312 U	324 U	330 U	315 U	325 U	324 U
Pyrene	500,000		312 U	324 U	330 U	315 U	325 U	65.1 U
Total SVOCs:			0	0	0	0	0	0

µg/kg - Micrograms per kilogram
U - Not detected
SVOCs - Semivolatile Organic Compounds

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 21. Summary of Metals in Topsoil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in mg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** / **Sample Date:**	SP-1 05/14/07	SP-2 05/14/07	SP-3 05/14/07	SP-4 05/14/07	SP-5 05/14/07	Topsoil-1A 4/30/2010
Arsenic	16		3.94	5.31	5.25	5.43	5.98	1.18
Barium	400		59.5	68.9	79.2	60.1	81.2	72.5
Beryllium	47		0.996 U	0.998 U	1 U	0.994 U	0.975 U	0.996 U
Cadmium	7.5		0.996 U	0.998 U	1 U	0.994 U	0.975 U	0.996 U
Chromium	--		17.1	18.7	21.8	16.8	24.3	14.4
Copper	270		25.3	25.4	25.3	20.1	27	11.7
Cyanide	27		2 U	2 U	2 U	2 U	2 U	2 U
Hexavalent Chromium	19		2 U	2 U	2 U	2 U	2 U	2 U
Lead	450		21.4	26.2	25.9	25.8	25.9	20.3
Manganese	2,000		321	483	442	352	391	500
Mercury	0.7		0.0977 U	0.1 U	0.0984 U	0.0965 U	0.0988 U	0.0984 U
Nickel	130		23	23.7	25.6	19.4	26.5	12.8
Selenium	4		1.99 U	2 U	2 U	1.99 U	1.95 U	1.99 U
Silver	8		0.996 U	0.998 U	1 U	0.994 U	0.975 U	0.996 U
Trivalent Chromium	1,500		17.1	18.7	21.8	16.8	24.3	14.4
Zinc	2,480		85.3	97.6	107	101	107	73.6

mg/kg - Milligrams per kilogram
U - Not detected

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 22. Summary of Polychlorinated Biphenyl Compounds in Topsoil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** / **Sample Date:**	SP-1 05/14/07	SP-2 05/14/07	SP-3 05/14/07	SP-4 05/14/07	SP-5 05/14/07	Topsoil-1A 4/30/2010
Aroclor-1016			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Aroclor-1221			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Aroclor-1232			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Aroclor-1242			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Aroclor-1248			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Aroclor-1254			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Aroclor-1260			32.9 U	33.2 U	32.3 U	33.3 U	33.3 U	33 U
Total PCBs:	1000		0	0	0	0	0	0

µg/kg - Micrograms per kilogram
PCBs - Polychlorinated Biphenyl Compounds
U - Not detected

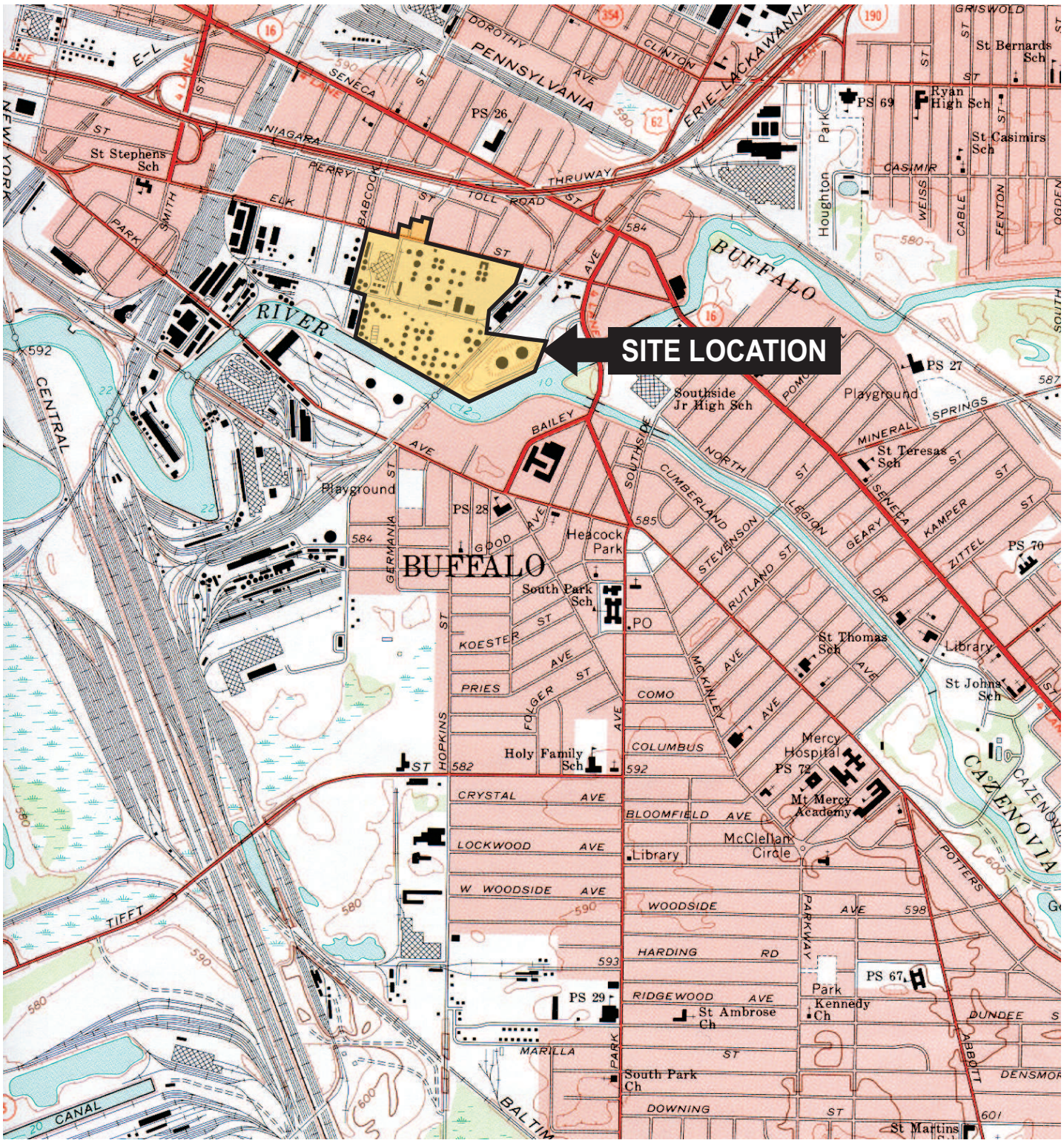
[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.

Table 23. Summary of Pesticides in Topsoil Samples, ExxonMobil Buffalo Terminal, Buffalo, New York

Parameter (Concentrations in µg/kg)	Backfill Criteria for Commercial Use[1]	**Sample Designation:** / **Sample Date:**	SP-1 05/14/07	SP-2 05/14/07	SP-3 05/14/07	SP-4 05/14/07	SP-5 05/14/07	Topsoil-1A 04/30/10
2,4,5-TP (Silvex)	3,800		17 U	17 U	17 U	17 U	17 U	17 U
4,4'-DDD	14,000		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
4,4'-DDE	17,000		2.98	1.68 U	4.59	3.95	6.26	1.66 U
4,4'-DDT	47,000		5.96	4.28	3.61	2.96	6.59	1.66 U
Aldrin	190		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
alpha-BHC	20		3.64	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
alpha-Chlordane	2,900		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
beta-BHC	90		3.28 U	3.26 U	3.25 U	3.26 U	22.7	3.23 U
Chlordane	--		NA	NA	NA	NA	NA	65.2 U
delta-BHC	250		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
Dieldrin	100		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
Endosulfan I	102,000		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
Endosulfan II	102,000		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
Endosulfan sulfate	200,000		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
Endrin aldehyde	--		NA	NA	NA	NA	NA	1.66 U
Endrin ketone	--		NA	NA	NA	NA	NA	1.66 U
Endrin	60		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
gamma-BHC (Lindane)	100		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
gamma-Chlordane	--		NA	NA	NA	NA	NA	1.66 U
Heptachlor epoxide	--		NA	NA	NA	NA	NA	1.66 U
Heptachlor	380		1.69 U	1.68 U	1.67 U	1.68 U	1.68 U	1.66 U
Methoxychlor	--		NA	NA	NA	NA	NA	3.23 U
Toxaphene	--		NA	NA	NA	NA	NA	65.2 U

µg/kg - Micrograms per kilogram
U - Not detected

[1] Criteria for backfill under the commercial use scenario is the lower of the commercial use criteria for human health or the criteria for protection of groundwater presented in Table 375-6.8(b) of Part 375.



QUADRANGLE LOCATION

SOURCE:
USGS; 1965, Buffalo SE, New York
7.5 Minute Topographic Quadrangle

N

0 2000’

Title:

SITE LOCATION MAP

FORMER BUFFALO TERMINAL

Prepared for:

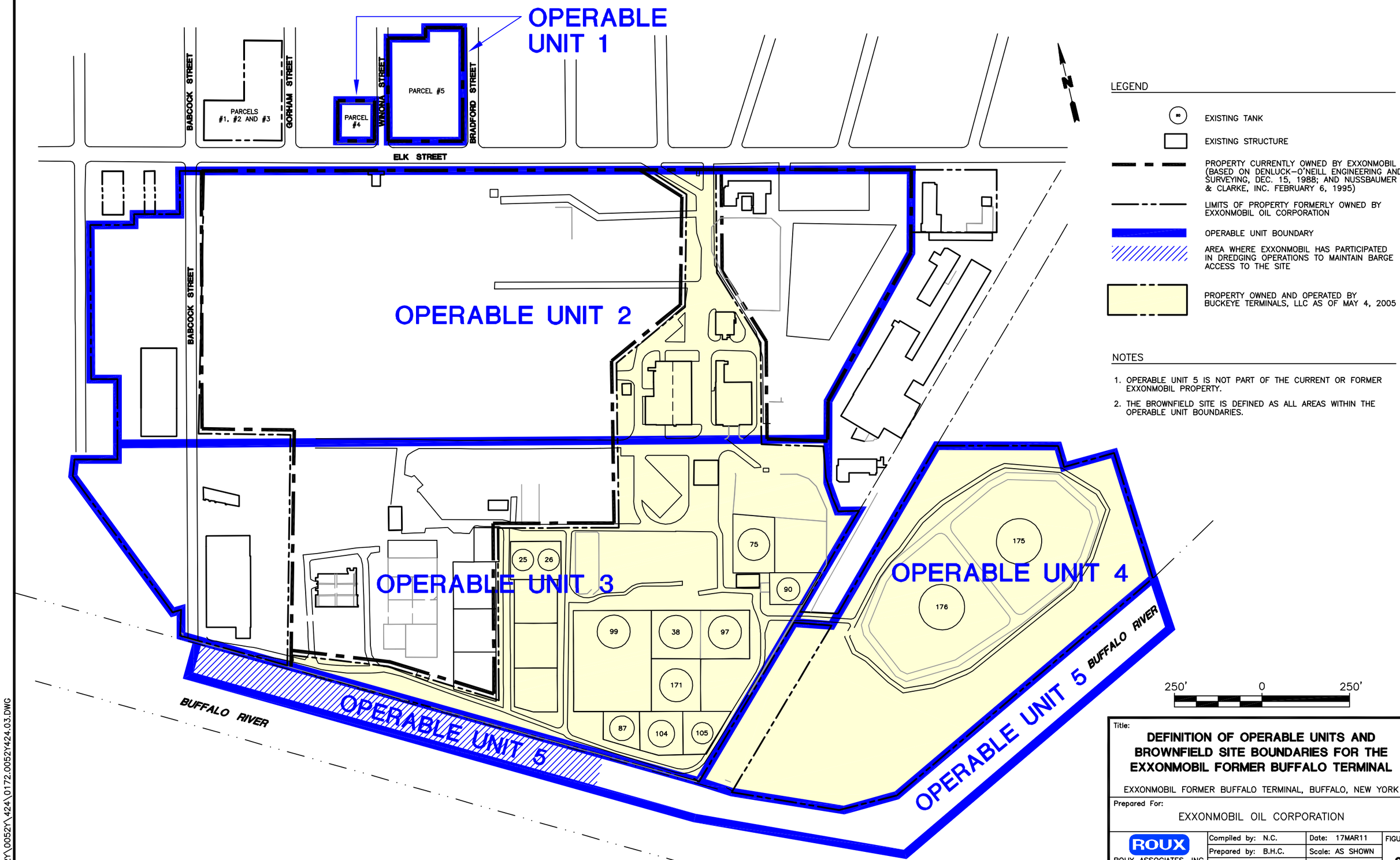
EXXONMOBIL OIL CORPORATION

ROUX

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: N.C.	Date: 17MAR11	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	1
Project Mgr.: N.C.	Project No.: 0172.0052Y014	
File No.: 0172.0052Y424.02.CDR		

\0172Y\0052Y\424\0172.0052Y424.02.CDR



LEGEND

- EXISTING TANK
- EXISTING STRUCTURE
- PROPERTY CURRENTLY OWNED BY EXXONMOBIL (BASED ON DENLUCK–O'NEILL ENGINEERING AND SURVEYING, DEC. 15, 1988; AND NUSSBAUMER & CLARKE, INC. FEBRUARY 6, 1995)
- LIMITS OF PROPERTY FORMERLY OWNED BY EXXONMOBIL OIL CORPORATION
- OPERABLE UNIT BOUNDARY
- AREA WHERE EXXONMOBIL HAS PARTICIPATED IN DREDGING OPERATIONS TO MAINTAIN BARGE ACCESS TO THE SITE
- PROPERTY OWNED AND OPERATED BY BUCKEYE TERMINALS, LLC AS OF MAY 4, 2005

NOTES

1. OPERABLE UNIT 5 IS NOT PART OF THE CURRENT OR FORMER EXXONMOBIL PROPERTY.
2. THE BROWNFIELD SITE IS DEFINED AS ALL AREAS WITHIN THE OPERABLE UNIT BOUNDARIES.

Title:

DEFINITION OF OPERABLE UNITS AND BROWNFIELD SITE BOUNDARIES FOR THE EXXONMOBIL FORMER BUFFALO TERMINAL

EXXONMOBIL FORMER BUFFALO TERMINAL, BUFFALO, NEW YORK

Prepared For:

EXXONMOBIL OIL CORPORATION

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: N.C.	Date: 17MAR11	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	2
Project Mgr: N.C.	Office: NY	
File No: 172.52Y424.03	Project: 17252Y14	

\0172Y\0052Y\424\0172.0052Y424.03.DWG

ELK STREET PROPERTIES AREA

BABCOCK STREET

PARCELS #1, #2 AND #3

GORHAM STREET

PARCEL #4

WINONA STREET

PARCEL #5

BRADFORD STREET

ELK STREET

BABCOCK STREET

NORTHEAST PROCESS AND STORAGE AREA

NORTHERN TANK YARD AREA

FORMER REFINERY AREA

ADMINISTRATIVE OFFICES AND OPERATIONS AREA

CENTRAL RAIL AND PROCESS AREA

BABCOCK STREET PROPERTIES AREA

75

25

26

90

175

176

99

38

97

171

87

104

105

SOUTHERN TANK YARD AREA

EASTERN TANK YARD AREA (FORMER DISPOSAL AREA)

BUFFALO RIVER

BUFFALO RIVER

N

LEGEND

- EXISTING TANK
- EXISTING STRUCTURE
- PROPERTY CURRENTLY OWNED BY EXXONMOBIL (BASED ON DENLUCK–O'NEILL ENGINEERING AND SURVEYING, DEC. 15, 1988; AND NUSSBAUMER & CLARKE, INC. FEBRUARY 6, 1995)
- LIMITS OF PROPERTY FORMERLY OWNED BY EXXONMOBIL OIL CORPORATION
- GEOGRAPHIC AREA BOUNDARY AND/OR FORMER PROPERTY LINES
- PROPERTY OWNED AND OPERATED BY BUCKEYE TERMINALS, LLC AS OF MAY 4, 2005

NOTE:

THIS FIGURE WAS PREPARED TO IDENTIFY THE HISTORICAL USES OF VARIOUS PORTIONS OF THE PROPERTY.

250' 0 250'

Title:

GEOGRAPHIC AREAS OF THE EXXONMOBIL FORMER BUFFALO TERMINAL

FORMER BUFFALO TERMINAL, BUFFALO, NEW YORK

Prepared For:

EXXONMOBIL OIL CORPORATION

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: L.C.	Date: 17MAR11	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	3
Project Mgr: N.C.	Office: NY	
File No: 172.52Y424.04	Project: 17252Y14	

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\0172Y\0052Y\424\0172.0052Y424.05.DWG

LEGEND

ESL-3 — LOCATION AND DESIGNATION OF SFI/ SFI COMPLETION SOIL BORING

SS#1C/TWP-05 — LOCATION OF 1993 GTI SITE ASSESSMENT INVESTIGATION COMPOSITE SOIL BORINGS SS#1 THROUGH SS#4 (ONE COMPOSITE SAMPLE FROM EACH GROUP OF FIVE BORINGS, GROUPS ARE SHOWN AS FOUR DIFFERENT COLORS; TWP INDICATES TEMPORARY WELL POINT GROUNDWATER SAMPLING LOCATION)

ESPA INVESTIGATION COMPLETION SOIL SAMPLING LOCATION

MW-OU1-1 — LOCATION AND DESIGNATION OF TEMPORARY MONITORING WELL (SEE NOTE 5)

SB-OU1-2 — LOCATION AND DESIGNATION OF PROPOSED SHALLOW SOIL SAMPLE (SEE NOTE 5)

hyd — FIRE HYDRANT

SFI — SITE FACILITY INVESTIGATION

FORMER PROPERTY DIVISIONS

EXXONMOBIL PROPERTY LINE

EXXONMOBIL FENCE LINE (INSTALLED JULY 2000)

ESPA BOUNDARY

BUILDINGS PRESENT AT TIME OF TANK 60 INCIDENT THAT WERE SUBSEQUENTLY DEMOLISHED

EXISTING BUILDINGS THAT WERE PRESENT AT TIME OF TANK 60 INCIDENT

NOTES:

1. GROUNDWATER AT TEMPORARY WELL POINT TWP-01 WAS NOT SAMPLED IN DURING THE 1993 INVESTIGATION.
2. ESL-8/ESL-W1 WAS AN SFI SHALLOW SOIL BORING AND TEMPORARY GROUNDWATER SAMPLING LOCATION.
3. ESL-1 THROUGH ESL-12 WERE INSTALLED DURING THE 1998 SFI. ESL-13 THROUGH ESL-20 WERE INSTALLED DURING THE 1999 SFI COMPLETION. ESL-21 THROUGH ESL-26 WERE INSTALLED DURING THE ESPA INVESTIGATION COMPLETION, DECEMBER 14, 2001.
4. LOCATION OF FORMER BUILDINGS AND PROPERTY DIVISIONS ARE BASED ON SANBORN FIRE INSURANCE MAPS AND AERIAL PHOTOGRAPHS PRIOR TO 1976.
5. MW-OU1-1 THROUGH MW-OU1-3 AND SB-OU1-1 THROUGH SB-OU1-3 WERE INSTALLED AND SAMPLED IN AUGUST 2006.

Title:

INVESTIGATION SAMPLE LOCATIONS IN OPERABLE UNIT 1

FORMER BUFFALO TERMINAL, BUFFALO, NEW YORK

Prepared For:

EXXONMOBIL OIL CORPORATION

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: N.C.	Date: 17MAR11	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	4
Project Mgr: N.C.	Office: NY	
File No: 172.52Y424.05	Project: 17252Y14	

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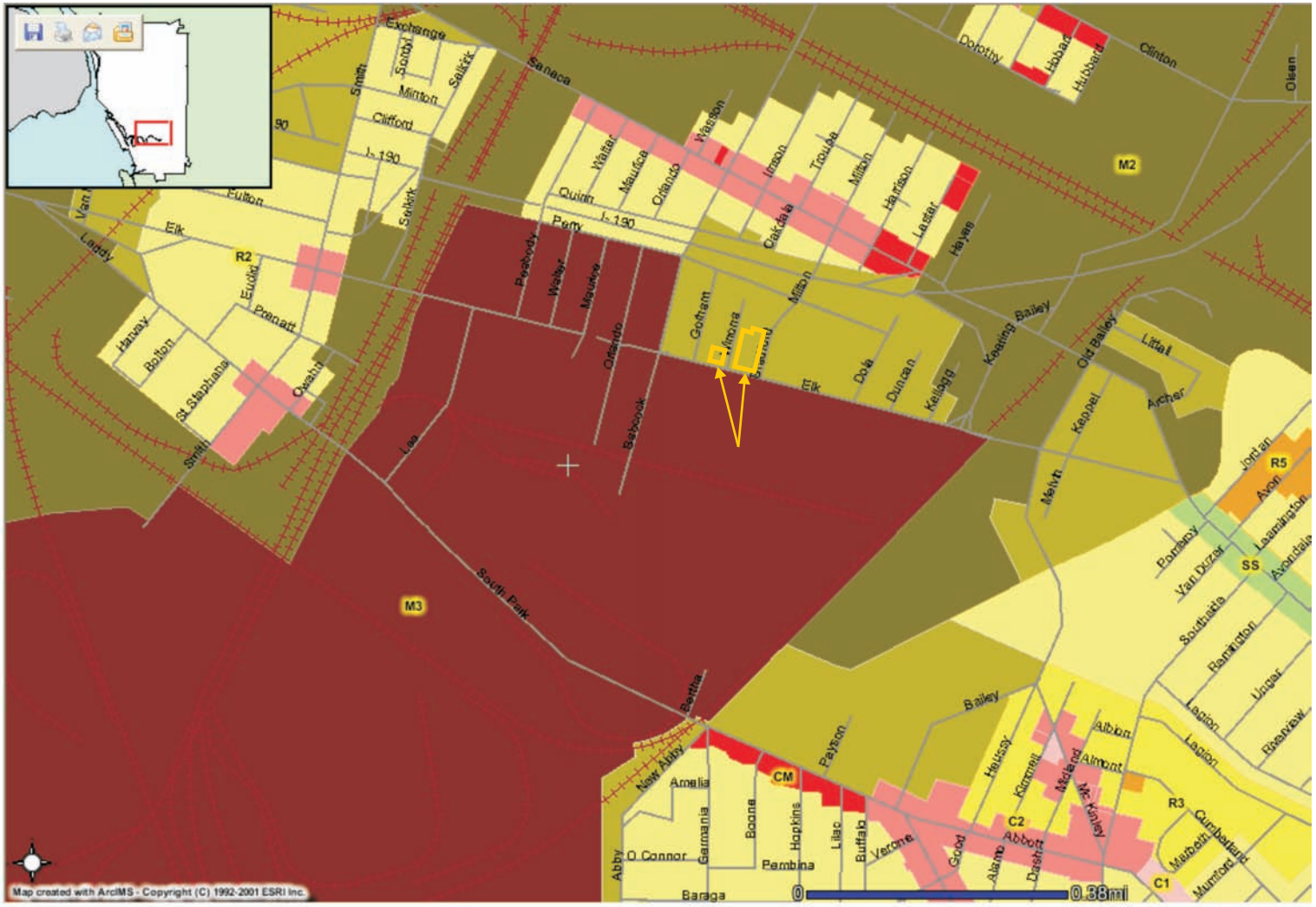


Source:
http://erie-gis.co.erie.ny.us/website/buffalony/Viewer.htm

Title:

ZONING MAP

FORMER BUFFALO TERMINAL, BUFFALO, NEW YORK

Prepared for:

EXXONMOBIL OIL COMPANY

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: N.C.	Date: 17MAR11	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	5
Project Mgr.: N.C.	Project No.: 0172.0052Y014	
File No.: 0172.0052Y424.06.CDR		

LEGEND

- PROPERTY LINE
- DENOTES GRID LINES FOR SOIL SAMPLING
- DENOTES LOCATION OF COMPOSITE SIDEWALL SAMPLES
- DENOTES LOCATION OF COMPOSITE BOTTOM SAMPLES
- SOIL EXCAVATED TO 1 FOOT BELOW GRADE
- SOIL EXCAVATED TO 1.67 FEET BELOW GRADE TO NATIVE SILTY CLAY
- SOIL EXCAVATED TO 2 FEET BELOW GRADE TO NATIVE SILTY CLAY
- SOIL EXCAVATED TO 3 FEET BELOW GRADE TO NATIVE SILTY CLAY
- SOIL EXCAVATED TO APPROX. 2–3 FEET BELOW GRADE TO NATIVE SILTY CLAY
- SOIL EXCAVATED TO 3 FEET BELOW GRADE TO NATIVE CLAY IN MAY 2010

P5–PES–2	7/19/2007
	0–1

SAMPLE DESIGNATION
SAMPLE DATE
DEPTH INTERVAL WHERE SAMPLE WAS TAKEN (FEET)

SAMPLES THAT HAD ONE OR MORE COMPOUNDS THAT EXCEEDED THE RESTRICTED COMMERCIAL CRITERIA ARE SHOWN IN RED TEXT

50' 0 50'

NOTES:

1. Base map adapted from Nussbamer & Clarke, Inc. Excavation Map, job no. 01J2–0017–BG15, Sheet 1 of 1 dated 5/22/07.
2. Initial phase of excavation and backfill was begun on May 8, 2007 and was completed on June 18, 2007.
3. NYSDEC approved discontinuation of bottom sampling on June 21, 2007. Visual observation of native clay layer was used to determine the final depth of excavation after this date.
4. This drawing has been revised on 5/8/08 per NYSDEC comment letter dated 4/3/08. Soil sample OU1–PEB–4 (5/14/07; 2–3') has been added and color shading of the midwest subarea of parcel #5 has been revised.
5. This drawing was revised to include the second phase of excavation and disposal in the northern portion of Parcel #5 on May 18 and 19, 2010.

Title:

REVISED EXCAVATION MAP

FORMER BUFFALO TERMINAL, BUFFALO, NEW YORK

Prepared For:

EXXONMOBIL OIL CORPORATION

ROUX ASSOCIATES, INC.
Environmental Consulting and Management

Compiled by: N.C.	Date: 17MAR11	FIGURE
Prepared by: B.H.C.	Scale: AS SHOWN	
Project Mgr: N.C.	Project: 0172.0052Y014	6
File: 0172.0052Y424.01.DWG		

\0172Y\0052Y\424\0172.0052Y424.01.DWG

APPENDIX A

Daily Construction Reports

ExxonMobil Oil Fmr Buffalo Terminal ○ U-1 EXCAVATION

Day/Date:	5-7-07	CHES Site Mgr:	Bill Campofano	Signature:	Bill Campofano
Day/Shift:	MON.	Weather:	CLEAR 42° - 52°	Wind Direction	SW - NE 5-10MPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel

1 Bill Campofano	4	7
2 Darrell Osborn	5	8
3 Mike Chaket	6	9

Subcontractors

1 Hertz.	3 Home Depot.	5
2 Hares Supply	4	6

Equipment / Vehicles / Units

1 2 Pick-ups	6	11
2 Excavator	7	12
3 Loader	8	13
4 Bobcat w/ sweeper	9	14
5 Misc. Hand Tools	10	15

Materials Used	Quantity		Quantity
1 Geo Tex Fabric	2 Rls.	7	
2 Wire Ties	10 Bgs.	8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	~~Production~~ Deliveries.	Quantity
1 Geo Tex	2 Rls.	1 Excavator	1
2 Wire Ties	10 Bgs.	2 Loader	1
3 Garden Hose	100'	3 Bobcat w/ sweeper	1
4 40'x60' Tarp	1	4	
5 Mason String	2 Rls.	5	
6 Hose connections	Misc.	6	

Equipment Calibration: Silt Fence 2 Rls.

Device	Model	Date
1		
2		
3		
4		

Samples

Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

Rec'd. E.O.M. work permit. Reviewed HAS / JSA's. Rec'd. Equip. From Hertz. Finished setting up Erosion control & Blacking out Fence in Parcel 4. Began Erosion control & Blacking out Fence in Parcel 5.

ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	5-9-07	**CHES Site Mgr:**	Bill Compofiano	**Signature:**	Bill Compofiano
Day/Shift:	TUES	**Weather:**	CLEAR 68-72	Wind Direction	SW-NE 15-20 MPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Compofiano	4	7
2 DARRELL OSBORN	5	8
3 MIKE CHAKOT	6	9
Subcontractors		
1 FARNHAM FARMS	3	5
2	4	6
Equipment / Vehicles / Units		
1 2- PICK-UPS	6	11
2 EXCAVATOR	7	12
3 LOADER	8	13
4 BOBCAT w/ SWEEPER	9	14
5	10	15

Materials Used	Quantity		Quantity
1 HAY BALES	80	7	
2 MARKING PAINT	3 CANS	8	
3 40'x60' TARP	1	9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 HAY BALES	80	1 EXCAVATED APROX 12~~7~~94'	APROX 50 YDS
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

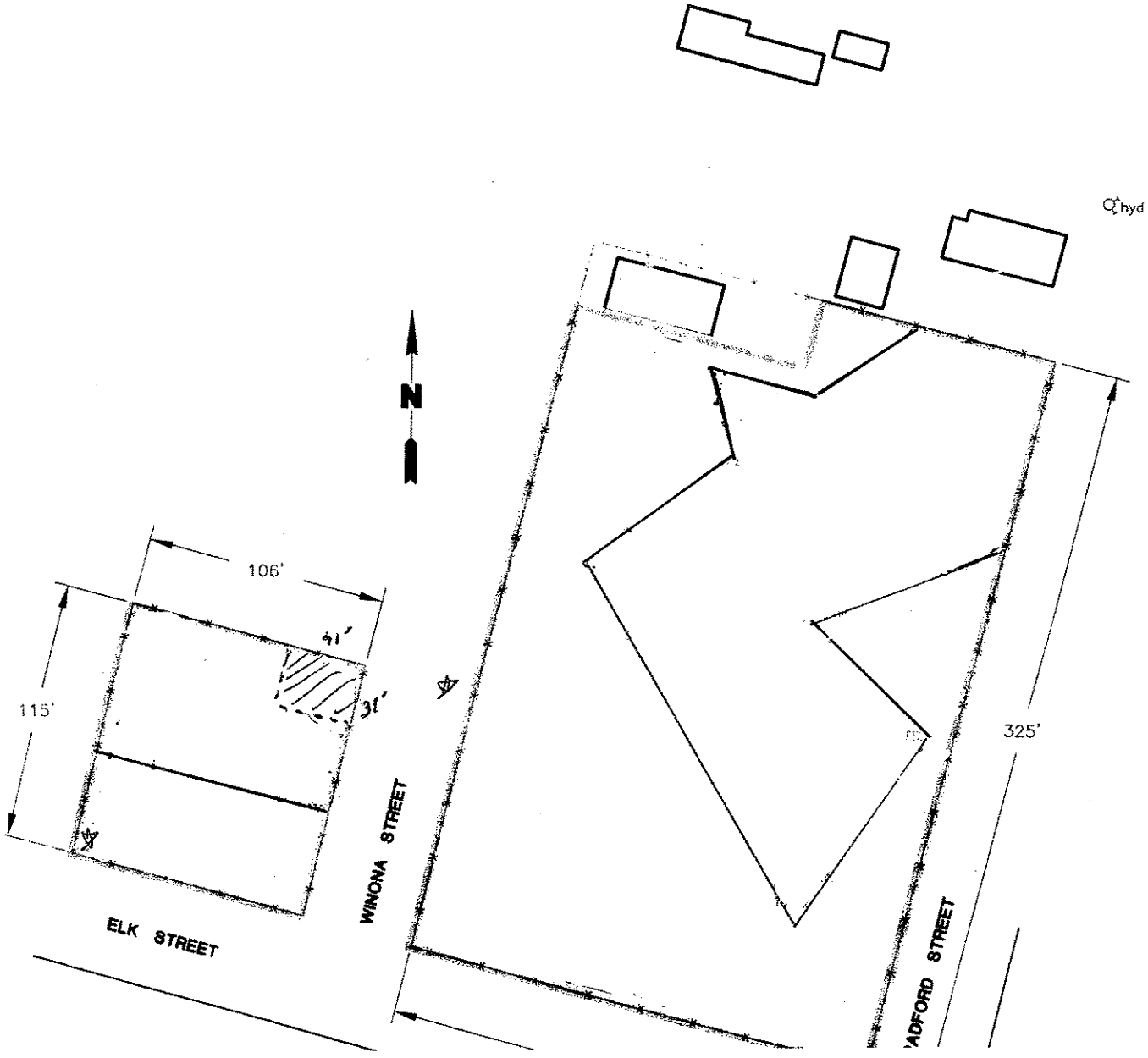
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

REVIEWED HAS / JSA'S, REC'D E.O.M. WORK PERMIT. FINISHED INSTALLING EROSION CONTROL MEASURES & BLACK OUT OF FENCE IN PARCEL 5. MARKED OUT HORIZONTAL EXTENT OF EXCAVATIONS IN PARCEL 4 & 5. REC'D HAY BALES & SETUP STAGING AREA IN PARCEL 4. SITE VISITED BY CHAD STANISZEWSKI (DEC) BEGAN EXCAVATION OF NORTHEAST PORTION OF PARCEL 4 · SOILS STOCKPILED & COVERED.

Buffalo Terminal OH-1	Inspection Log - Page 2	Date: 5-8-07

☆ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	5-9-07	CHES Site Mgr:	Bill Campopiano	Signature:	Bill Campopiano
Day/Shift:	wed	Weather:	~~78~~ Sunny 72°-82°	Wind Direction	S/SW – N/NE 2-5 mph

Documentation(CIRCLE): XOM Permit LOTO Safety Briefing JSA Calibration Time Sheet

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campopiano	4	7
2 Darrell Osborn	5	8
3 Mike Chaket	6	9
Subcontractors		
1 BFI Niagara	3	5
2 Parisio Trucking	4	6
Equipment / Vehicles / Units		
1 2 - Pick-ups	6	11
2 Excavator	7	12
3 Loader	8	13
4 Bobcat w/ sweeper	9	14
5	10	15

Materials Used	Quantity		Quantity
1 Diesel Fuel	73 G.	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	73 G.	1 Excavated Aprox. 4355 SQ'	Aprox 161 yds
2		2 Trucks Loaded For Disposal	18 Aprox 400 Ton
3		3	
4		4	
5		5	
6		6	

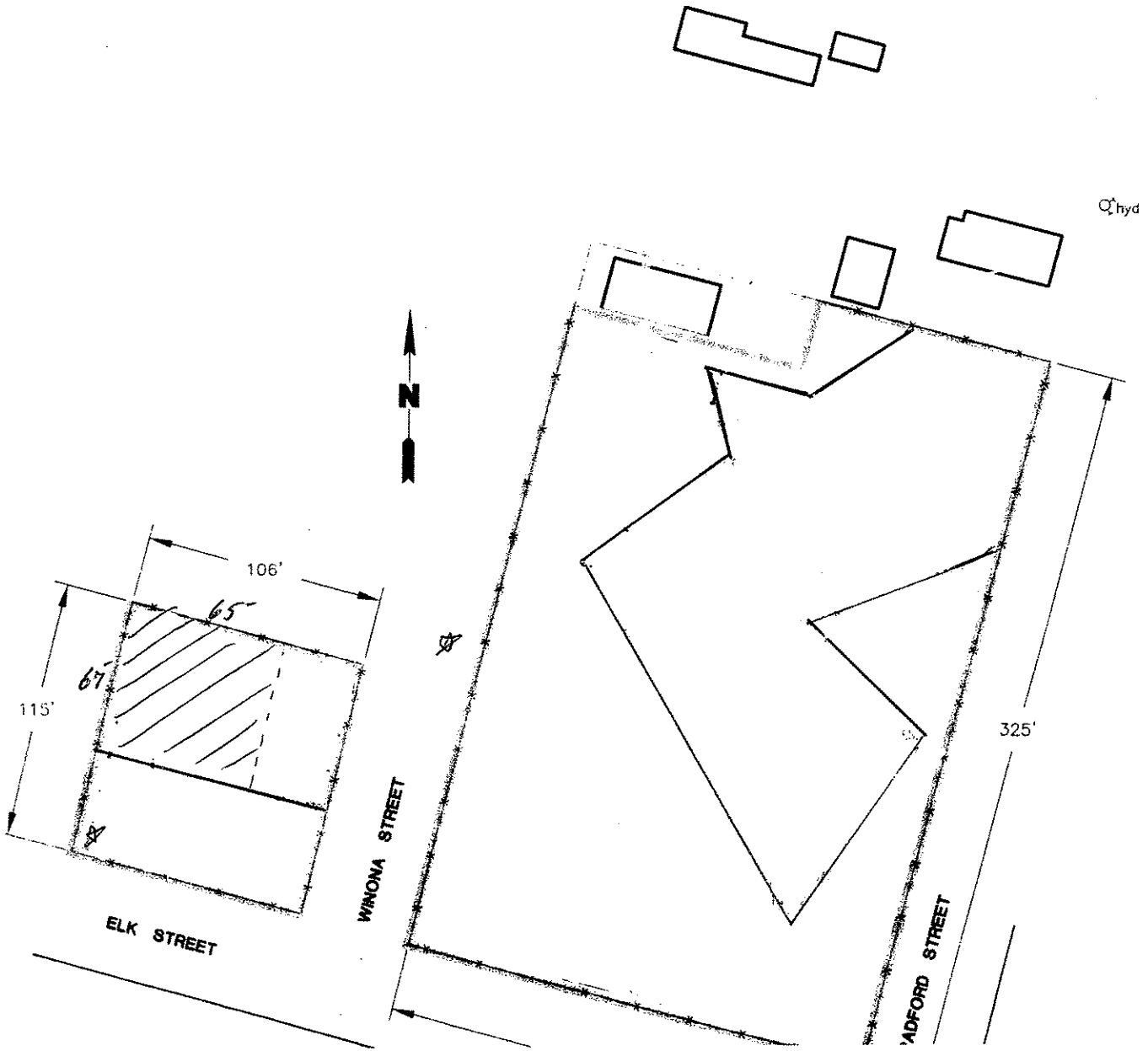
Equipment Calibration			Samples		
Device	Model	Date	Media	ID #	Comment
1			1		
2			2		
3			3		
4			4		

Notes / Comments

Rec'd EOM. work Permit Review JSA's/ HES Cont. Excavation of Parcel #4 Loaded 18 Trucks w/ soil For Disposal @ BFI Niagra. Chad Stamiszewski From DEC on Site Swept St. ~1 sweeper Stock Pile Covered & Site Secured

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 5-9-07

☆ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	5-10-07	CHES Site Mgr:	Bill Campofiano	Signature:	Bill Camp
Day/Shift:	THUR	Weather:	AM Showers/Clearing 72°-77°	Wind Direction	SW-NE 2-10mph

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campofiano	4	7
2 Darrell Osborn	5	8
3 Mike Ehrhart	6	9
Subcontractors		
1 BFI Niagara	3	5
2 Parisio Trucking	4	6
Equipment / Vehicles / Units		
1 2-Pick-ups	6	11
2 Excavator	7	12
3 Loader	8	13
4 Bobcat w/sweeper	9	14
5 misc. Hand Tools	10	15

Materials Used	Quantity		Quantity
1 GeoTex	100'	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1		1 Remainder Parcel #4-3 1/2 Trucks	Approx 87 Ton
2		2 Loaded 13 1/2 Trucks Parcel #5	Approx 337.5 Ton
3		3 Excavated Remainder Parcel #4	Approx 1200 SQ'
4		4 Excavated Parcel #5	Approx 2100 SQ'
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

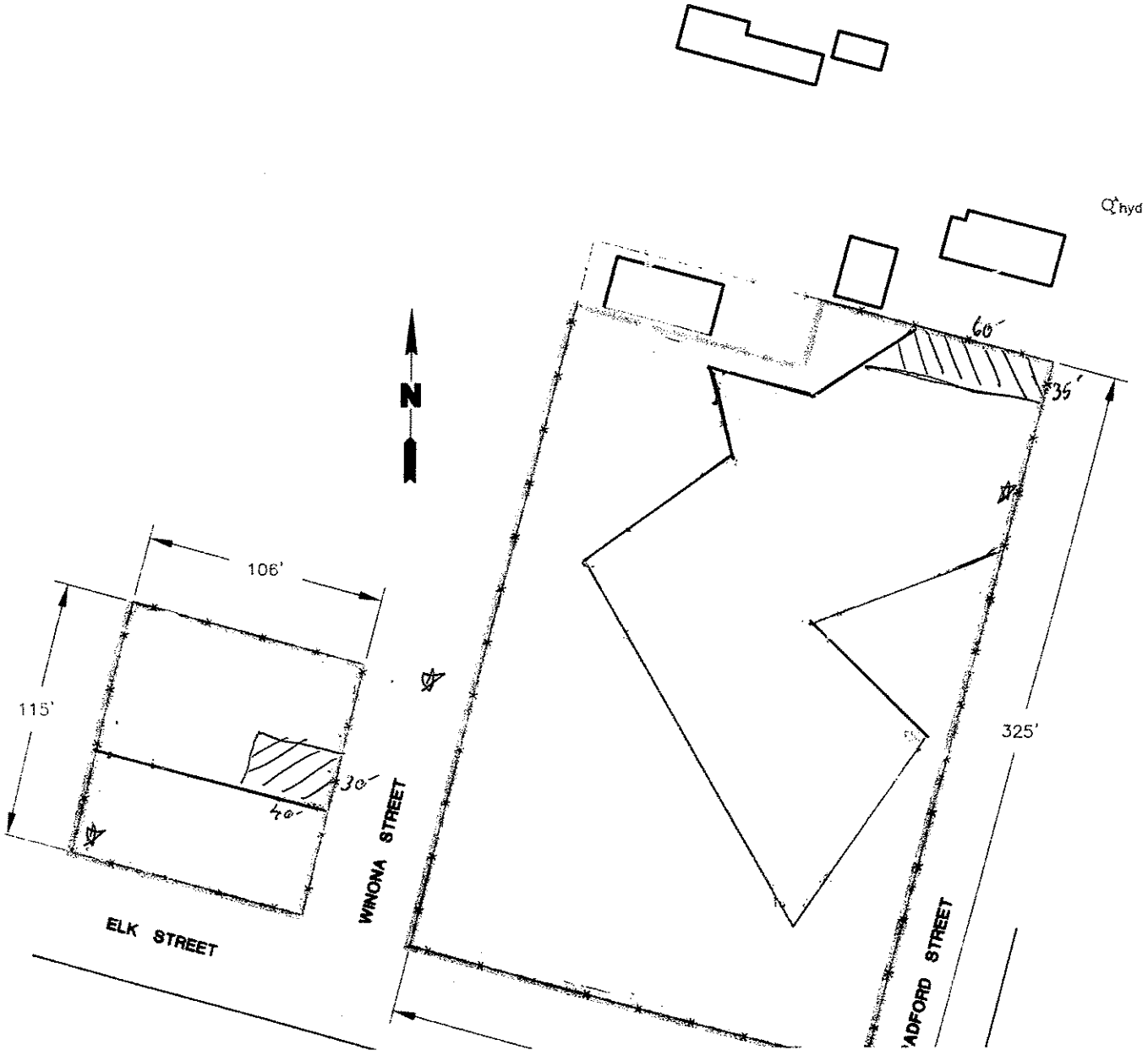
	Media	ID #	Comment
1			
2			
3			
4			

Notes / Comments

Rec'd E.O.M. work permit. Reviewed JSA's / 1 hrs. Delayed 1/2 hr. Em Am Due To Lightning. Finished Excavation of Parcel #4. Loaded 3 1/2 Trucks. Relocated Equipment To Parcel #5. Loaded 13 1/2 Trucks. [redacted] Cleaned Roads w/ Street Sweeper. Chad Stanszewski [redacted] From DEC on Site. Site Secured

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 5-10-07

☆ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	5-11-07	CHES Site Mgr:	Bill Campbell	Signature:	Bill Campbell
Day/Shift:	FRI	Weather:	VERY FOGGY AM CLEARING-72°	Wind Direction	S/SW - NNE 5-15MPH

Documentation(CIRCLE): (CM Permit) LOTO (Safety Briefing) (JSA) (Calibration) (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campbell	4	7
2 Darrell OSBORN	5	8
3 Mike Chabot	6	9
Subcontractors		
1 BFF	3	5
2 Parisio Trucking	4	6
Equipment / Vehicles / Units		
1 2- Pick-ups	6	11
2 Excavator	7	12
3 Loader	8	13
4 Bobcat w/ sweeper	9	14
5 Misc Hand Tools	10	15

Materials Used	Quantity		Quantity
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1		1 Excavated Approx 4500 SF	Approx. 300 Tons
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

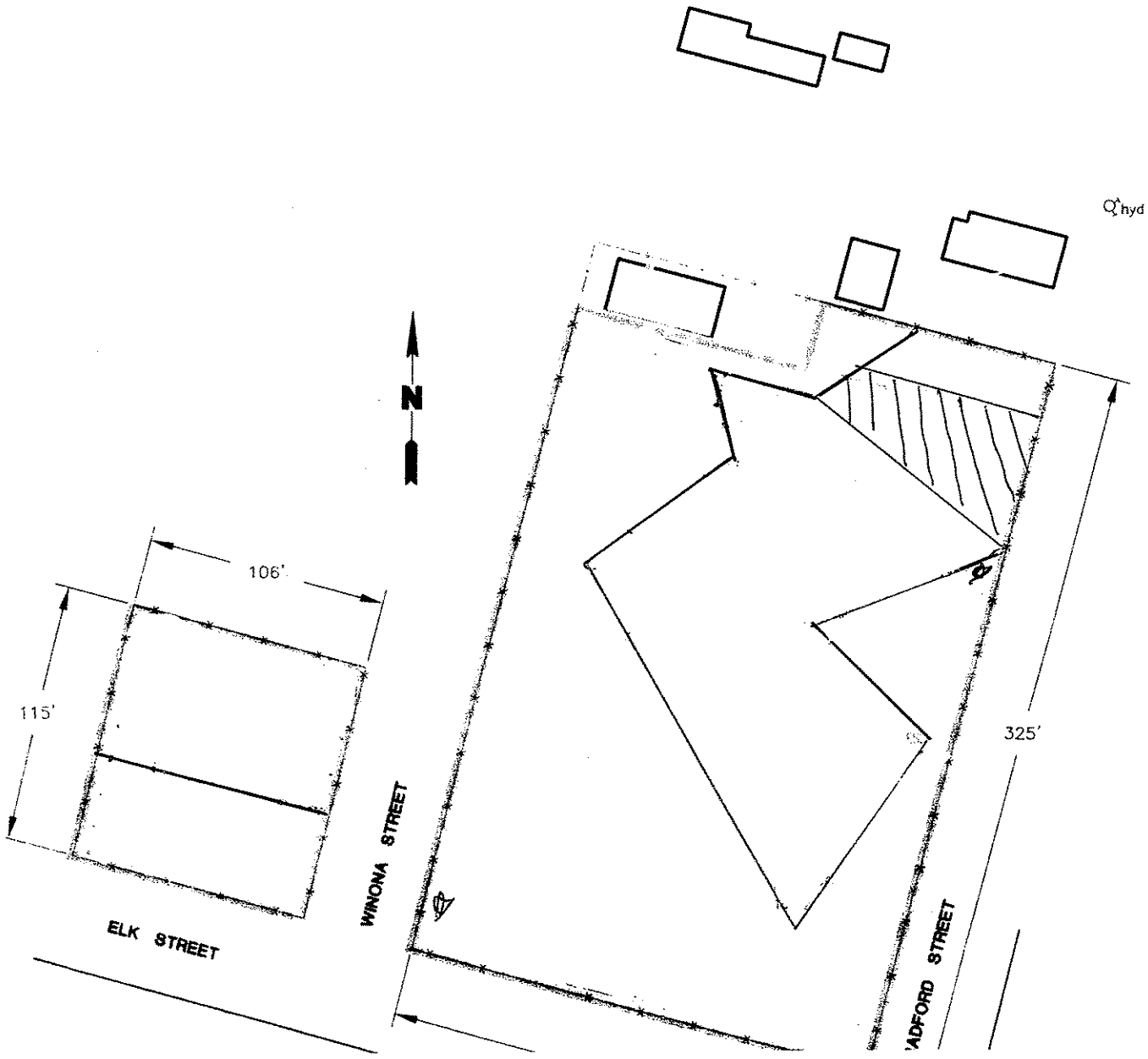
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

Rec'd. E.O.D. work permit. Reviewed HAS/JSA's. Did L.P.O. on loading of trucks. Cont. excavation of Parcel #5 Excavated Approx 4500 SF. Loaded 32 trucks w/ soil For Disposal @ BFF Niagara. Swept street w/ sweeper Site secured

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 5-11-09

☒ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	5-12-07	CHES Site Mgr:	Bill Campopiano	Signature:	
Day/Shift:	SAT	Weather:	cloudy, windy 60°-65°	Wind Direction	NE-SW 10-20 mph

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) & (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campopiano	4	7
2 Darrell Osborn	5	8
3 Mike Chakat	6	9
Subcontractors		
1 BFI	3	5
2 Parisie Trucking	4	6
Equipment / Vehicles / Units		
1 2-Pick-ups	6	11
2 Loader	7	12
3 Excavator	8	13
4 Bobcat w/ sweeper	9	14
5 Misc. Hand Tools	10	15

Materials Used	Quantity		Quantity
1 Diesel Fuel	63 G.	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	63 G.	1 Excavated Approx 600 yds	
2		2 Loaded 20 Dump Trucks	Appox 500 Ton
3		3 ~~Stock~~ Excavated & Stock piled	Approx 75-100 yds
4		4	
5		5	
6		6	

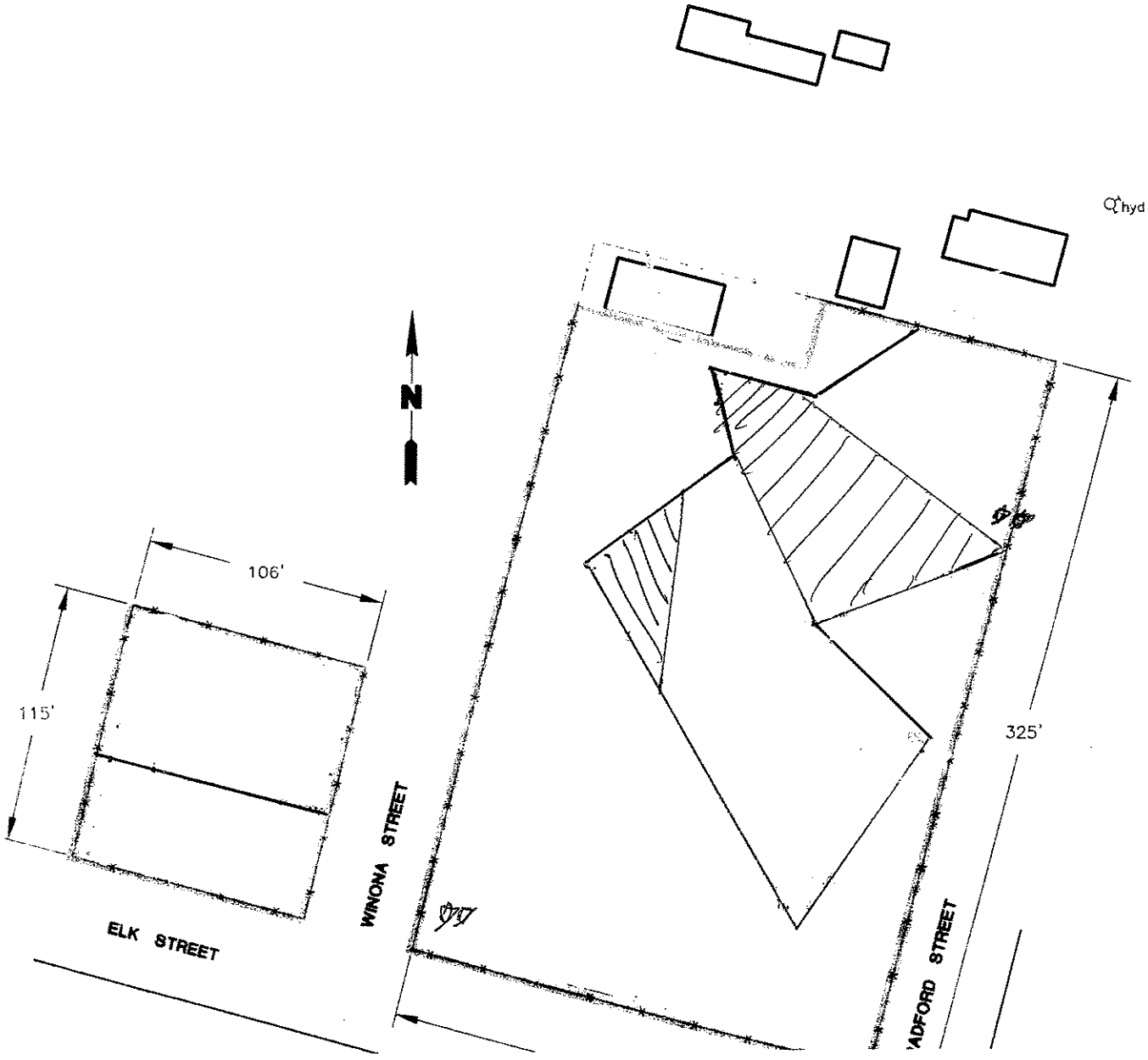
Equipment Calibration			Samples		
Device	Model	Date	Media	ID #	Comment
1			1		
2			2		
3			3		
4			4		

Notes / Comments

Rec'd. E.O.M. work permit. Reviewed JSA/HES. Cont. Excavation of Parcel #5. Loaded 20 Dump Trucks w/ Soil For Disposal @ BFI. Excavated & Stockpiled Approx. 75-100 yds of Soil. Stock Pile Covered & Secured. Fueled & Greased Equipment. Site Secured

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 5-12-07

☆ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal ○ U-1 EXCAVATION

Day/Date:	5-14-07	CHES Site Mgr:	Bill CamPoPiano	Signature:	Bill Campo
Day/Shift:	Mon	Weather:	PARTLY CLOUDY COOL 58°-64°	Wind Direction	VARIABLE WINDS 7-15 MPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill CamPoPiano	4	7
2 ROB ADAMI	5	8
3 MIKE CHATOT	6	9
Subcontractors		
1 BFI	3	5
2 PARISIO TRUCKING	4	6
Equipment / Vehicles / Units		
1 Pick-up	6	11
2 EXCAVATOR	7	12
3 LOADER	8	13
4 BOBCAT w/sweeper	9	14
5 MISC. HAND TOOLS	10	15

Materials Used	Quantity		Quantity
1 Diesel Fuel	67 G.	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	67 G.	1 LOADED 25 TRUCKS	APROX 600 TON
2		2 AREA EXCAVATED	APROX. 6000 SQ'
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

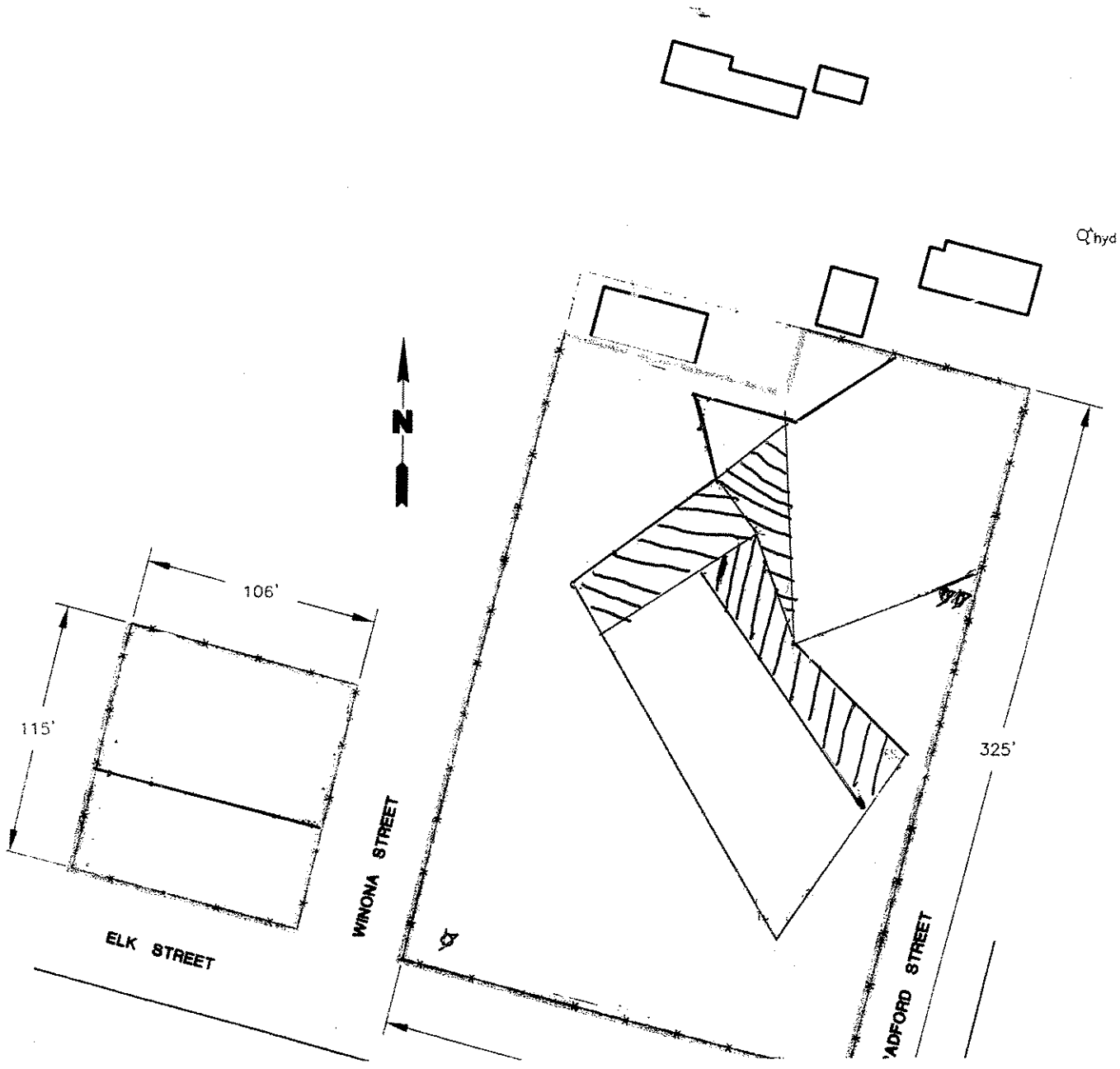
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

REC'D E.O.M. WORK PERMIT. REVIEWED JSA'S / HRS. CONT. EXCAVATION OF PARCEL # 5. FINISHED @ 3' DEEP PORTION & BEGAN EXCAVATING 1' AREAS. LOADED 25 TRUCKS W/ SOIL FOR DISPOSAL @ BFI. STOCKPILED APROX 75 YDS OF SOIL COVERED & SECURED STOCKPILE. FUELED & GREASED EQUIPMENT. SITE SECURED CHAD STANISZEWSKI ~~OF SITE~~ FROM O.E.C. ON SITE TWICE IN A.M.

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 5-14-04

☆ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	5-15-07	CHES Site Mgr:	Bill Campopiano	Signature:	Bill Campopiano
Day/Shift:	Tues	Weather:	PARTLY Cloudy windy 70°-30°	Wind Direction	SW-NE 10-25MPH

Documentation(CIRCLE) (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel			
1 Bill Campopiano	4	7	
2 Bob Adami	5	8	
3 Mike Chaket	6	9	
Subcontractors			
1 BFI	3	5	
2 Perisic Trucking	4	6	
Equipment / Vehicles / Units			
1 Pick-up	6	11	
2 Excavator	7	12	
3 Loader	8	13	
4 Bobcat w/sweeper	9	14	
5 Misc. Hand Tools	10	15	

Materials Used	Quantity		Quantity
1 Diesel Fuel	600.	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	600.	1 Loaded 24 Trucks	Aprox 600 Ton,
2		2 Area Excavated	Aprox 5000 SF
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

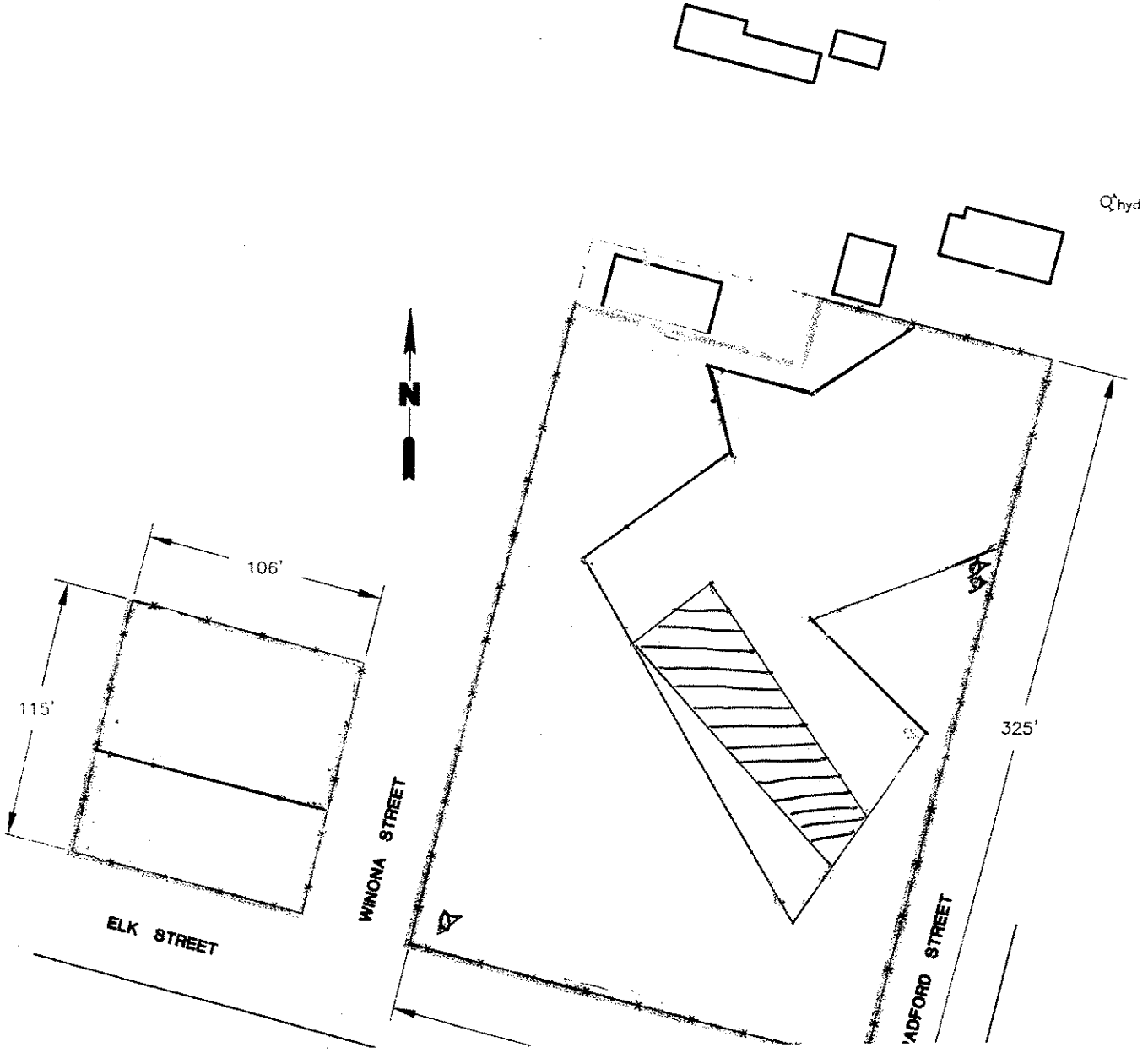
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

Rec'd E.O.M. work Permit Reviewed JSA's/HRS Review, Cont. Excavation of Parcel #5. Loaded 24 Dump Trucks w/ Soil For Disposal @ BFI Niagara. Broke Down Staging Area. Picked-up Hay Bales & Staged on Trailer & Covered. Fueled & Greased Equipment Site Secured. Chad Stamszewski From O.E.C. on Site In Am.

Buffalo Terminal 04-1	Inspection Log - Page 2	Date: 5-15-07

▽ AIR MONITORS



ExxonMobil Oil Fmr Buffalo Terminal OU-1 EXCAVATION

Day/Date:	5-16-07	CHES Site Mgr:	Bill Campofiore	Signature:	Bill Campofiore
Day/Shift:	WED	Weather:	AM Showers. Cool 50°-55°	Wind Direction	SW-NE 7-17 MPH

Documentation(CIRCLE): ~~XOM Permit~~ LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campofiore	4	7
2 Rob Adams	5	8
3 Mike Chakot	6	9
Subcontractors		
1 BFI	3	5
2 Parisio Trucking	4	6
Equipment / Vehicles / Units		
1 Pick-up	6	11
2 Excavator	7	12
3 Loader	8	13
4 Bob Cat w/sweeper	9	14
5	10	15

Materials Used	Quantity		Quantity
1 Diesel Fuel	63 G.	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	63 G.	1 Loaded 11 Trucks	Approx. 275 Tons
2 Marking Flags	100	2 Area Excavated	Area 2500 SF
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

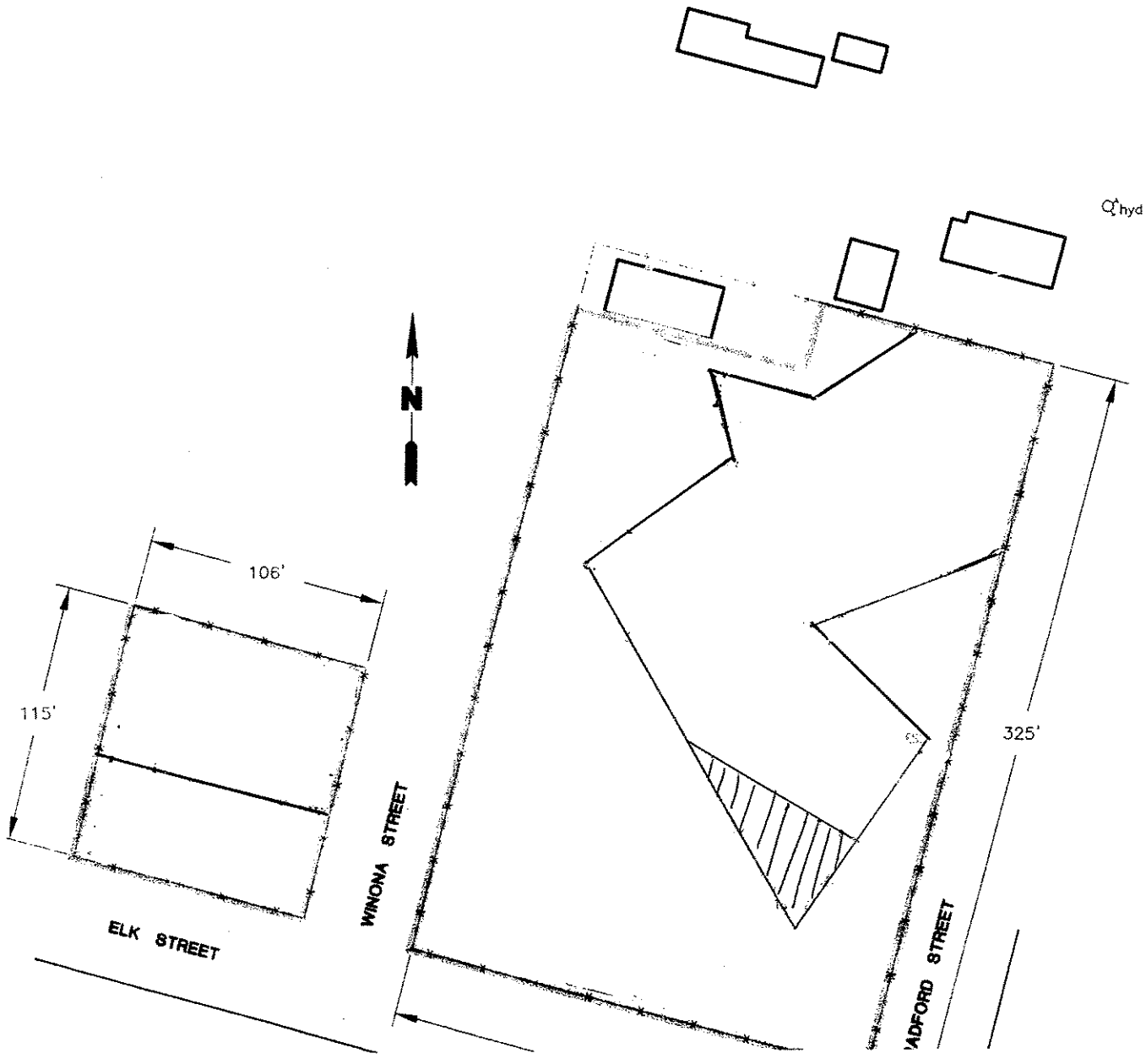
Samples

Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

Rec'd Exc. work Permit. Review JSA's/HES w/crew. Finished Excavation of Parcel #5. Loaded 11 Dump Truck w/ soil For Disposal @ BFI. Used BobCat w/sweeper several Times To clean Roads. Site Secured NOTE: NO AIR MONITORS out Due To weather

Buffalo Terminal 04-1	Inspection Log - Page 2	Date: 5-16-07



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	6-19-07	CHES Site Mgr:	Bill CamPoPiano	Signature:	Bill Campo
Day/Shift:	TUES	Weather:	HOT-HUMID T-STORMS 80°-88°	Wind Direction	S/SW - NNE 5-15MPH

Documentation(CIRCLE): XOM Permit | LOTO | Safety Briefing | JSA | Calibration | Time Sheet

Pre start Site Inspection: COMPLETED

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): COMPLETED

Clean Harbors Personnel		
1 BILL CAMPOPIANO	4	7
2 ART BELLINI	5	8
3	6	9

Subcontractors		
1 BFI	3	5
2 PARISIO TRUCKING	4	6

Equipment / Vehicles / Units		
1 PICK-UP TRUCK	6	11
2 EXCAVATOR	7	12
3 LOADER	8	13
4 BOB CAT w/ SWEEPER	9	14
5	10	15

Materials Used	Quantity		Quantity
1 Diesel Fuel	70 G.	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	70 G.	1 Soil EXCAVATED	APROX' 325 TON
2		2	200 YARDS.
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

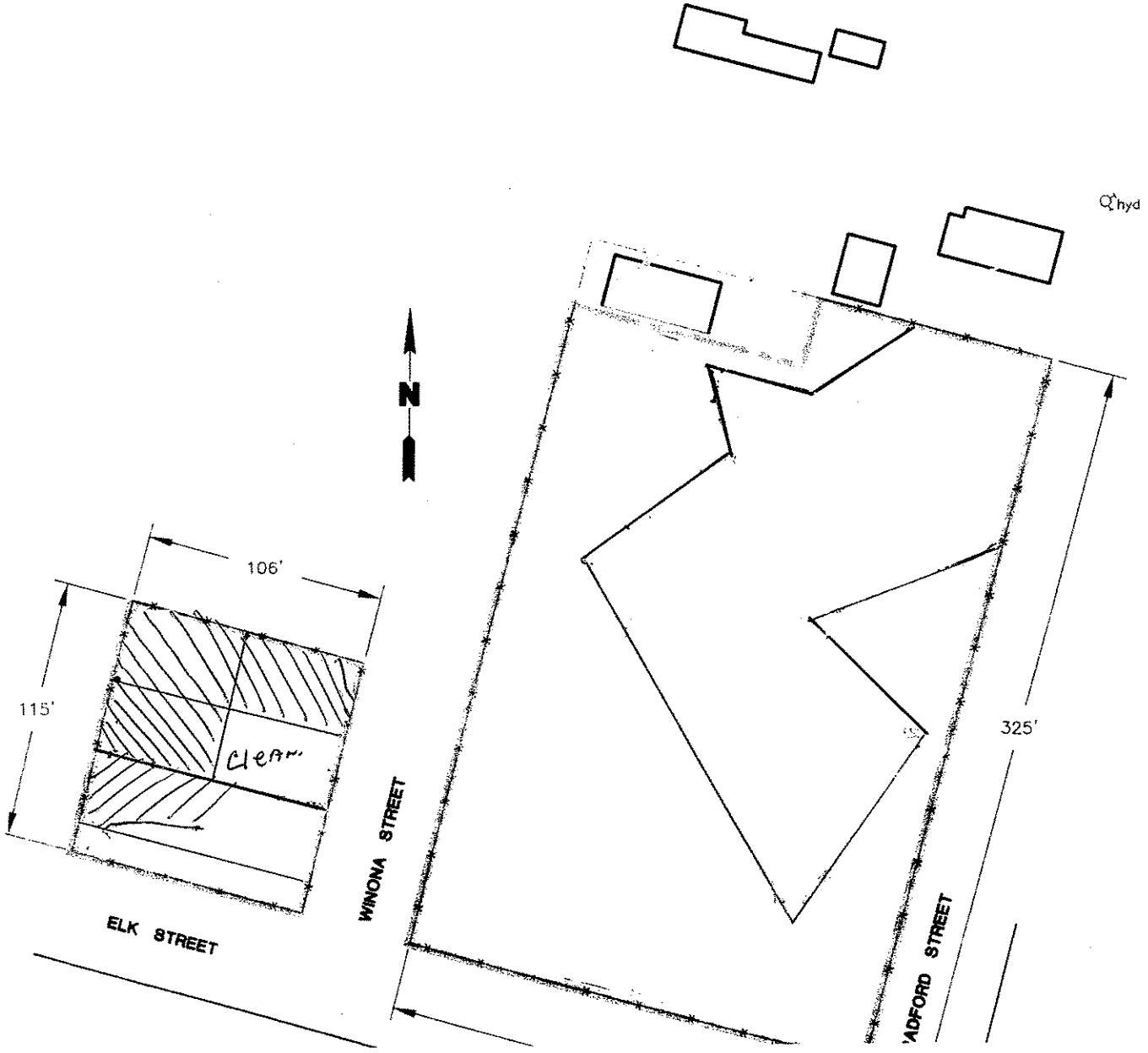
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

REC'D E.O.M. WORK PERMIT REVIEW JSA / HES. MOVED EQUIPMENT TO PARCEL #4. LAYED DOWN FABRIC FOR TRUCKS. LOADED 13 TRUCKS FOR DISPOSAL @ BFI N. ARGA. EXCAVATED 3 OF THE ORIGINAL 4 @ SECTIONS. APROX 3" TO 2' & BEGAN EXCAVATING ADJACENT AREA TO THE SOUTH. BEGAN SETTING-UP PARCEL 5

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 6-19-07

AREAS EXCAVATED



ExxonMobil Oil Fmr Buffalo Terminal ○ U-1 EXCAVATION

Day/Date:	6-20-07	CHES Site Mgr:	Bill Campofiano	Signature:	
Day/Shift:	wed	Weather:	Clear Sunny 72°-77°	Wind Direction	VARIABLE 5-12MPH

Documentation(CIRCLE): ~~XOM Permit~~ LOTO ~~Safety Briefing~~ JSA Calibration Time Sheet

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campofiano	4	7
2 ART Bellini	5	8
3	6	9

Subcontractors		
1 BFI	3	5
2 Parisio Trucking	4	6

Equipment / Vehicles / Units		
1 Pick-up	6	11
2 Excavator	7	12
3 Loader	8	13
4 Bob Cat w/sweeper	9	14
5	10	15

Materials Used	Quantity		Quantity
1 Diesel Fuel	69G	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 Diesel Fuel	69G	1 Soil Excavated	APROX 6,500TONS
2		2	APROX 300 YDS
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

Media	ID #	Comment
1		
2		
3		
4		

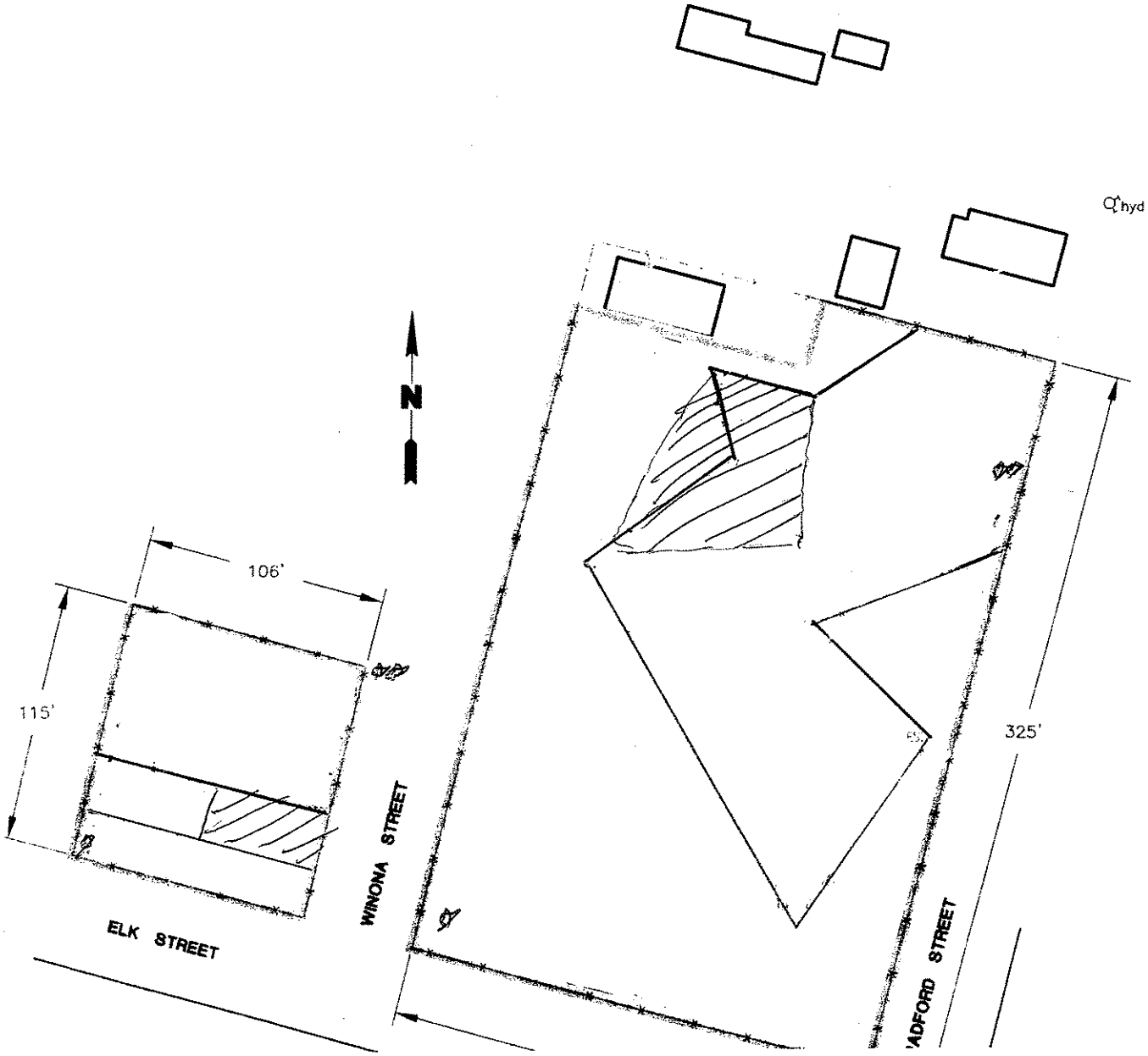
Notes / Comments

Rec'd. E.O.M. work Permit. Review JSA/HES. Finished Excavation of Parcel #4 Loaded 5 Dump Trucks. Began Excavation Parcel #5 Loaded 15 Dump Trucks. Removing Anywhere From 1' to 2' on western portion of Parcel #5. Fueled & Greased Equipment.

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 6-20-07

⊗ AIR MONITORS

▨ AREA EXCAVATED



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	6-21-07	CHES Site Mgr:	Bill Campolieta	Signature:	Bill Campolieta
Day/Shift:	THUR	Weather:	clear cool 68°-74°	Wind Direction	VARIABLE SW-NE 10 to 20 MPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campolieta	4	7
2 ACT Bellini	5	8
3	6	9

Subcontractors		
1 BFF NIAGARA	3	5
2 PERISIC TRUCKING	4	6

Equipment / Vehicles / Units		
1 PICK-UP TRUCK	6	11
2 EXCAVATOR	7	12
3 LOADER	8	13
4 BOBCAT w/sweeper	9	14
5	10	15

Materials Used	Quantity		Quantity
1		7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1		1 Soil EXCAVATED	EST 400 TON
2		2	APPROX 260 YARDS
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

	Media	ID #	Comment
1			
2			
3			
4			

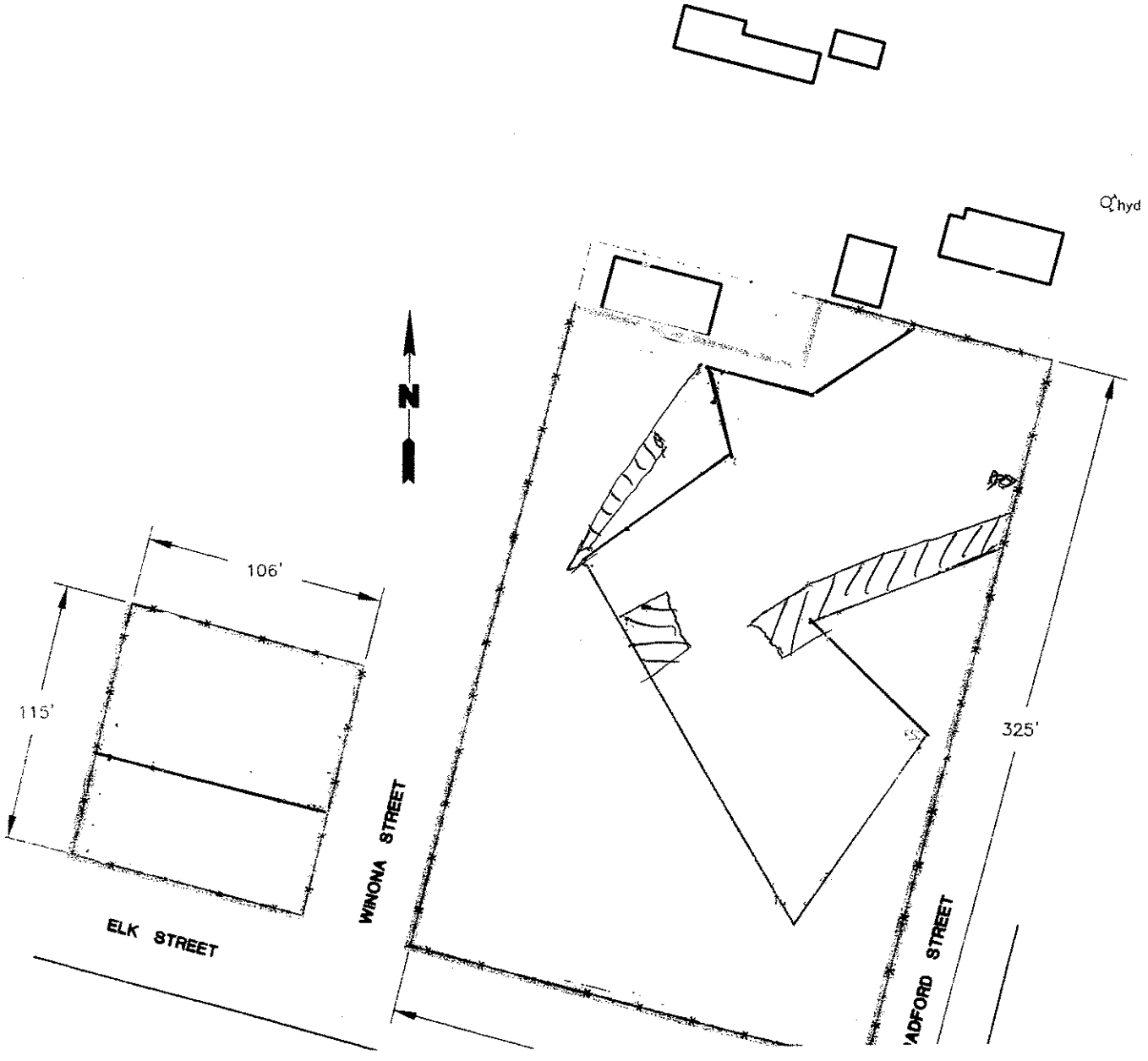
Notes / Comments

REC'T E.O.M. WORK PERMIT. REVIEWED JSA/HES. CONT. EXCAVATION OF PARCEL # 5 LOADED 16 DUMP TRUCKS w/ SOIL FOR DISPOSAL @ BFI. EXCAVATION STOPPED DUE TO TOWALE LIMITS. ADDITIONAL SAMPLES TAKEN FOR DISPOSAL. CHAD STAWISZEWSKI FROM DEC. ON SITE. LIKED WHAT HE SEEN, SAID NO BOTTOM SAMPLES WOULD NEED TO BE TAKEN FOR POST EXCAVATION.

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 6-21-07

☆ AIR MONITORS

▨ AREAS EXCAVATED



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	6-27-07	CHES Site Mgr:	Bill Campoliano	Signature:	Bill Campoliano
Day/Shift:	wed	Weather:	Sunny & Hot Humid 82°-78°	Wind Direction	SW-NE 8-15mph

Documentation(CIRCLE): XOM Permit LOTO Safety Briefing JSA Calibration Time Sheet

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 LARRY SALISBURY	4	7
2 MATT RYDBERG	5	8
3	6	9

Subcontractors		
1 PERISIO TRUCKING	3	5
2	4	6

Equipment / Vehicles / Units		
1 Dozer	6	11
2 BOB CAT w/sweeper	7	12
3	8	13
4	9	14
5	10	15

Materials Used	Quantity		Quantity
1 BACK FILL	884.26 TON	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 BACK FILL	884.26 TON	1	
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

	Media	ID #	Comment
1			
2			
3			
4			

Notes / Comments

Rec'd. E.O.M. work permit. Reviewed JSA/HRS w/crew. Began backfilling parcel #4 need aprox 3 to 4 loads of fill to finish w/Back Fill (ready for topsoil) staged 5 loads of Back Fill on parcel #5

ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	6-28-07	CHES Site Mgr:	Bill Campopiano	Signature:	
Day/Shift:	THUR	Weather:	AM SHOWER SUNNY 74°77°	Wind Direction	VARIABLE 8-16 MPH

Documentation(CIRCLE): XOM Permit LOTO Safety Briefing JSA Calibration Time Sheet

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 LARRY SALISBURY	4	7
2 MATT RYLBERG	5	8
3	6	9

Subcontractors		
1 PERISIO TRUCKING	3	5
2	4	6

Equipment / Vehicles / Units		
1 DOZER	6	11
2 BOBCAT w/SWEEPER	7	12
3	8	13
4	9	14
5	10	15

Materials Used	Quantity		Quantity
1 BACK FILL		7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 BACK FILL		1	
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

	Media	ID #	Comment
1			
2			
3			
4			

Notes / Comments

REC'D. E.O.M. WORK PERMIT REVIEW JSA'S / HRS w/CREW.
FINISHED BACK FILLING PARCEL #4 w/ FILL 6" REMAIN FOR TOP SOIL
BEGAN BACK FILLING PORTION OF PARCEL #5, SWEPT STREET.
MOVED EQUIPMENT ACROSS THE ST. SITE SECURED

ExxonMobil Oil Fmr Buffalo Terminal ○ U-1 EXCAVATION

Day/Date:	7-16-07	CHES Site Mgr:	BILL CAMPOPIANO	Signature:	
Day/Shift:	MON	Weather:	CLOUDY/SUNNY 75°-81°	Wind Direction	SW-NE 0-10MPH

Documentation(CIRCLE): XOM Permit LOTO Safety Briefing JSA Calibration Time Sheet

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 BILL CAMPOPIANO	4	7
2 RON COOK	5	8
3 ~~X~~MATT RYDBERG	6	9
Subcontractors		
1 PARISIO TRUCKING	3	5
2	4	6
Equipment / Vehicles / Units		
1 2-PICK-UPS	6	11
2 EXCAVATOR	7	12
3 DOZER	8	13
4 BOBCAT w/SWEEPER	9	14
5	10	15

Materials Used	Quantity		Quantity
1 BACKFILL	1469.30 TON	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 BACKFILL	1469.30 TON	1	
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

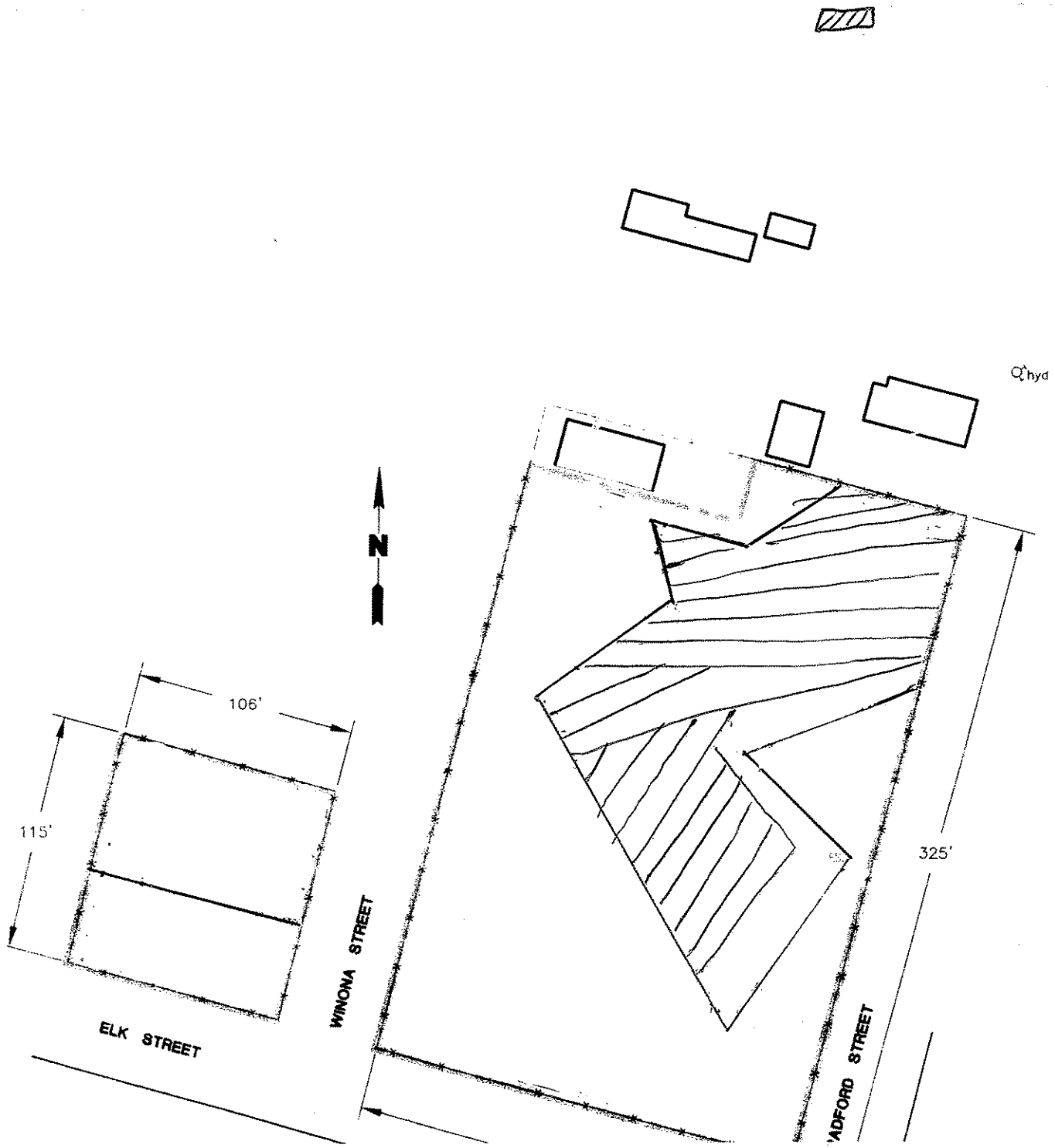
Samples

	Media	ID #	Comment
1			
2			
3			
4			

Notes / Comments

REC'D E.O.M. WORK PERMIT. REVIEW JSA'S / HES w/CREW. MOVED EQUIPMENT ACROSS THE STREET TO PARCEL # 5. REC'D. 65 LOADS OF BACKFILL. CONT. BACKFILLING PARCEL # 5. SWEPT ROADS SEVERAL TIMES. ASSISTED G.E.S. w/ ~~WELL~~ EASTERN WELL POINT SYSTEM.

Buffalo Terminal 04-1	Inspection Log - Page 2	Date: 7-16-07



ExxonMobil Oil Fmr Buffalo Terminal ○ U-1 EXCAVATION

Day/Date:	7/17/07	CHES Site Mgr:	Bill CamPoPiano	Signature:	Bill Campo
Day/Shift:	Tues	Weather:	overCAST PM SHOWERS 78°	Wind Direction	SW-NE 0-7mPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill CamPoPiano	4	7
2 Ron Cook	5	8
3 MATT RYDBERG	6	9
Subcontractors		
1 BFI	3	5
2 PARISIO TRUCKING	4	6
Equipment / Vehicles / Units		
1 2-Pick-ups	6	11
2 EXCAVATOR	7	12
3 Dozer	8	13
4 BOBCAT w/sweeper	9	14
5	10	15

Materials Used	Quantity		Quantity
1 BACK FILL	842.42 Tons	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 BACK FILL	842.42 Tons	1 EXCAVATED SOILS	671.10 Tons
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

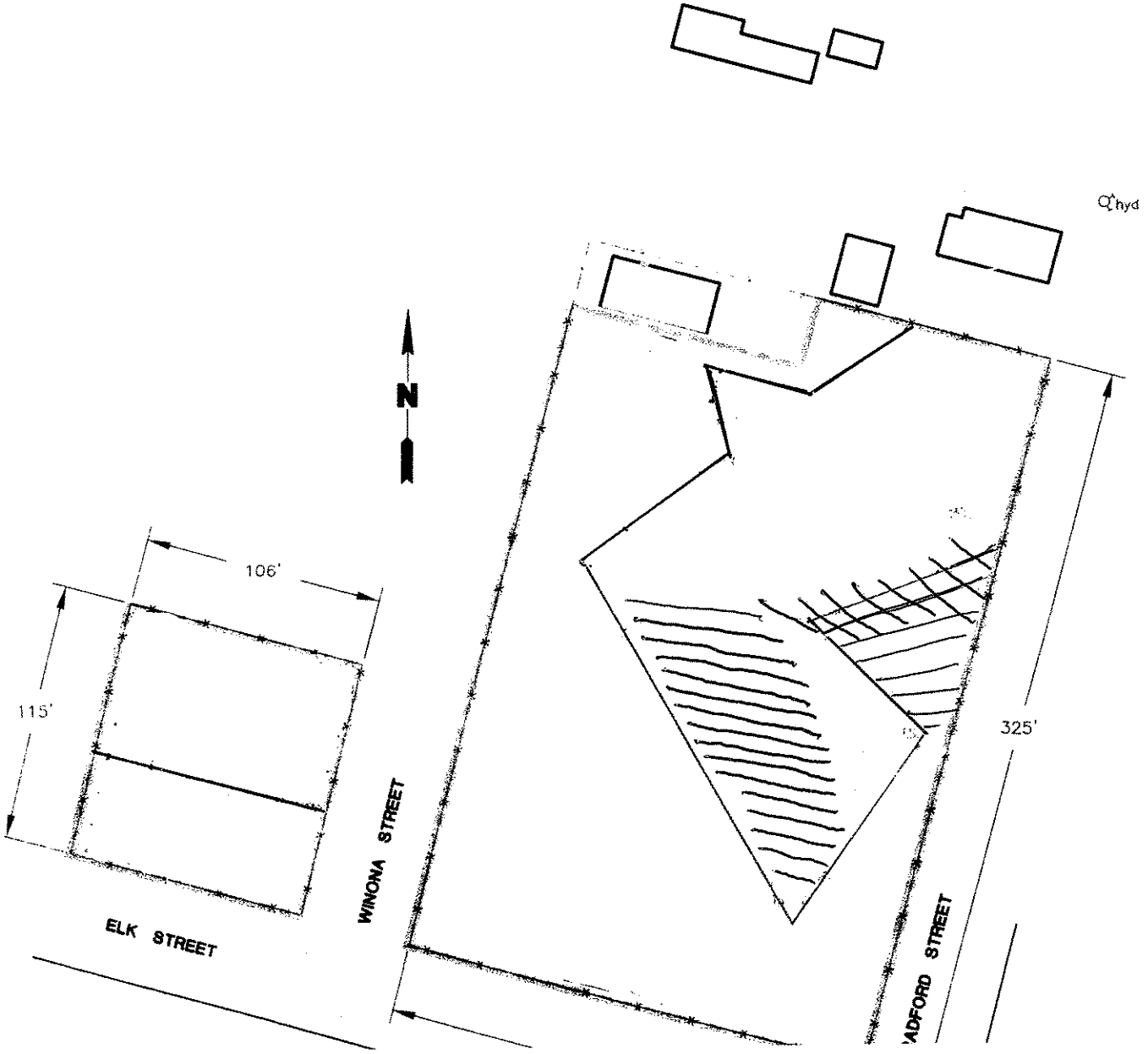
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

Rec'd. E.O.M. WORK PERMIT. Reviewed JSA's / HRS w/ CREW. Cont. EXCAVATION OF PARCEL #5. LOADED 27 DUMP TRUCKS w/ SOIL FOR DISPOSAL @ BFI. Cont. BACKFILLING PARCEL #5. SWEPT ROADS SEVERAL TIMES. CHAD STANISZEWSKI FROM DEC on SITE TODAY.

Buffalo Terminal 04-1 Inspection Log - Page 2	Date: 7-17-07.

Soils Excavated
Back Filled



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	7-18-07	CHES Site Mgr:	Bill Campofranco	Signature:	Bill Campofranco
Day/Shift:	wed.	Weather:	overcast 77°-81°	Wind Direction	SW-NE 0-5MPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campofranco	4	7
2 Ron Cook	5	8
3 ~~LABOR~~ MATT RADBERG	6	9

Subcontractors		
1 Parisio Trucking	3	5
2 BFI	4	6

Equipment / Vehicles / Units		
1 2-Pick-ups	6	11
2 Excavator	7	12
3 Dozer	8	13
4 Bob Cat w/sweeper	9	14
5	10	15

Materials Used	Quantity		Quantity
1 54 Loads Top Soil	972 yds	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 54 Loads Top Soil	972.00 tons	1 Excavated Soils	~~0.00~~ tons 356.78 Tons
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration			Samples		
Device	Model	Date	Media	ID #	Comment
1			1		
2			2		
3			3		
4			4		

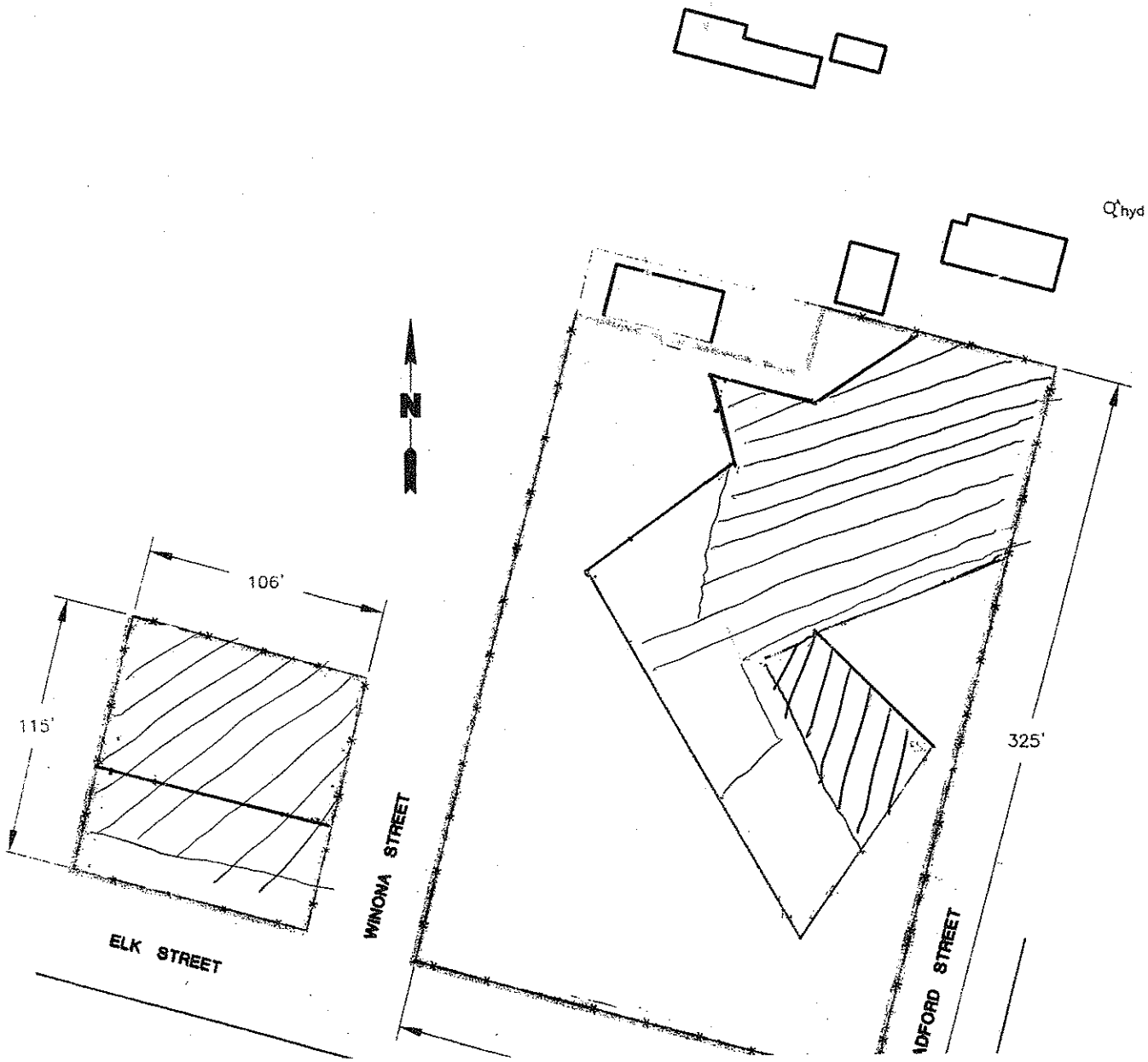
Notes / Comments

Rec'd E.O.M. work permit. Review JSA's/HRS w/crew Finished Excavation of Parcel #5 Loaded 16 Dump Trucks w/ Soil For Disposal @ BFI Spread Top Soil on Parcel #4 Began Raking & seeded. Began Spreading Top Soil on Parcel #4 Kept Streets Clean.

Buffalo Terminal 04-1	Inspection Log - Page 2	Date: 7/18/07

Top Soil

Excavated Area



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	7-19-07	CHES Site Mgr:	Bill Campopiano	Signature:	Bill Campopiano
Day/Shift:	THUR	Weather:	RAIN OVERCAST 71°-77°	Wind Direction	WSW TO ENE 5-15 MPH

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: COMPLETED

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): COMPLETED

Clean Harbors Personnel		
1 BILL CAMPOPIANO	4	7
2 LARRY SALISBURY	5	8
3 MATT RYDBERG	6	9

Subcontractors		
1 PARISIO TRUCKING	3	5
2	4	6

Equipment / Vehicles / Units		
1 PICK-UP TRUCK	6	11
2 EXCAVATOR	7	12
3 DOZER	8	13
4 BOBCAT w/SWEEPER	9	14
5	10	15

Materials Used	Quantity		Quantity
1 BACK FILL	885.89 TON	7	
2		8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 BACK FILL	885.89 TON	1	
2		2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibration

Device	Model	Date
1		
2		
3		
4		

Samples

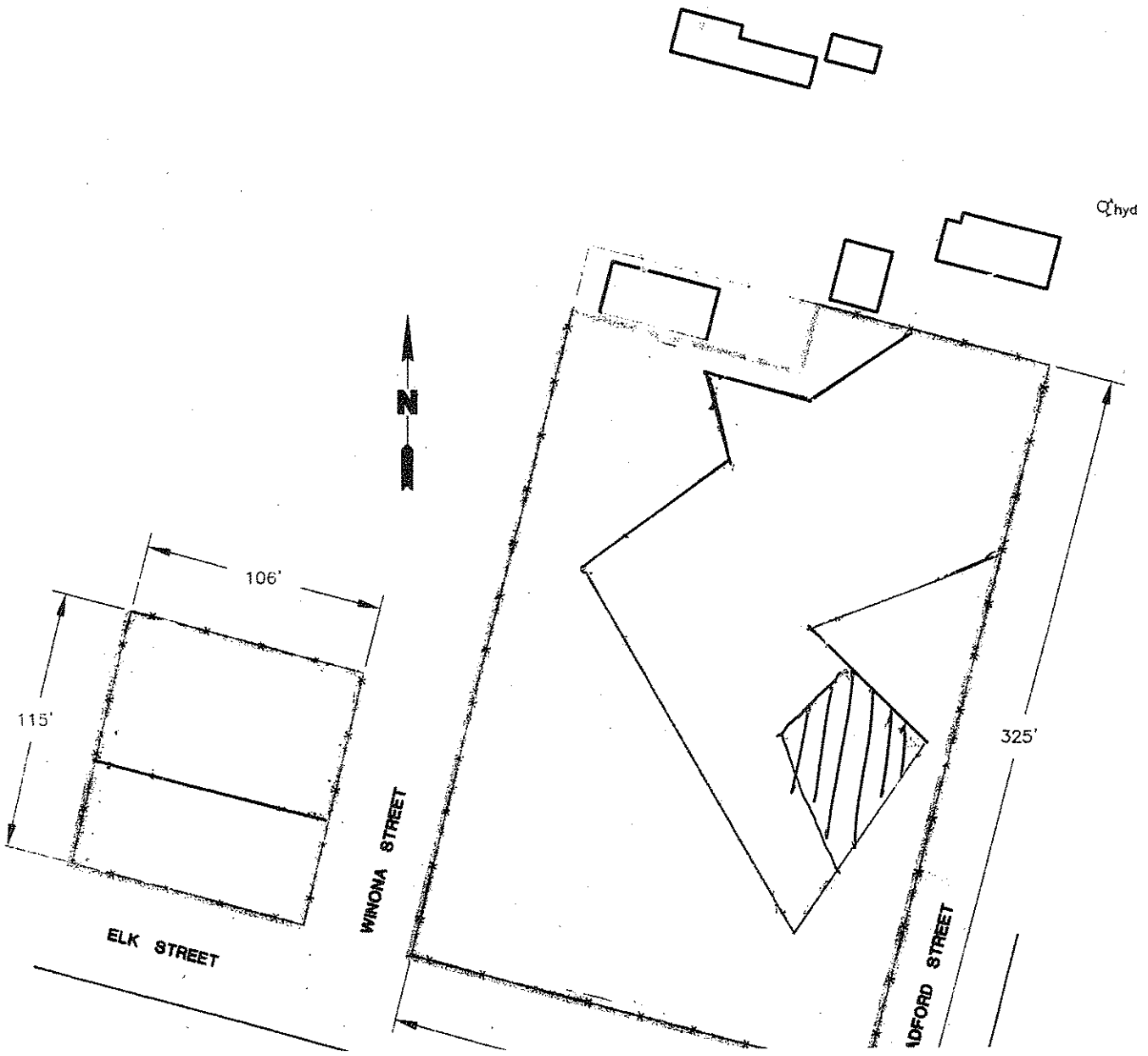
Media	ID #	Comment
1		
2		
3		
4		

Notes / Comments

REC'D E.O.M. WORK PERMIT. REVIEW JSA'S/HRS W/CREW. CHAD STAR-ISZEWSKI FROM DEC ON SITE THIS AM. KRIS GOODMAN FROM CHES ON SITE. REC'D 39 LOADS OF BACK FILL MATERIAL. BACK FILLING COMPLETED ONLY NEED TO SPREAD TOP SOIL. STREET SWEPT SEVERAL TIMES. CHECK FOR SCRAP GIVEN TO KRIS GOODMAN.

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 7-19-07

AREA BACKFILLED



ExxonMobil Oil Fmr Buffalo Terminal O U-1 EXCAVATION

Day/Date:	7-20-07	CHES Site Mgr:	Bill Campofiano	Signature:	Bill C
Day/Shift:	Fri	Weather:	PARTLY Cloudy 65-75°	Wind Direction	NW-SE 5-12mph

Documentation(CIRCLE): (XOM Permit) LOTO (Safety Briefing) (JSA) Calibration (Time Sheet)

Pre start Site Inspection: Completed

Safety Equip Inspection (Extinguishers, First Aid Kit, Respiratory, PPE, Spill): Completed

Clean Harbors Personnel		
1 Bill Campofiano	4	7
2 LARRY SALISBURY	5	8
3 MATT RYLBERG	6	9

Subcontractors		
1 PARISIO TRUCKING	3	5
2	4	6

Equipment / Vehicles / Units		
1 PICK-UP TRUCK	6	11
2 EXCAVATOR	7	12
3 DOZER	8	13
4 BOBCAT W/ SWEEPER	9	14
5	10	15

Materials Used	Quantity		Quantity
1 TOP SOIL	342 YDS	7	
2 Diesel Fuel	139 G	8	
3		9	
4		10	
5		11	
6		12	

Deliveries (material,equip,fuel)	Quantity	Production	Quantity
1 TOP SOIL	342 YDS	1	
2 Diesel Fuel	139 G.	2	
3		3	
4		4	
5		5	
6		6	

Equipment Calibrated

Device	Model	Date
1		
2		
3		
4		

Samples

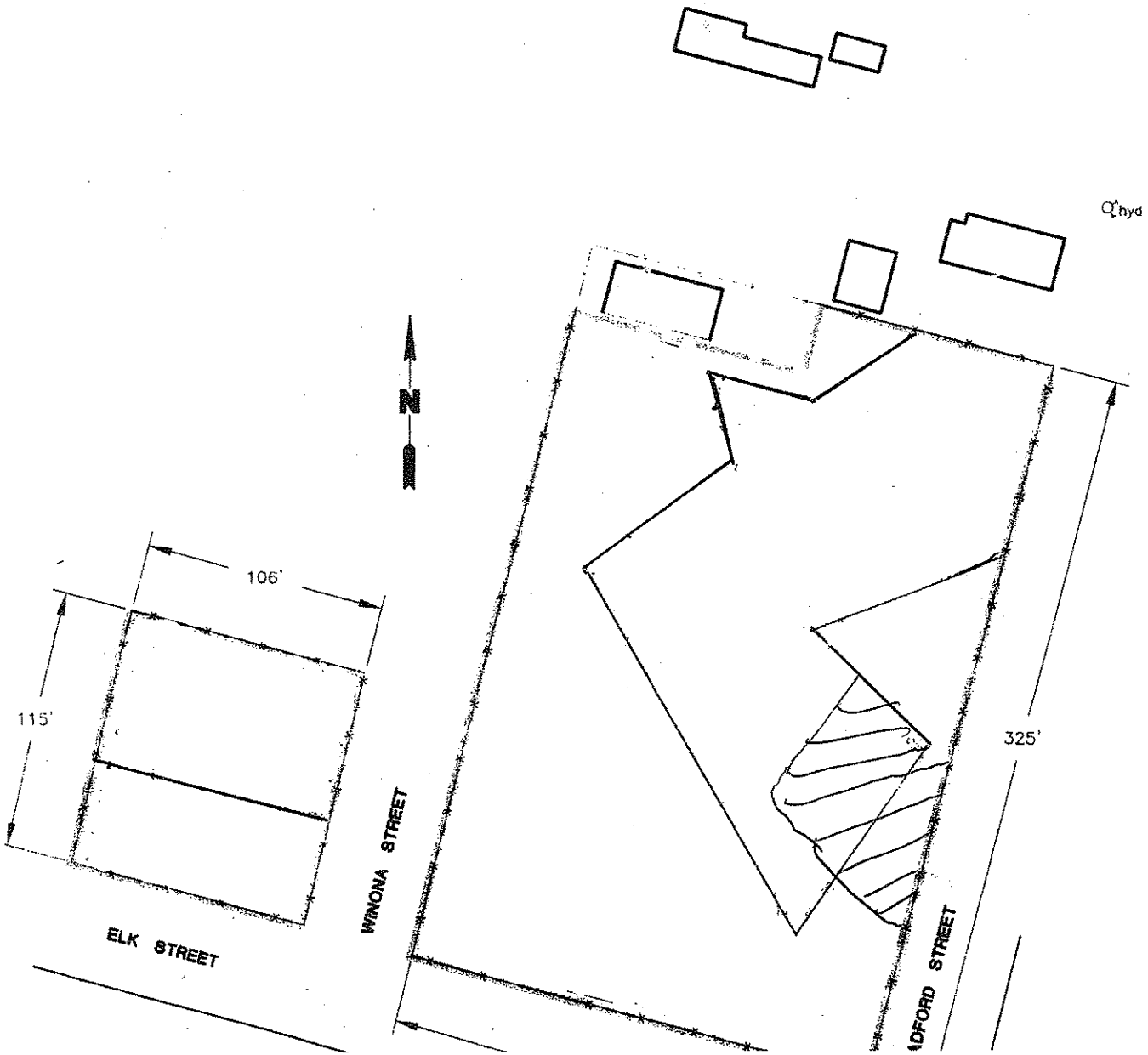
	Media	ID #	Comment
1			
2			
3			
4			

Notes / Comments

Rec'd E.O.M. WORK PERMIT. Reviewed HES/JSA's. Rec'd 19 LOADS OF TOP SOIL SPREAD TOP SOIL W/ DOZER NOT ABLE TO FINISH GRADING AREAS DUE TO WET TOP SOIL will RAKE & SEED @ A LATER DATE. SWEPT STREETS CLEAN. De-Coned EQUIP Released. Removed BLACK FABRIC FROM Fence. LEFT Lower SECTION FOR EROSION Control.

Buffalo Terminal OU-1	Inspection Log - Page 2	Date: 7-20-07

VIII Area Top Soiled



CleanHarbors
ENVIRONMENTAL SERVICES®

Site Services Multi-Task Worksheet

Day & Date:	MON 5-17-10
Sales Order #:	NY25 1279

Job Complete: Yes / (Circle One)

Job Description / Comments: TRAVEL TO SITE · REVIEW JSA'S & SCOPE OF WORK
EXCAVATOR MOBILIZED TO SITE - BEGAN EXCAVATION OF PARCEL #5 UNDER
THE SUPERVISION OF G.E.S. SOILS STOCKPILED WITHIN FOOTPRINT OF EXCAVATION

Customer: G.E.S.
Billing Address: 158 SONWILL DR.
CHEEKTOWAGA N.Y.

Contact: ANDY JANIK
Job Location: 625 ELK ST.
BUFFALO N.Y

PO # / COD Amount: PENDING
Per Diem: (Yes) / No (Circle one) If yes, how many?: 2
Change Order Initiated: Yes / (No) (Circle One)

1 Task # / Description	Task # / Description	Task # / Description
PARCEL 5 EXCAVATION & TEST PITS		
Task Complete: Yes / (No) (Circle One)	Task Complete: Yes / No (Circle One)	Task Complete: Yes / No (Circle One)

Component Type

Name	Title	ID #	ST	OT	DT	ST	OT	DT	ST	OT	DT
Bill Campopiano	Form / EO	11751	8	4.5							
Mike Chakot	Tech	5057	8	1.5							

Disposal Waste Description/Destination	Manifest	Amount	Manifest	Amount	Manifest	Amount
LIQUID: Bulk / Drum						
SOLID: Bulk / Drum						

Equipment Type	Quantity	Fleet	# of Hr/Day	Quantity	Fleet	# of Hr/Day	Quantity	Fleet	# of Hr/Day
(Pickup) / Van / Car / Crew Cab (Circle One)	1	8886	DAILY						
Vacuum Trailer									
Vactor									
Vacuum Truck, Straight									
Box Truck									
Supsco / Guzzler / Vactor (Circle One)									
Air Compressor, 175 CFM									
Backhoe Loader 1 Yd bucket									
Bobcat Loader--Mini Excavator									
Stake Truck									
Rolloff Truck, Straight									
Pressure Washer (PSI: ____) Hot / Cold (Circle One)									
Other Type:									
MOB EXCAVATOR	1	HERTZ	1 TIME						
EXCAVATOR J.D 135	1	HERTZ	DAILY						

Material Description	Quantity	Size	Quantity	Size	Quantity	Size
Drum Type:						
Drum Type:						
Tyvek Type:						
Degreaser Type:						
Speedi Dry						
Polycoated Rain Gear, 22mil						
Poly Sheet, 6mil, 20ft x 100ft						
Poly Bags, 6mil, per roll						
Sorbent Pad (101 Grade) 100/bale						
Sorbent Boom Each						
Sorbent Boom Bale						
Duct Tape/Roll						
Safety Plan						
Rolloff Poly Liner						
5 Gal / 20 Litre Poly Drum 1H2						

Container Management	Size	Fleet #	Size	Fleet #	Size	Fleet #
Rolloff / Intermodal / Frac Tank / Tanker (circle one)						
Rolloff / Intermodal / Frac Tank / Tanker (circle one)						

PPE Sets	Task 1	Task 2	Task 3
Complete Sets of PPE Used:	2		
People in PPE:	2		

Type	Qty	Type	Qty	Type	Qty	Type	Qty	Type	Qty	Type	Qty
PPED1	2	PPEB2		PPED1		PPEB2		PPED1		PPEB2	
PPEC2		PPEB3		PPEC2		PPEB3		PPEC2		PPEB3	
PPEC3		PPEB4		PPEC3		PPEB4		PPEC3		PPEB4	
PPEC4		PPEA5		PPEC4		PPEA5		PPEC4		PPEA5	

PPED1=Level D w/(Tyvek, boots, gloves) PPEC2=Level C w/(CPF1,2 or Poly Tyvek suit)
PPEC3=Level C w/(CPF3 or Saranex suit) PPEC4=Level C w/(CPF4 or Barricade suit)
PPEB2=Level B w/(CPF2 or Poly Tyvek suit) PPEB3=Level B w/(CPF3 or Saranex suit)
PPEB4=Level B w/(CPF4 or Barricade suit) PPEA5=Level A w/(Responder suit)

PPE Items Used in Addition to Sets Above	Quantity	Type	Quantity	Type	Quantity	Type
Cartridge						
Respirator						
Gloves						
Gloves						
Breathing Air Bottle						

Analytical / Analysis Description	# of Tests	Lab Name	# of Tests	Lab Name	# of Tests	Lab Name

Subcontractor Name	Description of Service	Description of Service	Description of Service
HERTZ	EXCAVATOR & MOB		

CHES Rep (Print): Bill Campopiano
CHES Rep (Sign): [signature]
Date: 5-17-10

Customer (Print): Andy Janik
Customer (Sign): [signature]
Date: 5/18/10

CHI 225-SS (9/07)

IMPORTANT - PAYMENT TERMS ON BACK

Clean Harbors ENVIRONMENTAL SERVICES

Site Services Multi-Task Worksheet

Day & Date: Tues 5-18-10

Sales Order #: NY 2 7279

Job Complete: Yes / (No) (Circle One)

Job Description / Comments: TRAVEL TO SITE - REVIEW H&S/JSA'S. CONT. EXCAVATION OF SOILS @ PARCEL #5 UNDER THE SUPERVISION OF G.E.S. LOADED 8 TRUCKS FOR DISPOSAL @ ALLIED WASTE. REC'D. 4 LOADS OF BACKFILL & BEGAN BACKFILLING EXCAVATION. TRUCKS GETTING STUCK DUE TO SITE GRADE.

Customer: G.E.S.

Billing Address: 158 Sonwill DR. Cheektowaga N.Y.

Contact: Andy Janik

Job Location: 625 Elk ST. Buffalo N.Y.

PO # / COD Amount: Pending

Per Diem: (Yes) / No (Circle one) If yes, how many?: 2

Change Order Initiated: Yes / (No) (Circle One)

	1 Task # / Description	Task # / Description	Task # / Description
	Parcel #5 Excavation & Test Pits		
Task Complete: Yes / No (Circle One)	Yes / (No)	Yes / No	Yes / No

Component Type	Name	Title	ID #	ST	OT	DT	ST	OT	DT	ST	OT	DT
	Bill Campopiano	Foreman/Eq.	11751	8	4							
	Mike Chahot	Tech	5057	8	4							

Disposal Waste Description	Manifest	Amount	Manifest	Amount	Manifest	Amount
LIQUID: Bulk / Drum	00845621	19.38	00845577	21.29	00845555	22.28
SOLID: (Bulk) / Drum Non-Haz/Allied Waste	00845611	24.24	00845566	19.60	00845543	19.78

Equipment Type	Quantity	Fleet #	# of Hr/Day	Quantity	Fleet	# of Hr/Day	Quantity	Fleet	# of Hr/Day
(Pickup) / Van / Car / Crew Cab (Circle One)	1	8886	Daily						
Vacuum Trailer									
Tractor					MAN. FEST #		AMOUNT		
Vacuum Truck, Straight					00845421		21.55		
Box Truck					00845411		25.69		
Cusco / Guzzler / Vactor (Circle One)									
Air Compressor, 175 CFM									
Backhoe Loader 1 Yd bucket									
Bobcat Loader–Mini Excavator									
Rack Truck									
Rolloff Truck, Stralght									
Pressure Washer (PSI: _____) Hot / Cold (Circle One)									
Meter Type:									
Excavator J.D. 135	1	Hertz	Wkly						

Material & Supplies	Quantity	Size	Quantity	Size	Quantity	Size
Backfill	90.23	Tons				
Drum Type:						
Rope Type:						
Degreaser Type:						
Speedi Dry						
Polycoated Rain Gear, 22mil						
Poly Sheet, 6mil, 20ft x 100ft						
Poly Bags, 6mil, per roll						
Absorbent Pad (101 Grade) 100/bale						
Absorbent Boom Each						
Absorbent Boom Bale						
Duct Tape/Roll						
Safety Plan						
Rolloff Poly Liner						
5 Gal / 20 Litre Poly Drum 1H2						

Container	Size	Fleet	Size	Fleet	Size	Fleet
Rolloff / Intermodal / Frac Tank / Tanker (circle one)						
Rolloff / Intermodal / Frac Tank / Tanker (circle one)						

PPE	Type	Qty	Type	Qty	Type	Qty	Type	Qty	Type	Qty	Type	Qty
# of Complete Sets of PPE Used:	2											
# of People in PPE:	2											
	PPED1	2	PPEB2		PPED1		PPEB2		PPED1		PPEB2	
	PPEC2		PPEB3		PPEC2		PPEB3		PPEC2		PPEB3	
	PPEC3		PPEB4		PPEC3		PPEB4		PPEC3		PPEB4	
	PPEC4		PPEA5		PPEC4		PPEA5		PPEC4		PPEA5	

PPED1=Level D w/(Tyvek, boots, gloves) PPEC2=Level C w/(CPF1,2 or Poly Tyvek suit)
PPEC3=Level C w/(CPF3 or Saranex suit) PPEC4=Level C w/(CPF4 or Barricade suit)
PPEB2=Level B w/(CPF2 or Poly Tyvek suit) PPEB3=Level B w/(CPF3 or Saranex suit)
PPEB4=Level B w/(CPF4 or Barricade suit) PPEA5=Level A w/(Responder suit)

PPE Not Listed In Addition to Items Above	Quantity	Type	Quantity	Type	Quantity	Type
Cartridge						
Respirator						
Suit						
Inner Gloves						
Outer Gloves						
Breathing Air Bottle						

Analysis	Analysis Description	# of Tests	Lab Name	# of Tests	Lab Name	# of Tests	Lab Name

Subcontractor Name	Description of Service	Description of Service	Description of Service
Hertz	Excavator.	Carmen M. Parisio	Backfill
Allied Waste of Niagra Falls	Trans & Disposal		

CHES Rep (Print) Bill Campopiano — CHES Rep (Sign) — Date: 5-18-10

Customer (Print) Andy Janik — Customer (Sign) — Date: 5/20/10

CHI 225-SS (9/07)

IMPORTANT - PAYMENT TERMS ON BACK

ORIGINAL COPY

CleanHarbors ENVIRONMENTAL SERVICES®

Site Services Multi-Task Worksheet

Day & Date: WED 5-19-10

Sales Order #: NY. 583279.

Job Complete: Yes / (No) (Circle One)

Job Description / Comments: TRAVEL TO SITE - REVIEW JSA'S/HRS. FINISH BACKFILLING EXCAVATIONS SPREAD TOP SOIL - SPREAD GRASS SEED (PROVIDED BY G.E.S.) & RAKED. FUELED EXCAVATOR

Customer: G.E.S.

Billing Address: 158 SONWIL DR. CHEEKTOWAGA N.Y.

Contact: ANDY JANIK.

Job Location: 625 ELK ST. BUFFALO N.Y.

PO # / COD Amount: PER DIEM

Per Diem: (Yes) / No (Circle one) If yes, how many?: 2

Change Order Initiated: Yes / (No) (Circle One)

Task # / Description	Task # / Description	Task # / Description
1 PARCEL #5 EXCAVATION & TEST PITS		
Task Complete: Yes / (No) (Circle One)	Task Complete: Yes / No (Circle One)	Task Complete: Yes / No (Circle One)

Labor

Component Type Name	Title	ID #	ST	OT	DT	ST	OT	DT	ST	OT	DT
BILL CAMPOPIANO	FOR/EO	11751	8	2							
MIKE ELLIOT	TECH	5057	8	2							

Waste Description/Description	Manifest	Amount	Manifest	Amount	Manifest	Amount
LIQUID: Bulk / Drum						
SOLID: Bulk / Drum						

Equipment Type	Quantity	Fleet #	# Hr/Day	Quantity	Fleet #	# Hr/Day	Quantity	Fleet #	# Hr/Day
(Pickup) / Van / Car / Crew Cab (Circle One)	1	8886	DAILY						
Vacuum Trailer									
Tractor									
Vacuum Truck, Straight									
Box Truck									
Cusco / Guzzler / Vactor (Circle One)									
Air Compressor, 175 CFM									
Backhoe Loader 1 Yd bucket									
Bobcat Loader--Mini Excavator									
Rack Truck									
Rolloff Truck, Straight									
Pressure Washer (PSI: _____) Hot / Cold (Circle One)									
Meter Type:									
EXCAVATOR J.D. 135	1	HERTZ	WKLY						

Material Description	Quantity	Size	Quantity	Size	Quantity	Size
~~Drum Type:~~ BACKFILL	69 11	TONS.				
Drum Type:						
~~Bags Type:~~ SCREENED TOP SOIL	55	YDS				
Degreaser Type:						
~~Speedi-Dry~~ DIESEL FUEL	40.960	GALS.				
Polycoated Rain Gear, 22mil						
Poly Sheet, 6mil, 20ft x 100ft						
Poly Bags, 6mil, per roll						
Absorbent Pad (101 Grade) 100/bale						
Absorbent Boom Each						
Absorbent Boom Bale						
Duct Tape/Roll						
Safety Plan						
Rolloff Poly Liner						
5 Gal / 20 Litre Poly Drum 1H2						

Container Management	Size	Fleet	Size	Fleet	Size	Fleet
Rolloff / Intermodal / Frac Tank / Tanker (circle one)						
Rolloff / Intermodal / Frac Tank / Tanker (circle one)						

PPE's	Task 1	Task 2	Task 3	Type	Qty	Type	Qty	Type	Qty	Type	Qty	Type	Qty	Type	Qty
# of Complete Sets of PPE Used:	2			PPED1	2	PPEB2		PPED1		PPEB2		PPED1		PPEB2	
# of People in PPE:	2			PPEC2		PPEB3		PPEC2		PPEB3		PPEC2		PPEB3	
				PPEC3		PPEB4		PPEC3		PPEB4		PPEC3		PPEB4	
				PPEC4		PPEA5		PPEC4		PPEA5		PPEC4		PPEA5	

PPED1=Level D w/(Tyvek, boots, gloves) PPEC2=Level C w/(CPF1,2 or Poly Tyvek suit)
PPEC3=Level C w/(CPF3 or Saranex suit) PPEC4=Level C w/(CPF4 or Barricade suit)
PPEB2=Level B w/(CPF2 or Poly Tyvek suit) PPEB3=Level B w/(CPF3 or Saranex suit)
PPEB4=Level B w/(CPF4 or Barricade suit) PPEA5=Level A w/(Responder suit)

PPE Items Used In Addition to Sets Above	Quantity	Type	Quantity	Type	Quantity	Type
Cartridge						
Respirator						
Suit						
Inner Gloves						
Outer Gloves						
Breathing Air Bottle						

Analytical - Analysis Description	# of Tests	Lab Name	# of Tests	Lab Name	# of Tests	Lab Name

Subcontractor Name	Description of Service	Description of Service	Description of Service
HERTZ	EXCAVATOR	PARISIO	
~~Backfill~~ PARISIO	BACKFILL		TOP SOIL

CHES Rep (Print) BILL CAMPOPIANO — CHES Rep (Sign) — Date: 5-19-10

Customer (Print) ANDY JANIK — Customer (Sign) — Date: 5/20/10

CHI 225-SS (9/07) IMPORTANT - PAYMENT TERMS ON BACK

APPENDIX B

Daily CAMP Summary

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/7/07

Time 1650 Name

Wind Direction 4 mph (from - to)

Wind Speed SW to NE (mph)

Upwind PID 0.0 (ppm)

Temperature 67° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.40 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/8

Time 1550 Name VR

Wind Direction SW to NE (from - to)

Wind Speed 5 (mph)

Upwind PID 0.0 (ppm)

Temperature 70° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.21 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/9

Time 1530 Name

Wind Direction SW to WS (from - to)

Wind Speed 5-10 (mph)

Upwind PID 0.0 (ppm)

Temperature 77° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.09 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/11

Time 16:00 Name

Wind Direction SW to NE (from - to)

Wind Speed 10 (mph)

Upwind PID 0 (ppm)

Temperature 59° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.09 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date	3/12/07		
Time	1015	Name	ACT
Wind Direction	NE - SW (from - to)		
Wind Speed	11 (mph)		
Upwind PID	0 (ppm)		
Temperature	54° (degrees F)		
Rainfall	0 (inches)		
Barometric Pressure	30.23 (mmHg)		
Conditions	Good		

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/14

Time 1500 Name

Wind Direction SW to NE (from - to)

Wind Speed 5 (mph)

Upwind PID 0 (ppm)

Temperature 57° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.36 (mmHg)

Conditions cloudy

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/11

Time 1550 Name

Wind Direction SW to NE (from - to)

Wind Speed 11 (mph)

Upwind PID 0 (ppm)

Temperature 50 (degrees F)

Rainfall .26 (inches)

Barometric Pressure 29.90 (mmHg)

Conditions

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date: 5/17

Time: 1445

Name: VL

Wind Direction: SW to NG (from - to)

Wind Speed: 1-5 (mph)

Upwind PID: 0 (ppm)

Temperature: 50 (degrees F)

Rainfall: .02 (inches)

Barometric Pressure: 30.30 (mmHg)

Conditions: cloudy

Comments:

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/18/07

Time 1630 Name

Wind Direction SW to NE/PM - NE to SW/AM (from - to)

Wind Speed 3 mph (mph)

Upwind PID 0 (ppm)

Temperature 58° (degrees F)

Rainfall ~~30.32~~ 0 (inches)

Barometric Pressure 30.32 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/21/07

Time 8:52 Name JV

Wind Direction Calm (from - to)

Wind Speed Calm (mph)

Upwind PID 0.0 (ppm)

Temperature 57° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.35" (mmHg) = 770.89 mm Hg

Conditions Sun

Comments No deficiencies noted

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/22/07

Time 11:20 Name JU

Wind Direction Variable (from - to)

Wind Speed <5 (mph)

Upwind PID 0.0 (ppm)

Temperature 66° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.42 steady ~~mmHg~~ inches

Conditions Sun

Comments No deficiencies noted

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/23/07

Time 9:10 Name JV

Wind Direction SSE (from - to)

Wind Speed <5mph (mph)

Upwind PID 0.0 (ppm)

Temperature 70° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.43 rising (~~mm~~Hg) inches

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/25

Time 1350 Name

Wind Direction SW to NE (from - to)

Wind Speed 10 - 15 (mph)

Upwind PID 0.0 (ppm)

Temperature 75° (degrees F)

Rainfall 0 (inches)

Barometric Pressure _____ (mmHg)

Conditions Sunny breezy

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/29/07

Time 1500 Name

Wind Direction SW to WSW (from - to)

Wind Speed 5-10 (mph)

Upwind PID 0.0 (ppm)

Temperature 77° (degrees F)

Rainfall 0 (inches)

Barometric Pressure _____ (mmHg)

Conditions Sunny

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/30

Name R

Time 1600

Wind Direction SW to WE (from - to)

Wind Speed 5 - 15 (mph)

Upwind PID 0 (ppm)

Temperature 75° (degrees F)

Rainfall 0 (inches)

Barometric Pressure _____ (mmHg)

Conditions Sunny

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 5/31

Time 1230

Name [signature]

Wind Direction SW to NE (from - to)

Wind Speed 0-5 (mph)

Upwind PID 0 (ppm)

Temperature 80 (degrees F)

Rainfall 0 (inches)

Barometric Pressure _____ (mmHg)

Conditions partly cloudy

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/12/07

Time 1430 Name

Wind Direction SW to NE (from - to)

Wind Speed 7mph (mph)

Upwind PID 0.0 (ppm)

Temperature 78° (degrees F)

Rainfall — (inches)

Barometric Pressure 30.13 ↑ (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date: 6/13/07

Time: 1345

Name: [signature]

Wind Direction: SW to NG (from - to)

Wind Speed: 8 mph (mph)

Upwind PID: 0.0 (ppm)

Temperature: 84° (degrees F)

Rainfall: – (inches)

Barometric Pressure: 30.14 Vr (mmHg)

Conditions: Sunny

Comments:

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/11/07

Time 1600

Name

Wind Direction SW to NE (from - to)

Wind Speed 12mph (mph)

Upwind PID 0.0 (ppm)

Temperature 71° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.24 (mmHg)

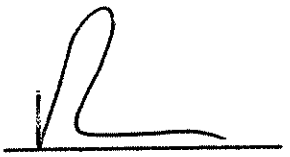
Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/2

Time 0900

Name 

Wind Direction SW to NE (from - to)

Wind Speed 0-5 (mph)

Upwind PID 0 (ppm)

Temperature 70 ↑ (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.04 → (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/1

Time 1430

Name

Wind Direction SW to NE (from - to)

Wind Speed 5-10 (mph)

Upwind PID 0 (ppm)

Temperature 80 (degrees F)

Rainfall 0 (inches)

Barometric Pressure - (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/21

Time 1500

Name

Wind Direction SW to NE (from - to)

Wind Speed 7mph (mph)

Upwind PID 2.0 (ppm)

Temperature 69 (degrees F)

Rainfall .09 (inches)

Barometric Pressure 29.55 → (mmHg)

Conditions partly cloudy

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/5

Time _____ Name _____

Wind Direction _____ (from - to)

Wind Speed _____ (mph)

Upwind PID _____ (ppm)

Temperature _____ (degrees F)

Rainfall _____ (inches)

Barometric Pressure _____ (mmHg)

Conditions _____

Comments no meters rainy

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/6

Time 1430 Name

Wind Direction SW to NE (from - to)

Wind Speed 10 (mph)

Upwind PID 0.0 (ppm)

Temperature 58° (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.10 (mmHg)

Conditions Sunny & clouds

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date	6/7		
Time	1345	Name	
Wind Direction	SW to NE	(from - to)	
Wind Speed	7 mph	(mph)	
Upwind PID	0.0	(ppm)	
Temperature	78°	(degrees F)	
Rainfall	0	(inches)	
Barometric Pressure	30.00+	(mmHg)	
Conditions	sunny		
Comments	meters didn't record ?		

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date: 6/8

Name:

Time: 1500

Wind Direction: SW to NE (from - to)

Wind Speed: 10 mph (mph)

Upwind PID: 0.0 (ppm)

Temperature: 83° (degrees F)

Rainfall: 0 (inches)

Barometric Pressure: 29.81 ↓ (mmHg)

Conditions: humid & partly cloudy

Comments:

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/13

Time 1200 Name

Wind Direction SW to NE (from - to)

Wind Speed 10 mph (mph)

Upwind PID 0.0 (ppm)

Temperature 86 (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.14 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/15 1430

Time _____ Name [signature]

Wind Direction SW to NE (from - to)

Wind Speed 6 mph (mph)

Upwind PID 0.0 (ppm)

Temperature 75° (degrees F)

Rainfall 0 (inches)

Barometric Pressure & 30.17 (mmHg)

Conditions Sunny

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/18/07

Time 1500 Name

Wind Direction SW to NE (from - to)

Wind Speed 4 (mph)

Upwind PID 0.0 (ppm)

Temperature 86 (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.10 (mmHg)

Conditions

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/20

Time 1000 Name

Wind Direction SW to NE (from - to)

Wind Speed 13mph (mph)

Upwind PID 0.0 (ppm)

Temperature 70 (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.16 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/21

Time 1200 Name

Wind Direction SW to NW (from - to)

Wind Speed 13 mph (mph)

Upwind PID 0.0 (ppm)

Temperature 72 (degrees F)

Rainfall 0 (inches)

Barometric Pressure 29.97 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/22

Time _____ Name VL

Wind Direction SW to NE (from - to)

Wind Speed 15 mph (mph)

Upwind PID 0.0 (ppm)

Temperature 67 (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.15 (mmHg)

Conditions Sunny

Comments _____

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date 6/25

Time 1500 Name

Wind Direction SW to NE (from - to)

Wind Speed 8 mph (mph)

Upwind PID 0 (ppm)

Temperature 79 (degrees F)

Rainfall 0 (inches)

Barometric Pressure 30.27 (mmHg)

Conditions Sunny

Comments

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date: 5/17/10

Time: 1430 Name: ARJ

Wind Direction: SW - NE (from - to)

Wind Speed: 10 (mph)

Upwind PID: 0 (ppm)

Temperature: 70° (degrees F)

Rainfall: — (inches)

Barometric Pressure: 30.21 (mmHg)

Conditions: Cloudy

Comments: OU-1

Former XOM Buffalo Terminal
Daily CAMP Data Sheet

Date: 5/18/10

Time: 0800 Name: ALT

Wind Direction: SW - NE (from - to)

Wind Speed: 11 (mph)

Upwind PID: 0 (ppm)

Temperature: 68 (degrees F)

Rainfall: _____ (inches)

Barometric Pressure: 29.79 (mmHg)

Conditions: Overcast, rain

Comments: No meters due to rain

OU-1

APPENDIX C

Waste Profile

New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 • **FAX:** (716) 851-7226
Website: www.dec.state.ny.us

Alexander B. Grannis
Commissioner

May 1, 2007

Mr. David Hanson
BFI Waste Systems
PO Box 354
Niagara Falls, New York 14304-0354

Dear Mr. Hanson:

Exxon Mobil Oil Corporation
625 Elk Street
Buffalo, New York
Application #2995
Petroleum impacted soil

The Department has reviewed the above referenced application for Treatment or Disposal of an Industrial Waste Stream (Form 47-19-7). Based on the information provided, the 3,500 tons of waste represented by the waste analysis presented with the disposal application is acceptable for disposal at the Allied/BFI Niagara Falls Landfill in Niagara Falls, New York. Additional waste associated with this project will be reviewed for disposal as additional waste analysis is presented.

In the event that significant changes in the information presented on the application occur, you shall immediately notify this Department in writing. Such changes shall include, but not be limited to, changes in: process, facility name or address, waste composition and/or hauler.

Enclosed is a copy of the approved application. Should you have any questions, please call this office at 716/851-7220.

Sincerely,

Mark J. Hans, P.E.
Regional Solid Materials Engineer

MJH:dcg
hans\hanson-f3.ltr

Enclosure

cc: Ms. Denise D'Angelo, Environmental Chemist I

47-19-7 (10/96) - Text 12 (To Reproducible)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE - BUREAU OF HAZARDOUS WASTE OPERATIONS
50 WOLF ROAD, ALBANY, NEW YORK 12233-4017

APPLICATION FOR TREATMENT OR DISPOSAL OF AN INDUSTRIAL WASTE STREAM

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

FOR STATE USE ONLY		
SITE NO. 32811	APPLICATION NO. 2995	DATE RECEIVED
DEPARTMENT ACTION ☐ Approved ☐ Disapproved		DATE

1. NAME OF PROJECT/FACILITY	2. COUNTY	3. SITE NUMBER
Allied Niagara Falls Landfill Facility	Niagara County	32811
4. NAME OF OWNER	**5. ADDRESS (Street, City, State, Zip Code)**	**6. TELEPHONE NO.**
Allied Waste Systems	5600 Niagara Falls Blvd., Niagara Falls, New York 14304-0354	(716) 285-3344
7. NAME OF OPERATOR	**8. ADDRESS (Street, City, State, Zip Code)**	**9. TELEPHONE NO.**
Allied Waste Systems	Same as Section 5 above	(716) 285-3344

10. METHOD OF TREATMENT OR DISPOSAL
Sanitary Landfill
Disposal Code D80

11. COMPANY GENERATING WASTE	12. ADDRESS OF FACILITY GENERATING WASTE (Street, City, State, Zip Code)	
EXXONMOBIL OIL CORPORATION	625 ELK ST. BUFFALO NY (ACROSS STREET)	
13. REPRESENTATIVE OF WASTE GENERATOR	**14. MAILING ADDRESS OF REPRESENTATIVE**	**15. TELEPHONE NO.**
JOE ABEL	1001 Wampanoag Trail, Riverside, R.I. 02915	(401) 434-7356

16. DESCRIPTION OF PROCESS PRODUCING WASTE
Removal of Soil impacted with petroleum releases from the Exxonmobil tank farm in February 1976 at former Refinery

17. EXPECTED ANNUAL WASTE PRODUCTION	18. WASTE HAULED IN	
7000 Tons/Year ____ Gallons/Year	☐ Drums ☐ Bulk Tank ☐ Roll-Off Container ☒ Other	Dump Trailor

19. WASTE COMPOSITION 19a. Average Percent Solids	19b. PHYSICAL STATE	19c. pH Range
100	☐ Liquid ☐ Slurry ☐ Sludge ☒ Solid ☐ Contained Gas	7 to 9

19. COMPONENTS	CONCENTRATION (Dry Weight) Upper	Lower	Typical	UNIT (Check One) WT%	PPM
1) SOIL (ASH, CINDERS, SLAG)	90	99	95	☒	☐
2) MOISTURE (ENTRAINED)	5	10	5	☒	☐
3) DIESEL FUEL	27	253	100	☐	☒
4) LEAD (TCLP) ANALYSIS ATTACHED	0	4.29	2.0	☐	☒
PPE, PLASTIC, GLOVES, POLYETHYLENE	0	1%	1%	☒	

20. IS AN ANALYSIS OF WASTE ATTACHED?	21. WAS A TCLP TEST CONDUCTED ON THE WASTE?	22. MATERIAL IS:
☒ Yes ☐ No	☒ Yes ☐ No If "Yes", attach results	☐ Hazardous ☒ Non-Hazardous

23. DETAIL ALL HAZARD AND NUISANCE PROBLEMS ASSOCIATED WITH THE WASTES. List necessary safety, handling, treatment, and disposal precautions.
LEVEL D SAFETY EQUIPMENT

24. WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY?
HAS NOT BEEN DISPOSED OF PREVIOUSLY

25. NAME OF WASTE TRANSPORTER	26. ADDRESS (Street, City, State, Zip Code)	27. NYSDEC PERMIT NO.	28. TELEPHONE NO.
PARISO TRUCKING	13649 River Rd, Tona, NY 14150	9A-035	(716) 875-6168

29. CERTIFICATION
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

a. SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERATOR	DATE
J.A. ABEL EXXONMOBIL	4/23/07
b. SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR DISPOSAL FACILITY	DATE
[signature] Hanson Env. Mgr	04/24/07

ALLIED WASTE

GENERATOR WASTE PROFILE SHEET

NY # 2995

Requested Disposal Facility: Niagara Falls NY.
an Allied Waste Company
DIVISION NO. L07

Waste Profile #
L07Y7554Y
AWI Sales Rep: # 902 - Balbierz
Date:

I. Generator Information

Generator Name: Exxonmobil Oil Corporation			
Generator Site Address: 625 Elk Street - across street			
City: Buffalo	County: Erie	State: N.Y.	Zip: 14210
State ID/Reg No:	State Approval/Waste Code: (if applicable)		SIC Code: 5171
Generator Mailing Address (if different): 1001 Wampanoag Trail			
City: Riverside	County: Providence	State: R I	Zip: 02915
Generator Contact Name: Joe Abel			
Phone Number: 401 434-7356		Fax Number: 401 434-5962	

IIa. Transporter Information

Transporter Name: PARISO TRUCKING		Contact Name: Hollywood	
Transporter Address: 3649 River RD			
City: TONAWANDA	County: Erie	State: NY	Zip: 14150
Phone Number: 875-6168	Fax Number: 875-4121	State Transportation Number: 9A-035	

IIb. Billing Information

Bill To: Clean Harbors Env. Services		Contact Name: Accounts Payable	
Billing Address: 42 Longwater Drive			
City: Norwell	State: MA.	Zip: 02061	Phone Number: 781 792 5000

III. Waste Stream Information

Name of Waste: Soil impacted with Petroleum from Tank farm
Process Generating Waste: release on soil from tank farm at former refinery in February 1976 of Petroleum products - Detailed Contaminants on Attached Analysis
Type of Waste: ☒ INDUSTRIAL PROCESS WASTE or ☐ POLLUTION CONTROL WASTE
Physical State: ☒ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID ☐ OTHER:
Method of Shipment: ☒ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume: ☐ CUBIC YARDS: ☒ TONS: 7000 ☐ GALLONS ☐ OTHER:
Frequency: ☒ ONE TIME ☐ DAILY ☐ WEEKLY ☐ MONTHLY ☐ OTHER:
Special Handling Instructions: 3500 TONS KNOWN NOW

IV. Representative Sample Certification

☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☒ YES or ☐ NO
Sample Date: 3/30/2007	Type of Sample: ☐ COMPOSITE SAMPLE ☒ GRAB SAMPLE
Laboratory: TEST AMERICA NASHVILLE, TN.	Sample ID Numbers: NQC4309-01,02,03,04,05
Sampler's Employer: GES INC.	
Sampler's Name (printed): Lawrence T Reisin	Signature:

ALLIED WASTE

GENERATOR WASTE PROFILE SHEET (continued) NY # 2

Waste Profile #
LO7Y75547

V. Physical Characteristics of Waste

Characteristic Components: SEE ATTACHED ANALYSIS	% by Weight (range)
1. SOIL (INCL. ASH, CINDERS, SLAG)	90-99 %
2. MOISTURE (ENTRAINED)	5-10 %
3. DIESEL FUEL	27-253 mg/Kg
4. LEAD - TCLP	0-4.29 mg/L
5. PPE, Gloves, Plastic, Polyethylene Sheeting	0-1 %

Color	Odor (describe)	Free Liquids	% Solids	pH:	Flash Point	Phenol
BRN	NONE	☐ YES or ☒ NO Content ___ %	100	7	720 °F	NOT TESTED ppm

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☒ No
Does this waste or generating process cause it to exceed OSHA exposure limits from high levels of Hydrogen Sulfides or Hydrogen Cyanide as defined in 40 CFR 261.23?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☒ No
Is this a regulated Toxic Material as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this waste generated at a Federal Superfund Clean Up Site?	☐ Yes or ☒ No

VI. Generator Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I further certify that the company has not altered the form or content of this profile sheet as provided by Allied Waste.

J.A. ABEL ExxonMob. Project Mgr. — ExxonMob. Oil Corp.
Authorized Representative Name And Title (Printed) — Company Name

Authorized Representative Signature — 4/23/07 Date

VII. Allied Waste Decision

☒ Approved ☐ Rejected — Expiration: 12/31/07

Conditions:

This approval is limited to the Soil Impacted with Petroleum from Tank Farm represented by Lab Sample IDs NQC4309-01, 02, 03, 04, and 05. These samples represent 3500 tons of material.

NY State Dept of Environmental Conservation Division of Solid and Hazardous Waste approved application # NA2995 on 5/1/07. All conditions of the approval must be followed and will be enforced.

Keith Diamanti, Special Waste Analyst — Name, Title

Signature — 5/4/07 Date

REV 1

REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

NY # NA1D13

Requested Disposal Facility: - NIAGARA LANDFILL NIAGARA FALLS N.Y.

Waste Profile # 421510 6446

Sales Rep #: 058 / Pratt

Scrollable fill in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Generator Name: EXXONMOBIL OIL CORPORATION			
Generator Site Address: 625 ELK STREET			
City: BUFFALO	County: ERIE	State: N.Y.	Zip: 14210
State ID/Reg No:	State Approval/Waste Code: (if applicable)		NAICS # :
Generator Mailing Address (if different): ☐ 1001 WAMPANOAG TRAIL			
City: RIVERSIDE	County: PROVIDENCE	State: R.I.	Zip: 02915
Generator Contact Name: JOE ABEL - joseph.a.abel@exxonmobil.com			
Phone Number: 401 434-7356	Ext:	Fax Number: 401 434-5962	

IIa. Transporter Information

Transporter Name: Pariso Trucking		Contact Name: Hollywood	
Transporter Address: 3649 River Road			
City: Tonawanda	County: Erie	State: N.Y.	Zip: 14150
Phone: 716 875-6168	Fax: 716 875-4121	State Transportation Number: 9A-035	

IIb. Billing Information

Bill To: Clean Harbors Env. Services Inc		Contact Name: Accounts Payable	
Billing Address: 42 Longwater Drive		Email: scaranom@cleanharbors.com	
City: Norwell	State: MA	Zip: 02061	Phone: 781 792-5000

III. Waste Stream Information

Name of Waste:	Soil Impacted with Petroleum from Tank Farm
Process Generating Waste:	Release on soil from tank farm at former refinery in February, 1976 of Petroleum products - detailed in attached analysis from Test America
Type of Waste:	☒ INDUSTRIAL PROCESS WASTE ☐ POLLUTION CONTROL WASTE
Physical State:	☒ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID
Method of Shipment:	☒ BULK ☐ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume:	725 – Select Volume Type – Tons
Frequency:	☒ ONE TIME ☐ ANNUAL
Disposal Consideration:	☒ LANDFILL ☐ SOLIDIFICATION ☐ BIOREMEDIATION

IV. Representative Sample Certification ☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☒ YES or ☐ NO
Sample Date: 4-12-2010	Type of Sample: ☐ COMPOSITE SAMPLE ☒ GRAB SAMPLE
Sample ID Numbers: NTD 1126-01 SAMPLE ID # OU-1 PARCEL 5	

REPUBLIC SERVICES **SPECIAL WASTE PROFILE**

NY#NA1013

Waste Profile #
4215 10 6446

V. Physical Characteristics of Waste

Characteristic Components SEE ATTACHED ANALYSIS	% by Weight (range)
1. SOIL (ROCKS, STONE, CINDERS, SLAG):	90 - 99 %
2. MOISTURE (ENTRAINED)	5 - 10 %
3. DIESEL FUEL	1690 MG/KG
4. LEAD	0.471 MG/L (TCLP).
5. PPE, GLOVES, PLASTIC	0 - 1 %

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Brown	NONE	☐ YES or ☒ NO	100	7.40	7200 °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☒ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☒ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☒ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☒ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☒ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☒ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☒ No
Is this waste generated at a Federal Superfund Clean Up Site?	☐ Yes or ☒ No
Is this waste from a TSD facility, TSD like facility or consolidator?	☐ Yes or ☒ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

J.A. ABEL EMES Project Mgr — Authorized Representative Name And Title (Type or Print)

ExxonMobil Environmental Services — Company Name

Authorized Representative Signature

5/4/10 — Date

REPUBLIC SERVICES, INC.

Republic Services, Inc.

18500 N. Allied Way, Phoenix, AZ 85054

NY # NA1013

SPECIAL WASTE DEPARTMENT DECISION

	Waste Profile #	Expiration Date	
	4215106446	4/27/2011	

I. Decision Request: ☑ Initial ☐ Recertification ☐ Change

Disposal Facility: 4215 - Pine Avenue Landfill

Generator Name: Exxon Mobil Corporation

Generator Site Address: 625 Elk Street

City:	County:	State:	Zip:
Buffalo		NY	

Name of Waste: Soil with deisel fuel from tank storage area staorage

Estimated Annual Volume: 725 Tons

II. Special Waste Department Decision: ☑ Approved ☐ Rejected

Management Method(s): ☑ Landfill ☐ Solidification ☐ Bioremediation ☐ Transfer Facility

Problematic Special Waste according to Republic? ☐ Yes ☑ No

If yes, which one?

Approved by Special Waste Review Committee? ☐ Yes ☐ No ☑ Not Applicable

Precautions, Conditions or Limitations on Approval

Special Waste Analyst Signature: _____ **Name (Printed):** KEITH DIAMANTI

Date: 5/6/2010

III. Facility Decision: ☑ Approved ☐ Rejected

Precautions, Conditions or Limitations on Approval

By signing below, the General Manager or Designee agrees that a fully executed Special Waste Service Agreement is on file for this profile and that the special waste file is complete.

General Manager or Designee: David L Hanson 05/06/10 **Name (Printed):** David L Hanson

Date: 5/6/2010

47-19-7 (10/86) - Text 12 (E-Reproduction)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE • BUREAU OF HAZARDOUS WASTE OPERATIONS
50 WOLF ROAD, ALBANY, NEW YORK 12233-4017

APPLICATION FOR TREATMENT OR DISPOSAL OF AN INDUSTRIAL WASTE STREAM

SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE

FOR STATE USE ONLY		
SITE NO. 32S11	APPLICATION NO. NA1013	DATE RECEIVED 05/06/10
DEPARTMENT ACTION ☑ Approved ☐ Disapproved		DATE 05/06/10

1. NAME OF PROJECT/FACILITY	2. COUNTY	3. SITE NUMBER
Allied Niagara Falls Landfill Facility	Niagara County	32S11
4. NAME OF OWNER	**5. ADDRESS (Street, City, State, Zip Code)**	**6. TELEPHONE NO.**
Allied Waste Systems	5600 Niagara Falls Blvd., Niagara Falls, New York 14304-0354	(716) 285-3344
7. NAME OF OPERATOR	**8. ADDRESS (Street, City, State, Zip Code)**	**9. TELEPHONE NO.**
Allied Waste Systems	Same as Section 5 above	(716) 285-3344

10. METHOD OF TREATMENT OR DISPOSAL
Sanitary Landfill
Disposal Code D90

11. COMPANY GENERATING WASTE	12. ADDRESS OF FACILITY GENERATING WASTE (Street, City, State, Zip Code)	
EXXONMOBIL OIL CORPORATION	625 ELK ST. BUFFALO NY. + ACROSS STREET	
13. REPRESENTATIVE OF WASTE GENERATOR	**14. MAILING ADDRESS OF REPRESENTATIVE**	**15. TELEPHONE NO.**
~~JOE ABEL~~ J.A. ABEL PE	1001 WAMPANOAG TRAIL RIVERSIDE, R.I., 02915	(401) 434-7356

16. DESCRIPTION OF PROCESS PRODUCING WASTE
Removal of Soil impacted with petroleum releases from the EXXON MOBIL TANK FARM IN FEBRUARY 1976 at former refinery

17. EXPECTED ANNUAL WASTE PRODUCTION	18. WASTE HAULED IN	19. WASTE COMPOSITION
725 (Tons/Year) ____ Gallons/Year	☐ Drums ☐ Bulk Tank ☐ Roll-Off Container ☒ Other DUMP TRAILER	19a. Average Percent Solids 100

19b. PHYSICAL STATE: ☐ Liquid ☐ Slurry ☐ Sludge ☒ Solid ☐ Contained Gas

19c. pH Range 7 to 7.40

19. COMPONENTS	CONCENTRATION (Dry Weight) Upper	Lower	Typical	UNIT (Check One) Wt.%	PPM
1) SOIL (ASH, CINDERS, SLAG)	99	90	95	☒	☐
2) MOISTURE (ENTRAINED)	10	5	5	☒	☐
3) DIESEL FUEL	1690	1690	1690	☐	☒
4) LEAD (TCLP)	0.471	0	0.471	☐	☐

20. IS AN ANALYSIS OF WASTE ATTACHED?	21. WAS A TCLP TEST CONDUCTED ON THE WASTE?	22. MATERIAL IS:
☒ Yes ☐ No	☒ Yes ☐ No If "Yes", attach results	☐ Hazardous ☒ Non-Hazardous

23. DETAIL ALL HAZARD AND NUISANCE PROBLEMS ASSOCIATED WITH THE WASTES. List necessary safety, handling, treatment, and disposal precautions.
LEVEL D SAFETY EQUIPMENT

24. WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY?
ALLIED WASTE NIAGARA FALLS N.Y.

25. NAME OF WASTE TRANSPORTER	26. ADDRESS (Street, City, State, Zip Code)	27. NYSDEC PERMIT NO.	28. TELEPHONE NO.
PARISO TRUCKING	3649 RIVER RD. TONA, N.Y. 14150	9A-035	(716) 875-6168

29. CERTIFICATION
I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.

a. SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERATOR	DATE
J.A. ABEL EMES Project Mgr.	5/4/10
b. SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR DISPOSAL FACILITY	DATE
Daniel J. Hanson Env. Mgr	05/06/10

APPENDIX D

Waste Manifests

(Located on the CD in the Back of the Report)

APPENDIX E

Photo Documentation

Photograph 1: Parcel #4 – Facing N, 0-1', 5/9/07

Photograph 2: Parcel #4 – Facing NE, 0-1', 5/9/07

Photograph 3: Parcel #4 – Facing SE, 0-1', 5/9/07

Photograph 4: Parcel #5 – Facing NE, NE corner of excavation, 2'-3', 5/15/07

Photograph 5: Parcel #5 – Facing E, NE corner of excavation, 2'-3', 5/15/07

Photograph 6: Parcel #5 – Facing SE, NE corner of excavation, 2'-3', 5/15/07

Photograph 7: Parcel #5 – Facing NW, NW corner of excavation, 0-1', 5/15/07

Photograph 8: Parcel #5 – Facing E, central area of excavation, 0-1', 5/15/07

Photograph 9: Parcel #5 – Facing SE, central and southern areas of excavation, 0-1' and 1'-2', 5/15/07

Photograph 10: Parcel #5 – Facing NE, central area of excavation, 0-1', 5/15/07

Photograph 11: Parcel #5 – Facing SE, central area of excavation, 0-1', 5/15/07

Photograph 12: Parcel #5 – Facing N, central area of excavation,
0-1' and 2'-3', 5/15/07

Photograph 13: Parcel #5 – Facing E, eastern area of excavation,
0-1' and 2'-3', 5/15/07

Photograph 14: Parcel #5 – Facing NE, southern area of excavation,
1'-2' and 0-1', 5/15/07

Photograph 15: Parcel #5 – Facing NW, southern area of excavation, 1'-2' and 0-1', 5/15/07

Photograph 16: Parcel #5 – Facing NW,10/31/07

Photograph 17: Parcel #4 – Facing SE,10/31/07

APPENDIX F

Waste Characterization Analytical Reports

(Located on the CD in the Back of the Report)

APPENDIX G

Post Excavation Analytical Reports

(Located on the CD in the Back of the Report)

APPENDIX H

Data Usability Summary Report

(Located on the CD in the Back of the Report)

APPENDIX I

Backfill Analytical Reports

(Located on the CD in the Back of the Report)

APPENDIX J

NYSDEC Approval Letters for Backfill and Topsoil and Mining Permit for Sand/Gravel Material Used in 2010

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 • **FAX:** (716) 851-7226
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

June 5, 2007

Mr. Joseph A. Abel
Major Projects Manager
ExxonMobil Refining & Supply Company
1001 Wampanoag Trial
Riverside, Rhode Island 02915

Dear Mr. Abel:

ExxonMobil Former Buffalo Terminal
Site # C915201
OU-1; Topsoil and Fill

The Department has reviewed the analytical data for the proposed OU-1 fill source (LaFarge of Lockport) and topsoil stockpile (Buffalo Creek Facility) included in your May 21 and May 23, 2007 letters.

The analytical data submitted for the fill material from the LaFarge Quarry in Lockport, New York meets the project requirements.

The analytical data from the proposed source of topsoil stockpiled at the Buffalo Creek Facility located in Wales, New York indicates the material exceeds the commercial land use backfill requirement for acetone. The Department will require the topsoil stockpile to be re-sampled for acetone if Mobil chooses to pursue this stockpile as the topsoil source for backfilling OU-1. All other analytical parameters submitted for the topsoil stockpile met the project requirements.

Also, the Department needs written verification as to the original source of the topsoil stockpile. The letter should include an explanation of how the material was generated (i.e. clearing for a residential subdivision, etc) and certification that no known or suspected source of contamination is present in the topsoil.

Please submit the additional analytical data (acetone) and certification letter for the stockpiled topsoil prior to bringing the material on-site.

If you should have any questions, please contact myself at (716) 851-7220.

Sincerely,

Chad Staniszewski, P.E.
Project Manager

CS/tml

cc: Martin Doster, P.E., Regional Hazardous Waste Remediation Engineer
Noelle Clarke, P.E., Roux Associates

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 • **FAX:** (716) 851-7226
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

July 9, 2007

Mr. Joseph A. Abel
Major Projects Manager
ExxonMobil Refining & Supply Company
1001 Wampanoag Trial
Riverside, Rhode Island 02915

Dear Mr. Abel:

ExxonMobil Former Buffalo Terminal
Site # C915201
OU-1 Topsoil Analytical Results

The Department has reviewed the acetone sampling data and generator's certification statement attached to your June 29, 2007 letter for topsoil stockpiled at Buffalo Creek's yard in Wales Center, New York. This information was submitted in addition to the analytical data attached to your May 23, 2007 letter. This topsoil is proposed for use as the top 6-inches of fill in OU-1.

The information provided satisfies the requirements of project specification section 02250 1.04 (contained in Appendix D of the report titled 'Alternative Analysis Report/Remedial Action Work Plan for Operable Unit 1). The analytical results data indicates the material meets the imported fill requirements for commercial use property.

Sincerely,

Chad Staniszewski

Chad Staniszewski, P.E.
Project Manager

CS/tml

cc: Martin Doster, P.E., Regional Hazardous Waste Remediation Engineer
Noelle Clarke, P.E., Roux Associates

CARMEN M. PARISO, INC.
-TERMINAL-
3649 River Road – Tonawanda, NY 14150
(716) 875-6168

June 22, 2007

Clean Harbors Environmental Services
42 Longwater Drive
Norwell, MA 02061

To whom it may concern:

The topsoil material tested from Buffalo Creek yard 11800 RT 20 A in Wales Center, NY originated from the Fox Run job in Orchard Park on Rt 20. This material was stripped in April 2006 and moved in August 2006 from Orchard Park to a stockpile at Buffalo Creek's yard in Wales Center to be re-sold.

Sincerely,

Tom Beiter

CARMEN M. PARISO, INC.
-TERMINAL-
3649 River Road – Tonawanda, NY 14150
(716) 875-6168

June 22, 2007

Clean Harbors Environmental Services
42 Longwater Drive
Norwell, MA 02061

To whom it may concern:

The topsoil material tested from Buffalo Creek yard 11800 RT 20 A in Wales Center, NY originated from the Fox Run job in Orchard Park on Rt 20. This material was stripped in April 2006 and moved in August 2006 from Orchard Park to a stockpile at Buffalo Creek's yard in Wales Center to be re-sold.

Sincerely,

Tom Beiter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Facility DEC ID 8-1844-00020

PERMIT
Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
SEVEN SPRINGS GRAVEL PRODUCTS
8479 SEVEN SPRINGS RD
BATAVIA, NY 14020
(716) 343-4336

Facility:
SEVEN SPRINGS GRAVEL PRODUCTS
8472 SEVEN SPRINGS RD
BATAVIA, NY 14020

Facility Location: in STAFFORD in GENESEE COUNTY
Facility Principal Reference Point: NYTM-E: 244.8 NYTM-N: 4765.6
Latitude: 43°00'00.8" Longitude: 78°07'51.1"
Project Location: East of Seven Springs Road, 3,300 ft. south of Rt 33
Authorized Activity:
Permit to mine unconsolidated material from a 30-acre permit term area, within a 30-acre Life of Mine. Approved operations include screening and crushing.

Permit Authorizations

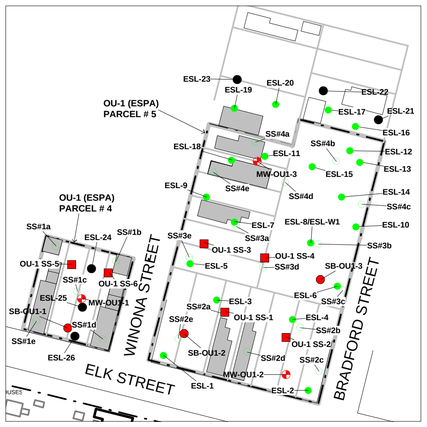
Mined Land Reclamation - Under Article 23, Title 27
Permit ID 8-1844-00020/00001 (Mined Land ID 80276)
Renewal Effective Date: 10/13/2006 Expiration Date: 10/12/2011

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: JOHN L COLE, Deputy Regional Permit Administrator
Address: NYSDEC REGION 8 HEADQUARTERS
6274 EAST AVON-LIMA RD
AVON, NY 14414

Authorized Signature: John L Cole Date 10 / 12 / 2006



LOCATION MAP

100' 0 100'

N

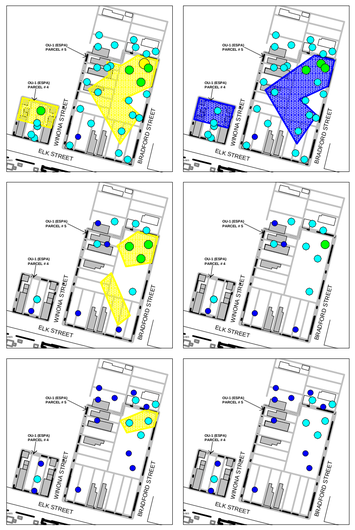
BENZO[A]ANTHRACENE

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA

DEPTH INTERVAL 0 - 0.5 FT

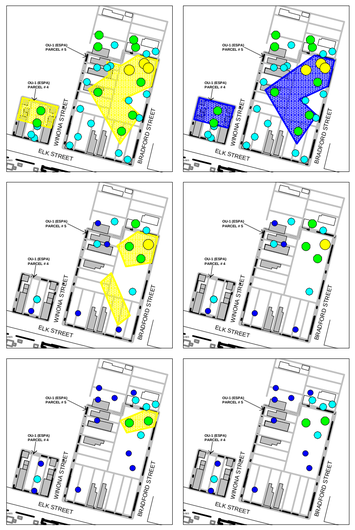
DEPTH INTERVAL 1 - 2 FT

DEPTH INTERVAL GREATER THAN 2 FT



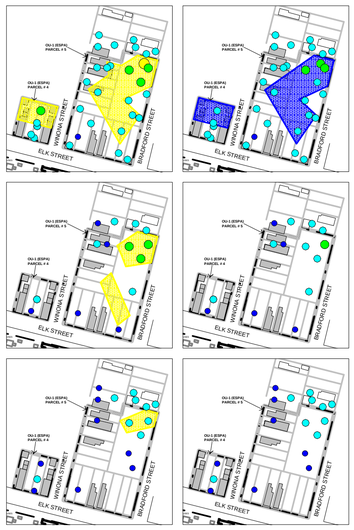
BENZO[A]PYRENE

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA



BENZO[B]FLUORANTHENE

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA



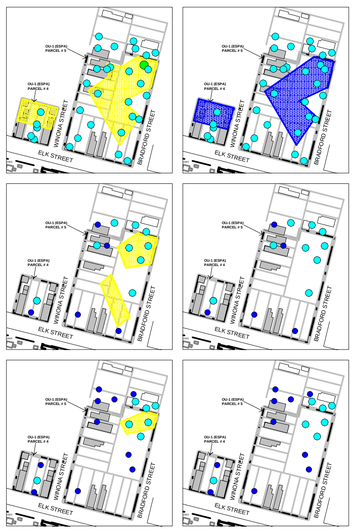
CHRYSENE

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA

DEPTH INTERVAL 0 - 0.5 FT

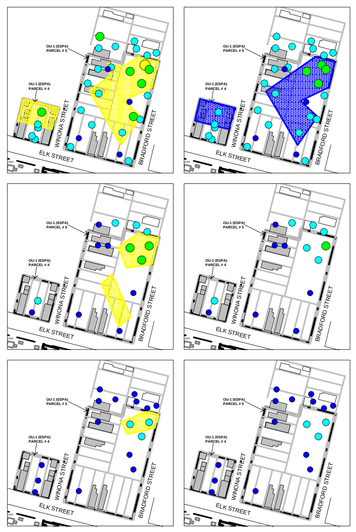
DEPTH INTERVAL 1 - 2 FT

DEPTH INTERVAL GREATER THAN 2 FT



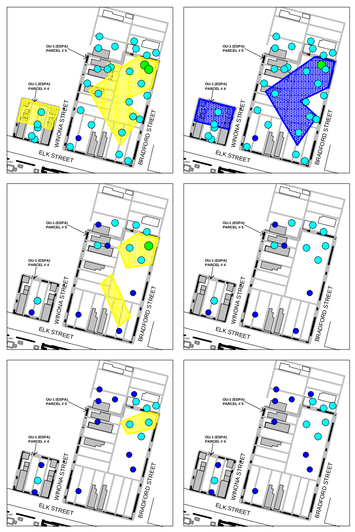
DIBENZO(A,H)ANTHRACENE

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA



INDENO[1,2,3-CD]PYRENE

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA



SVOCS

250' 0 250'

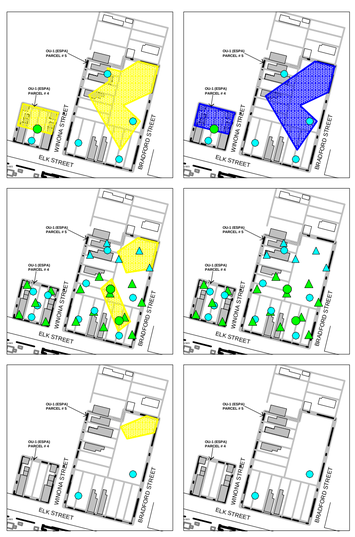
ARSENIC

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA

DEPTH INTERVAL 0 - 0.5 FT

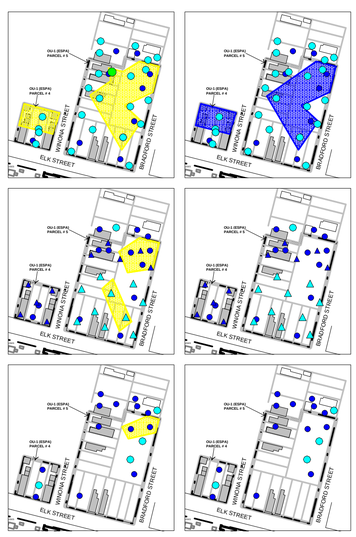
DEPTH INTERVAL 1 - 2 FT

DEPTH INTERVAL GREATER THAN 2 FT



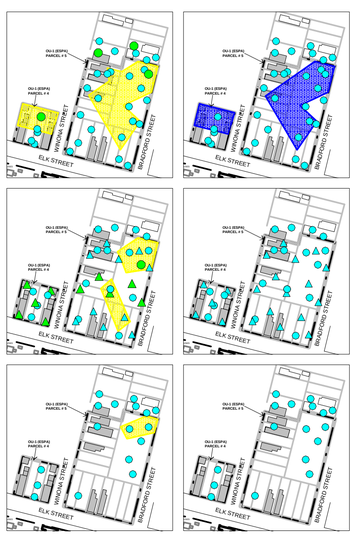
CADMIUM

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA



LEAD

COMPARISON TO PART 375 COMMERCIAL CRITERIA | COMPARISON TO PART 375 INDUSTRIAL CRITERIA



METALS

250' 0 250'

NOTES: (1) DEPTH INTERVALS INDICATED CORRESPOND TO THE LABORATORY ANALYTICAL SAMPLE INTERVALS AND ARE RELATIVE TO THE BOTTOM OF ANY SURFACE MATERIAL ENCOUNTERED (ASPHALT, CONCRETE, VEGETATION, ETC.).

(2) THE THIRD DEPTH INTERVAL INCLUDES ALL SAMPLE RESULTS DEEPER THAN 2 FEET.

(3) COMPOSITE SAMPLES WERE ONLY COLLECTED IN THE 1-2 FT BLS INTERVAL AND WERE ONLY ANALYZED FOR METALS.

OU-1 SS-1 LOCATION AND DESIGNATION OF OU-1 ADDITIONAL SOIL BORING COMPLETED IN NOVEMBER 2006

MW-OU1-1 LOCATION AND DESIGNATION OF OU-1 ADDITIONAL INVESTIGATION MONITORING WELL

SB-OU1-1 LOCATION AND DESIGNATION OF OU-1 ADDITIONAL INVESTIGATION SOIL BORING

SS#1a LOCATION AND DESIGNATION OF 1993 GTI COMPOSITE BORING, ONE SOIL SAMPLE WAS COMPOSITED FROM THE FIVE BORING LOCATIONS (A THROUGH F)

ESL-1 LOCATION AND DESIGNATION OF SFI/ SFI COMPLETION SOIL BORING

ESL-21 LOCATION AND DESIGNATION OF ESPA INVESTIGATION COMPLETION SOIL BORING

OU-1 OPERABLE UNIT 1

SFI SITE FACILITY INVESTIGATION

EXCAVATION AREAS TO MEET COMMERCIAL CRITERIA (REMEDIAL ALTERNATIVE 2 INCLUDES EXCAVATION IN THREE DEPTH INTERVALS, REMEDIAL ALTERNATIVE 3 INCLUDES EXCAVATION IN ZERO TO ONE FOOT BLS DEPTH INTERVAL ONLY)

REMEDIAL ALTERNATIVE 4 EXCAVATION AREA TO MEET INDUSTRIAL CRITERIA IN THE ZERO TO ONE FOOT BLS DEPTH INTERVAL

EXISTING BUILDINGS THAT WERE PRESENT AT TIME OF TANK 60 INCIDENT

BUILDINGS PRESENT AT TIME OF TANK 60 INCIDENT THAT WERE SUBSEQUENTLY DEMOLISHED

FORMER PROPERTY DIVISIONS

OU-1 BOUNDARY

EXXONMOBIL PROPERTY LINE

ESPA ELK STREET PROPERTIES AREA

	PART 375 COMMERCIAL CRITERIA	PART 375 INDUSTRIAL CRITERIA
BENZO(A)ANTHRACENE	5.600 (ug/kg)	11,000 (ug/kg)
BENZO(A)PYRENE	1,000 (ug/kg)	1,100 (ug/kg)
BENZO(B)FLUORANTHENE	5,600 (ug/kg)	11,000 (ug/kg)
CHRYSENE	56,000 (ug/kg)	110,000 (ug/kg)
DIBENZO(A,H)ANTHRACENE	560 (ug/kg)	1,100 (ug/kg)
INDENO[1,2,3-CD]PYRENE	5,600 (ug/kg)	11,000 (ug/kg)
ARSENIC	16 (mg/kg)	16 (mg/kg)
CADMIUM	9.3 (mg/kg)	60 (mg/kg)
LEAD	1,000 (mg/kg)	3,900 (mg/kg)

UG/KG - MICROGRAMS PER KILOGRAM
MG/KG - MILLIGRAMS PER KILOGRAM

CRITERIA SHOWN ARE COMMERCIAL AND INDUSTRIAL CRITERIA FOR PROTECTION OF HUMAN HEALTH FROM 6NYCRR PART 375 TABLE 6.8 (b)

LEGEND FOR DISTRIBUTION OF CONCENTRATIONS RELATIVE TO COMMERCIAL AND INDUSTRIAL CRITERIA

- 100 TO LESS THAN 1,000 TIMES CRITERIA (GRAB SAMPLE)
- 10 TO LESS THAN 100 TIMES CRITERIA (GRAB SAMPLE)
- 1 TO LESS THAN 10 TIMES CRITERIA (GRAB SAMPLE)
- LESS THAN CRITERIA (GRAB SAMPLE)
- NOT DETECTED (GRAB SAMPLE)
- 100 TO LESS THAN 1,000 TIMES CRITERIA (COMPOSITE SAMPLE)
- 10 TO LESS THAN 100 TIMES CRITERIA (COMPOSITE SAMPLE)
- 1 TO LESS THAN 10 TIMES CRITERIA (COMPOSITE SAMPLE)
- LESS THAN CRITERIA (COMPOSITE SAMPLE)
- NOT DETECTED (COMPOSITE SAMPLE)

DISTRIBUTION OF SVOCS AND METALS IN SOIL COMPARED TO PART 375 COMMERCIAL AND INDUSTRIAL CRITERIA

FORMER BUFFALO TERMINAL, BUFFALO, NY

Prepared For: EXXONMOBIL OIL CORPORATION

ROUX ASSOCIATES INC
Environmental Consulting & Management

Compiled by: NC	Date: 03/08/2011	PLATE
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