Phase II Environmental Investigation Report

Oregon Road Site
Olean, New York

February 2015 0323-015-001

Prepared For: Homer Street Properties, LLC

TurnKey Environmental Restoration, LLC

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PHASE II ENVIRONMENTAL INVESTIGATION REPORT

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Table of Contents

PHASE II ENVIRONMENTAL INVESTIGATION REPORT
Oregon Road Site
Oregon Road
Olean, New York

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 BACKGROUND AND SITE DESCRIPTION

TurnKey Environmental Restoration, LLC (TurnKey) performed a Phase II Environmental Site Investigation at a property owned by Homer Street Properties, LLC (HSP) located on Oregon Road in Olean, Cattaraugus County, New York (Site, see Figure 1). According to the Cattaraugus County Real Property & GIS Web page (http://www.cattco.org/real-property-and-gis) there is no street number associated with this property, and therefore; it does not have a US Postal Service mailing address.

1.1 Site Description

The Site is comprised of an approximate 24.65-acre parcel (SBL# 94.110-2-13.2) of land located in a historically, heavy industrial area of the City of Olean. The Site is vacant and does not contain any structures.

The Site is located within the limits of the approximate 125-acre Exxon/Mobil Legacy Site (EMLS). The EMLS operated as an oil refinery under several different names from approximately 1880 to 1950s. The Site is located within the EMLS Works #3 area where oil storage and refining historically took place; based on historical aerial photographs, the area of the Site appears to be primarily an oil storage area.

The Site is bound by an undeveloped parcel and Oregon Road to the north, three (3) residential parcels, Oregon Road and Homer Street to the east, Homer Street and two (2) parcels (one commercial and one undeveloped parcel) to the south, and undeveloped parcels to the west.

1.2 Environmental History

Based on a Phase I Environmental Site Assessment of the Site completed by others in May 2008, we understand that the Site was historically a portion of a larger petroleum refinery and petroleum bulk storage facility commonly known as the former Socony-Vacuum facility. The Phase I ESA identified the following recognized environmental condition associated with the Site.

- The Site was historically occupied by an oil tank farm, including four large tanks, portions of two tanks, and six berm areas within the Site limits, used for oil storage by Socony Vacuum and/or Felmont Oil. The Site was identified as part of the EMLS Works #3 area. The tank and berm areas were removed by the 1970s.

Potential historic releases may have impacted the soil and/or groundwater at the Site.

Based on a historic topographic map from 1898 and aerial photographs from 1955 and 1960 reviewed by TurnKey, the Site historically contained portions of up to seven (7) large aboveground storage tanks (ASTs, see Appendix A). Similar tanks were noted on the adjacent properties. It should also be noted that Felmont Oil Corporation installed an oil well (API 31009050330000) on the north adjacent property in 1966, which was abandoned in 1973 (see Figure 2).

South adjacent to the Oregon Road Site are the 229 Homer Street NY Spill Site and 251 Homer Street NYSDEC Brownfield Cleanup Program (BCP) site. During interim remedial measure (IRM) activities, completed by TurnKey at 251 Homer Street BCP Site, abandoned refinery piping containing petroleum was identified and removed. During that piping removal work on 251 Homer Street piping containing petroleum was identified extending on to the 229 Homer Street property from 251 Homer Street. Therefore, NYSDEC assigned Spill Number 1300860 to the 229 Homer Street Site and the adjacent Southern Tier Rail Authority property.

1.3 Scope of Work

This investigation was completed on behalf of HSP to assess potential environmental impacts associated with the historic use of the Site as a petroleum bulk storage facility. This investigation included completion of test pits, soil sampling and analysis for volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs) and metals.

2.0 METHODS OF INVESTIGATION

2.1 Test Pit Excavation

A test pit investigation was conducted on December 23, 2014, which consisted of excavating seven (7) test pits designated as TP-1 through TP-7 (see Figure 2). Test pit locations were selected based on review of historic aerial photographs, to obtain general site coverage, and site accessibility.

The physical characteristics of test pits were classified using the ASTM D2488 Visual-Manual Procedure Description. TurnKey personnel screened soils from each test pit via headspace screening using a MiniRae 2000 Photoionization Detector (PID) equipped with a 10.6 eV lamp and noted visual and/or olfactory observations. The PID is capable of detecting the presence of contaminants that emit volatile organics such as petroleum products and solvents with ionization potentials less than 10.6 eV. Field observations, including lithology, depths, PID scan results, etc., at each test pit location are summarized in the test pit log sheets provided in Appendix B.

2.2 Soil Sampling and Analysis

Soil samples were collected during the test pits for field screening and chemical analysis. The analytical soil samples were placed in pre-cleaned laboratory provided sample jars. Three (3) soil samples were submitted under chain-of-custody to Alpha Analytical, Inc. for analysis of Target Compound List (TCL) plus NYSDEC CP-51 List VOCs, PAHs, and Resource Conservation and Recovery Act (RCRA) metals.

The soil samples were analyzed via United States Environmental Protection Agency (USEPA) SW-846 methods. The laboratory analytical reports are provided in Appendix C.

3.0 INVESTIGATION FINDINGS

A summary of the qualitative soil screening and soil sample results from the test pits are presented in Tables 1 and 2, respectively. Compounds that were analyzed for and detected above their respective laboratory reporting limit are listed on the Table 2 with their associated results. Table 2 also presents the NYSDEC 6NYCRR Part 375 and Commissioner's Policy/Soil Cleanup Guidance (CP-51) soil cleanup objectives (SCOs) for comparison purposes. The soil sample results are discussed below.

3.1 Qualitative Soil Screening

During the test pits, olfactory evidence of impact (petroleum-like odors) were observed in four (4) of the seven (7) test pits, TP-1, TP-2, TP-4, and TP-5. Impacts were apparent at depths ranging from 3 feet below ground surface (fbgs) to 10 fbgs. Furthermore, during test pits excavation, petroleum product, a light non-aqueous phase liquid (LNAPL), was observed on the groundwater entering test pits TP-2 and TP-4 at 2 to 3 fbgs, respectively. Appendix D contains the photographic documentation of the test pit activities.

Soil samples were screened for total organic compounds using a MiniRae 2000 PID. As shown on Table 1, PID measurements were as high as 798 parts per million (ppm) at TP-1.

A representative from the NYSDEC, Mr. Chad Stanizewski, was on-Site during completion of test pits TP-4, TP-5 and TP-6. NYSDEC was aware of the LNAPL encountered and assigned Spill No 1409761 to the Site.

3.2 Soil Analytical Results

As shown on Table 2, VOCs (2-butanone, total xylene, and 1,2,4-trimethylbenzene) were detected at concentrations above their respective Part 375 Unrestricted and/or CP-51 SCOs in sample TP-1, 5 to 7 fbgs. Additionally, elevated VOC Tentatively Identified Compounds (TICs) were identified in soil samples from TP-1, 5 to 7 fbgs and TP-5, 2 to 4 fbgs at 23 ppm and 52 ppm, respectively.

PAHs and metals were not detected at concentrations exceeding their respective Unrestricted or CP-51 SCOs in the samples analyzed.

3.3 Site Geology/Hydrogeology

The overburden geology over a majority of the site is generally described as fill material in the upper approximate 4 fbgs overlying sandy lean clay with various amounts of gravel to depths of 10 fbgs.

Groundwater was encountered at TP-2 and TP-4, at depths of approximately 2 and 3 fbgs, respectively. LNAPL was also observed on the groundwater at these locations.

4.0 CONCLUSIONS

Based on the results of this investigation, TurnKey offers the following conclusions and recommendations:

- The Site is located within the limits of the Exxon/Mobil Legacy Site (EMLS). The EMLS operated as an oil refinery under several different names from approximately 1880 to 1950s. The Site is located within the EMLS Works #3 area where oil refining historically took place; based on historical aerial photographs, the area of the Site appears to be primarily an oil storage area. Furthermore, an oil well, API Well No. 31009050330000 was identified on the north adjacent property in 1966, which was abandoned in 1973.
- The Oregon Road subject property historically contained ASTs and berm areas similar to the 251 Homer Street and 229 Homer Street properties. Evidence of petroleum impacts, including grossly contaminated materials, have been identified at 251 Homer Street and abandoned piping currently remains beneath the 229 Homer Street site. Therefore, based on historic petroleum storage use of the Oregon Road Site similar to the 229 and 251 Homer Street sites, and the fact that these properties were once part of the greater refinery that included these adjacent properties with known significant environmental impacts, it is likely that similar subsurface conditions exist at the Oregon Road property.
- Olfactory evidence of impact (petroleum-like odors) were observed in four (4) of the seven (7) test pits, TP-1, TP-2, TP-4, and TP-5 at depths ranging from 3 to 10 fbgs. PID readings up to 798 ppm were noted on-Site.
- LNAPL was observed on the groundwater entering in to test pits, TP-2 and TP-4, at 2 to 3 fbgs, respectively.
- VOCs (2-butanone, total xylene, and 1,2,4-trimethylbenzene) were detected at concentrations above their respective Part 375 Unrestricted SCOs in sample TP-1, 5 to 7 fbgs. Elevated VOC TICs were also identified in soil samples from TP-1, 5 to 7 fbgs (23 ppm) and TP-5, 2 to 4 fbgs (52 ppm).
- NYSDEC Spill No 1409761 was assigned to the Site due to Site conditions observed by a NYSDEC representative at the time of this investigation.
- Based on the evidence of petroleum odors, elevated PID measurements, the presence of LNAPL, as well as analytical results of this investigation, significant

petroleum-impacts are evident, with grossly contaminated soils present in some areas. The environmental impacts can reasonably be attributed to the historical use of the Site as a petroleum bulk storage facility. Further investigation and remediation appears warranted as NYSDEC Spill No. 1409761 will need to be addressed.

- TurnKey understands that HSP plans to redevelop the Site. Consideration should be given to applying for the New York Brownfield Cleanup Program (BCP) prior to Site redevelopment. The BCP offers Site remediation and redevelopment tax credits, as well as release of certain environmental liabilities from New York State, for entities that remediate and redevelop contaminated and/or former idle industrial sites, such as the subject Site, into productive re-used properties.

5.0 LIMITATIONS

This report has been prepared for the exclusive use of Homer Street Properties, LLC. The contents of this report are limited to information available at the time of the site investigation activities and to data referenced herein, and assume all referenced information sources to be true and accurate. The findings herein may be relied upon only at the discretion of Homer Street Properties, LLC. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC.

TABLES

TABLE 1

QUALITATIVE SOIL SCREENING SUMMARY
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OREGON ROAD
OLEAN, NEW YORK

SAMPLE LOCATION	Highest PID Reading (ppm)	Highest PID Sample Interval (fbgs)	NOTES
TP-1	798	5 to 7	Petroleum-like odor (3 to 10 fbgs)
TP-2	No PID Measurements*	NA	Petrolum Product at 2 fbgs on water table Petroleum-like odor (0.5 to 3 fbgs)
TP-3	0	NA	
TP-4	276	3 to 5	Petrolum Product at 3 fbgs on water table Petroleum-like odor (0.5 to 8 fbgs)
TP-5	467	2 to 4	Petroleum-like odor (2 to 5 fbgs)
TP-6	0	NA	
TP-7	0	NA	

Notes:

fbgs= feet below ground surface

NA = Not applicable

* No PID Measurements were collected from TP-2 due to large amount of oil in the soil and water; did not want to damage the PID meter.

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OREGON ROAD
OLEAN, NEW YORK

Parameter [1]	Unrestricted SCOs[2] (ppm)	CP-51 SCOs[3] (ppm)	SAMPLE LOCATION		
			TP-1 5 to 7 fbgs	TP-4 3 to 5 fbgs	TP-5 2 to 4 fbgs
TCL plus CP-51 Volatile Organic Compounds (VOCs) - mg/kg [3]					
Acetone	**0.05**	--	0.290 J	0.022 J	0.330 J
2-Butanone (MEK)	**0.12**	--	**1.2**	0.031	ND
Cyclohexane	--	--	0.880 J	ND	0.070 J
Isopropylbenzene (Cumene)	--	**2.3**	0.18	ND	0.092 J
Methylcyclohexane	--	--	5.1	0.022	2.6
Total Xylene	**0.26**	**0.26**	**0.63**	ND	ND
n-Propylbenzene	**3.9**	**3.9**	0.33	ND	0.130 J
p-Cymene (p-isopropyltoluene)	--	**10**	0.36	ND	0.36
1,2,4-Trimethylbenzene	**3.6**	**3.6**	**4.5**	ND	2
1,3,5-Trimethylbenzene	**8.4**	**8.4**	2.2	ND	0.99
n-Butylbenzene	**12**	**12**	0.057 J	ND	0.14
sec-Butylbenzene	**11**	**11**	0.16	ND	0.3
Tentatively Identified Compounds (TICs	--	--	23 J	1.3 J	52 J
Polynuclear Aromatic Hydrocarbons (PAHs) - mg/kg					
Fluorene	**30**	**100**	ND	ND	0.099 J
Naphthalene	**12**	**12**	ND	ND	0.22
Phenanthrene	**100**	**100**	ND	ND	0.26
2-Methylnaphthalene	--	--	0.230 J	ND	1.1
RCRA Metals - mg/kg					
Arsenic	**13**	--	8.5	9.5	8.8
Barium	**350**	--	160	70	130
Cadmium	**2.5**	--	ND	ND	ND
Chromium, trivalent	**30**	--	15	9.6	10
Lead	**63**	--	6.4	2.9	4.8
Mercury	**0.18**	--	0.03 J	0.03 J	ND
Selenium	**3.9**	--	ND	ND	ND
Silver	**2**	--	ND	ND	ND

Notes:

1. Parameters detected in a minimum of one sample location are presented in this table; other compounds analyzed for were reported as non-detect.
2. SCO values per NYSDEC 6NYCRR 375 Soil Cleanup Objectives (SCOs), December 2006.
3. SCO values per NYSDEC Commissioners Policy (CP)/ Soil Cleanup Guidance, November 2009 .
4. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparison to SCOs.

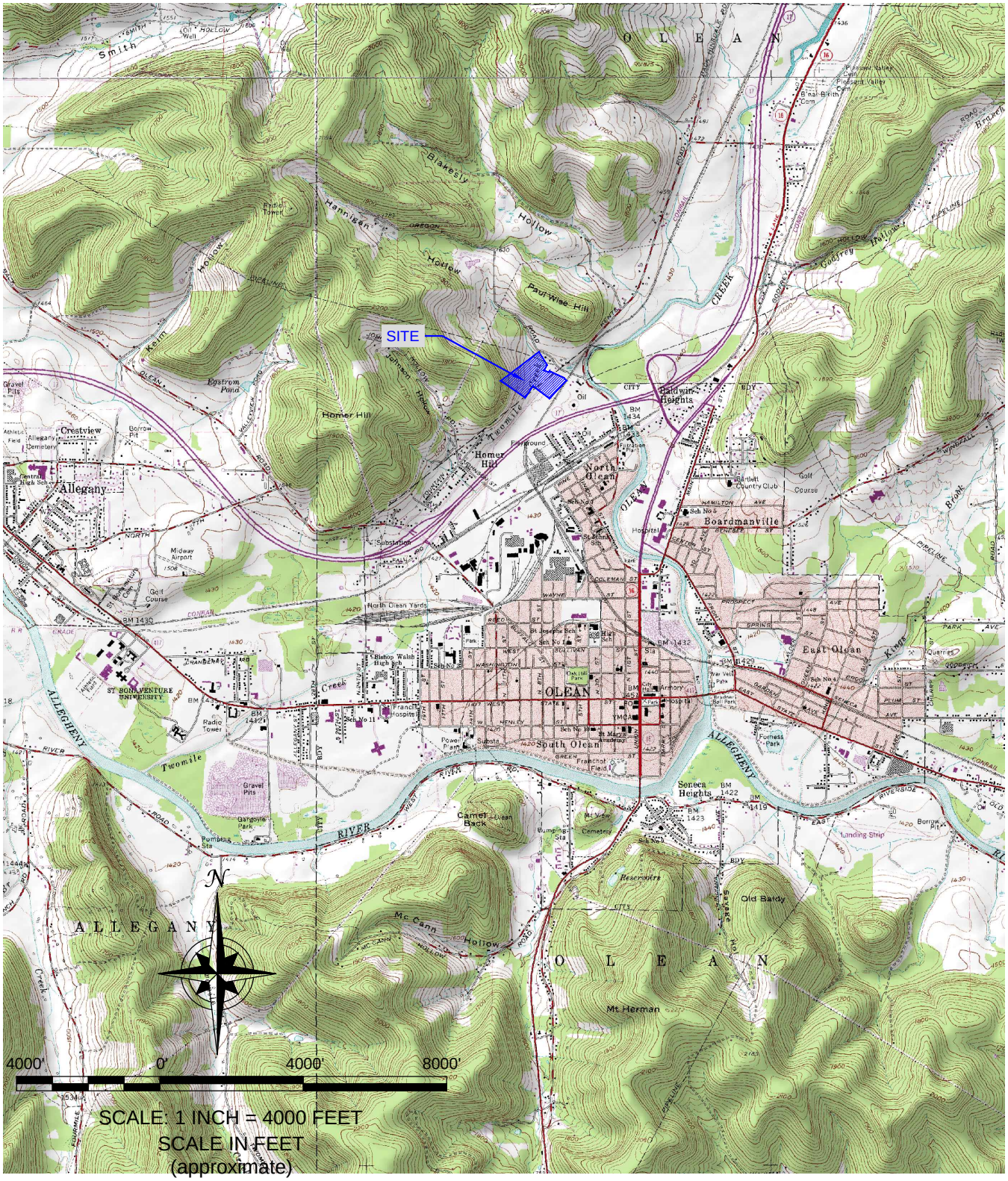
Definitions:

mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
ND = Parameter not detected above laboratory detection limit
"--" = No SCO available
J = Estimated value; result is less than the sample quantitation limit but greater than zero
= detected concentration exceeds its respective Part 375 Unrestricted or CP-51 SCO.

FIGURES

F:\CAD\TurnKeyBenson\Oregon Road\Phase II ESA\Figure 1; Site Location and Vicinity Map.dwg

FIGURE 1



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PROJECT NO.: 0323-015-001

DATE: JANUARY 2015

DRAFTED BY: BLR

SITE LOCATION & VICINITY MAP

PHASE II ENVIRONMENTAL SITE ASSESSMENT

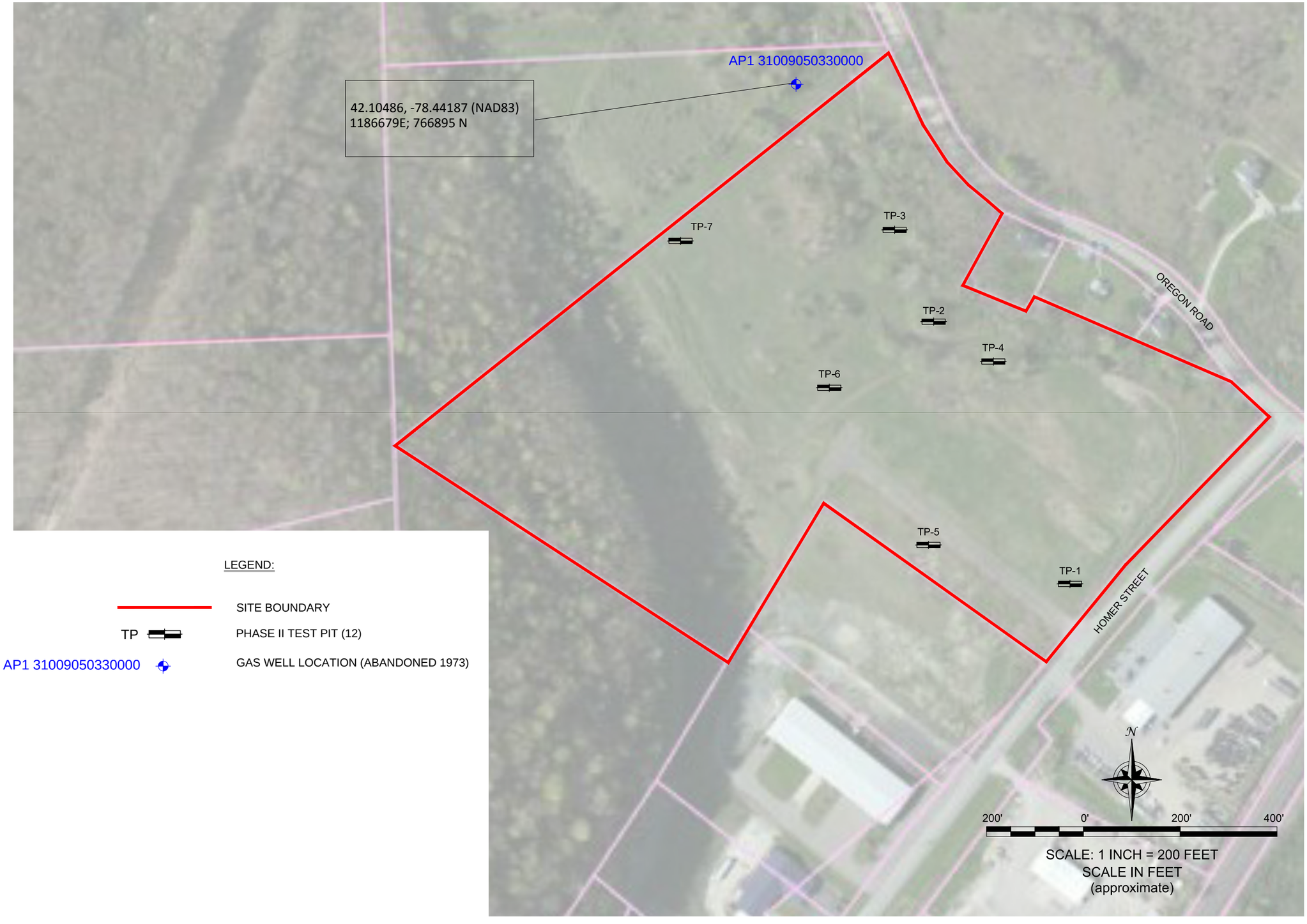
OREGON ROAD SITE

OLEAN, NEW YORK

PREPARED FOR

HOMER STREET PROPERTIES, LLC

F:\CAD\TurnKey\Homer Street Properties\Oregon Road\Phase II ESA\Figure 2; Investigation Locations with gas well rfl.dwg



LEGEND:

- SITE BOUNDARY
- TP — PHASE II TEST PIT (12)
- AP1 31009050330000 — GAS WELL LOCATION (ABANDONED 1973)

DATE: FEBRUARY 2015
DRAFTED BY: BLR/RFL

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TURNKEY ENVIRONMENTAL RESTORATION, LLC

JOB NO.: 0323-015-001

INVESTIGATION LOCATIONS

PHASE II ENVIRONMENTAL SITE ASSESSMENT

OREGON ROAD SITE

OLEAN, NEW YORK

PREPARED FOR

HOMER STREET PROPERTIES, LLC

FIGURE 2

APPENDIX A

HISTORICAL TOPOGRAPHIC MAP & AERIAL PHOTOGRAPHS

LEGEND

- Former Socony-Vacuum Refinery #1 Works Area
- Former Socony-Vacuum Refinery #2 Works Area
- Former Socony-Vacuum Refinery #3 Works Area

SOURCE: Olean Historical & Preservation Society
Olean, New York

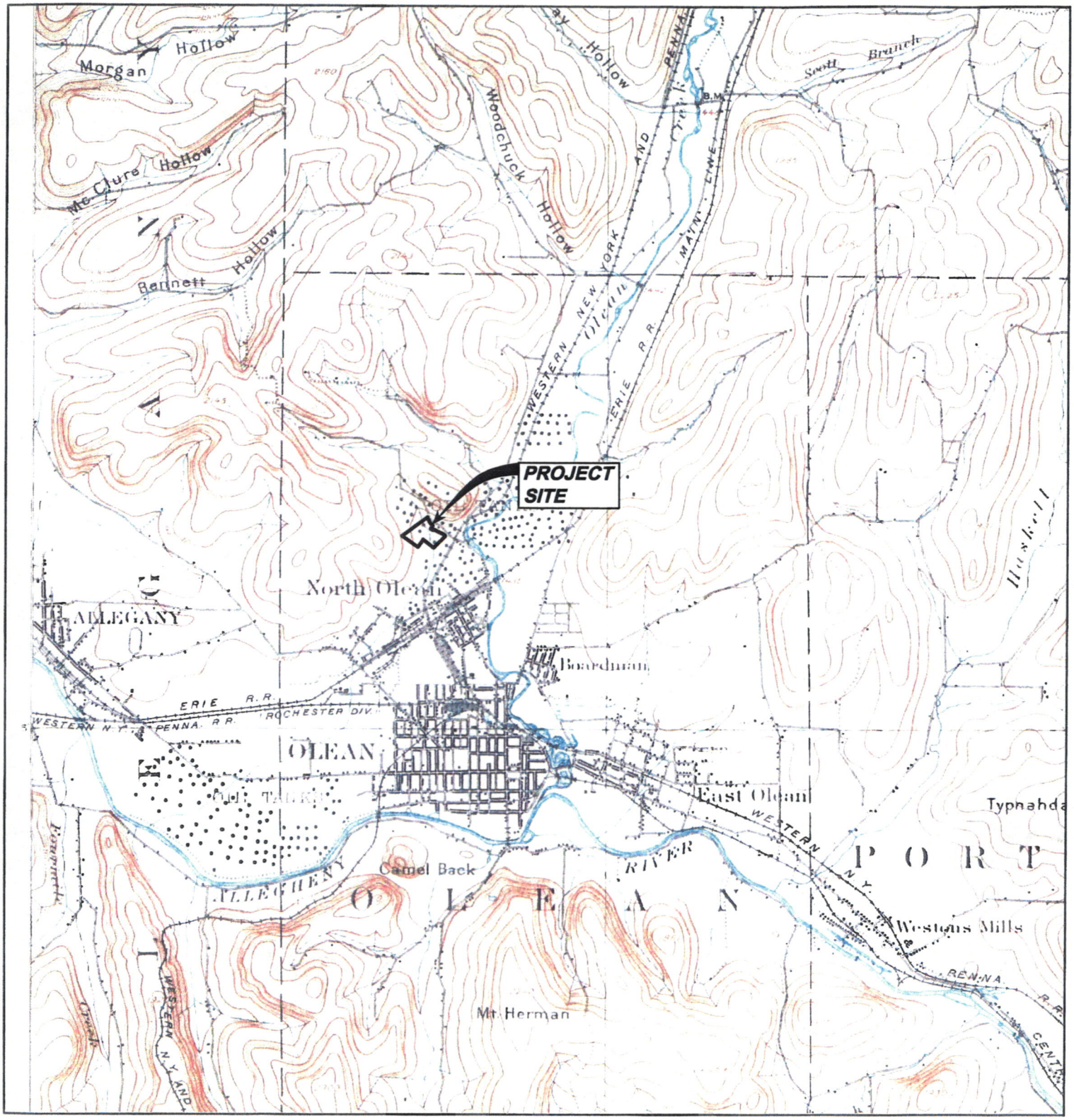
Note: Property boundaries are approximate based on current tax map interpretation.

amec Earth & Environmental

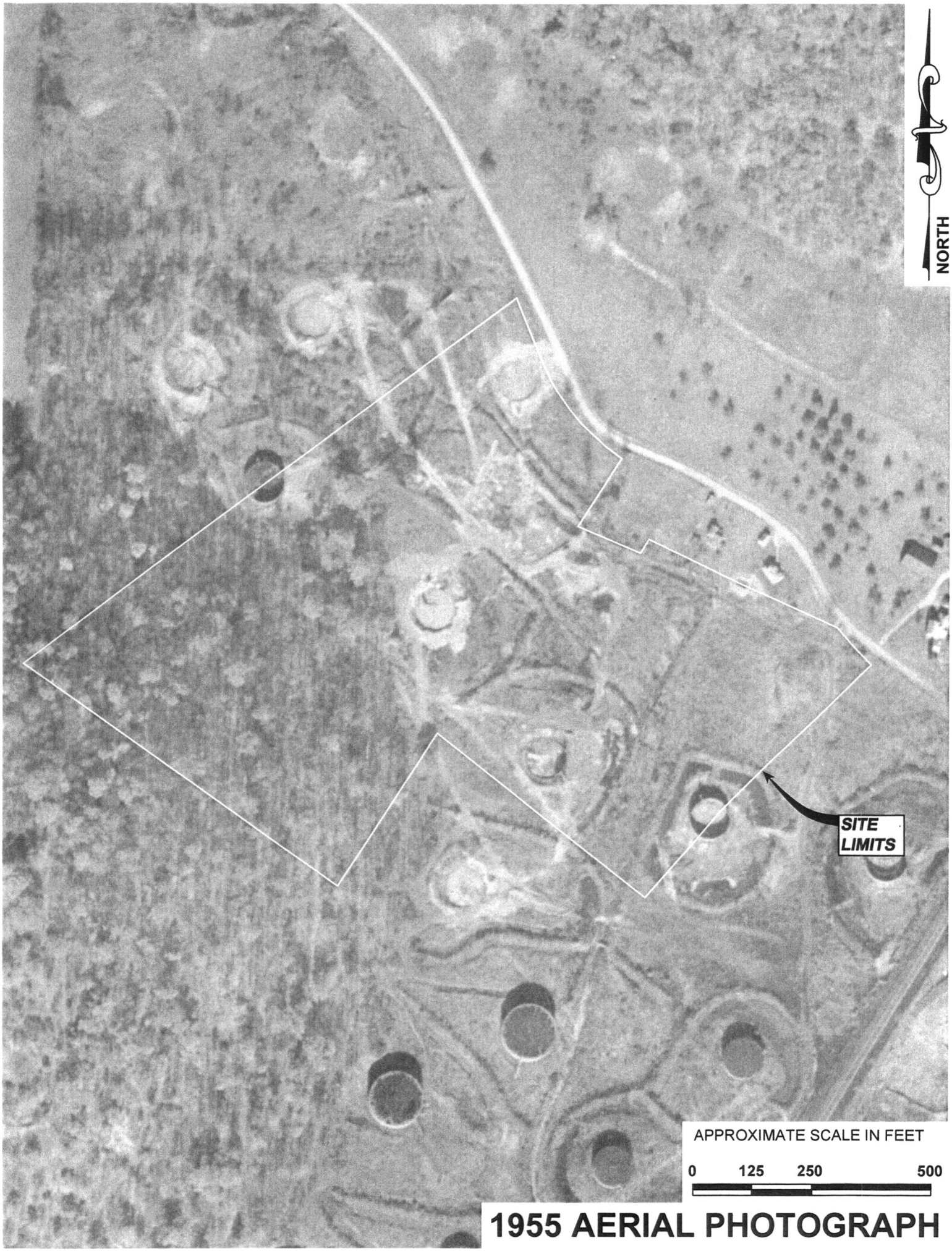
Figure 4 - 1
Undated Site Aerial Photograph (1927-1954)
Former Socony-Vacuum Oil Refinery
Olean, New York

Rev. By: CB	Contract No.: 676400000	03/21/2006

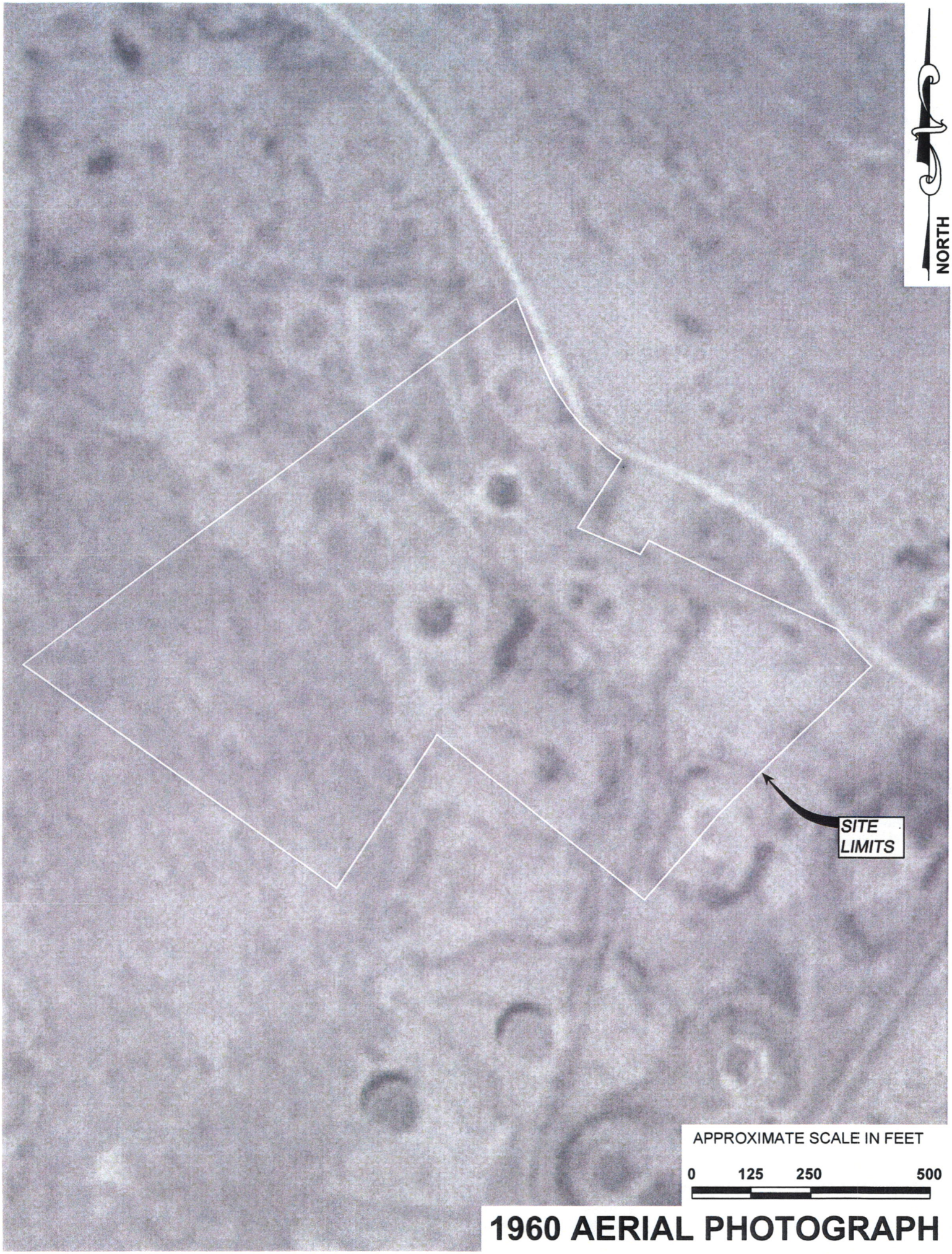
Historical Topographic Map



N	TARGET QUAD NAME: OLEAN MAP YEAR: 1898 SERIES: 15 SCALE: 1:62500	SITE NAME: Office building and vacant land ADDRESS: 229 Homes Street Olean, NY 14760 LAT/LONG: 42.1009 / 78.4403	CLIENT: GZA GeoEnvironmental, Inc. CONTACT: Jen Davide INQUIRY#: 2170049.4 RESEARCH DATE: 03/18/2008



1955 AERIAL PHOTOGRAPH



1960 AERIAL PHOTOGRAPH

1970s AERIAL PHOTOGRAPH

APPENDIX B

TEST PIT LOGS

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001
Test Pit I.D.: TP-01
Project: Phase II Investigation
Logged By: PWW
Client: Homer Street Properties LLC
Checked By: CB
Site Location: Oregon Street Parcel

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Topsoil***				
	-0.5 / 0.5	***Lean Clay*** Brown, moist, mostly medium plasticity fines, little fine sand, stiff, massive		0.0		
	-3.0 / 3.0	As above, grey, petroleum-like odor		47.0		
5.0	-5.0 / 5.0	As above, brown, strong petroleum-like odors		567.0	Sample collected	
				798.0		
				321.0		
10.0	-10.0 / 10.0	End of Test Pit		0.0		

PID VOCs scale: 0 – 1000 – 2000 ppm

Excavated By: Homer Street Properties LLC
Excavator Type: CAT 420D Backhoe
Excavation Date(s): 12-23-14
Comments:

Length: 15
Width: 2
Depth: 10

Depth to Water: NA
Visual Impacts: None
Olfactory Observations: Petroleum-like odors

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001
Test Pit I.D.: TP-02
Project: Phase II Investigation
Logged By: PWW
Client: Homer Street Properties LLC
Checked By: CB
Site Location: Oregon Street Parcel

TurnKey Environmental Restoration, LLC
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(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Topsoil***				
	-0.5					
	0.5	***Sandy Gravel*** Brown, moist to wet (2'), mostly coarse gravel and small cobbles, some fine sand, loose when disturbed, massive, oil floating on water, petroleum-like odor				
	-2.0					
	2.0	As above, grey, petroleum-like odor				
	-3.0					
	3.0	End of Test Pit				
5.0						
10.0						

PID VOCs ppm: 0 25 50 75 100

Excavated By: Benson Development & Construction
Excavator Type: CAT 420D Backhoe
Excavation Date(s): 12-23-14
Comments:

Length: 10
Width: 2
Depth: 3

Depth to Water: 2'
Visual Impacts: Floating product
Olfactory Observations: Petroleum-like odors

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001 | ***Test Pit I.D.:*** TP-03

Project: Phase II Investigation | ***Logged By:*** PWW

Client: Homer Street Properties LLC | ***Checked By:*** CB

Site Location: Oregon Street Parcel

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Topsoil***				
	-0.5 / 0.5	***Sandy Gravel with Fill*** Brown, moist, mostly coarse gravel and small cobbles, some fine sand, weathered cardboard or weathered tar paper, loose when disturbed, massive		0.0		
	-1.5 / 1.5	***Sandy Gravel*** As above, no apparent fill		0.0		
	-4.0 / 4.0	***Sandy Lean Clay with Gravel*** Brown, moist, mostly low plasticity fines, some fine sand, little coarse gravel, firm, massive		0.0		
5.0				0.0		
				0.0		
	-10.0 / 10.0	End of Test Pit		0.0		
10.0						

PID VOCs scale: 0 25 50 75 100 ppm

Excavated By: Benson Development & Construction | ***Length:*** 15 | ***Depth to Water:*** NA

Excavator Type: CAT 420D Backhoe | ***Width:*** 2 | ***Visual Impacts:*** None

Excavation Date(s): 12-23-14 | ***Depth:*** 10 | ***Olfactory Observations:*** None

Comments:

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001
Project: Phase II Investigation
Client: Homer Street Properties LLC
Site Location: Oregon Street Parcel

Test Pit I.D.: TP-04
Logged By: PWW
Checked By: CB

TurnKey Environmental Restoration, LLC
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(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Topsoil***				
	-0.5 / 0.5	***Sandy Lean Clay with Gravel*** Brown, moist, mostly low plasticity fines, some fine sand, little coarse gravel, firm, massive		0.0		
	-3.0 / 3.0	As above,moist to wet (3.5'), grey, floating product running out of perched water table, petroleum-like odor		267.0	Sample collected	
5.0				221.0		
				178.0		
	-8.0 / 8.0	End of Test Pit		154.0		
10.0						

PID VOCs scale: 0 100 300 500 ppm

Excavated By: Benson Development & Construction
Excavator Type: CAT 420D Backhoe
Excavation Date(s): 12-23-14
Comments:

Length: 15
Width: 2
Depth: 8

Depth to Water: NA
Visual Impacts: Floating product
Olfactory Observations: Petroleum-like odors

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001
Project: Phase II Investigation
Client: Homer Street Properties LLC
Site Location: Oregon Street Parcel

Test Pit I.D.: TP-05
Logged By: PWW
Checked By: CB

TurnKey Environmental Restoration, LLC
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SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Topsoil***				
	-0.5 / 0.5	***Sandy Lean Clay*** Brown, moist, mostly low plasticity fines, some fine sand, firm, massive		0.0		
	-3.0 / 3.0	***Sandy Lean Clay with Gravel*** Grey, moist, mostly low plasticity fines, some fine sand, little coarse gravel and small cobbles, petroleum-like odors		467.0	Sample collected	
5.0	-5.0 / 5.0	End of Test Pit		298.0		
10.0						

PID VOCs: ppm, 0 100 300 500

Excavated By: Benson Development & Construction
Excavator Type: CAT 420D Backhoe
Excavation Date(s): 12-23-14
Comments: 5' depth due to ditch and property boundary

Length: 7
Width: 2
Depth: 5

Depth to Water: NA
Visual Impacts: None
Olfactory Observations: Petroleum-like odors

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001 | ***Test Pit I.D.:*** TP-06

Project: Phase II Investigation | ***Logged By:*** PWW

Client: Homer Street Properties LLC | ***Checked By:*** CB

Site Location: Oregon Street Parcel

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2558 Hamburg Turnpike, Suite 300
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SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
	0.0	***Topsoil***				
	-0.5 / 0.5	***Sandy Lean Clay with Gravel*** Brown, moist, mostly low plasticity fines, some fine sand, little coarse gravel and small cobbles, firm, massive		0.0		
	-3.0 / 3.0	As above, grey		0.0		
5.0				0.0		
				0.0		
				0.0		
10.0	-10.0 / 10.0	End of Test Pit		0.0		

PID VOCs scale: 0 25 50 75 100 ppm

Excavated By: Benson Development & Construction | ***Length:*** 15 | ***Depth to Water:*** NA

Excavator Type: CAT 420D Backhoe | ***Width:*** 2 | ***Visual Impacts:*** None

Excavation Date(s): 12-23-14 | ***Depth:*** 10 | ***Olfactory Observations:*** None

Comments:

TEST PIT EXCAVATION LOG

Project No: 0323-015-001-001

Project: Phase II Investigation

Client: Homer Street Properties LLC

Site Location: Oregon Street Parcel

Test Pit I.D.: TP-07

Logged By: PWW

Checked By: CB

TurnKey Environmental Restoration, LLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716) 856-0635

SUBSURFACE PROFILE

Depth (fbgs)	Elev. /Depth	Description (ASTM D2488: Visual-Manual Procedure)	Lithologic Symbol	PID VOCs (ppm)	Lab Sample	Remarks
0.0	0.0	Ground Surface				
0.0	0.0	***Lean Clay with Gravel*** Grey, moist, mostly medium plasticity fines, little coarse gravel and small cobbles, trace fine sand, stiff, massive		0.0		
				0.0		
5.0				0.0		
				0.0		
				0.0		
10.0	-10.0 / 10.0	End of Test Pit				

PID VOCs: ppm, 0 25 50 75 100

Excavated By: ***Benson Development & Construction*** ***Length:*** ***15*** ***Depth to Water:*** ***NA***

Excavator Type: ***CAT 420D Backhoe*** ***Width:*** ***2*** ***Visual Impacts:*** ***None***

Excavation Date(s): ***12-23-14*** ***Depth:*** ***10*** ***Olfactory Observations:*** ***None***

Comments:

APPENDIX C

LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Lab Number:	L1431109
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Mike Lesakowski
Phone:	(716) 856-0599
Project Name:	OREGON STREET PARCEL
Project Number:	0323-015-001
Report Date:	01/07/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1431109-01	TP-1 (5-7)	SOIL	OREGON ST.	12/23/14 10:30	12/24/14
L1431109-02	TP-4 (3-5)	SOIL	OREGON ST.	12/23/14 12:00	12/24/14
L1431109-03	TP-5 (2-4)	SOIL	OREGON ST.	12/23/14 12:30	12/24/14

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109
Project Number: 0323-015-001 **Report Date:** 01/07/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	OREGON STREET PARCEL	**Lab Number:**	L1431109
Project Number:	0323-015-001	**Report Date:**	01/07/15

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L1431109-02 and -03 have elevated detection limits due to the dilutions required by the elevated concentrations of non-target compounds in the samples.

Total Mercury

The WG751918-4 MS recovery, performed on L1431109-01, is outside the acceptance criteria for mercury (163%). A post digestion spike was performed and was within acceptance

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Bryan Vangel

Title: Technical Director/Representative Date: 01/07/15

ORGANICS

VOLATILES

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-01 D
Client ID: TP-1 (5-7)
Sample Location: OREGON ST.
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 01/02/15 22:50
Analyst: PP
Percent Solids: 81%

Date Collected: 12/23/14 10:30
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	620	68.	50
1,1-Dichloroethane	ND		ug/kg	92	5.3	50
Chloroform	ND		ug/kg	92	23.	50
Carbon tetrachloride	ND		ug/kg	62	13.	50
1,2-Dichloropropane	ND		ug/kg	220	14.	50
Dibromochloromethane	ND		ug/kg	62	9.5	50
1,1,2-Trichloroethane	ND		ug/kg	92	19.	50
Tetrachloroethene	ND		ug/kg	62	8.6	50
Chlorobenzene	ND		ug/kg	62	21.	50
Trichlorofluoromethane	ND		ug/kg	310	24.	50
1,2-Dichloroethane	ND		ug/kg	62	7.0	50
1,1,1-Trichloroethane	ND		ug/kg	62	6.8	50
Bromodichloromethane	ND		ug/kg	62	11.	50
trans-1,3-Dichloropropene	ND		ug/kg	62	7.4	50
cis-1,3-Dichloropropene	ND		ug/kg	62	7.2	50
Bromoform	ND		ug/kg	250	14.	50
1,1,2,2-Tetrachloroethane	ND		ug/kg	62	6.2	50
Benzene	ND		ug/kg	62	7.3	50
Toluene	ND		ug/kg	92	12.	50
Ethylbenzene	ND		ug/kg	62	7.8	50
Chloromethane	ND		ug/kg	310	18.	50
Bromomethane	ND		ug/kg	120	21.	50
Vinyl chloride	ND		ug/kg	120	7.2	50
Chloroethane	ND		ug/kg	120	19.	50
1,1-Dichloroethene	ND		ug/kg	62	16.	50
trans-1,2-Dichloroethene	ND		ug/kg	92	13.	50
Trichloroethene	ND		ug/kg	62	7.7	50
1,2-Dichlorobenzene	ND		ug/kg	310	9.4	50
1,3-Dichlorobenzene	ND		ug/kg	310	8.3	50
1,4-Dichlorobenzene	ND		ug/kg	310	8.5	50

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-01 D Date Collected: 12/23/14 10:30

Client ID: TP-1 (5-7) Date Received: 12/24/14

Sample Location: OREGON ST. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	120	5.2	50
p/m-Xylene	630		ug/kg	120	12.	50
o-Xylene	ND		ug/kg	120	10.	50
cis-1,2-Dichloroethene	ND		ug/kg	62	8.8	50
Styrene	ND		ug/kg	120	25.	50
Dichlorodifluoromethane	ND		ug/kg	620	12.	50
Acetone	290	J	ug/kg	620	64.	50
Carbon disulfide	ND		ug/kg	620	68.	50
2-Butanone	1200		ug/kg	620	17.	50
4-Methyl-2-pentanone	ND		ug/kg	620	15.	50
2-Hexanone	ND		ug/kg	620	41.	50
Bromochloromethane	ND		ug/kg	310	17.	50
1,2-Dibromoethane	ND		ug/kg	250	11.	50
n-Butylbenzene	57	J	ug/kg	62	7.1	50
sec-Butylbenzene	160		ug/kg	62	7.5	50
tert-Butylbenzene	ND		ug/kg	310	8.3	50
1,2-Dibromo-3-chloropropane	ND		ug/kg	310	24.	50
Isopropylbenzene	180		ug/kg	62	6.4	50
p-Isopropyltoluene	360		ug/kg	62	7.7	50
n-Propylbenzene	330		ug/kg	62	6.7	50
1,2,3-Trichlorobenzene	ND		ug/kg	310	9.1	50
1,2,4-Trichlorobenzene	ND		ug/kg	310	11.	50
1,3,5-Trimethylbenzene	2200		ug/kg	310	8.8	50
1,2,4-Trimethylbenzene	4500		ug/kg	310	8.7	50
Methyl Acetate	ND		ug/kg	1200	17.	50
Cyclohexane	880	J	ug/kg	1200	9.0	50
1,4-Dioxane	ND		ug/kg	6200	890	50
Freon-113	ND		ug/kg	1200	17.	50
Methyl cyclohexane	5100		ug/kg	250	9.5	50

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-01 D Date Collected: 12/23/14 10:30

Client ID: TP-1 (5-7) Date Received: 12/24/14

Sample Location: OREGON ST. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tentatively Identified Compounds						
Total TIC Compounds	23000	J	ug/kg			50
Unknown Cyclohexane	4500	J	ug/kg			50
Unknown	2000	J	ug/kg			50
Cyclohexane, propyl-	2000	NJ	ug/kg			50
Unknown	2200	J	ug/kg			50
Unknown Benzene	1900	J	ug/kg			50
Unknown	1800	J	ug/kg			50
Unknown	2000	J	ug/kg			50
Unknown	1700	J	ug/kg			50
Unknown Naphthalene	2000	J	ug/kg			50
Unknown Naphthalene	2600	J	ug/kg			50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	79		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	84		70-130

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-02 D
Client ID: TP-4 (3-5)
Sample Location: OREGON ST.
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 01/02/15 20:36
Analyst: PP
Percent Solids: 83%

Date Collected: 12/23/14 12:00
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	30	3.3	2.5
1,1-Dichloroethane	ND		ug/kg	4.5	0.26	2.5
Chloroform	ND		ug/kg	4.5	1.1	2.5
Carbon tetrachloride	ND		ug/kg	3.0	0.63	2.5
1,2-Dichloropropane	ND		ug/kg	10	0.68	2.5
Dibromochloromethane	ND		ug/kg	3.0	0.46	2.5
1,1,2-Trichloroethane	ND		ug/kg	4.5	0.91	2.5
Tetrachloroethene	ND		ug/kg	3.0	0.42	2.5
Chlorobenzene	ND		ug/kg	3.0	1.0	2.5
Trichlorofluoromethane	ND		ug/kg	15	1.2	2.5
1,2-Dichloroethane	ND		ug/kg	3.0	0.34	2.5
1,1,1-Trichloroethane	ND		ug/kg	3.0	0.33	2.5
Bromodichloromethane	ND		ug/kg	3.0	0.52	2.5
trans-1,3-Dichloropropene	ND		ug/kg	3.0	0.36	2.5
cis-1,3-Dichloropropene	ND		ug/kg	3.0	0.35	2.5
Bromoform	ND		ug/kg	12	0.71	2.5
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.0	0.30	2.5
Benzene	ND		ug/kg	3.0	0.35	2.5
Toluene	ND		ug/kg	4.5	0.59	2.5
Ethylbenzene	ND		ug/kg	3.0	0.38	2.5
Chloromethane	ND		ug/kg	15	0.88	2.5
Bromomethane	ND		ug/kg	6.0	1.0	2.5
Vinyl chloride	ND		ug/kg	6.0	0.35	2.5
Chloroethane	ND		ug/kg	6.0	0.95	2.5
1,1-Dichloroethene	ND		ug/kg	3.0	0.79	2.5
trans-1,2-Dichloroethene	ND		ug/kg	4.5	0.64	2.5
Trichloroethene	ND		ug/kg	3.0	0.38	2.5
1,2-Dichlorobenzene	ND		ug/kg	15	0.46	2.5
1,3-Dichlorobenzene	ND		ug/kg	15	0.41	2.5
1,4-Dichlorobenzene	ND		ug/kg	15	0.42	2.5

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-02 D Date Collected: 12/23/14 12:00

Client ID: TP-4 (3-5) Date Received: 12/24/14

Sample Location: OREGON ST. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	6.0	0.25	2.5
p/m-Xylene	ND		ug/kg	6.0	0.60	2.5
o-Xylene	ND		ug/kg	6.0	0.52	2.5
cis-1,2-Dichloroethene	ND		ug/kg	3.0	0.43	2.5
Styrene	ND		ug/kg	6.0	1.2	2.5
Dichlorodifluoromethane	ND		ug/kg	30	0.57	2.5
Acetone	22	J	ug/kg	30	3.1	2.5
Carbon disulfide	ND		ug/kg	30	3.3	2.5
2-Butanone	31		ug/kg	30	0.82	2.5
4-Methyl-2-pentanone	ND		ug/kg	30	0.73	2.5
2-Hexanone	ND		ug/kg	30	2.0	2.5
Bromochloromethane	ND		ug/kg	15	0.83	2.5
1,2-Dibromoethane	ND		ug/kg	12	0.52	2.5
n-Butylbenzene	ND		ug/kg	3.0	0.34	2.5
sec-Butylbenzene	ND		ug/kg	3.0	0.37	2.5
tert-Butylbenzene	ND		ug/kg	15	0.41	2.5
1,2-Dibromo-3-chloropropane	ND		ug/kg	15	1.2	2.5
Isopropylbenzene	ND		ug/kg	3.0	0.31	2.5
p-Isopropyltoluene	ND		ug/kg	3.0	0.38	2.5
n-Propylbenzene	ND		ug/kg	3.0	0.33	2.5
1,2,3-Trichlorobenzene	ND		ug/kg	15	0.44	2.5
1,2,4-Trichlorobenzene	ND		ug/kg	15	0.55	2.5
1,3,5-Trimethylbenzene	ND		ug/kg	15	0.43	2.5
1,2,4-Trimethylbenzene	ND		ug/kg	15	0.42	2.5
Methyl Acetate	ND		ug/kg	60	0.81	2.5
Cyclohexane	ND		ug/kg	60	0.44	2.5
1,4-Dioxane	ND		ug/kg	300	43.	2.5
Freon-113	ND		ug/kg	60	0.82	2.5
Methyl cyclohexane	22		ug/kg	12	0.46	2.5

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-02 D Date Collected: 12/23/14 12:00

Client ID: TP-4 (3-5) Date Received: 12/24/14

Sample Location: OREGON ST. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tentatively Identified Compounds						
Total TIC Compounds	1300	J	ug/kg			2.5
Octane, 2,5-dimethyl-	91	NJ	ug/kg			2.5
Unknown	92	J	ug/kg			2.5
Unknown	91	J	ug/kg			2.5
Unknown	110	J	ug/kg			2.5
Unknown	140	J	ug/kg			2.5
Unknown	110	J	ug/kg			2.5
Unknown	110	J	ug/kg			2.5
Unknown	180	J	ug/kg			2.5
Cyclohexane, pentyl-	100	NJ	ug/kg			2.5
Unknown Naphthalene	260	J	ug/kg			2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	80		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	72		70-130
Dibromofluoromethane	89		70-130

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-03 D
Client ID: TP-5 (2-4)
Sample Location: OREGON ST.
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 01/02/15 23:17
Analyst: PP
Percent Solids: 88%

Date Collected: 12/23/14 12:30
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	1400	160	125
1,1-Dichloroethane	ND		ug/kg	210	12.	125
Chloroform	ND		ug/kg	210	53.	125
Carbon tetrachloride	ND		ug/kg	140	30.	125
1,2-Dichloropropane	ND		ug/kg	500	32.	125
Dibromochloromethane	ND		ug/kg	140	22.	125
1,1,2-Trichloroethane	ND		ug/kg	210	43.	125
Tetrachloroethene	ND		ug/kg	140	20.	125
Chlorobenzene	ND		ug/kg	140	49.	125
Trichlorofluoromethane	ND		ug/kg	710	55.	125
1,2-Dichloroethane	ND		ug/kg	140	16.	125
1,1,1-Trichloroethane	ND		ug/kg	140	16.	125
Bromodichloromethane	ND		ug/kg	140	25.	125
trans-1,3-Dichloropropene	ND		ug/kg	140	17.	125
cis-1,3-Dichloropropene	ND		ug/kg	140	17.	125
Bromoform	ND		ug/kg	570	34.	125
1,1,2,2-Tetrachloroethane	ND		ug/kg	140	14.	125
Benzene	ND		ug/kg	140	17.	125
Toluene	ND		ug/kg	210	28.	125
Ethylbenzene	ND		ug/kg	140	18.	125
Chloromethane	ND		ug/kg	710	42.	125
Bromomethane	ND		ug/kg	280	48.	125
Vinyl chloride	ND		ug/kg	280	17.	125
Chloroethane	ND		ug/kg	280	45.	125
1,1-Dichloroethene	ND		ug/kg	140	37.	125
trans-1,2-Dichloroethene	ND		ug/kg	210	30.	125
Trichloroethene	ND		ug/kg	140	18.	125
1,2-Dichlorobenzene	ND		ug/kg	710	22.	125
1,3-Dichlorobenzene	ND		ug/kg	710	19.	125
1,4-Dichlorobenzene	ND		ug/kg	710	20.	125

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-03 D Date Collected: 12/23/14 12:30

Client ID: TP-5 (2-4) Date Received: 12/24/14

Sample Location: OREGON ST. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	280	12.	125
p/m-Xylene	ND		ug/kg	280	28.	125
o-Xylene	ND		ug/kg	280	24.	125
cis-1,2-Dichloroethene	ND		ug/kg	140	20.	125
Styrene	ND		ug/kg	280	57.	125
Dichlorodifluoromethane	ND		ug/kg	1400	27.	125
Acetone	330	J	ug/kg	1400	150	125
Carbon disulfide	ND		ug/kg	1400	160	125
2-Butanone	ND		ug/kg	1400	39.	125
4-Methyl-2-pentanone	ND		ug/kg	1400	35.	125
2-Hexanone	ND		ug/kg	1400	95.	125
Bromochloromethane	ND		ug/kg	710	39.	125
1,2-Dibromoethane	ND		ug/kg	570	25.	125
n-Butylbenzene	140		ug/kg	140	16.	125
sec-Butylbenzene	300		ug/kg	140	17.	125
tert-Butylbenzene	ND		ug/kg	710	19.	125
1,2-Dibromo-3-chloropropane	ND		ug/kg	710	56.	125
Isopropylbenzene	92	J	ug/kg	140	15.	125
p-Isopropyltoluene	360		ug/kg	140	18.	125
n-Propylbenzene	130	J	ug/kg	140	16.	125
1,2,3-Trichlorobenzene	ND		ug/kg	710	21.	125
1,2,4-Trichlorobenzene	ND		ug/kg	710	26.	125
1,3,5-Trimethylbenzene	990		ug/kg	710	20.	125
1,2,4-Trimethylbenzene	2000		ug/kg	710	20.	125
Methyl Acetate	ND		ug/kg	2800	38.	125
Cyclohexane	70	J	ug/kg	2800	21.	125
1,4-Dioxane	ND		ug/kg	14000	2000	125
Freon-113	ND		ug/kg	2800	39.	125
Methyl cyclohexane	2600		ug/kg	570	22.	125

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-03 D Date Collected: 12/23/14 12:30

Client ID: TP-5 (2-4) Date Received: 12/24/14

Sample Location: OREGON ST. Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tentatively Identified Compounds						
Total TIC Compounds	52000	J	ug/kg			125
Cyclohexane, 1,1,3-trimethyl-	3900	NJ	ug/kg			125
Unknown	4000	J	ug/kg			125
Unknown	3900	J	ug/kg			125
Unknown	4900	J	ug/kg			125
Decane, 4-methyl-	5500	NJ	ug/kg			125
Unknown	8300	J	ug/kg			125
Unknown	4700	J	ug/kg			125
Unknown Benzene	6400	J	ug/kg			125
Unknown	5100	J	ug/kg			125
Unknown Naphthalene	5500	J	ug/kg			125

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	79		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	86		70-130

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/15 15:13
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG753161-3					
Methylene chloride	ND		ug/kg	10	1.1
1,1-Dichloroethane	ND		ug/kg	1.5	0.09
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.15
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.39
1,2-Dichloroethane	ND		ug/kg	1.0	0.11
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.17
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
Bromoform	ND		ug/kg	4.0	0.24
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.10
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.19
Ethylbenzene	ND		ug/kg	1.0	0.13
Chloromethane	ND		ug/kg	5.0	0.29
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.12
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.26
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.12
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.15
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.14

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001
Lab Number: L1431109
Report Date: 01/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/15 15:13
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG753161-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.14
Methyl tert butyl ether	ND		ug/kg	2.0	0.08
p/m-Xylene	ND		ug/kg	2.0	0.20
o-Xylene	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.14
Styrene	ND		ug/kg	2.0	0.40
Dichlorodifluoromethane	ND		ug/kg	10	0.19
Acetone	5.0	J	ug/kg	10	1.0
Carbon disulfide	ND		ug/kg	10	1.1
2-Butanone	3.8	J	ug/kg	10	0.27
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
2-Hexanone	ND		ug/kg	10	0.67
Bromochloromethane	ND		ug/kg	5.0	0.28
1,2-Dibromoethane	ND		ug/kg	4.0	0.17
n-Butylbenzene	ND		ug/kg	1.0	0.11
sec-Butylbenzene	ND		ug/kg	1.0	0.12
tert-Butylbenzene	ND		ug/kg	5.0	0.14
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.40
Isopropylbenzene	ND		ug/kg	1.0	0.10
p-Isopropyltoluene	ND		ug/kg	1.0	0.12
Naphthalene	ND		ug/kg	5.0	0.14
n-Propylbenzene	ND		ug/kg	1.0	0.11
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.15
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.18
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.14
Methyl Acetate	ND		ug/kg	20	0.27
Cyclohexane	ND		ug/kg	20	0.15
1,4-Dioxane	ND		ug/kg	100	14.

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001
Lab Number: L1431109
Report Date: 01/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/15 15:13
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG753161-3					
Freon-113	ND		ug/kg	20	0.27
Methyl cyclohexane	ND		ug/kg	4.0	0.15
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	79		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	83		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG753161-1 WG753161-2								
Methylene chloride	112		113		70-130	1		30
1,1-Dichloroethane	126		119		70-130	6		30
Chloroform	103		98		70-130	5		30
Carbon tetrachloride	105		100		70-130	5		30
1,2-Dichloropropane	**135**	Q	126		70-130	7		30
Dibromochloromethane	98		94		70-130	4		30
2-Chloroethylvinyl ether	118		114		70-130	3		30
1,1,2-Trichloroethane	90		86		70-130	5		30
Tetrachloroethene	106		100		70-130	6		30
Chlorobenzene	101		97		70-130	4		30
Trichlorofluoromethane	74		70		70-139	6		30
1,2-Dichloroethane	97		92		70-130	5		30
1,1,1-Trichloroethane	97		90		70-130	7		30
Bromodichloromethane	102		96		70-130	6		30
trans-1,3-Dichloropropene	93		89		70-130	4		30
cis-1,3-Dichloropropene	117		111		70-130	5		30
1,1-Dichloropropene	112		106		70-130	6		30
Bromoform	88		85		70-130	3		30
1,1,2,2-Tetrachloroethane	82		78		70-130	5		30
Benzene	121		115		70-130	5		30
Toluene	99		94		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG753161-1 WG753161-2								
Ethylbenzene	100		95		70-130	5		30
Chloromethane	**152**	Q	**143**	Q	52-130	6		30
Bromomethane	113		106		57-147	6		30
Vinyl chloride	126		119		67-130	6		30
Chloroethane	102		95		50-151	7		30
1,1-Dichloroethene	114		106		65-135	7		30
trans-1,2-Dichloroethene	120		115		70-130	4		30
Trichloroethene	113		106		70-130	6		30
1,2-Dichlorobenzene	102		96		70-130	6		30
1,3-Dichlorobenzene	104		98		70-130	6		30
1,4-Dichlorobenzene	103		98		70-130	5		30
Methyl tert butyl ether	108		103		66-130	5		30
p/m-Xylene	106		101		70-130	5		30
o-Xylene	107		102		70-130	5		30
cis-1,2-Dichloroethene	122		117		70-130	4		30
Dibromomethane	97		92		70-130	5		30
Styrene	104		100		70-130	4		30
Dichlorodifluoromethane	80		75		30-146	6		30
Acetone	99		95		54-140	4		30
Carbon disulfide	101		96		59-130	5		30
2-Butanone	125		108		70-130	15		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG753161-1 WG753161-2								
Vinyl acetate	127		119		70-130	7		30
4-Methyl-2-pentanone	120		117		70-130	3		30
1,2,3-Trichloropropane	80		79		68-130	1		30
2-Hexanone	100		97		70-130	3		30
Bromochloromethane	121		115		70-130	5		30
2,2-Dichloropropane	103		97		70-130	6		30
1,2-Dibromoethane	91		88		70-130	3		30
1,3-Dichloropropane	94		90		69-130	4		30
1,1,1,2-Tetrachloroethane	104		99		70-130	5		30
Bromobenzene	104		100		70-130	4		30
n-Butylbenzene	91		85		70-130	7		30
sec-Butylbenzene	94		88		70-130	7		30
tert-Butylbenzene	101		95		70-130	6		30
o-Chlorotoluene	99		92		70-130	7		30
p-Chlorotoluene	98		93		70-130	5		30
1,2-Dibromo-3-chloropropane	85		81		68-130	5		30
Hexachlorobutadiene	98		91		67-130	7		30
Isopropylbenzene	97		92		70-130	5		30
p-Isopropyltoluene	101		95		70-130	6		30
Naphthalene	98		94		70-130	4		30
Acrylonitrile	**136**	Q	127		70-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG753161-1 WG753161-2								
Isopropyl Ether	**158**	Q	**148**	Q	66-130	7		30
tert-Butyl Alcohol	94		89		70-130	5		30
n-Propylbenzene	95		89		70-130	7		30
1,2,3-Trichlorobenzene	102		97		70-130	5		30
1,2,4-Trichlorobenzene	108		101		70-130	7		30
1,3,5-Trimethylbenzene	97		92		70-130	5		30
1,2,4-Trimethylbenzene	98		92		70-130	6		30
Methyl Acetate	117		117		51-146	0		30
Ethyl Acetate	120		114		70-130	5		30
Acrolein	122		118		70-130	3		30
Cyclohexane	131		123		59-142	6		30
1,4-Dioxane	87		81		65-136	7		30
Freon-113	95		88		50-139	8		30
1,4-Diethylbenzene	103		96		70-130	7		30
4-Ethyltoluene	97		91		70-130	6		30
1,2,4,5-Tetramethylbenzene	107		100		70-130	7		30
Tetrahydrofuran	128		121		66-130	6		30
Ethyl ether	113		108		67-130	5		30
trans-1,4-Dichloro-2-butene	88		85		70-130	3		30
Methyl cyclohexane	101		94		70-130	7		30
Ethyl-Tert-Butyl-Ether	130		123		70-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG753161-1 WG753161-2								
Tertiary-Amyl Methyl Ether	114		108		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	80		80		70-130
Toluene-d8	88		87		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	93		92		70-130

SEMIVOLATILES

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID:	L1431109-01	Date Collected:	12/23/14 10:30
Client ID:	TP-1 (5-7)	Date Received:	12/24/14
Sample Location:	OREGON ST.	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	12/29/14 19:18
Analytical Date:	01/06/15 15:44		
Analyst:	RC		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	42.	1
2-Chloronaphthalene	ND		ug/kg	200	66.	1
Fluoranthene	ND		ug/kg	120	37.	1
Naphthalene	ND		ug/kg	200	67.	1
Benzo(a)anthracene	ND		ug/kg	120	39.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	41.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	40.	1
Acenaphthylene	ND		ug/kg	160	38.	1
Anthracene	ND		ug/kg	120	34.	1
Benzo(ghi)perylene	ND		ug/kg	160	42.	1
Fluorene	ND		ug/kg	200	58.	1
Phenanthrene	ND		ug/kg	120	39.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	39.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	45.	1
Pyrene	ND		ug/kg	120	39.	1
2-Methylnaphthalene	230	J	ug/kg	240	64.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	60		30-120
4-Terphenyl-d14	52		18-120

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID:	L1431109-02	Date Collected:	12/23/14 12:00
Client ID:	TP-4 (3-5)	Date Received:	12/24/14
Sample Location:	OREGON ST.	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	12/29/14 19:18
Analytical Date:	01/06/15 16:12		
Analyst:	RC		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	40.	1
2-Chloronaphthalene	ND		ug/kg	200	64.	1
Fluoranthene	ND		ug/kg	120	36.	1
Naphthalene	ND		ug/kg	200	65.	1
Benzo(a)anthracene	ND		ug/kg	120	38.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	39.	1
Benzo(k)fluoranthene	ND		ug/kg	120	37.	1
Chrysene	ND		ug/kg	120	38.	1
Acenaphthylene	ND		ug/kg	160	36.	1
Anthracene	ND		ug/kg	120	32.	1
Benzo(ghi)perylene	ND		ug/kg	160	41.	1
Fluorene	ND		ug/kg	200	56.	1
Phenanthrene	ND		ug/kg	120	38.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	43.	1
Pyrene	ND		ug/kg	120	38.	1
2-Methylnaphthalene	ND		ug/kg	230	62.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	68		30-120
4-Terphenyl-d14	65		18-120

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

SAMPLE RESULTS

Lab ID:	L1431109-03	Date Collected:	12/23/14 12:30
Client ID:	TP-5 (2-4)	Date Received:	12/24/14
Sample Location:	OREGON ST.	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	12/29/14 19:18
Analytical Date:	01/06/15 16:39		
Analyst:	RC		
Percent Solids:	88%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	38.	1
2-Chloronaphthalene	ND		ug/kg	190	61.	1
Fluoranthene	ND		ug/kg	110	34.	1
Naphthalene	220		ug/kg	190	62.	1
Benzo(a)anthracene	ND		ug/kg	110	36.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	ND		ug/kg	110	38.	1
Benzo(k)fluoranthene	ND		ug/kg	110	36.	1
Chrysene	ND		ug/kg	110	37.	1
Acenaphthylene	ND		ug/kg	150	35.	1
Anthracene	ND		ug/kg	110	31.	1
Benzo(ghi)perylene	ND		ug/kg	150	39.	1
Fluorene	99	J	ug/kg	190	53.	1
Phenanthrene	260		ug/kg	110	36.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	36.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	41.	1
Pyrene	ND		ug/kg	110	36.	1
2-Methylnaphthalene	1100		ug/kg	220	60.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	107		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	65		18-120

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001
Lab Number: L1431109
Report Date: 01/07/15

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/06/15 11:32
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 12/29/14 19:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG752364-1					
Acenaphthene	ND		ug/kg	130	34.
2-Chloronaphthalene	ND		ug/kg	160	53.
Fluoranthene	ND		ug/kg	98	30.
Naphthalene	ND		ug/kg	160	54.
Benzo(a)anthracene	ND		ug/kg	98	32.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	33.
Benzo(k)fluoranthene	ND		ug/kg	98	31.
Chrysene	ND		ug/kg	98	32.
Acenaphthylene	ND		ug/kg	130	30.
Anthracene	ND		ug/kg	98	27.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	160	47.
Phenanthrene	ND		ug/kg	98	32.
Dibenzo(a,h)anthracene	ND		ug/kg	98	32.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	36.
Pyrene	ND		ug/kg	98	32.
2-Methylnaphthalene	ND		ug/kg	200	52.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		25-120
Phenol-d6	51		10-120
Nitrobenzene-d5	51		23-120
2-Fluorobiphenyl	52		30-120
2,4,6-Tribromophenol	59		0-136
4-Terphenyl-d14	63		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG752364-2 WG752364-3								
Acenaphthene	58		53		31-137	9		50
Benzidine	8	Q	17			**69**	Q	50
n-Nitrosodimethylamine	54		40			30		50
1,2,4-Trichlorobenzene	55		46		38-107	18		50
Hexachlorobenzene	61		57		40-140	7		50
Bis(2-chloroethyl)ether	57		47		40-140	19		50
2-Chloronaphthalene	59		52		40-140	13		50
1,2-Dichlorobenzene	54		42		40-140	25		50
1,3-Dichlorobenzene	52		40		40-140	26		50
1,4-Dichlorobenzene	52		40		28-104	26		50
3,3'-Dichlorobenzidine	**38**	Q	**37**	Q	40-140	3		50
2,4-Dinitrotoluene	63		58		28-89	8		50
2,6-Dinitrotoluene	65		60		40-140	8		50
Fluoranthene	62		55		40-140	12		50
4-Chlorophenyl phenyl ether	58		53		40-140	9		50
4-Bromophenyl phenyl ether	65		59		40-140	10		50
Azobenzene	68		62		40-140	9		50
Bis(2-chloroisopropyl)ether	68		57		40-140	18		50
Bis(2-chloroethoxy)methane	61		55		40-117	10		50
Hexachlorobutadiene	54		45		40-140	18		50
Hexachlorocyclopentadiene	48		42		40-140	13		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG752364-2 WG752364-3								
Hexachloroethane	52		40		40-140	26		50
Isophorone	62		56		40-140	10		50
Naphthalene	54		46		40-140	16		50
Nitrobenzene	58		49		40-140	17		50
NitrosoDiPhenylAmine(NDPA)/DPA	64		59			8		50
n-Nitrosodi-n-propylamine	68		59		32-121	14		50
Bis(2-Ethylhexyl)phthalate	67		65		40-140	3		50
Butyl benzyl phthalate	64		58		40-140	10		50
Di-n-butylphthalate	64		58		40-140	10		50
Di-n-octylphthalate	70		63		40-140	11		50
Diethyl phthalate	62		57		40-140	8		50
Dimethyl phthalate	60		55		40-140	9		50
Benzo(a)anthracene	60		55		40-140	9		50
Benzo(a)pyrene	62		56		40-140	10		50
Benzo(b)fluoranthene	63		55		40-140	14		50
Benzo(k)fluoranthene	60		56		40-140	7		50
Chrysene	58		54		40-140	7		50
Acenaphthylene	59		54		40-140	9		50
Anthracene	60		55		40-140	9		50
Benzo(ghi)perylene	60		55		40-140	9		50
Fluorene	60		55		40-140	9		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG752364-2 WG752364-3								
Phenanthrene	60		55		40-140	9		50
Dibenzo(a,h)anthracene	62		56		40-140	10		50
Indeno(1,2,3-cd)Pyrene	63		58		40-140	8		50
Pyrene	59		55		35-142	7		50
Biphenyl	63		56			12		50
Aniline	**27**	Q	**31**	Q	40-140	14		50
4-Chloroaniline	65		60		40-140	8		50
2-Nitroaniline	69		63		47-134	9		50
3-Nitroaniline	49		46		26-129	6		50
4-Nitroaniline	65		60		41-125	8		50
Dibenzofuran	61		56		40-140	9		50
2-Methylnaphthalene	61		54		40-140	12		50
1,2,4,5-Tetrachlorobenzene	59		53		40-117	11		50
Acetophenone	67		58		14-144	14		50
2,4,6-Trichlorophenol	66		60		30-130	10		50
P-Chloro-M-Cresol	70		65		26-103	7		50
2-Chlorophenol	64		55		25-102	15		50
2,4-Dichlorophenol	67		60		30-130	11		50
2,4-Dimethylphenol	64		62		30-130	3		50
2-Nitrophenol	70		62		30-130	12		50
4-Nitrophenol	78		72		11-114	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG752364-2 WG752364-3								
2,4-Dinitrophenol	27		56		4-130	**70**	Q	50
4,6-Dinitro-o-cresol	60		61		10-130	2		50
Pentachlorophenol	61		56		17-109	9		50
Phenol	62		55		26-90	12		50
2-Methylphenol	68		61		30-130.	11		50
3-Methylphenol/4-Methylphenol	72		65		30-130	10		50
2,4,5-Trichlorophenol	66		62		30-130	6		50
Benzoic Acid	3	Q	24			**157**	Q	50
Benzyl Alcohol	62		56		40-140	10		50
Carbazole	65		59		54-128	10		50
Benzaldehyde	63		46			31		50
Caprolactam	79		77			3		50
Atrazine	80		73			9		50
2,3,4,6-Tetrachlorophenol	65		61			6		50
Pyridine	34		34		10-93	0		50
Parathion, ethyl	91		86		40-140	6		50
1-Methylnaphthalene	64		55		26-130	15		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG752364-2 WG752364-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		49		25-120
Phenol-d6	64		56		10-120
Nitrobenzene-d5	65		55		23-120
2-Fluorobiphenyl	62		54		30-120
2,4,6-Tribromophenol	76		68		0-136
4-Terphenyl-d14	67		58		18-120

METALS

Project Name: OREGON STREET PARCEL
Lab Number: L1431109
Project Number: 0323-015-001
Report Date: 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-01
Client ID: TP-1 (5-7)
Sample Location: OREGON ST.
Matrix: Soil
Percent Solids: 81%

Date Collected: 12/23/14 10:30
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.5		mg/kg	0.47	0.10	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH
Barium, Total	160		mg/kg	0.47	0.14	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH
Cadmium, Total	ND		mg/kg	0.47	0.03	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH
Chromium, Total	15		mg/kg	0.47	0.10	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH
Lead, Total	6.4		mg/kg	2.4	0.10	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH
Mercury, Total	0.03	J	mg/kg	0.08	0.02	1	12/26/14 13:08	12/30/14 10:24	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	0.95	0.14	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.47	0.10	1	01/06/15 10:04	01/06/15 13:15	EPA 3050B	1,6010C	JH

Project Name: OREGON STREET PARCEL
Lab Number: L1431109
Project Number: 0323-015-001
Report Date: 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-02
Client ID: TP-4 (3-5)
Sample Location: OREGON ST.
Matrix: Soil
Percent Solids: 83%

Date Collected: 12/23/14 12:00
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	9.5		mg/kg	0.48	0.10	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH
Barium, Total	70		mg/kg	0.48	0.14	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH
Cadmium, Total	ND		mg/kg	0.48	0.03	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH
Chromium, Total	9.6		mg/kg	0.48	0.10	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH
Lead, Total	2.9		mg/kg	2.4	0.10	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH
Mercury, Total	0.03	J	mg/kg	0.08	0.02	1	12/26/14 13:08	12/30/14 10:36	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	0.95	0.14	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.48	0.10	1	01/06/15 10:04	01/06/15 13:19	EPA 3050B	1,6010C	JH

Project Name: OREGON STREET PARCEL
Lab Number: L1431109
Project Number: 0323-015-001
Report Date: 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-03
Client ID: TP-5 (2-4)
Sample Location: OREGON ST.
Matrix: Soil
Percent Solids: 88%

Date Collected: 12/23/14 12:30
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	8.8		mg/kg	0.45	0.09	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH
Barium, Total	130		mg/kg	0.45	0.13	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH
Cadmium, Total	ND		mg/kg	0.45	0.03	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH
Chromium, Total	10		mg/kg	0.45	0.09	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH
Lead, Total	4.8		mg/kg	2.2	0.09	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH
Mercury, Total	ND		mg/kg	0.07	0.02	1	12/26/14 13:08	12/30/14 10:37	EPA 7471B	1,7471B	MC
Selenium, Total	ND		mg/kg	0.90	0.13	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH
Silver, Total	ND		mg/kg	0.45	0.09	1	01/06/15 10:04	01/06/15 13:23	EPA 3050B	1,6010C	JH

Project Name: OREGON STREET PARCEL **Lab Number:** L1431109

Project Number: 0323-015-001 **Report Date:** 01/07/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-03 Batch: WG751918-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	12/26/14 13:08	12/30/14 10:18	1,7471B	MC

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-03 Batch: WG753506-1										
Arsenic, Total	ND		mg/kg	0.40	0.08	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT
Barium, Total	ND		mg/kg	0.40	0.12	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT
Cadmium, Total	ND		mg/kg	0.40	0.03	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT
Chromium, Total	ND		mg/kg	0.40	0.08	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT
Lead, Total	ND		mg/kg	2.0	0.08	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT
Selenium, Total	ND		mg/kg	0.80	0.12	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT
Silver, Total	ND		mg/kg	0.40	0.08	1	01/06/15 10:04	01/06/15 12:08	1,6010C	TT

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: OREGON STREET PARCEL

Project Number: 0323-015-001

Lab Number: L1431109

Report Date: 01/07/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 Batch: WG751918-2 SRM Lot Number: D083-540								
Mercury, Total	121		-		75-126	-		
Total Metals - Westborough Lab Associated sample(s): 01-03 Batch: WG753506-2 SRM Lot Number: D083-540								
Arsenic, Total	98		-		78-122	-		
Barium, Total	102		-		82-117	-		
Cadmium, Total	92		-		82-118	-		
Chromium, Total	96		-		79-121	-		
Lead, Total	89		-		81-119	-		
Selenium, Total	96		-		78-123	-		
Silver, Total	94		-		74-125	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG751918-4 QC Sample: L1431109-01 Client ID: TP-1 (5-7)												
Mercury, Total	0.03J	0.159	0.26	**163**	Q	-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG753506-4 QC Sample: L1430765-01 Client ID: MS Sample												
Arsenic, Total	12.	11.1	22	90		-	-		75-125	-		20
Barium, Total	120	186	310	102		-	-		75-125	-		20
Cadmium, Total	ND	4.73	4.2	89		-	-		75-125	-		20
Chromium, Total	19.	18.6	36	92		-	-		75-125	-		20
Lead, Total	31.	47.3	67	76		-	-		75-125	-		20
Selenium, Total	ND	11.1	9.0	81		-	-		75-125	-		20
Silver, Total	ND	27.8	25	90		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG751918-3 QC Sample: L1431109-01 Client ID: TP-1 (5-7)						
Mercury, Total	0.03J	0.04J	mg/kg	NC		20
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG753506-3 QC Sample: L1430765-01 Client ID: DUP Sample						
Arsenic, Total	12.	12	mg/kg	0		20
Barium, Total	120	140	mg/kg	15		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	19.	20	mg/kg	5		20
Lead, Total	31.	36	mg/kg	15		20
Selenium, Total	ND	ND	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001
Lab Number: L1431109
Report Date: 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-01
Client ID: TP-1 (5-7)
Sample Location: OREGON ST.
Matrix: Soil
Date Collected: 12/23/14 10:30
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.1		%	0.100	NA	1	-	12/29/14 09:18	30,2540G	SG

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001
Lab Number: L1431109
Report Date: 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-02
Client ID: TP-4 (3-5)
Sample Location: OREGON ST.
Matrix: Soil
Date Collected: 12/23/14 12:00
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.1		%	0.100	NA	1	-	12/29/14 09:18	30,2540G	SG

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

SAMPLE RESULTS

Lab ID: L1431109-03
Client ID: TP-5 (2-4)
Sample Location: OREGON ST.
Matrix: Soil

Date Collected: 12/23/14 12:30
Date Received: 12/24/14
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.9		%	0.100	NA	1	-	12/29/14 09:18	30,2540G	SG

Lab Duplicate Analysis
Batch Quality Control

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG752162-1 QC Sample: L1430765-01 Client ID: DUP Sample						
Solids, Total	81.4	81.6	%	0		20

Project Name: OREGON STREET PARCEL
Project Number: 0323-015-001

Lab Number: L1431109
Report Date: 01/07/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1431109-01A	Glass 120ml/4oz unpreserved	A	N/A	3.1	Y	Absent	NYTCL-8260(14)
L1431109-01B	Glass 250ml/8oz unpreserved	A	N/A	3.1	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1431109-01X	Vial MeOH preserved split	A	N/A	3.1	Y	Absent	NYTCL-8260(14)
L1431109-02A	Glass 120ml/4oz unpreserved	A	N/A	3.1	Y	Absent	NYTCL-8260(14)
L1431109-02B	Glass 250ml/8oz unpreserved	A	N/A	3.1	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1431109-02X	Vial MeOH preserved split	A	N/A	3.1	Y	Absent	NYTCL-8260(14)
L1431109-03A	Glass 120ml/4oz unpreserved	A	N/A	3.1	Y	Absent	NYTCL-8260(14)
L1431109-03B	Glass 250ml/8oz unpreserved	A	N/A	3.1	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1431109-03X	Vial MeOH preserved split	A	N/A	3.1	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	OREGON STREET PARCEL	**Lab Number:**	L1431109
Project Number:	0323-015-001	**Report Date:**	01/07/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

Report Format: DU Report with 'J' Qualifiers

Project Name:	OREGON STREET PARCEL	**Lab Number:**	L1431109
Project Number:	0323-015-001	**Report Date:**	01/07/15

Data Qualifiers

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	OREGON STREET PARCEL	**Lab Number:**	L1431109
Project Number:	0323-015-001	**Report Date:**	01/07/15

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 12-24-14

ALPHA Job #: L1431081

Client Information

Client: Turnkey
Address: 2558 Hamburg Turnpike
Buffalo NY 14218
Phone: 716-856-0599
Fax: 716-856-0583
Email:

Project Information

Project Name: Oregon Street Parcel
Project Location: Oregon St
Project #: 0323-015-001
(Use Project name as Project #) ☐
Project Manager: Mike Lesakowski
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date: 01-06-15
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL+CP51 VOCs plus TICs	PAHs	RCRA Metals	Total Bottle	Sample Specific Comments
31431081-01	TP-1 (5-7)	12-23-14	1030	Soil	PWW	X	X	X		
-02	TP-4 (3-5)	↓	1200	↓	↓	X	X	X		
-03	TP-5 (2-4)	↓	1230	↓	↓	X	X	X		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	12-24-14 1030		12-24-14 1030
AAL	12-24-14	AAL	12/24/14 1220
AAL	12-24-14 1520		12/24/14 1530
	12-24-14 2120		12-24-14 2120

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX D

SITE PHOTOGRAPHS

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: Petroleum product encountered at TP-2

Photo 2: Petroleum product close up from TP-2

Photo 3: Groundwater and product at TP-4

Photo 4: Soil conditions at TP-4