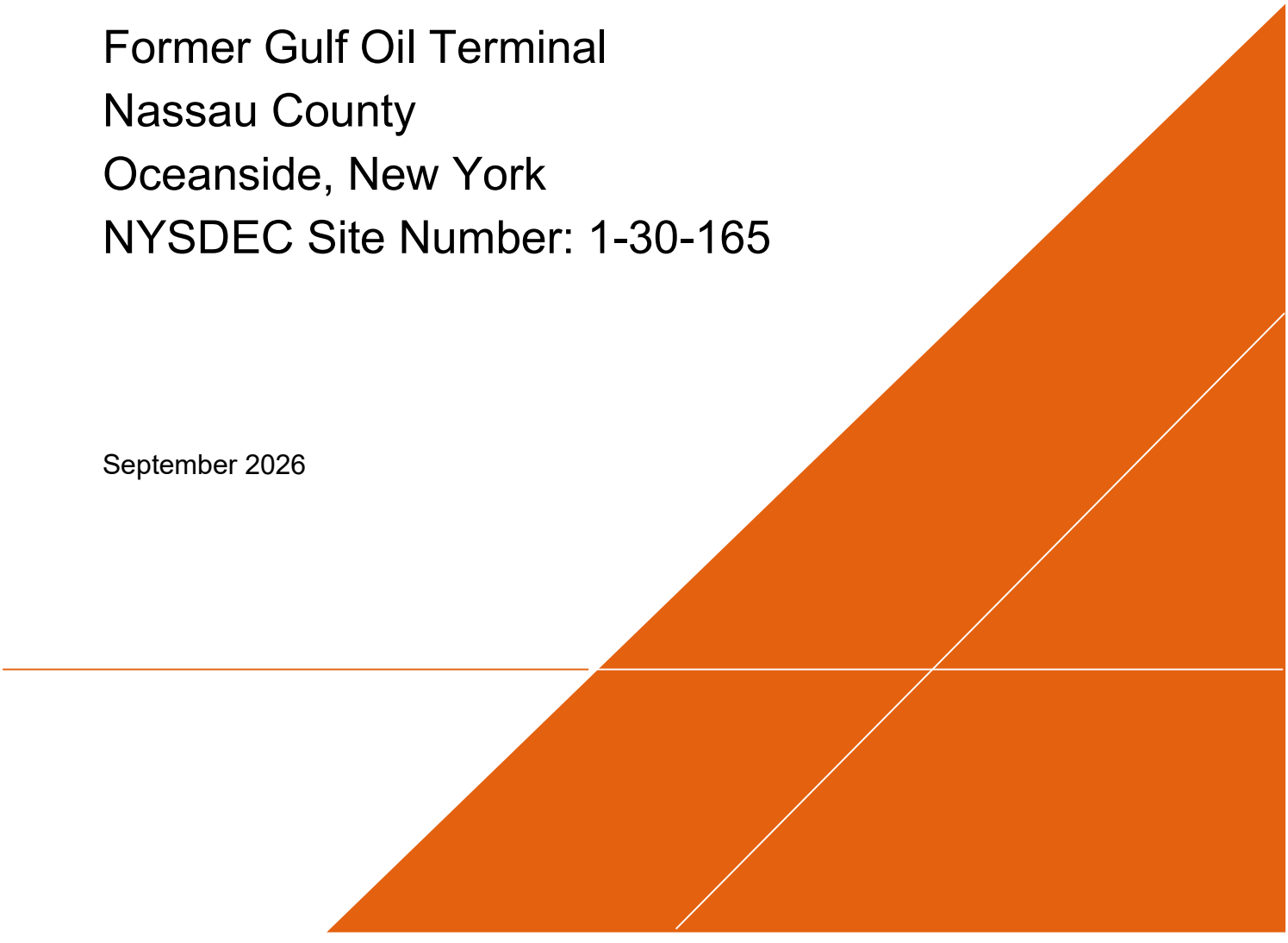
ARCADIS Design & Consultancy for natural and built assets

Chevron Environmental Management Company

FINAL ENGINEERING REPORT

Former Gulf Oil Terminal
Nassau County
Oceanside, New York
NYSDEC Site Number: 1-30-165

September 2026



Erin M. Birsic
Project Manager



Joe Moilna, P.E.
Qualified Environmental Professional
NYS PE License No. 072644

FINAL ENGINEERING REPORT

Former Gulf Oil Terminal
Nassau County
Oceanside, New York
NYSDEC Site Number: 1-30-165

Prepared for:

Chevron Environmental Management Company

Prepared by:

Arcadis U.S., Inc.
2100 Georgetown Drive
Suite 402
Sewickley
Pennsylvania 15143
Tel 724 742 9180
Fax 724 742 9189

Our Ref:

30062947

Date:

September 2026

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

CERTIFICATION STATEMENT

I, Joseph Molina, P.E., am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Interim Remedial Investigation Work Plan was implemented and that all monitoring activities were completed in substantial conformance with the Department-approved Remedial Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in Interim Remedial Investigation Work Plan and in all applicable statutes and regulations have been achieved in accordance with the time frames, if any, established in for the remedy.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Joe Molina, of Arcadis U.S., Inc., am certifying as Owner's Designated Site Representative for the site.

Joseph Molina III

Joseph Molina, P.E.
Professional Engineer/Engineer of Record
NYS PE License No. 072644

9/3/26
Date



CONTENTS

Acronyms and Abbreviations ii
1 Introduction 1
1.1 Background and Site Description 1
2 Summary of Site Remedy 1
2.1 Remedial Action Objectives 1
2.2 Description of Selected Remedy 1
3 Interim Remedial Measures, Operable Units and Remedial Contracts 2
4 Description of Remedial Actions Performed 2
5 Site Management Plan, Engineering, and Institutional Controls 2
6 References 3

FIGURES

Figure 1 Site Location Map
Figure 2 Tax Map

APPENDICES

Appendix A Remedial Investigation Data Summary Report
Appendix B Interim Remedial Measure Completion Report
Appendix C Supplemental Remedial Investigation Report
Appendix D Site Boundary Survey and Metes and Bounds
Appendix E Site Management Plan

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis U.S., Inc.
bgs	below ground surface
CEMC	Chevron Environmental Management Company
COC	Certificate of Completion
Controlled Property	portion of the Site subject to the Environmental Easement
DER	Division of Environmental Remediation
DER-10	Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation
EC	Engineering Control
FER	Final Engineering Report
FS	Feasibility Study
IC	Institutional Control
IRM	Interim Remedial Measure
NYSDEC	New York State Department of Environmental Conservation
RAO	Remedial Action Objective
RI	Remedial Investigation
RIR	Remedial Investigation Report
ROD	Record of Decision
Site	Former Gulf Oil Terminal Site (1-30-165)
SMP	Site Management Plan
SSDS	Sub-Slab Depressurization System
SVOC	semi-volatile organic compound
VOC	volatile organic compound
WP	Work Plan

1 INTRODUCTION

A Record of Decision (ROD) was issued for the Former Gulf Oil Terminal, Site # 130165 (Site, **Figure 1**) by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) on December 10, 2021 for the remediation of the entire Site located on a portion of 3705 Hampton Road, Oceanside, New York (NYSDEC, 2021) (**Figure 2**). The Consent Order for the Site was executed by Chevron U.S.A. Inc. (Chevron) and NYSDEC dated December 14, 2009, which obligated Chevron to implement a remedial program for the contamination associated with its previous petroleum storage terminal operations at the Site. Institutional and Engineering Controls (ICs and ECs) have been incorporated into the Site remedy to control exposure to residual contamination to ensure protection of public health and the environment after completion of the remedial work left residual contamination at the Site. Chevron Environmental Management Company (CEMC) manages environmental matters on behalf of its affiliate, Chevron.

This Final Engineering Report (FER) has been prepared by Arcadis U.S., Inc. (Arcadis) on behalf of CEMC to document implementation of the remedial activities at the Site and for certification of project completion in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010 (NYSDEC, 2010). This FER includes the required components by incorporation of the Remedial Investigation Data Summary Report (RI Data Report; Arcadis, 2011), Interim Remedial Measure Completion Report (IRM; Arcadis, 2014b) and the Supplemental Remedial Investigation Report (RIR; Arcadis, 2017), presented as **Appendices A, B and C**, respectively.

1.1 Background and Site Description

The boundaries of the Site, defined as the full area subject to the Certificate of Completion (COC) herein, are more fully described in **Appendix D**. Relevant information responsive to the requirements of this section of the FER is presented in RIR Section 1.1. In addition to the information presented in the RIR, it should be noted the current wholesale warehouse facility, approximately 20% of which is located on the Site, was constructed in 2016, which included the construction of a passive Sub-Slab Depressurization System (SSDS) to mitigate the potential for soil vapor intrusion.

2 SUMMARY OF SITE REMEDY

2.1 Remedial Action Objectives

Remedial Action Objectives (RAOs) were identified for Site soil and groundwater, as detailed in RI Data Report (Sections 2.1 and 2.2), IRM (Section 1.2) and RIR (Section 2.1). As described in RIR (Section 5.7), there exists the potential for soil vapor intrusion within the subsurface to migrate into site buildings; however, RAOs associated with soil vapor were not identified due to the integration of the SSDS into construction of the wholesale warehouse facility that currently occupies a portion of the Site.

2.2 Description of Selected Remedy

The selection of the remedies approved by the NYSDEC for the Site was performed in accordance with the following documents:

- Remedial Investigation/Feasibility Study Work Plan (RI/FS WP; Arcadis, 2010) for groundwater remediation.
- Interim Remedial Measure Work Plan (IRM WP; Arcadis, 2012) and Interim Remedial Measure Addendum Work Plan (Arcadis, 2014a) for soil remediation.
- Residual Source Assessment Plan (Arcadis, 2016) for soil and groundwater remediation.

The factors considered during the selection of the remedies are those listed in 6NYCRR 375-1.8. The components of the selected remedies for Soil Remediation are detailed in IRM (Section 3.3) and RIR (Section 2.3) and the components of the selected remedies for Groundwater Remediation are detailed in RI Data Report (Section 2.3) and RIR (section 2.4). The details of the SSDS to mitigate the potential for soil vapor intrusion are provided as drawings within Appendix H of the SMP (**Appendix E**).

The requirements for the long-term management of remaining impacts left at the Site are presented in the SMP (**Appendix E**) which details plans for: (1) ICs and ECs, (2) monitoring, (3) operation and maintenance, and (4) reporting. The SMP also incorporated the environmental easement (EE) required by NYSDEC for sites requiring ICs and ECs.

3 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

The remediation of the Site was performed with no use of remedial contracts or operable units. Interim remedial measures were established for soil remediation with the objectives defined in IRM (Section 1.2) and a summary of activities provided in IRM (Section 3) in accordance with the Interim Remedial Measure Work Plan (Arcadis, 2012) and Interim Remedial Measure Addendum Work Plan (Arcadis, 2014a). The IRM is considered the final remedial strategy for the Site.

4 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

The remedial actions implemented for the Site are documented in RI Data Report (Section 1.2) and RIR (Section 2) and were conducted in accordance with the following:

- Remedial Investigation Workplan and Remedial Action Workplan (Langan, 2007).
- Remedial Investigation/Feasibility Study Work Plan (Arcadis, 2010).
- Residual Source Assessment Work Plan (Arcadis, 2016).

5 SITE MANAGEMENT PLAN, ENGINEERING, AND INSTITUTIONAL CONTROLS

The SMP included as **Appendix E** was required as residual impacts remain in the subsurface following completion of the remedial actions. ECs and ICs have been incorporated into the Site remedy to control exposure to remaining impacts for protection of public health and the environment. The EE, included as Appendix B of the SMP (**Appendix E**), granted to the NYSDEC, and recorded with the Nassau County Clerk, will require compliance with the SMP and all ECs and ICs placed on the portion of the Site subject to the EE (Controlled Property). The boundary presented in the survey and description of Appendix B of the SMP (**Appendix E**) reflect the Controlled Property subject to the EE only. The ICs place restrictions

on Controlled Property use, and mandate operation, maintenance, monitoring, and reporting measures for all ECs and ICs. The SMP specifies the methods necessary for compliance with all ECs and ICs required by the EE for impacts that remain at the Controlled Property. Upon approval by the NYSDEC, compliance with this plan is required by the grantor of the EE and the grantor's successors and assigns. The SMP may only be revised with the approval of the NYSDEC.

The SMP provides a detailed description of all procedures required to manage remaining impacts at the Site after completion of the Remedial Actions, including: (1) implementation and management of all ECs and ICs; (2) media monitoring; (3) monitoring and inspection of the passive SSDS; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of the SSDS.

To address these needs, the SMP includes two plans: (1) an Institutional and Engineering Control Plan for implementation and management of EC/ICs; and (2) a Monitoring and Sampling Plan for implementation of Site Monitoring involving site inspection, groundwater monitoring, and SSDS monitoring.

The SMP also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

6 REFERENCES

Arcadis, 2010. Remedial Investigation/Feasibility Work Plan. September.

Arcadis, 2011. Remedial Investigation Data Summary Report. May.

Arcadis, 2012. Interim Remedial Measure Work Plan. May.

Arcadis, 2014a. Interim Remedial Measure Addendum Work Plan. February.

Arcadis, 2014b. Interim Remedial Measure Completion Report. November.

Arcadis, 2016. Residual Source Assessment Work Plan. January.

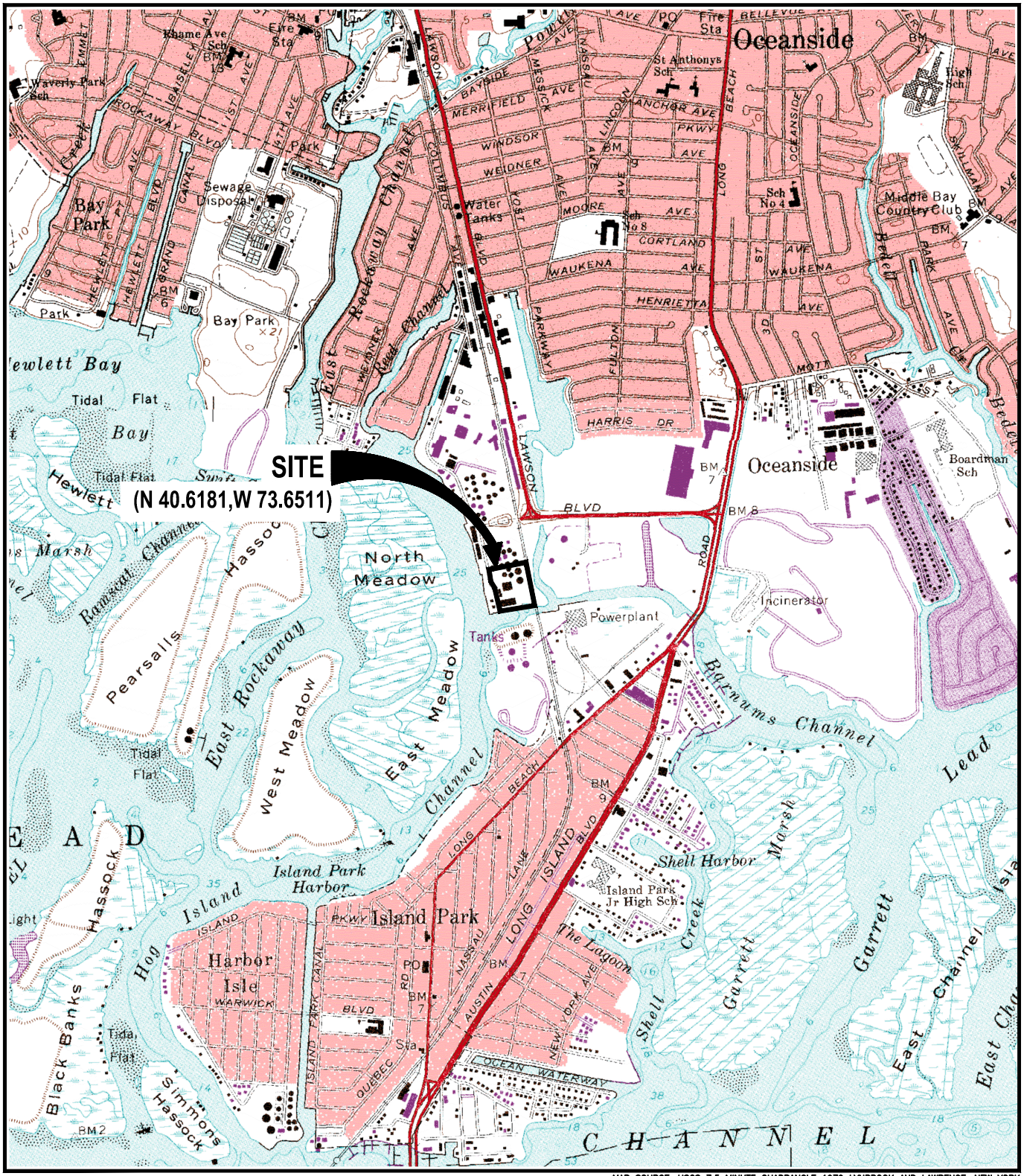
Arcadis, 2017. Supplemental Remedial Investigation Report. January.

Langan, 2007. Remediation Investigation Workplan and Remedial Action Workplan. June.

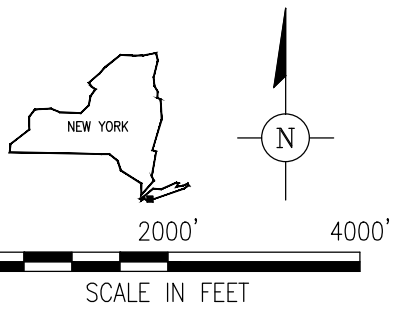
New York State Department of Environmental Conservation. 2010. Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation. May 2010.

New York State Department of Environmental Conservation, 2021. Record of Decision Former Gulf Oil Terminal, State Superfund Project, Oceanside, Nassau County, Site No. 1-30-165. December.

FIGURES



MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE 1979 LYNBROOK AND LAWRENCE, NEW YORK



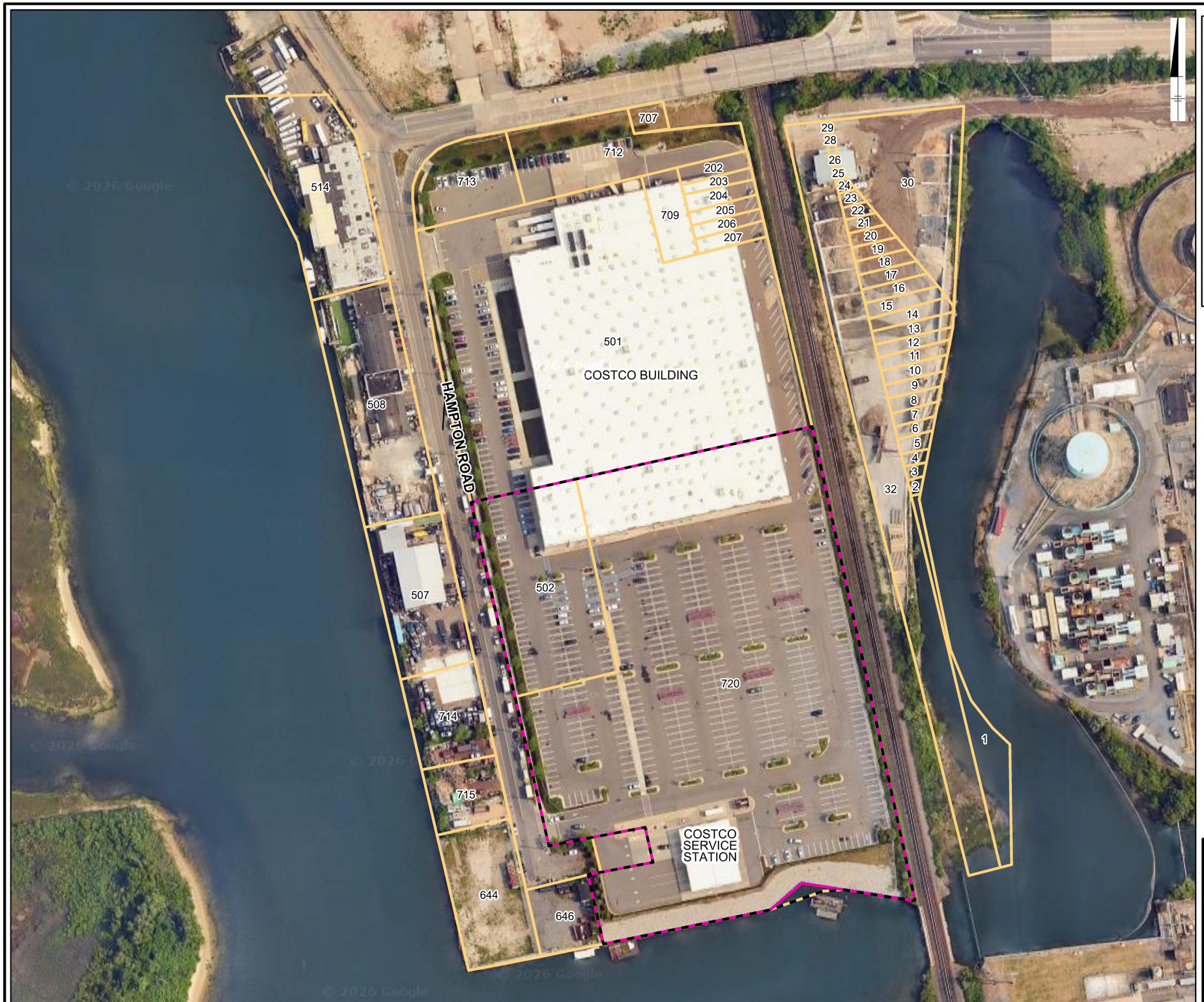
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

SITE LOCATION MAP

ARCADIS

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A.HEBERT PM:B.MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB0047517\0023\00001\DWG\47517N01.d:;g LAYOUT: 1 SAVED: 9/26/2014 2:28 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: PDF-AP PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/16/2016 12:46 PM BY: HOWES, DAVID
XREFS: IMAGES: PROJECTNAME:
47517X01.TIF
47517X02.TIF





SITE LOCATION

LEGEND:

- SITE BOUNDARY
- PARCEL BOUNDARY
- ENVIRONMENTAL EASEMENT BOUNDARY

0 150 300 Feet

GRAPHIC SCALE

NOTES:

1. 2023 IMAGERY OBTAINED FROM GOOGLE EARTH PRO.
2. TAX PARCEL DATA DIGITIZED APPROXIMATELY FROM NASSAU COUNTY NEW YORK GIS PARCEL VIEWER AT : https://lrv.nassaucountyny.gov/

CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY

TAX PARCEL MAP

ARCADIS | FIGURE 2

T:_ENV\Chevron_Oceanside_NY\2025\SiteManagementPlan_Pro\Chevron_Oceanside_SiteManagementPlan.aprx 5/19/2026 1:29 PMLast Saved By: jrapp

APPENDIX A

Remedial Investigation Data Summary Report

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron Environmental Management Company

Remedial Investigation Data Summary Report

Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York
(NYSDEC Site # 130165)

May 2011

ARCADIS



William T McCune
Principal Geologist/ Project Manager



Greg Cutshall
Program Manager

Remedial Investigation Data Summary Report

Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York
(NYSDEC Site # 130165)

Prepared for:
Chevron Environmental Management Company

Prepared by:
ARCADIS of New York, Inc.
6723 Towpath Road
P O Box 66
Syracuse
New York 13214-0066
Tel 315 446 9120
Fax 315 446 8053

Our Ref.:
B0047517.0004.00001

Date:
May 2011

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

1. Introduction **1**

1.1 Site Background 1

1.1.1 Site Description 1

1.1.2 Site History 1

1.2 Previous Investigations and Remedial Actions 2

1.2.1 Summary of Historical Remedial Actions 6

1.2.1.1 Hotspot Soil Excavation – October 2002 6

1.2.2 In-Situ Chemical Oxidation Pilot Test – December 2002/January 2003 6

1.2.2.1 In-Situ Chemical Oxidation Pilot Test – November 2004 7

1.3 Anticipated Future Site Use 7

2. Investigation **8**

2.1 Remedial Investigation Objectives 8

2.2 Soil and Groundwater Cleanup Objectives 9

2.2.1 Soil Cleanup Objectives 9

2.2.2 Groundwater Cleanup Objectives 9

2.3 Investigation Activities 9

2.3.1 Test Pits 9

2.3.2 Monitoring Well Installation 10

2.3.3 Groundwater Sampling 12

2.4 Air Monitoring 13

2.5 Data Validation 14

3. Geology and Hydrogeology **15**

3.1 Regional Geology/Hydrogeology 15

3.2 Site Geology/Hydrogeology 15

3.2.1 Groundwater Flow 16

3.2.2 Horizontal and Vertical Gradients 16

4. Supplemental Soil Investigation Results 18

4.1 Former VRU Area: Shallow Fill Unit 18

4.1.1 VOCs 18

4.1.2 CVOCs 19

4.1.3 SVOCs 19

4.1.4 Inorganics 20

4.2 Former VRU Area: Meadow Mat 20

4.2.1 VOCs 20

4.2.2 CVOCs 21

4.2.3 SVOCs 22

4.2.4 Inorganics 22

4.3 Former Oil/Water Separator Area 22

4.4 Former Two-Story Brick Building Area 23

4.4.1 VOCs 23

4.4.2 SVOCs 24

4.4.3 Inorganics 24

4.5 Former One-Story Brick Garage Area 25

4.5.1 Analytical Results 25

4.6 Former Truck Loading Rack Area 25

4.6.1 Analytical Results 25

5. Supplemental Groundwater Investigation Results 27

5.1 Overburden Unit 27

5.1.1 Petroleum-Related Constituents 27

5.1.2 CVOCs 28

5.1.3 SVOCs and Inorganics 28

5.2 Meadow Mat Unit 28

5.2.1 Petroleum-Related Constituents 29

5.2.2 CVOCs 29

5.2.3 SVOCs and Inorganics 30

5.3 Lower Sand Unit 30

5.3.1 Shallow Horizon of Lower Sand Unit (D1) 30

5.3.1.1 Petroleum-Related Constituents 31

5.3.1.2 CVOCs 32

5.3.1.3 SVOCs and Inorganics 32

5.3.2 Intermediate Horizon of Lower Sand Unit (D-2) 33

5.3.2.1 Petroleum-Related Constituents 33

5.3.2.2 CVOCs 33

5.3.2.3 SVOCs and Inorganics 34

5.4 Deep Horizon of Lower Sand Unit (VD) 34

5.4.1 Petroleum-Related Constituents 34

5.4.2 CVOCs 34

5.4.3 SVOCs and Inorganics 35

6. Summary and Conclusions 36

6.1 Soil Conditions in Former VRU Area 36

6.2 Soil Conditions in Oil/Water Separator Area 36

6.3 Summary of Soil Conditions in Former 2 Story Brick Building Area (Southwest Area) 37

6.4 Soil Conditions in Former Garage Area 38

6.5 Soil Conditions in Former Truck Loading Rack Area 38

6.6 Groundwater Conditions 39

7. References 43

Tables

Table 1 Test Pit Sample Summary

Table 2 Well Construction

Table 3 Groundwater Elevation

Table 4 Groundwater Field Parameters

Table 5 2010 Soil Analytical Data

Table 6 2011 Groundwater Analytical Data

Figures

Figure 1 Site Location Map

Figure 2 Site Map

Figure 3 Cross-Section Location Map

Figure 4 Cross-Section A-A' with TCE Concentrations

Figure 5 Cross-Section B-B' with TCE Concentrations

Figure 6 VOC and Total SVOC Concentrations: Fill

Figure 7 VOC and Total SVOC Concentrations: Meadow Mat

Figure 8 VOC and Total SVOC Concentrations: Lower Sand

Figure 9 VOC Concentrations in Fill and Meadow Mat

Figure 10 VOC Concentrations in Lower Sand

Appendices

Appendix A Boring Logs and Test Pit Logs

Appendix B Historical Soil and Groundwater Data

Appendix C Groundwater Contour Maps

Appendix D Air Monitoring Data (on CD)

Appendix E DUSR (on CD)

1. Introduction

On behalf of Chevron Environmental Management Company (CEMC), ARCADIS U.S., Inc. (ARCADIS) is submitting this Remedial Investigation Data Summary Report (RI Data Report) to the New York State Department of Environmental Conservation (NYSDEC) in accordance with the Order on Consent and Administrative Settlement for the former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York (NYSDEC Site # 130165).

This RI Data Report has been prepared in accordance with the New York Codes, Rules and Regulations, the draft version of the NYSDEC's Division of Environmental Remediation-10 – Technical Guidance for Site Investigation and Remediation (NYSDEC 2010), and the United States Environmental Protection Agency's (USEPA's) Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA (USEPA 1988).

1.1 Site Background

1.1.1 Site Description

The 7.2-acre site is located at 1 Industrial Place in Oceanside, Township of Hempstead, Nassau County, New York. A Site Location Map is presented on Figure 1. The site is currently unoccupied and all former buildings have been demolished. The site is bound to the south by Barnum's Channel, to the east by the Long Island Rail Road, to the north by the former Exxon Petroleum Terminal, and to the west by Hampton Road. A junk yard and office buildings are located west of Hampton Road, fronting Hog Island Channel. Daly Boulevard is located north of the former Exxon Petroleum Terminal and another petroleum terminal (Sprague) is located north of Daly Boulevard.

1.1.2 Site History

The site consists of three lots. In 1931, Gulf Oil Corporation developed a portion of the site (Lot 504) as a petroleum terminal. Gulf Oil Corporation purchased Lots 503 and 502 in 1950 and 1956, respectively. Chevron acquired Gulf Oil Corporation in the mid-1980s. As part of the purchase, Chevron was required to divest the northeast division. In 1986, Cumberland Farms, Inc. (CFI) purchased the northeast marketing assets of Gulf Oil Corporation from Chevron. The purchase included the Oceanside Terminal, which was transferred to CFI in May 1986. In December 1993, CFI, in a

joint venture with Catamount Petroleum LP (Catamount), formed Gulf Oil Limited Partnership (Gulf). CFI owned two-thirds of Gulf as a limited partner and Catamount owned one-third of Gulf as the general partner. In September 2005, CFI exercised its option to buy out Catamount and reorganized Gulf under a new general partner. However, ownership percentages of Gulf did not change during the reorganization. Gulf remains as the current owner/operator of the site.

Operation of the petroleum terminal was ceased in the early 1990s. Demolition of the aboveground storage tanks (ASTs) at the former petroleum terminal was completed in 2003. The remaining on-site buildings (maintenance building, office building and several small buildings associated with historical petroleum terminal operations) were demolished in 2005. The site is currently vacant.

The site has undergone extensive investigation and remediation since the 1990s under NYSDEC oversight (Spill No. 92-03883). In January 2007, the NYSDEC accepted Lowe's Home Centers, Inc. (Lowe's) as a volunteer under the Brownfield Cleanup Program (BCP) – Site No. C130165. Following the decision by Lowe's to withdraw from the BCP in 2009, the NYSDEC transferred the site into the Hazardous Waste Program (State Superfund Site). An Order on Consent and Administrative Settlement was executed between the NYSDEC and CEMC on December 23, 2009 (Index # W3-1142-09-08, Site # 130165).

1.2 Previous Investigations and Remedial Actions

This section summarizes the historical investigations which will be considered in conjunction with results of the remedial investigation (RI) in preparing the feasibility study (FS). This section also summarizes the historical remedial actions and related historical reports from which data is considered.

Historical reports that were submitted to the NYSDEC documenting previous investigation and remedial actions conducted at the site are listed below:

- Hydrogeologic Site Assessment Report (ERM 1986)
- Sensitive Receptor and Potable Well Strategic Assessment (W.E.S., Inc. 1995)
- Comprehensive Site Assessment Report (Eder Associates [Eder] 1996a)

- Comprehensive Site Assessment Report – Additional Site Investigation (Eder 1996b)
- Quarterly Groundwater Monitoring Report (Eder 1996c)
- Remedial Activity Report – Surface Water Collection & Treatment System (Eder 1996d)
- Quarterly Groundwater Monitoring Report (Eder 1996e)
- Technical Specifications for On-Site Stormwater Treatment and Disposal System Upgrade Report (Eder 1996f)
- Quarterly Groundwater Monitoring Report (Eder 1997)
- Groundwater Sampling Results Report (Eder 1998)
- First Quarter 1999 Groundwater Sampling (Gannett Fleming 1999a)
- Second Quarter 1999 Groundwater Sampling (Gannett Fleming 1999b)
- Third Quarter 1999 Groundwater Sampling (Gannett Fleming 1999c)
- Fourth Quarter 1999 Groundwater Sampling (Gannett Fleming 2000a)
- First Quarter 2000 Groundwater Sampling (Gannett Fleming 2000b)
- Investigation Report (Leggette, Brashears and Graham Inc. [LBG] 2000)
- Second Quarter 2000 Groundwater Sampling (Gannett Fleming 2000c)
- Third Quarter 2000 Groundwater Sampling (Gannett Fleming 2000d)
- Fourth Quarter 2000 Groundwater Monitoring & Annual Summary (Gannett Fleming 2000e)
- Soil Investigation (LBG 2001)
- First Quarter 2001 Groundwater Monitoring (Gannett Fleming 2001a)

- Second Quarter 2001 Groundwater Monitoring (Gannett Fleming 2001b)
- Third Quarter 2001 Groundwater Monitoring (Gannett Fleming 2001c)
- Corrective Action Plan (Blasland, Bouck and Lee, Inc. [BBL] 2002a)
- Corrective Action Plan Addendum (BBL 2002b)
- Corrective Action Status Report (BBL 2003a)
- Soil Investigation Letter Report (LBG 2003)
- Remedial Action Report (BBL 2003b)
- Remedial Action Progress Report (BBL 2003c)
- Remedial Action Progress Report (BBL 2004a)
- Remedial Investigation Work Plan for the Vapor Recovery Unit Area (BBL 2004b)
- Remedial Action Progress Report (BBL 2004c)
- Environmental Investigation Report (Langan Engineering and Environmental Services [Langan] 2004)
- Revised Remedial Investigation Work Plan for the Vapor Recovery Unit Area (BBL 2004d)
- Remedial Action Progress Report (BBL 2004e)
- Corrective Action Plan (BBL 2004f)
- Remedial Action Progress Report (BBL 2004g)
- Chemical Oxidation Pilot Test (Cedar Creek Engineering 2005)
- Remedial Investigation Report and Corrective Action Plan (BBL 2005)
- Remedial Action Progress Report (BBL 2006)

- Brownfield Cleanup Program Application (Lowe's 2006)
- Chlorinated Volatile Organic Compound Due Diligence Investigation Letter Report (Langan 2007a)
- Remedial Investigation Workplan and Remedial Action Workplan (Langan 2007b)

Each report listed above is summarized in the Remedial Investigation Workplan and Remedial Action Workplan prepared by Langan of Elmwood Park, New Jersey, and submitted to the NYSDEC in June 2007 (Langan 2007b).

The above reports document that the Gulf site operated from 1932 until the 1990s as a petroleum storage terminal. Nine large-quantity ASTs containing fuel oil, kerosene and gasoline; two small 550-gallon ASTs containing fuel oil for the on-site garage and office building; three underground storage tanks (USTs) containing fuel oil (one 550-gallon, one 1,000-gallon and one 5,000-gallon); one 1,000-gallon UST containing waste oil; a loading rack; a retention pond; a maintenance garage; and an office complex were previously located on the Gulf parcel. Four of the nine large ASTs were demolished prior to 2000, with the remaining five large ASTs reportedly demolished in 2003. The two 550-gallon ASTs containing fuel oil for the maintenance garage and the office building were demolished in 2005.

The approximate location of the former building, structures, tanks and monitoring wells are depicted on the Site Plan (Figure 2).

Light nonaqueous phase liquid (LNAPL), consisting of a mixture of No. 2 and No. 4 fuel oil, kerosene, and gasoline, had previously been detected in a monitoring well near the bulkhead at the southern portion of the site at a thickness up to 2.28 feet. LNAPL was also encountered near the former vapor recovery unit (VRU) and the former garage building. Measurable thicknesses of LNAPL have not been observed at the site since 2004.

Historical soil and groundwater investigations indicate soil impacted with volatile organic compounds (VOCs) at concentrations above NYSDEC Soil Cleanup Objectives (SCOs) have been observed primarily in the western and southern portions of the site. VOC-impacts in groundwater have been observed predominantly in the northeastern, central and southern portions of the site. Chlorinated VOCs (CVOCs), including trichloroethene (TCE), cis-1, 2-dichlorethene (cis-1, 2-DCE),

trans-1, 2-dichloroethene (trans-1, 2-DCE) and vinyl chloride (VC) were also detected in soil and groundwater at the site in proximity to the former VRU. Concentrations of CVOCs in excess of criteria were also observed in groundwater in the meadow mat and the deep sand layer immediately underlying the meadow mat. A comprehensive summary of the available historical site characterization results for this site was presented in the Remedial Investigation Workplan and Remedial Action Workplan (Langan 2007b).

1.2.1 Summary of Historical Remedial Actions

Historical remedial actions conducted at the site are discussed below.

1.2.1.1 Hotspot Soil Excavation – October 2002

In October 2002, BBL completed four hotspot excavations to remove previously observed LNAPL-impacted soil and areas of elevated petroleum-hydrocarbon-contaminated soil. The four hotspot excavation areas included the area surrounding the former VRU/small AST pad, an area west of the former garage building, an area southeast of the former truck loading racks and an area southeast of the former garage building. The approximate locations of the excavated areas are depicted on Figure 2.

The excavations were completed to 4 feet bgs. Approximately 438 tons of soil was excavated for off-site disposal. Certified clean fill was used to backfill the excavations. The post-excavation soil sampling analytical results revealed that benzene, toluene, ethylbenzene and xylenes (BTEX) and naphthalene were detected above the NYSDEC SCOs in each of the four excavations.

LNAPL was observed seeping into the excavations and was recovered with a vacuum truck until only sheen remained. A total of 2,300 gallons of LNAPL/water were removed via vacuum truck for off-site disposal.

1.2.2 In-Situ Chemical Oxidation Pilot Test – December 2002/January 2003

An in-situ chemical oxidation (ISCO) pilot test was completed in December 2002 and January 2003. The pilot test consisted of the injection of a 20 percent solution of sodium permanganate into the subsurface at the former excavation area A (Figure 2). The injection rates in the fill were found to be low, with each injection point accepting only ½ to ¾ of a drum over several hours.

One round of groundwater sampling was completed in March 2003 to assess the effectiveness of the ISCO pilot test. A significant decrease in groundwater concentrations was observed within wells reinstalled in the former excavation areas and was attributed to the October 2002 hotspot soil excavation. In addition, a 25 to 100 percent decrease in CVOCs near the former VRU was noted, suggesting that the ISCO pilot test was effective at treating CVOCs.

1.2.2.1 In-Situ Chemical Oxidation Pilot Test – November 2004

An ISCO pilot test study was completed in November 2004 within the Former Turbine Pump Area. A Modified Fenton's Reagent consisting of ferrous sulfate, citric acid and hydrogen peroxide was used for the pilot test. The pilot test used 2 and 4 percent aqueous solutions.

Two types of injection methods were tested. The first method involved Geoprobe™ injection points and the second method used temporary well injection points. The reagent was injected at 20 pounds per square inch pressure in the Geoprobe points, whereas gravity feed was used in the temporary well injection points. Pre- and post-injection soil samples were collected and analyzed and results indicated no significant modification (less than 10 percent increase or decrease) to the concentration subsequent to injection. Fenton's Reagent was determined to be an ineffective means of delivering the reagent to the soil due to poor reagent-soil mixing.

1.3 Anticipated Future Site Use

Tentative plans are being explored by the current property owner to pursue the redevelopment of the site for use as a retail store with the majority of the property covered by a bigbox style store and the balance of the property covered by paved vehicle lanes and parking.

2. Investigation

2.1 Remedial Investigation Objectives

The RI objectives were outlined along with the objectives of the Feasibility Study in the ARCADIS RI/FS Study Work Plan (RI/FS WP; ARCADIS 2010a). The purpose of this RI Data Report is to provide the results of this phase of investigation. Additional data, as noted below, will be provided in the FS.

The objectives included:

- Complete supplemental investigations to address data gaps and to horizontally and vertically delineate soil and groundwater impacts. The results will be used in the FS to estimate the contaminant mass and distribution in the shallow sand fill, underlying meadow mat and deeper sand.

- Conduct additional pre-remedial design investigation (e.g., aquifer testing, bench-scale testing, specific-capacity testing, slug testing) to adequately understand the hydrogeologic and geochemical site characteristics to evaluate, select and design the appropriate remedial design for the site. The FS will include the results of the aquifer testing and bench-scale testing.

- Characterize the sources of contamination, migration pathways and actual or potential receptors of contaminants on or through air, soil, sediment, groundwater and surface water.

- Collect and evaluate additional data, as needed, to evaluate the remedial action alternatives.

- Collect data, as needed, to evaluate the actual and potential threats to public health and the environment.

- Collect and evaluate information for a Fish and Wildlife Resource Impact Analysis, which will be completed during the FS.

2.2 Soil and Groundwater Cleanup Objectives

2.2.1 Soil Cleanup Objectives

SCOs are based on the NYSDEC Technical & Operational Guidance Series (TOGS) for Soil, Subpart 375-6: Remedial Program Soil Cleanup Objectives (effective December 14, 2006) (NYSDEC 2006). If unrestricted use SCOs cannot be reasonably be obtained, restricted use SCOs will be considered based on the location of the property and its proposed use as a commercial facility.

2.2.2 Groundwater Cleanup Objectives

Groundwater cleanup objectives are based on the NYSDEC TOGS for Groundwater (standard), Section 703.6 (effective August 4, 1999) (NYSDEC 1999).

2.3 Investigation Activities

The supplemental filed investigation activities implemented in accordance with the RI/FS WP were conducted from November 2010 through April 2011 to further characterize the petroleum impacts (including limits of LNAPL), augment the existing monitoring well network and develop additional water quality data required to support selection of the remedial technology. The RI filed activities involved the excavation of a series of test pits, drilling of soil borings, installation of new groundwater monitoring wells, and collection of soil and groundwater samples for field and laboratory analyses. Additionally, further aquifer and bench-scale testing to support the evaluation of the feasibility of remedial options will be presented in the FS Report.

2.3.1 Test Pits

To further define the limits of residual petroleum hydrocarbons in soil at the site, a total of 17 test pits were excavated at locations across the site where previous observations indicated the near the former barge dock, former garage building and oil/water separators as shown on Figure 2. The depth of the test pits was limited to 8 feet below ground surface (bgs); the test pits were excavated laterally until the limits of LNAPL were defined. Nine test pits (5, 6A, 6B, 7A, 7B, 8A, 8B, 9 and 10) were installed near the former barge dock. Five test pits (1 through 3, 11 and 12) were installed near the former garage building. Six test pits (4-A through 4-F) were installed near the oil/water separators in the eastern portion of the site. A total of 29 soil samples (up to three soil samples from each test pit) were selected from the test

pits to be analyzed for VOCs, semivolatile organic compounds (SVOCs), Target Analyte List (TAL) metals, ferrous iron, total organic carbon (TOC) and sulfate. The actual dimensions of each test pit, along with the number and depth of each soil sample selected for analysis, are summarized in Table 1.

2.3.2 Monitoring Well Installation

A total of fifteen monitoring wells were installed during the RI at the locations shown on Figure 2. Twelve of the 15 wells were new monitoring wells (AMW-1 through AMW-11) installed to augment the existing monitoring network while three wells were to replace known destroyed wells (MW-23D-2R, MW-31-D1R and MW-31-D2R). The new monitoring wells include eight wells which were screened across the water table within the shallow fill unit, three wells screened within the meadow mat unit, and four wells were installed for monitoring the lower sand unit below the meadow mat. Of the four deep monitoring wells, three wells were replacements for damaged wells and one was a new monitoring well (MW-25-D3) installed to provide further vertical delineation within the lower sand unit. ARCADIS also installed one piezometer (P-18R) screened across the water table for water level monitoring. Boring logs are provided in Appendix A and well construction is summarized in Table 2.

Five of the new wells (AMW-4 to AMW-7 and AMW-11) were installed to monitor water table conditions along the Barnum Island Channel at the south end of the site. The boreholes for these wells were all advanced using a hollow stem auger rig to depths of approximately 12 to 13 feet bgs and were constructed by installing 10-foot-long screens of 2-inch-diameter, Schedule 40, machine-slotted polyvinyl chloride (PVC) pipe and solid 2-inch-diameter to straddle the water table, and Schedule 40 PVC risers to extend to the ground surface. The annular space of each borehole was filled with #0 silica sand filter pack at least a foot above the top of the screen and a two foot thick bentonite seal was installed above the filter pack. Each of these wells was completed at the ground surface with a flush-mounted curb box.

Three of the new shallow wells (AMW-1 to AMW-3) and one new piezometer (P-18R) were installed to monitor water table conditions in the former VRU area. The boreholes for these wells were all advanced using a hollow stem auger rig. Monitoring well AMW-2 and piezometer P-18R were constructed of PVC materials. Each of these wells were constructed by installing screens of 2-inch-diameter, Schedule 40, machine-slotted polyvinyl chloride (PVC) pipe and solid 2-inch-diameter to straddle the water table, and Schedule 40 PVC risers to extend to the ground surface. The annular space of each borehole was filled with #0 silica sand

filter pack at least a foot above the top of the screen and a two foot thick bentonite seal was installed above the filter pack. Each of these wells was completed at the ground surface with a protective steel casing. Monitoring wells AMW-1 and AMW-3 were constructed in a similar manner with the exception they were constructed of stainless steel materials. Well depths for these monitoring points ranged from 8 to 12 feet bgs (P-18R and AMW-1, respectively). Screen lengths for the wells were 5 feet for AMW-2 and AMW-2, 6 feet for P-18R, and 10 feet for AMW-1.

The three new intermediate depth wells (AMW-8, AMW-9, and AMW-10) with screened intervals within the meadow mat were also installed in the VRU area with the bottom of the screens at 14 feet bgs. The boreholes for these wells were all advanced using a hollow stem auger rig. Each of these wells were constructed by installing screens of 2-inch-diameter, Schedule 40, machine-slotted polyvinyl chloride (PVC) pipe and an appropriate length of Schedule 40 PVC riser to extend to the ground surface. The annular space of each borehole was filled with #0 silica sand filter pack extending above the top of the screen and a bentonite seal was installed above the filter pack. Each of these wells was completed at the ground surface with a protective steel casing. The screen length for AMW-8 is 3 feet and the screen lengths for AMW-9 and AMW-10 are 4 feet. Shorter screens were used to ensure that the wells were screened only within the meadow mat and the wells were sealed a minimum of 6 inches into the meadow mat to ensure isolation.

The four wells were installed for monitoring the lower sand unit below the meadow mat included the three replacement monitoring wells (MW-23D-2R, MW-31-D1R and MW-31-D2) and a new well constructed to monitor a deeper horizon within the lower sand unit (MW-25-D3). Each of these boreholes were initially advanced into the top of the meadow mat using a hollow stem augers, then a steel casing was grouted in place prior to extending the boreholes vertically to the target depths using a rotary wash drilling method. The wells were each constructed by installing 10-foot-long, 2-inch-diameter, Schedule 40, machine-slotted PVC pipe and an appropriate length of Schedule 40 PVC riser to extend to the ground surface. The annular space of each borehole was filled with #0 silica sand filter pack extending above the top of the screen and a bentonite seal was installed above the filter pack. To mitigate downward migration of the constituents of concern (COCs) from the fill unit, the annular space of the borehole around the riser was filled with cement/bentonite grout above the bentonite seal placed above the well screen. The screen depths for the wells are 41 feet bgs (MW-23D-2R), 27 feet bgs (MW-31D-1R), 42 feet bgs (MW-31D-2R), and 50 feet bgs (MW-25-D3. Each of these wells was completed at the ground surface with steel protective casings.

During monitoring well installation, soil samples were collected continuously for soil classification using split-spoon sampling from ground surface to the bottom of each boring to the extent practicable. A photo ionization detector (PID) was used to obtain headspace readings of each sample interval and to provide health and safety monitoring for field personnel during the drilling program. Additionally, a total of 46 samples (up to four soil samples per well) were selected during installation of each of the monitoring wells to be analyzed for VOCs, SVOCs, TAL metals, ferrous iron, TOC and sulfate.

Monitoring wells were developed after completion according to the ARCADIS Standard Operating Procedure for monitoring well installation and development (ARCADIS, 2010) and a survey of all existing monitoring wells was completed.

2.3.3 Groundwater Sampling

Groundwater samples from were collected from a total of 39 existing and newly installed monitoring wells QAPP (ARCADIS, 2010). The locations of the monitoring wells sampled are illustrated on Figure 2. All groundwater samples were analyzed for VOCs, SVOCs and TAL metals (total and dissolved) and for monitored natural attenuation (MNA) parameters (except for P-10 and MW-30-D2, which were analyzed for VOCs and TAL metals).

MNA parameters included:

- nitrogen as ammonia
- nitrate
- nitrite
- sulfate
- sulfide
- phosphorous as orthophosphate
- total dissolved solids
- total dissolved organic carbon
- alkalinity-bicarbonate
- alkalinity
- iron (filtered and unfiltered)
- manganese (filtered and unfiltered)
- calcium
- methane

- ethane
- ethene

Wells MW-30-D2 and P-10 were not sampled for MNA parameters because sufficient MNA data was collected from the remaining wells. The screened interval of monitoring well AMW-6 was observed to be filled with sand prior to sampling; therefore, no groundwater sample was able to be collected from this well. Groundwater samples were collected in accordance with the ARCADIS Standard Operating Procedure for Low-Flow Groundwater Purging and Sampling as detailed in the ARCADIS Quality Assurance Project Plan (QAPP; ARCADIS 2010b). The field parameter measurements recorded in conjunction with this sampling event are summarized in Table 4. A further discussion of the implication of the MNA sampling results will be provided in the FS.

2.4 Air Monitoring

Air monitoring which was performed during the implementation of the field investigation which indicated that no unacceptable exposures occurred in conjunction with the field investigation activities completed.

Consistent with the Community Air Monitoring Plan (ARCADIS, 2010) developed for use during RI activities on site, monitoring was performed to assess potential for exposure to VOCs and particulates. However, due to equipment issues and miscommunications in the field, the following air monitoring was completed.

During excavation of the test pits, monitoring stations were located upwind and downwind of the work area. The air monitoring station included a dust meter to monitor for particulates less than 10 microns in diameter; results are provided in Appendix D. Breathing zone VOC monitoring was also performed every 15 minutes during excavation activities. VOCs were not measured above the action levels in the breathing zone and particulates were not measured above the action levels.

During installation of the monitoring wells, particulate monitoring using a dust meter was performed near the drill rig and within the breathing zone, instead of at a downwind monitoring location. Breathing zone monitoring was performed every 15 minutes during drilling and the information was recorded in the field notes (Appendix D). VOCs were not measured above the action levels in the breathing zone during drilling or excavation and particulates were not measured above the action levels.

2.5 Data Validation

The soil and groundwater analytical data collected during the RI investigation was validated in accordance with the QAPP (ARCADIS 2010).In general, the overall system performance was found to be acceptable. Other than for those deviations specifically mentioned in the reviews, the overall data quality is within the guidelines specified in the method. Appropriate qualifiers were added to specific analytical results reported, as required by the data review.

The Data Usability Summary Reports are provided in Appendix E.

3. Geology and Hydrogeology

3.1 Regional Geology/Hydrogeology

The regional geology consists of upper glacial deposits (clay, sand, gravel and boulders) to a depth of 50 feet bgs, Gardiners Clay (clay, silt and lenses of sand) to a depth of 75 feet bgs, Magothy Aquifer (sand with lenses of clay) to a depth of 800 feet bgs, Raritan Confining Unit (clay with lenses of sand) to 900 feet bgs, and the Lloyd Aquifer (sand and gravel with lenses of clay) to 1,400 feet bgs. Bedrock is present beneath the Lloyd Aquifer and consists of crystalline metamorphic and igneous rock (muscovite-biotite schist, gneiss and granite).

3.2 Site Geology/Hydrogeology

Subsurface soil conditions encountered during previous environmental and geotechnical investigations have revealed the site lithology to consist of the following:

- sand fill from the ground surface to approximately 8 feet bgs
- meadow mat (silt with fibrous organics and trace clay) to approximately 15 feet bgs
- underlying sand (coarse to fine sand, trace to some fine gravel) to approximately 85 feet bgs
- Gardiners Clay

With the exception of the bulkhead area, the meadow mat was encountered throughout the site at a thickness ranging from 5 to 12 feet. Meadow mat was not observed during previous environmental investigations conducted in the bulkhead area.

The underlying sand (lower sand unit) has been divided into three horizons for purposes of discussion: monitoring wells in the D1 horizon are generally screened between 15 and 28 feet bgs, monitoring wells in the D2 horizon are screened between 30 and 42 feet bgs, and monitoring wells in the VD horizon are screened at the base of the unit (58 to 83 feet bgs). Cross section locations are shown on Figure 3; Cross Sections A’ and B’ are provided on Figures 4 and 5, respectively.

3.2.1 Groundwater Flow

Groundwater has historically been observed at elevations ranging between 2 to 5 feet above mean sea level (3 to 5 feet bgs). Groundwater flow in the shallow fill material is generally toward the south in the direction of Barnum Island Channel with a horizontal gradient of approximately 0.006 foot/foot (ft/ft). Alternatively, the potentiometric surface of the groundwater in the lower sand unit, the groundwater flow is generally to the west. Groundwater elevation contour maps for each are presented in Appendix C.

Groundwater elevations were monitored and recorded using pressure transducers in December and April. The groundwater elevation monitoring data are also provided in Appendix C.

Results of the tidal study will be used, along with the additional aquifer testing data, in the development of the FS.

3.2.2 Horizontal and Vertical Gradients

Between April 6 and 8, 2011, groundwater elevation measurements were collected from monitoring wells screened at the water table, the meadow mat and in the lower sand during two low tide and two high tide cycles. Vertical gradients were calculated based on the recent groundwater elevation measurements, as summarized below (negative gradients are upward):

- The vertical gradient between the water table and the lower sand unit is generally downward and ranged from 0.233 at high tide to 0.429 at low tide (measured at AMW-1 and MW-25D1).

- The vertical gradients between the D-1 monitoring wells and the D-2 monitoring wells were variable depending on location. A downward gradient was measured in the MW-23, MW-24, MW-26 and MW-27 well clusters and an upward gradient was measured in the MW-28, MW-30 and MW-31 well clusters. The vertical gradient in the MW-25 well cluster was variable. The maximum downward vertical gradient measured between the D-1 and D-2 horizons was 0.168 in the MW-26 well cluster at low tide and the maximum upward vertical gradient was -0.031 in the MW-30 well cluster at high tide.

- The vertical gradient between the D3 and VD horizons was downgradient and was 0.007. The vertical gradient between the D2 and VD unit was generally upward, except for the MW-30 well cluster, which was upward for three of the four monitoring events. The vertical gradient between the D2 and VD horizons ranged from -0.004 in the MW-24 well cluster and -0.047 in the MW-30 well cluster at low tide.

  Results of groundwater elevation monitoring will be used, along with the additional aquifer testing data, in the development of the FS. Groundwater elevation data is summarized in Table 3.

4. Supplemental Soil Investigation Results

This section summarizes the analytical results of the 77 supplemental soil samples that were selected for laboratory analysis as part of this RI. The soil sampling locations and the approximate location of the former building, structures, tanks and monitoring wells are depicted on the Site Plan (Figure 2). Results of these supplemental soil samples are summarized in Table 5. The horizontal and vertical distribution of exceedances of the unrestricted use SCOs are illustrated based on the current and historical soil results on Figures 6, 7 and 8.

The following subsections present a discussion of the supplemental soil characterization results for the various areas of concern identified at this site.

4.1 Former VRU Area: Shallow Fill Unit

Twelve soil samples were selected for analysis from the shallow fill material in the former VRU during drilling of the boreholes prior to installation of AMW-1, AMW-2, AMW-3 and MW-25D3. A number of VOCs and SVOCs related to petroleum releases and CVOCs were detected in soil samples above Unrestricted Use SCO in the soil samples from the former VRU. However, no VOCs, SVOCs or inorganics were detected at concentrations above the Restricted Use SCO Commercial Criteria in any of the soil samples collected in the shallow overburden fill unit.

The highest PID reading (1,599 parts per million [ppm]) was measured in AMW-2 from 2 to 4 feet bgs. During well installation, trace sheen was observed on soil samples collected at the water table (3 feet bgs) in AMW-1 and AMW-8 and dark staining was observed in soil samples collected from 1.5 to 4 feet bgs in AMW-2.

4.1.1 VOCs

- Acetone was detected above the Unrestricted Use SCO of 0.05 milligrams per kilogram (mg/kg) in one sample (AMW-2; 2 to 4 feet bgs) at a concentration of 0.27 mg/kg.

- Benzene was detected above the Unrestricted Use SCO of 0.06 mg/kg in soil samples collected from AMW-3 at depths from 2 to 4 and 4 to 6 feet bgs at a concentration of 0.11 mg/kg.

- Ethylbenzene was detected above the Unrestricted Use SCO of 1 mg/kg in five soil samples collected from soil borings AMW-2, AMW-3 and MW-25D3 at concentrations ranging from 1.4 mg/kg in MW-25D3 (4 to 6 feet bgs) to 10 mg/kg in the duplicate sample collected from AMW-3 (2 to 4 feet bgs).

- Total xylenes was detected above the Unrestricted Use SCO of 0.26 mg/kg in six soil samples collected from soil borings AMW-2, AMW-3 and MW-25D3 at concentrations ranging from 5.2 mg/kg in AMW-3 (0 to 2 feet bgs) to 73 mg/kg in the soil sample collected from AMW-2 (2 to 4 feet bgs).

4.1.2 CVOCs

- Methylene chloride was detected above the Unrestricted Use SCO of 0.05 mg/kg in three soil samples collected from soil borings AMW-2, AMW-3 and MW-25D3 at concentrations ranging from 0.062 mg/kg in AMW-3 (4 to 6 feet bgs) to 0.21 mg/kg in the soil sample collected from MW-25D3 (4 to 6 feet bgs).

- VC was detected above the Unrestricted Use SCO of 0.02 mg/kg in one soil sample collected from AMW-2 (4 to 6 feet bgs) at concentration of 0.044 mg/kg.

- cis-1,2-DCE was detected above the Unrestricted Use SCO of 0.250 mg/kg in the soil sample collected from AMW-2 (4 to 6 feet bgs) at a concentration of 0.26 mg/kg.

- 1,2-Dichloroethane (1,2-DCA) was detected above the Unrestricted Use SCO of 0.02 mg/kg in the soil sample collected from AMW-2 (0 to 2 feet bgs) at a concentration of 0.068 mg/kg.

4.1.3 SVOCs

One or more SVOCs were detected above the Unrestricted Use SCO in the soil samples collected from each of the soil borings in the former VRU, including benzo (a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene, hexachlorobenzene and naphthalene. These detections were limited and sporadic.

4.1.4 Inorganics

Lead was detected above the Unrestricted Use SCO of 63 mg/kg in soil samples collected from AMW-3 at 0 to 2 feet bgs (69.6 mg/kg) and at 2 to 4 feet bgs (52.4 mg/kg in the field sample and 72.6 mg/kg in the duplicate sample).

4.2 Former VRU Area: Meadow Mat

Nine samples were selected for analysis to further characterize soil conditions in the meadow mat unit in proximity to the former VRU Area during drilling of the borings for AMW-8, AMW-9 and AMW-10. VOCs and SVOCs related to petroleum releases and CVOCs were detected in soil samples at concentrations above Unrestricted Use SCO. The detections of petroleum-related compounds (BTEX) were limited to the upper 2 feet of the meadow mat. No SVOCs or inorganics were detected at concentrations above the Restricted Use SCO Commercial Criteria in the meadow mat samples. The only CVOC detected above the Restricted Use SCO Commercial Criteria within the meadow mat was a single detection of VC within a soil sample collected at a depth of 9 – 10 feet in the borehole for AMW-9. The highest PID reading in the meadow mat was 117.6 ppm, which was measured in soil samples collected during installation of AMW-9 from 8 to 10 feet bgs; no sheens were observed during installation of the monitoring wells.

4.2.1 VOCs

- Acetone was detected above the Unrestricted Use SCO of 0.05 mg/kg in six soil samples from locations AMW-8 and AMW-9 at concentrations ranging from 0.15 mg/kg in AMW-8 (14 to 15 feet bgs) to 0.38 mg/kg in AMW-9 (9 to 10 feet bgs). Acetone was not detected in AMW-10; however, due to matrix interference, the detection limit was elevated.

- 2-Butanone was detected above the Unrestricted Use SCO of 0.12 mg/kg in soil samples collected from AMW-8 (10 to 11 feet bgs) and in AMW-9 (10 to 12 feet bgs) at concentrations of 0.23 mg/kg and 0.13 mg/kg, respectively.

- Benzene was detected above the Unrestricted Use SCO of 0.06 mg/kg in soil samples collected from AMW-8, AMW-9 and AMW-10 (8.5 to 11 feet bgs) at concentrations ranging from 0.078 mg/kg in AMW-8 to 0.610 m/kg in AMW-9. Concentrations of benzene decreased to below criteria in all three soil samples with depth.

- Toluene was detected above the Unrestricted Use SCO of 0.7 mg/kg in the soil samples collected from AMW-9 (9 to 10 feet bgs) and AMW-10 (8.5 to 9.5 feet bgs) at concentrations of 1.4 and 2.7 mg/kg, respectively.

- Total xylene was detected above the Unrestricted Use SCO of 0.26 mg/kg in soil samples collected from AMW-9 (9 to 10 feet bgs) and AMW-10 (8.5 to 9.5 feet bgs) at concentrations of 2.5 and 6.4 mg/kg, respectively.

- Methyl tert-butyl ether (MTBE) was detected above the Unrestricted Use SCO of 0.93 mg/kg in six of the nine soil samples collected in the meadow mat, at concentrations ranging from 1.4 mg/kg (12 to 14 feet bgs) in AMW-8 to 9 mg/kg (9 to 10 feet bgs) in AMW-9.

4.2.2 CVOCs

Several chlorinated compounds (including cis-1,2-DCE, methylene chloride, trans-1,2-DCE, TCE and VC) were detected above Unrestricted Use SCO. VC was detected above the Restricted Use Commercial SCO Criteria in the soil sample collected from AM-9. Generally, concentrations of CVOCs decreased with depth in the meadow mat. Select CVOCs are discussed below:

- Methylene chloride was detected above the Unrestricted Use SCO of 0.05 mg/kg in all soil samples collected from the meadow mat at concentrations ranging from 0.57 mg/kg in AMW-9 (14 to 15 feet bgs) to 24 mg/kg in AMW-8 (10 to 11 feet bgs).

- VC was detected above the Unrestricted Use SCO of 0.02 mg/kg in eight soil samples collected from the meadow mat at concentrations ranging from 0.026 mg/kg in AMW-9 (14 to 15 feet bgs) to 15 mg/kg in AMW-9 (9 to 10 feet bgs). The sample collected from AMW-9 (9 to 10 feet bgs) also had concentrations of VC above the Restricted Use Commercial SCO Criteria of 13 mg/kg.

- TCE was detected above the Unrestricted Use SCO of 0.47 mg/kg in one soil sample collected from AMW-9 (9 to 10 feet bgs) at a concentration of 5 mg/kg.

- cis-1,2-DCE was detected above the Unrestricted Use SCO of 0.25 mg/kg in soil samples collected from the meadow mat at concentrations ranging from 0.53 mg/kg in AMW-9 (10 to 12 feet bgs) to 110 mg/kg in AMW-10 (8.5 to 9.5 feet bgs).

- trans-1,2 DCE was detected above the Unrestricted Use SCO of 0.19 mg/kg in soil samples collected from the meadow mat at a concentration of 1.4 mg/kg in AMW-9 (9 to 10 feet bgs) to 3.3 mg/kg in AMW-10 (8.5 to 9.5 feet bgs).

4.2.3 SVOCs

Only two SVOCs were detected above Unrestricted Use SCO in the meadow mat: 4-methylphenol and phenol. 4-Methylphenol was detected above Unrestricted Use SCO of 0.33 mg/kg in soil samples collected from AMW-9 (9 to 10 feet bgs) and in AMW-10 (8.5 to 9.5 feet bgs) at concentrations of 1.6 and 0.9 mg/kg, respectively. Phenol was detected at a concentration above the Unrestricted Use SCO of 0.33 mg/kg in the soil sample collected from AMW-9 (9 to 10 feet bgs) at a concentration of 0.49 mg/kg.

4.2.4 Inorganics

Arsenic was detected above the Unrestricted Use SCO of 13 mg/kg in soil samples collected from AMW-8, AMW-9 and AMW-10 at concentrations ranging from 13.2 mg/kg in AMW-8 (10 to 11 feet bgs) to 16.1 mg/kg in AMW-8 (12 to 14 feet bgs). The sample collected from AMW-8 (10 to 11 feet bgs),with a detection of arsenic of 16 mg/kg, was the only soil sample collected from the meadow mat which was above the Restricted Use Commercial SCO Criteria for any inorganic constituent. Mercury and nickel were detected just above the Unrestricted Use SCO in one soil sample.

4.3 Former Oil/Water Separator Area

A series of five test pits (4-A, 4-B, 4-C, 4-D and 4-F) were excavated in the vicinity of the former oil/water separator area. A total of three soil samples (TP-4-B1, TP-4-D-1 and TP-4-F1) were selected for analysis from these excavations.

A trace sheen and/or staining was observed during the excavation of test pits 4-C, 4-D and 4-F. The sheen was observed at the water table, at approximately 4.5 feet bgs, and staining was observed at depths ranging from 2 to 6 feet bgs. The lateral extent of the soils observed to have sheen and staining was observed to be limited to the north and south as defined by test pits 4-F, 4-A and 4-B, respectively.

No VOCs or SVOCs were detected above Unrestricted Use SCO. Mercury and silver were detected above the Unrestricted Use SCO in the soil sample collected from TP-4-B-1 at concentrations of 0.606 and 3.32 mg/kg respectively. The Unrestricted Use

SCO for mercury and silver are 0.18 and 3.32 mg/kg, respectively. However, these inorganics were not detected at concentrations above the Restricted Use SCO for Commercial Use.

4.4 Former Two-Story Brick Building Area

A total of 28 soil samples were selected for analysis to further assess soil condition in proximity to the Former Two-Story Brick Building Area (southwest area) from the soil samples collected from a series of six test pits (5, 6, 7, 8, 9 and 10) and during installation of monitoring wells AMW-4, AMW-5, AMW-6 and AMW-7.

During excavation of the test pits, the following field observations were made:

- A trace sheen and limited staining were observed during excavation of test pit TP7-2.
- Trace sheen was observed in the soil at the water table during excavation of test pit 8-1.
- Staining was observed during the excavation of test pits 5 and 6-3.

The extent of visual impacts has been defined within the test pits and no visual impacts were observed during excavation of test pits 6-1, 6-2, 7-1, 9 and 10. No visual impacts were observed during the drilling of monitoring wells AMW-4 though AMW-7.

4.4.1 VOCs

Acetone was detected above the Unrestricted Use SCO in six soil samples at concentrations ranging from 0.55 mg/kg in soil sampleTP-9-3 to 0.10 mg/kg in AMW-5 (2 to 4 feet bgs). The horizontal extent has been defined by soil samples.

Methylene chloride was detected above the Unrestricted Use SCO of 0.05 mg/kg at concentrations ranging from 0.082 mg/kg in soil sampleTP-8-1 to 0.11 mg/kg in soil sampleTP-5-2.

4.4.2 SVOCs

Several SVOCs were detected above the Unrestricted Use SCO including benzo(a)pyrene, benzo(a)anthracene, benzo(a)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene and chrysene. Total SVOCs was not detected at concentrations of 500 mg/kg in any of the soil samples. Benzo(a)pyrene was detected a at concentration above Restricted Use SCO Commercial Criteria of 1 mg/kg in two soil samples (TP 6-3 and TP-7-2) at concentrations of 2.7 and 3.7 mg/kg, respectively.

4.4.3 Inorganics

Four inorganics were detected at concentrations above Unrestricted Use SCO in soil samples collected from AMW-5, AMW-6, AMW-7 and TP-6-1: arsenic, lead, mercury and zinc. Arsenic was also detected at concentrations above the Restricted Use SCO Commercial Criteria. Results are summarized below:

- Arsenic was detected above the Restricted Use SCO Commercial Criteria of 16 mg/kg in four samples at concentrations ranging from 16.2 mg/kg in AMW-6 (2 to 4 feet bgs) to 28.1 mg/kg in TP-6-1.

- Lead was detected above the Unrestricted Use SCO of 63 mg/kg in the sample collected from AMW-6 (4 to 6 feet bgs) at a concentration of 80.2 mg/kg and 200 mg/kg in sample TP-10-1.

- Mercury was detected above the Unrestricted Use SCO of 0.18 mg/kg in the soil samples collected from AMW-6 (4 to 6 feet bgs) and from AMW-7 (8 to 10 feet bgs) at concentrations of 0.199 and 0.189 mg/kg, respectively. Mercury was detected above the Restricted Use SCO Commercial Criteria of 2.8 mg/kg in the soil sample collected from AMW-5 (6 to 8 feet bgs) at a concentration of 11.1 mg/kg.

- Zinc was detected above the Unrestricted Use SCO of 109 mg/kg in soil samples collected from AMW-5 (2 to 4 feet bgs) and from AMW-7 (4 to 6 feet bgs) at concentrations of 123 and 120 mg/kg, respectively.

4.5 Former One-Story Brick Garage Area

To further characterize the soil condition in proximity to the former garage area of the site, a series of five test pits (TP-1, TP-2, TP-3, TP-11 and TP-12) were excavated and a total of10 soil samples were selected from the excavations for laboratory analysis. As described in the test pit logs, some sheen were observed within the soil at the water table during the excavation of test pits TP-1, TP-2, TP-3 and TP-12. The apparent extent of the sheen impacted soil in test pits 1, 2 and 3 were horizontally limited to within the area of the test pits.

4.5.1 Analytical Results

Acetone was detected above the Unrestricted Use SCO of 0.05 mg/kg in the soil sample collected from TP-11-1 at concentration of 0.058 mg/kg and methylene chloride was detected above the Unrestricted Use SCO of 0.05 mg/kg at a concentration of 0.086 mg/kg.

Mercury was detected above the Unrestricted Use SCO of 0.18 mg/kg in the soil sample collected from TP-12-1 at a concentration of 1.35 mg/kg.

No VOCs, SVOCs or inorganics were detected at concentrations above the Restricted Use SCO Commercial Criteria.

4.6 Former Truck Loading Rack Area

A total of ten soil samples selected for laboratory analysis from the soil borings during installation of MW-31-D1R, MW-31-D2R, and P-18R. Nine soil samples were collected from the shallow fill unit and one soil sample was collected from the lower sand unit.

4.6.1 Analytical Results

No VOCs or inorganics were detected at concentrations above the Unrestricted Use SCOs in any of the soil samples collected from this area. However, several SVOCs were detected at concentrations above the Unrestricted Use SCOs, including benzo(a)pyrene, benzo(a)anthracene, benzo(a)fluoranthene, benzo(k) fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene. The soil sample collected at a depth of 6 to 8 feet from MW-31-D2R was also had Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, and

Dibenzo(a,h)anthracene detected at concentrations above their respective Restricted Use SCO Commercial Criteria. The soil sample collected at a depth of 2 to 4 feet from the same borehole also contained Benzo(a)pyrene at concentrations above the Restricted Use SCO Commercial Criteria.

5. Supplemental Groundwater Investigation Results

This section summarizes the analytical results of the 39 supplemental groundwater samples that were collected for laboratory analysis as part of this RI. The monitoring well locations and the approximate location of the former building, structures, tanks and monitoring wells are depicted on the Site Plan (Figure 2). Results of these supplemental groundwater samples are provided in Table 6 and on Figures 9 and 10.

5.1 Overburden Unit

A total of 12 monitoring wells were sampled to characterize the current groundwater conditions within the overburden unit at the site. These shallow monitoring points include three wells in proximity to the former VRU Area (AMW-1, AMW-2, and AMW-3); five wells located in proximity to the southern site boundary along the Barnum Island Channel (AMW-4, AMW-5, AMW-7, AMW-11 and MW-DR); one well in proximity to the eastern site boundary (P-10) and one well in proximity to the western site boundary P-18R).

5.1.1 Petroleum-Related Constituents

- Benzene was detected above the NYSDEC TOGS Guidance Values (guidance values) of 1 microgram per liter (µg/L) at concentrations ranging from 6.4 µg/L in AMW-7 to 68 µg/L in AMW-11 510 µg/L in AMW-3.

- Ethylbenzene was detected at concentrations ranging from 5.7 µg/L in AMW-11 to 1,300 µg/L in AMW-2; the guidance value for ethylbenzene is 5 µg/L.

- Toluene was detected at concentrations ranging from 8.6 µg/L in AMW-1 to 69 µg/L in AMW-2; the guidance value for toluene is 5 µg/L.

- Xylenes were detected at concentrations ranging from 13 µg/L in AMW-4 to 7,200 µg/L in AMW-2; the guidance value for xylenes is 5 µg/L.

- MTBE was detected at a concentration of 26 µg/L in AMW-3, the guidance value is 10 µg/L.

- Isopropylbenzene was detected above the guidance value of 5 µg/L at concentrations ranging from 6.3 µg/L in AMW-1 to 130 µg/L in AMW-2.

5.1.2 CVOCs

Although a number of CVOCs were observed at concentrations above their respective guidance values in the shallow monitoring wells in proximity to the VRU Area, CVOCs were generally observed at relatively low concentrations in the shallow groundwater within the overburden as compared to concentrations observed in the deeper water-bearing units. VC was detected above the guidance value of 2 µg/L in monitoring wells AMW-1 and AMW-2 at concentrations of 13 and 26 µg/L, respectively. In addition, cis-1,2-DCE was detected at concentrations above the guidance value of 5 µg/L in AMW-1 and AMW-2 at concentrations of 22 and 62 µg/L, respectively.

5.1.3 SVOCs and Inorganics

A number of SVOCs and inorganics were detected in groundwater within the shallow overburden unit at concentrations exceeding guidance values including the following:

- Phenol was detected in four of the shallow wells at a concentrations ranging from 15 µg/L in AMW-3 to 110 µg/L in AMW-5; the guidance value for phenol is 1 µg/L.

- Naphthalene was detected above the guidance value of 10 µg/L at concentrations ranging from 18 µg/L in AMW-4 to 400 µg/L in AMW-11.

- Concentrations of a number of SVOCs were also detected above their respective guidance values in the groundwater sample collected from AMW-11, including acenaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene and fluorine.

- Iron and manganese were detected at concentrations above the guidance values in the total and dissolved samples collected from AMW-1, AMW-2 AMW-3, AMW-4 and AMW-11; analytical results are provided in Table 6 and on Figure 9.

5.2 Meadow Mat Unit

Three new monitoring wells were constructed with screened interval installed within the meadow mat unit to further characterize conditions in the former VRU (AMW-8, AMW-9 and AMW-10). Petroleum-related constituents and CVOCs were detected at

concentrations above the guidance values in the groundwater samples collected from these meadow mat monitoring wells.

5.2.1 Petroleum-Related Constituents

- Benzene was detected above the guidance value of 1 µg/L in the sample collected from AMW-10 at a concentration of 260 µg/L.

- Toluene was detected above the guidance value of 5 µg/L in all three wells monitoring this unit at concentrations ranging from 110 µg/L in AMW-8 to 590 µg/L in AMW-10.

- Ethylbenzene was detected above the guidance value of 5 µg/L in the sample collected from AMW-10 at a concentration of 250 µg/L.

- Xylenes were detected above the guidance value of 5 µg/L in the samples collected from AMW-9 and AMW-10 at concentrations of 170 and 560 µg/L, respectively.

- MTBE was detected above the guidance value of 10 µg/L in all three wells monitoring this unit at concentrations ranging from 790 µg/L in AMW-8 to 1,900 µg/L in AMW-10.

- Isopropylbenzene was detected above the guidance value of 5 µg/L in the sample collected from AMW-10 at a concentration of 24 µg/L.

5.2.2 CVOCs

- The CVOC detected in the highest concentrations was cis-1-2 DCE which was detected above the guidance value of 5 µg/L in all three wells monitoring this unit at concentrations ranging from 29,000 µg/L in AMW-8 to 240,000 µg/L in AMW-10.

- Methylene chloride was detected above the guidance value of 5 µg/L in all three wells monitoring this unit at concentrations ranging from 810 µg/L in AMW-10 to 1,700 µg/L in AMW-8.

- TCE was detected at concentrations above the guidance value of 5 µg/L in all three wells monitoring this unit at concentrations ranging from 110 µg/L in AMW-8 to 58,000 µg/L in AMW-10.

- VC was detected at concentrations above the guidance value of 2 µg/L in all three wells monitoring this unit at concentrations ranging from 10,000 µg/L in AMW-8 to 20,000 µg/L in AMW-10.

- 1,1-DCA and 1,1-DCE were both detected above the guidance value of 5 µg/L in the sample collected from AMW-10 at concentrations of 25 and 300 µg/L, respectability.

5.2.3 SVOCs and Inorganics

- Naphthalene was detected above the guidance value of 10 µg/L in groundwater samples collected from AMW-9 and AMW-10 at concentrations of 84 and 81 µg/L, respectively.

- Phenol was detected above the guidance value of 1 µg/L in all three wells monitoring this unit at concentrations ranging from 3.9 µg/L in AMW-8 to 12 µg/L in AMW-10.

- Total and dissolved iron was detected above the guidance value in samples collected from AMW-8, AMW-9 and AMW-10; results are summarized in Table 5.

5.3 Lower Sand Unit

A total of 25 monitoring wells were sampled to characterize current groundwater conditions within the lower sand unit underlying the site. This lower sand unit has been divided into three depth horizons for purposes of discussion: monitoring wells in the shallow portion of this unit (D1) are generally screened between 15 and 28 feet bgs, monitoring wells in the intermediate portion of this unit (D2) are screened between 30 and 42 feet bgs, and monitoring wells in the deepest portion of this unit (VD) are screened at the base of the unit (58 to 83 feet bgs).

5.3.1 Shallow Horizon of Lower Sand Unit (D1)

Twelve monitoring wells screened within the shallow horizon in the lower sand unit (MW-23-D1R, MW-24-D1, MW-25-D1, MW-26-D1, MW-27-D1, MW-28-D1, MW-29-

D1 MW-30-D1, MW-31-D1R, MW-32-D, MW-33-D, and MW-35D) were sampled for this investigation. Petroleum-related constituents including BTEX, isopropylbenzene, MTBE and naphthalene, and CVOCs were detected above the guidance values in the D-1 horizon.

5.3.1.1 Petroleum-Related Constituents

- One or more petroleum-related constituents were detected above guidance values in all but one of the 12 monitoring wells screened within the shallow horizon.

- Benzene was detected above the guidance value of 1 µg/L in eight of the 12 monitoring wells in the D-1 horizon at concentrations ranging from 3.7 µg/L in MW-35-D to 130 µg/L in MW-30-D1.

- Ethylbenzene was detected above the guidance value of 5 µg/L in three of the 10 monitoring wells in the D-1 horizon at concentrations of 5.3 µg/L in MW-31-D1R and 12 µg/L in MW-25-D1.

- Isopropylbenzene was detected above the guidance value of 5 µg/L in the groundwater samples collected from MW-23D1R and MW-29D1 at concentrations of 18 and 16 µg/L, respectively.

- MTBE was detected above the guidance value of 10 µg/L in nine of the 10 monitoring wells in the D-1 horizon at concentrations of 13 µg/L in MW-32D and 1,100 µg/L in MW-24-D1.

- Toluene was detected above the guidance value of 5 µg/L in the groundwater samples collected from MW-24D1 and MW-25D1 at concentrations of 19 and 31 µg/L, respectively.

- Total xylenes detected above the guidance value of 5 µg/L in four of the 10 monitoring wells in the D-1 horizon at concentrations of 12 µg/L in MW-31-D1R and 40 µg/L in MW-25-D1.

5.3.1.2 CVOCs

- The CVOC detected at the highest concentration in the D1 horizon of the lower sand unit is cis-1,2-DCE which was detected above the guidance value of 5 µg/L at concentrations ranging from 29 µg/L in MW-27D1 to 7,400 µg/L in MW-24D1.

- Methylene chloride was detected above the guidance value of 5 µg/L in the groundwater sample collected from MW-25D1 at a concentration of 340 µg/L.

- TCE was detected above the guidance value of 5 µg/L in the groundwater samples collected from MW-24D1 and MW-25D1 at concentrations of 65 and 110 µg/L, respectively.

- Vinyl chloride was detected above the guidance value of 2 µg/L in the groundwater samples collected from MW-24D1 and MW-25D1 at concentrations of 1,800 and 5,900 µg/L, respectively.

- 1,1-DCE was detected above the guidance value of 5 µg/L in the samples collected from MW-24D1 and MW-25D1 at a concentration of 23 µg/L.

- trans-1,2-DCE were detected above the guidance value of 5 µg/L in the sample collected from MW-24D1 and MW-25D1 at concentrations of 44 and 58 µg/L, respectively.

5.3.1.3 SVOCs and Inorganics

- No SVOCs were detected at concentrations above the guidance values in the groundwater sample collected from MW-35D.

- Naphthalene was detected above the guidance value of 10 µg/L in three of the 10 monitoring wells at concentrations ranging from 53 µg/L in MW-24D1 to 90 µg/L in MW-31D1R.

- Acenaphthalene was detected above the guidance value of 20 µg/L in three of the 10 monitoring wells at concentrations ranging from 31 µg/L in MW-24D1 to 130 µg/L in MW-31D1R.

- Phenol was detected above the guidance value of 1 µg/L in the groundwater sample collected from MW-26D1 at a concentration of 14 µg/L.

- Iron and/or manganese were detected above the guidance values in the total and dissolved samples collected from MW-23D1, MW-26D1 MW-31D1R, MW-33D and MW-35D; results are provided in Table 6.

5.3.2 Intermediate Horizon of Lower Sand Unit (D-2)

Eleven monitoring wells screened in the intermediate horizons within the lower sand unit were sampled for this investigation (including MW-23-D2R, MW-24-D2, MW-25-D2, MW-25-D3, MW-26-D2, MW-27-D2, MW-28-D2, MW-29-D2, MW-30-D2, MW-31-D2R, and MW-32-D). Although petroleum-related constituents, including BTEX and MTBE, and chlorinated compounds were detected above the guidance values in several of the wells monitoring the D-2 horizon, no VOCs were detected above the guidance values in groundwater samples collected from five of these wells (MW-26-D2, MW-27-D2, MW-29-D2, MW-30-D2 and MW-31D2R).

5.3.2.1 Petroleum-Related Constituents

- Benzene was detected above the guidance value of 1 µg/L in monitoring wells MW-24-D2 and MW-25-D2 at concentrations of 3.5 and 9.5 µg/L, respectively.

- MTBE was detected above the guidance value of 10 µg/L at concentrations ranging from 130 µg/L in MW-25-D2 to 280 µg/L in MW-24-D2.

- Toluene was detected above the guidance value of 5 µg/L in the groundwater sample collected from MW-25-D2 at a concentration of 24 µg/L.

- Total xylenes were detected above the guidance value of 5 µg/L in the groundwater sample collected from MW-25-D2 at a concentration of 16 µg/L.

5.3.2.2 CVOCs

- The CVOC observed at the highest concentration in the D2 horizon was TCE which was detected in the groundwater sample collected from MW-25D2 at a concentration of 17,000 µg/L.

- Methylene chloride was detected above the guidance value of 5 µg/L in the groundwater sample collected from MW-25-D2 at a concentration of 3,700 µg/L.

- VC was detected above the guidance value of 2 µg/L at concentrations ranging from 6.5 µg/L in MW-23-D2R to 300 µg/L in MW-24-D2.

- 1,1-DCE was detected above the guidance value of 5 µg/L in the sample collected MW-25D2 at a concentration of 5.7 µg/L.

- cis-1,2-DCE was detected above the guidance value of 5 µg/L at concentrations ranging from 6.6 µg/L in MW-28D2 to 3,500 µg/L in MW-25D2.

- trans-1,2-DCE was detected above the guidance value of 5 µg/L in the sample collected from MW-24-D2 at a concentration of 6.7 µg/L.

5.3.2.3 SVOCs and Inorganics

No SVOCs were detected above the guidance values in the monitoring wells screened it the D2 horizon. Iron and manganese were detected above the guidance values in total and dissolved samples collected from the D2 horizon; results are summarized in Table 6.

5.4 Deep Horizon of Lower Sand Unit (VD)

Six monitoring were sampled in the VD horizon. Relatively low levels of VOCs, CVOCs and SVOCs were detected above the guidance values in the VD horizon.

5.4.1 Petroleum-Related Constituents

- Acetone was detected above the guidance value of 50 µg/L in the sample collected from MW-26VD at a concentration of 84 µg/L.

- MTBE was detected above the guidance value of 10 µg/L in the groundwater samples collected from MW-29VD and MW-30VD at concentrations of 15 and 90 µg/L, respectively.

5.4.2 CVOCs

- TCE was detected above the guidance value of 5 µg/L in MW-25VD at a concentration of 180 µg/L.

- Methylene chloride was detected above the guidance value of 5 µg/L in MW-25-D3 at a concentration of 43 µg/L.

- cis-1,2-DCE was detected above the guidance value of 5 µg/L in the groundwater sample collected from MW-25VD at a concentration of 11 µg/L.

- 1,2-DCE was detected above the guidance value of 0.6 µg/L in the groundwater samples collected from MW-24VD and MW-30VD at concentrations of 0.61 and 1.5 µg/L, respectively.

- 1,2-Dichlorobenzene was detected above the guidance value of 3 µg/L in the groundwater sample collected from MW-30VD at a concentration of 5 µg/L.

5.4.3 SVOCs and Inorganics

- Phenol was detected above the guidance value of 1 µg/L in the groundwater samples collected from MW-25-D3 and MW-26VD at concentrations of 6.5 and 8.4 µg/L, respectively. No other SVOCs were detected above the guidance values.

- Iron and manganese were detected above the guidance values in the total and dissolved samples collected from MW-24VD, MW-25D3 and MW-25VD; results are provided in Table 6.

6. Summary and Conclusions

This section presents a summary of the current characterization of soil and groundwater conditions and the relevant conclusions which can be drawn regarding the nature and extent of soil and groundwater impacts at this site based on the available site investigation results.

In general, the analytical results of soil and groundwater samples collected during this investigation, in conjunction with available historical data, provide an adequate basis to characterize the current site conditions at this site and support the selection and design of an appropriate remedy for this portion of the site.

6.1 Soil Conditions in Former VRU Area

Analytical results of the soil samples collected from the fill material in the former VRU indicated that the shallow soils are primarily impacted with petroleum-related constituents, while the detections of CVOCs are limited and sporadic. Although benzene, ethylbenzene, total xylenes, methylene chloride, VC, cis-1,2 DCE, several SVOCs and lead were detected above the Unrestricted Use SCO in the shallow soil within this area, there were no detections of any constituents of concern above the Restricted Use SCO Commercial Criteria.

Acetone, 2-butanone, benzene, toluene, total xylenes, MTBE, cis-1,2-DCE, methylene chloride, trans-1,2-DCE, TCE, VC, 4-methylphenol and phenol were detected at concentrations above the Unrestricted Use SCO in soil samples collected from the meadow mat in the former VRU. The petroleum-related compounds were generally limited to the upper 2 feet of the meadow mat and concentrations decreased with depth. Most chlorinated constituents were detected in the soil samples collected from the 8- to 10-foot depth interval, but methylene chloride was detected at concentrations above the Unrestricted Use SCO in all soil samples collected from the meadow mat. No VOCs, SVOCs or inorganics were detected above the Restricted Use SCO Commercial Criteria in the meadow mat samples, with the exception of a single detection of VC. The extent of VOCs in the meadow mat has been defined by historical investigations except for the eastern boundary.

6.2 Soil Conditions in Oil/Water Separator Area

Soil conditions around the former oil water separator area were further characterized through visual observations and laboratory analysis of samples were collected during

excavation of the five test pits. These test pit in the oil/water separator area provide a basis to define the horizontal and vertical extent of the observed staining and sheens to aid in defining the impacted area.

Limited areas of sheen impacted soil was observed during excavation of test pits 4-C, 4-D and 4-F. The extent of the sheen-impacted soils was defined by test pit 4-F; the extent to the south was not defined by the test pits 4-A and 4-B because the excavation depths of these test pits was limited by subsurface pipes. The sheen was observed at the water table (approximately 4.5 feet bgs) and staining was observed at 2 to 6 feet bgs. No VOCs, SVOCs or inorganics were detected above the Restricted Use SCO for Commercial Use.

No VOCs or SVOCs were detected above the Unrestricted Use SCO. Mercury and silver were detected at concentrations above the Unrestricted Use SCO in the soil sample collected from TP-4-B-1 at concentrations of 0.606 and 3.32 mg/kg, respectively. The Unrestricted Use SCO for mercury and silver are 0.18 and 2 mg/kg, respectively. However, these inorganics were not detected above the Restricted Use SCO for Commercial Use.

There is also historical analytical data available for the oil/water separator area. Soil samples were collected from the footprint of tank 110 at 1 to 2 feet bgs for analysis of BTEX constituents; none were detected above the Unrestricted Use SCO.

6.3 Summary of Soil Conditions in Former 2 Story Brick Building Area (Southwest Area)

Twenty-eight soil samples were collected during test pit excavations and monitoring well installations in the southwest area of the site which is defined to include the locations of the one-story brick office building, the two-story brick building and the one block building (southwest area).

The visual observations of residual hydrocarbon impacts within this area were limited to some sheen and limited staining observed during the excavation of test pit 7-2, trace sheen was observed during excavation of test pit 8-1 and staining was observed during excavation of test pit 5 and test pit 6-3. The extent of visual impacts was defined within the limits of these test pits and no visual impacts were observed during excavation of test pits 6-1, 6-2, 7-1, 9 and 10. No visual impacts were observed during the drilling of monitoring wells AMW-4 though AMW-7.

Results of the soil samples selected for analysis from this area indicate that a single VOC (acetone), five SVOCs (methylene benzo(a)pyrene, benzo(a)anthracene, benzo(a)fluoranthene, benzo(k) fluoranthene, and chrysene), and four inorganics (arsenic, lead, mercury and zinc) were detected in soil samples collected in the southwest area of the site at concentrations above the Unrestricted Use SCO. However, only benzo(a) pyrene (TP 6-3 and TP-7-2) and arsenic were detected above Restricted Use SCO Commercial Criteria.

Although benzo(a) pyrene and arsenic were detected in soil samples above the Restricted Use SCO Commercial Criteria; neither of these constituents was detected in groundwater in the downgradient monitoring wells (AMW-4, AMW-5 and AMW-7) above the guidance values.

6.4 Soil Conditions in Former Garage Area

Soil conditions in this area were characterized based on visual observations and laboratory analysis of ten soil samples selected during excavation of test pits TP-1, TP-2, TP-3, TP-11, and TP-12. Although sheen was observed during excavation of test pits TP-1, TP-2 and TP-3, the extent of the limits of the sheen was defined within the extent of the excavation. Sheen was also observed in test pit TP-12 which was not defined within the extent of the test pit excavation, but was defined by numerous soil borings completed around this area.

Acetone, methylene chloride and mercury were detected above the Unrestricted Use SCO; however, no VOCs, SVOCs or inorganics were detected above the Restricted Use SCO Commercial Criteria.

6.5 Soil Conditions in Former Truck Loading Rack Area

The soil conditions in this area were characterized through visual observations and analysis of ten soil samples were collected during installation of monitoring wells MW-31-D1R, MW-31-D2R and P-18R in this area; nine soil samples were collected from the shallow fill and one soil sample was collected from the lower sand unit.

No sheens or stained soils were observed in soil during any of these soil borings and no VOCs or inorganics were detected above the Unrestricted Use SCO in the soil samples collected from this area. However, several SVOCs were detected above the Unrestricted Use SCO, including benzo(a)pyrene, benzo(a)anthracene, benzo(a)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and

indeno(1,2,3-cd)pyrene. A number of these SVOCs also exceeded the Restricted Use SCO Commercial Criteria: (benzo(a)anthracene, benzo(a) pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene). Total SVOCs were not detected at concentrations of 500 mg/kg in any of the soil samples.

Historical soil samples collected in the former truck loading rack area also had detections of benzo(a) pyrene above the Unrestricted Use SCO, but below the Restricted Use SCO Commercial Criteria. No other SVOCs were detected above the Unrestricted Use SCO in the historical soil samples.

Historical soil samples in the area of the former truck loading rack area also had detections of BTEX constituents above the Unrestricted Use SCO, but below the Restricted Use SCO Commercial Criteria.

Phenol and naphthalene were the only SVOCs detected above groundwater guidance values in downgradient monitoring well AMW-4 and no SVOCs were detected above groundwater criteria in P-18R.

Based on the downgradient groundwater and historical soil analytical data for this area, the extent of constituents above Restricted Use SCO Commercial Criteria is limited. Because total SVOCs were not detected at concentrations of 500 mg/kg in any of the soil samples, no additional soil investigation is recommend for this area.

6.6 Groundwater Conditions

Current groundwater conditions at this site have been further characterized through the installation of fifteen additional monitoring wells to augment the existing monitoring well network and the collection and analysis of 39 groundwater samples from the new and existing wells at the locations illustrated on Figure 2. The results of the groundwater samples are summarized on Table 6 and Figures 9 and 10. A complete summary of historical groundwater sampling results for this site are also provided in Appendix B.

The water-bearing units of interest beneath this site include a shallow sand fill unit and a lower sand unit which are separated by a meadow mat unit which consist primarily of silt with fibrous organics and trace clay. With the exception of the bulkhead area, the meadow mat was encountered throughout the site at a thickness ranging from 5 to 12 feet. The underlying sand (lower sand unit) has been divided into three horizons for purposes of discussion: monitoring wells in the D1 horizon are

generally screened between 15 and 28 feet bgs, monitoring wells in the D2 horizon are screened between 30 and 42 feet bgs, and monitoring wells in the VD horizon are screened at the base of the unit (58 to 83 feet bgs). Cross section locations are shown on Figure 3; Cross Sections A' and B' are provided on Figures 4 and 5, respectively.

Depth to groundwater is observed at elevations ranging between 2 to 5 feet above mean sea level (3 to 5 feet bgs). Groundwater flow in the shallow fill unit is generally toward the south in the direction of Barnum Island Channel, while the potentiometric surface of the groundwater in the lower sand unit suggest groundwater flow generally toward the west. Groundwater elevation contour maps are presented in Appendix C.

A total of 12 monitoring wells were sampled to characterize the current groundwater conditions within the shallow overburden unit at the site. These shallow monitoring points include three wells in proximity to the former VRU Area (AMW-1, AMW-2, and AMW-3); five wells located in proximity to the southern site boundary along the Barnum Island Channel (AMW-4, AMW-5, AMW-7, AMW-11 and MW-DR); one well in proximity to the eastern site boundary (P-10) and one well in proximity to the western site boundary P-18R).

The analytical results of the groundwater samples from the shallow overburden wells located along the western, southern and eastern site boundaries (i.e. wells not in proximity to the VRU) indicate groundwater conditions at these site boundaries are relatively close to meeting water quality criteria with the exception of: several petroleum-related VOCs (benzene, ethylbenzene, and xylenes); six SVOCs (phenol, acenaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene and fluorene); and two inorganic constituents (iron and manganese).

The analytical results of the groundwater samples from the shallow overburden wells in the VRU Area also indicated the presence of a similar list of petroleum-related VOCs, SVOCs and inorganics which exceed water quality criteria as well as two CVOCs (cis-1,2-DCE and VC) which exceed their criteria. However, the CVOCs concentrations in these overburden wells are all less than 100 µg/L.

The analytical results of the groundwater samples from the three new wells monitoring the meadow mat unit within the VRU Area (AMW-8, AMW-9, and AMW-10), indicate the presence of substantially higher concentration of the CVOCs (cis-1,2-DCE up to 240,000 µg/L, TCE up to 58,000 µg/L, and VC up to 20,000 µg/L). These groundwater results also indicated the presence petroleum related VOCs

(benzene, ethylbenzene, toluene, and xylenes), SVOCs (phenol and naphthalene), and iron which exceed water quality criteria.

A total of 27 monitoring wells screened at various depths within the lower sand unit were sampled to characterize current groundwater conditions within the lower sand unit. These monitoring wells include; a four well cluster in the center of the VRU (MW-25); six monitoring wells/clusters located around the VRU Area (MW-23, MW-24, MW-27, MW-30, MW-31, and MW-32); and five monitoring wells/clusters located along the site perimeter (MW-26, MW-28, MW-29, MW-33, and MW-35).

The analytical results of the groundwater samples from the first two screened intervals in monitoring well cluster in the center of the VRU (MW-25-D1 and MW-25-D2) indicate the presence of several CVOCs (cis-1,2-DCE up to 5,100 µg/L, TCE up to 17,000 µg/L, and VC up to 5,900 µg/L) in the D1 and D2 horizon wells within lower sand unit immediately below the VRU area which exceed water quality criteria. These groundwater results also indicated the presence of some petroleum related VOCs (benzene, ethylbenzene, toluene, xylenes, and MTBE), one SVOC (acenaphthene), and two inorganics (iron and manganese) which exceed water quality criteria.

The analytical results of the groundwater samples from the deepest screened interval in the monitoring well cluster in the center of the VRU (MW-25VD) indicate the concentrations of CVOCs which exceed water quality criteria (cis-1,2-DCE 11 µg/L and TCE 180 µg/L) decline rapidly with depth within lower sand unit below the VRU area. These groundwater results also indicated the presence of two inorganics (iron and manganese) which exceed water quality criteria.

The analytical results of the groundwater sample from the shallow horizon in the monitoring well clusters located immediately to the north of the VRU Area (MW-24-D1) indicate concentrations of CVOCs exceeding water quality criteria (cis-1,2-DCE at 7,400 µg/L, VC at 1800 µg/L and TCE at 65 µg/L). However, concentrations at this well cluster location were also observed to decline rapidly with depth within lower sand unit such that there were no detectable VOCs in the sample from the VD horizon.

The analytical results of rest of the well clusters located around the VRU (MW-23, MW-27, MW-30, MW-31, and MW-32) and along the property boundaries (MW-26, MW-28, MW-29, MW-33, and MW-35) indicate relatively few CVOC exceedances (cis-1, 2-DCE up to 29 µg/L and VC up to 7.8 µg/L). These groundwater results also

indicated the presence of some petroleum related VOCs (benzene up to 130 µg/L, ethylbenzene up to 5.3 µg/L, xylenes up to 16 µg/L, and MTBE up to 680 µg/L), as well as some SVOCs and inorganics which exceed water quality criteria.

In summary, the soil and groundwater conditions at this site have been adequately characterized to facilitate assessment of appropriate alternatives capable of remediating this site.

7. References

ARCADIS. 2010a. Remedial Investigation/Feasibility Study Work Plan.

ARCADIS. 2010b. Quality Assurance Project Plan.

Blasland, Bouck and Lee, Inc. 2002a. Corrective Action Plan.

Blasland, Bouck and Lee, Inc. 2002b. Corrective Action Plan Addendum.

Blasland, Bouck and Lee, Inc. 2003a. Corrective Action Status Report.

Blasland, Bouck and Lee, Inc. 2003b. Remedial Action Report.

Blasland, Bouck and Lee, Inc. 2003c. Remedial Action Progress Report.

Blasland, Bouck and Lee, Inc. 2004a. Remedial Action Progress Report.

Blasland, Bouck and Lee, Inc. 2004b. Remedial Investigation Work Plan for the Vapor Recovery Unit Area.

Blasland, Bouck and Lee, Inc. 2004c. Remedial Action Progress Report.

Blasland, Bouck and Lee, Inc. 2004d. Revised Remedial Investigation Work Plan for the Vapor Recovery Unit Area.

Blasland, Bouck and Lee, Inc. 2004e. Remedial Action Progress Report.

Blasland, Bouck and Lee, Inc. 2004f. Corrective Action Plan.

Blasland, Bouck and Lee, Inc. 2004g. Remedial Action Progress Report.

Blasland, Bouck and Lee, Inc. 2005. Remedial Investigation Report and Corrective Action Plan.

Blasland, Bouck and Lee, Inc. 2006. Remedial Action Progress Report.

Cedar Creek Engineering. 2005. Chemical Oxidation Pilot Test.

Eder Associates. 1996a. Comprehensive Site Assessment Report.

Eder Associates. 1996b. Comprehensive Site Assessment Report – Additional Site Investigation.

Eder Associates. 1996c. Quarterly Groundwater Monitoring Report.

Eder Associates. 1996d. Remedial Activity Report – Surface Water Collection & Treatment System.

Eder Associates. 1996e. Quarterly Groundwater Monitoring Report.

Eder Associates. 1996f. Technical Specifications for On-Site Stormwater Treatment and Disposal System Upgrade Report.

Eder Associates. 1997. Quarterly Groundwater Monitoring Report.

Eder Associates. 1998. Groundwater Sampling Results Report.

ERM. 1986. Hydrogeologic Site Assessment Report.

Gannett Fleming. 1999a. First Quarter 1999 Groundwater Sampling.

Gannett Fleming. 1999b. Second Quarter 1999 Groundwater Sampling.

Gannett Fleming. 1999c. Third Quarter 1999 Groundwater Sampling.

Gannett Fleming. 2000a. Fourth Quarter 1999 Groundwater Sampling.

Gannett Fleming. 2000b. First Quarter 2000 Groundwater Sampling.

Gannett Fleming. 2000c. Second Quarter 2000 Groundwater Sampling.

Gannett Fleming. 2000d. Third Quarter 2000 Groundwater Sampling.

Gannett Fleming. 2000e. Fourth Quarter 2000 Groundwater Monitoring & Annual Summary.

Gannett Fleming. 2001a. First Quarter 2001 Groundwater Monitoring.

Gannett Fleming. 2001b. Second Quarter 2001 Groundwater Monitoring.

Gannett Fleming. 2001c. Third Quarter 2001 Groundwater Monitoring.

Langan Engineering and Environmental Services. 2004. Environmental Investigation Report.

Langan Engineering and Environmental Services. 2007a. Chlorinated Volatile Organic Compound Due Diligence Investigation Letter Report.

Langan Engineering and Environmental Services. 2007b. Remedial Investigation Workplan and Remedial Action Workplan.

Leggette, Brashears and Graham Inc. 2000. Investigation Report.

Leggette, Brashears and Graham Inc. 2001. Soil Investigation.

Leggette, Brashears and Graham Inc. 2003. Soil Investigation Letter Report.

Lowe's Home Centers, Inc. 2006. Brownfield Cleanup Program Application.

New York State Department of Environmental Conservation. 1999. TOGS for Groundwater (standard), Section 703.6.

New York State Department of Environmental Conservation. 2006. Technical & Operational Guidance Series.

New York State Department of Environmental Conservation. 2010. Division of Environmental Remediation-10 – Technical Guidance for Site Investigation and Remediation.

United States Environmental Protection Agency. 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA.

W.E.S., Inc. 1995. Sensitive Receptor and Potable Well Strategic Assessment.

ARCADIS

Tables

Table 1. November 2010 Test Pit Sample Summary, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Test Pit	Test Pit Dimensions (feet)	Test Pit Depth (feet)	Depth to Water (feet)	Sample ID	Depth Interval (feet)	PID Screening Result (ppm)
TP-1	60 x 3	6	3.7	TP-1-1	4.0	0.0
				TP-1-2	3.0	0.0
				TP-1-3	3.5	0.0
TP-2	72 x 3	5.5	4	TP-2-1	5.5	1.6
				TP-2-2	5.5	60
TP-3	64 x 3	8	5.3	TP-3-1	5.0	7.3
				TP-3-2	6.8	32
				TP-3-3	6.5	0.0
TP-4-A-C	56 x 3	6	1.5 to 3.0	TP-4-B-1	1.5	1.5
TP-4-D-F	77 x 3	7.5	3.8 to 4.5	TP-4-D-1	7.0	17
				TP-4-F-1	4.0	6.1
TP-5	80 x 3	6	5.6	TP-5-1	5.0	36
				TP-5-2	5.5	117
				TP-5-3	6.0	38
TP-6	90 x 3	6	4.5	TP-6-1	5.0	0.6
				TP-6-2	5.5	0.7
				TP-6-3	5.5	15
TP-7	90 x 3	7	5.0 to 6.0	TP-7-1	5.0	0.0
				TP-7-2	5.0	7.2
TP-8	53 x 3	5	3.7	TP-8-1	4.5	0.7
				TP-8-2	4.0	0.6
TP-9	63 x 3	7.5	6	TP-9-1	6.5	6.0
				TP-9-2	6.0	8.2
				TP-9-3	6.5	5.3
TP-10	61 x 3	8	6.7	TP-10-1	6.0	0.0
				TP-10-2	6.0	0.0
				TP-10-3	6.5	3.6
TP-11	10 x 3	5	2.3	TP-11-1	5.0	2.3
TP-12	12 x 3	5	3.2	TP-12-1	4.7	7.8

Notes:
PID = photoionization detector.
ppm = parts per million.

Table 2. Well Construction Summary, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Well ID	Screen Interval (ft bgs)	Measured Well Depth (feet)	Inner Casing Elevation (feet, AMSL)	Outer Casing Elevation (feet, AMSL)	Ground Elevation (feet, AMSL)
AMW-1	2 - 12	15.50	7.94	8.20	5.18
AMW-2	4 - 9	11.88	8.14	8.25	5.37
AMW-3	4 - 9	11.54	7.53	8.21	5.46
AMW-4	2 - 12	12.04	6.36	6.60	NA
AMW-5	2 - 12	12.04	6.71	6.98	NA
AMW-6	3 - 13	3.20	6.26	6.76	NA
AMW-7	2 - 12	12.05	6.43	6.74	NA
AMW-8	11 - 14	17.62	7.90	8.44	5.41
AMW-9	10 - 14	16.94	7.52	8.26	5.62
AMW-10	10 - 14	16.66	7.70	7.96	5.61
AMW-11	2 - 12	NA	4.37	4.59	NA
MW-23-D1R	16.5 - 26.5	25.36	7.87	8.14	5.45
MW-23-D2R	31 - 41	43.20	7.20	7.65	5.68
MW-24-D1	17 - 27	29.76	7.56	7.72	5.66
MW-24-D2	32 - 42	39.79	7.67	8.02	5.40
MW-24VD	63 - 73	74.19	8.57	8.84	5.34
MW-25-D1	16 - 26	29.50	8.35	9.57	5.62
MW-25-D2	31 - 41	43.86	8.52	8.75	5.51
MW-25D3	40 - 50	52.52	5.66	6.05	5.49
MW-25VD	63 - 73	74.61	8.49	9.16	5.51
MW-26-D1	15 -25	26.50	5.72	6.25	3.85
MW-26-D2	30 - 40	42.07	5.95	6.21	3.94
MW-26VD	58 - 68	54.72	6.47	6.75	4.02
MW-27-D1	18 -28	26.62	7.54	7.74	5.46
MW-27-D2	33 - 43	45.05	7.56	7.62	5.52
MW-28-D1	17.5 - 27.5	NA	4.87	5.29	NA
MW-28-D2	32.4 - 42.5	NA	5.04	5.28	NA
MW-29-D1	17 - 27	25.52	6.98	7.19	4.54
MW-29-D2	32 - 42	41.79	7.07	7.52	4.42
MW-29-VD	53 - 63	63.25	7.01	7.28	4.37
MW-30-D1	18 - 28	26.68	5.39	5.58	NA
MW-30-D2	33 - 43	NA	5.41	5.72	NA
MW-30VD	73 - 83	80.70	8.53	8.64	5.63
MW-31-D1R	17 - 27	28.81	6.62	6.85	5.21
MW-31-D2R	32 - 42	44.92	6.11	6.78	5.41
MW-32D	24 - 34	37.09	6.73	8.30	5.36
MW-33D	18 - 28	30.00	6.64	8.04	4.96
MW-35D	16 - 26	28.26	8.11	8.31	5.61
MW-DR	NA	15.02	NA	6.34	4.29
P-10	NA	NA	4.35	NA	6.03
P-18R	2 - 8	7.71	4.64	5.07	NA
P-26	NA	6.50	NA	NA	NA
Stream Gauge	NA	NA	4.71		5.11

Notes:

1. Northings and eastings provided are approximate and reference NAD83.
2. Elevations are shown in feet above mean sea level (AMSL) relative to the NAVD datum of 1988 (NAVD88).
3. NA = not available.

Table 3. Groundwater Elevation Summary, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location	TOC Elevation (feet, AMSL)	TIC Elevation (feet, AMSL)	1/18/2011			4/6/2011 (Low Tide)		4/7/2011 (High Tide)		4/7/2011 (Low Tide)		4/8/2011 (High Tide)	
			Depth to Water (TOC) (feet)	Measured Well Depth (feet)	Groundwater Elevation (feet, AMSL)	Depth to Water (TIC) (feet)	Groundwater Elevation (feet, AMSL)	Depth to Water (TIC) (feet)	Groundwater Elevation (feet, AMSL)	Depth to Water (TIC) (feet)	Groundwater Elevation (feet, AMSL)	Depth to Water (TIC) (feet)	Groundwater Elevation (feet, AMSL)
AMW-1	8.20	7.94	3.66	15.50	4.54	3.63	4.31	3.55	4.39	3.54	4.40	3.64	4.30
AMW-2	8.25	8.14	3.84	11.88	4.41	3.87	4.27	3.77	4.37	3.77	4.37	3.89	4.25
AMW-3	8.21	7.53	3.96	11.54	4.25	3.36	4.17	3.29	4.24	3.30	4.23	3.40	4.13
AMW-4	6.60	6.36	4.24	12.04	2.36	-	NA	-	NA	-	NA	-	NA
AMW-5	6.98	6.71	4.37	12.04	2.61	-	NA	-	NA	-	NA	-	NA
AMW-6	6.76	6.26	3.20	3.20	3.56	-	NA	-	NA	-	NA	-	NA
AMW-7	6.74	6.43	4.54	12.05	2.20	-	NA	-	NA	-	NA	-	NA
AMW-8	8.44	7.90	4.61	17.62	3.83	3.74	4.16	3.62	4.28	3.62	4.28	3.72	4.18
AMW-9	8.26	7.52	3.96	16.94	4.30	3.35	4.17	3.22	4.30	3.23	4.29	3.34	4.18
AMW-10	7.96	7.70	3.71	16.66	4.25	3.41	4.29	3.32	4.38	3.32	4.38	3.42	4.28
AMW-11	4.59	4.37	NA	NA	NA	2.75	1.62	2.28	2.09	2.67	1.70	2.62	1.75
MW-23-D1R	8.14	7.87	8.04	25.36	0.10	9.42	-1.55	6.63	1.24	8.67	-0.80	8.04	-0.17
MW-23-D2R	7.65	7.20	7.78	43.20	-0.13	8.76	-1.56	5.98	1.22	8.21	-1.01	7.31	-0.11
MW-24-D1	7.72	7.56	8.03	29.76	-0.31	9.07	-1.51	6.35	1.21	8.51	-0.95	7.67	-0.11
MW-24-D2	8.02	7.67	8.33	39.79	-0.31	9.22	-1.55	6.50	1.17	8.68	-1.01	7.83	-0.16
MW-24VD	8.84	8.57	9.11	74.19	-0.27	10.00	-1.43	7.32	1.25	9.47	-0.90	8.62	-0.05
MW-25-D1	9.57	8.35	9.94	29.50	-0.37	9.86	-1.51	7.12	1.23	9.34	-0.99	8.40	-0.05
MW-25-D2	8.75	8.52	9.04	43.86	-0.29	9.97	-1.45	7.23	1.29	9.52	-1.00	8.58	-0.06
MW-25D3	6.05	5.66	6.31	52.52	-0.26	7.12	-1.46	4.41	1.25	6.61	-0.95	5.70	-0.04
MW-25VD	9.16	8.49	9.69	74.61	-0.53	10.12	-1.63	7.40	1.09	9.61	-1.12	8.68	-0.19
MW-26-D1	6.25	5.72	7.06	26.50	-0.81	4.85	0.87	4.86	0.86	4.85	0.87	4.88	0.84
MW-26-D2	6.21	5.95	6.66	42.07	-0.45	7.58	-1.63	4.72	1.23	7.15	-1.20	6.18	-0.23
MW-26VD	6.75	6.47	5.93	54.72	0.82	8.02	-1.55	5.15	1.32	7.58	-1.11	6.62	-0.15
MW-27-D1	7.74	7.54	8.20	26.62	-0.46	9.03	-1.49	6.30	1.24	8.53	-0.99	7.58	-0.04
MW-27-D2	7.62	7.56	8.05	45.05	-0.43	9.15	-1.59	6.40	1.16	8.64	-1.08	7.67	-0.11
MW-28-D1	5.29	4.87	NA	NA	NA	6.37	-1.50	3.59	1.28	6.00	-1.13	4.99	-0.12
MW-28-D2	5.28	5.04	NA	NA	NA	6.45	-1.41	5.65	-0.61	6.03	-0.99	5.08	-0.04
MW-29-D1	7.19	6.98	8.67	25.52	-1.48	8.58	-1.60	5.63	1.35	8.08	-1.10	6.98	0.00
MW-29-D2	7.52	7.07	7.96	41.79	-0.44	8.83	-1.76	5.95	1.12	8.38	-1.31	7.27	-0.20
MW-29-VD	7.28	7.01	7.72	63.25	-0.44	8.75	-1.74	5.82	1.19	8.30	-1.29	7.12	-0.11
MW-30-D1	5.58	5.39	5.84	26.68	-0.26	6.93	-1.54	4.51	0.88	6.45	-1.06	5.47	-0.08
MW-30-D2	5.72	5.41	NA	NA	NA	6.85	-1.44	4.07	1.34	6.40	-0.99	5.38	0.03
MW-30VD	8.64	8.53	8.81	80.70	-0.17	10.20	-1.67	7.45	1.08	7.65	0.88	8.85	-0.32
MW-31-D1R	6.85	6.62	7.20	28.81	-0.35	8.15	-1.53	5.40	1.22	7.74	-1.12	6.78	-0.16
MW-31-D2R	6.78	6.11	7.01	44.92	-0.23	7.45	-1.34	4.72	1.39	7.07	-0.96	6.11	0.00
MW-32D	8.30	6.73	8.11	37.09	0.19	7.90	-1.17	5.38	1.35	7.39	-0.66	6.55	0.18
MW-33D	8.04	6.64	8.12	30.00	-0.08	7.79	-1.15	5.45	1.19	7.31	-0.67	6.57	0.07
MW-35D	8.31	8.11	8.65	28.26	-0.34	9.61	-1.50	6.81	1.30	9.30	-1.19	8.28	-0.17
MW-DR [A]	6.34		4.35	15.02	1.99	4.52	1.82	4.18	2.16	4.44	1.90	4.46	1.88
P-10	NA	4.35	NA	NA	NA	2.40	1.95	4.76	-0.41	3.12	1.23	2.96	1.39
P-18R	5.07	4.64	0.85	7.71	4.22	0.85	3.79	0.85	3.79	0.87	3.77	0.98	3.66
Stream Gauge	5.11	4.71	-	-	NA	7.12	-2.41	3.32	1.39	6.97	-2.26	5.32	-0.61

Notes:

1. Elevations are shown in feet above mean sea level (AMSL) relative to the NAVD datum of 1988 (NAVD88).
2. Depths are measured from the top of casing (TOC).
3. NA = not available.

Superscript Notes:

[A] No inner casing present.

Table 4. Groundwater Sample Collection Field Parameters, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	Temperature (ºC)	pH (SU)	Conductivity (mS/cm)	Oxidation Reduction Potential (mV)	Dissolved Oxygen (mg/L)	Turbidity (NTUs)
AMW-1	1/20/2011	5.45	6.91	0.523	-263.5	2.89	0.0
AMW-2	1/20/2011	4.93	6.59	0.461	-162.7	1.46	3.3
AMW-3	1/20/2011	4.85	6.89	0.691	-170.8	0.52	9.5
AMW-4	1/26/2011	7.91	7.77	1.442	-23.2	0.75	8.2
AMW-5	1/26/2011	7.72	5.10	1.441	-309.3	0.94	1.9
AMW-7	1/26/2011	8.19	8.29	2.259	-367.9	0.61	6.1
AMW-8	1/20/2011	7.77	6.48	1.167	-167.4	1.18	6.2
AMW-9	1/20/2011	7.12	6.17	1.103	-186.1	1.20	10.0
AMW-10	1/20/2011	6.65	6.21	1.612	-103.6	5.00	13.7
AMW-11	1/26/2011	5.76	4.52	0.773	-124.6	1.21	8.2
MW-23-D1R	1/19/2011	10.10	6.65	1.351	-270.1	5.51	2.7
MW-23-D2R	1/20/2011	9.10	6.90	9.371	-339.6	6.13	0.7
MW-24-D1	1/19/2011	11.47	6.92	11.04	-342.8	0.00	6.1
MW-24-D2	1/19/2011	11.13	6.95	10.02	-332.6	0.00	1.9
MW-24VD	1/19/2011	10.63	6.76	32.37	-199.5	0.82	0.9
MW-25-D1	1/19/2011	11.51	6.27	9.935	-346.4	0.00	7.4
MW-25-D2	1/19/2011	10.98	6.30	10.06	-333.0	2.49	0.9
MW-25D3	1/21/2011	11.57	7.24	29.96	-364.1	0.08	2.7
MW-25VD	1/19/2011	10.75	6.40	21.63	-275.3	0.93	0.5
MW-26-D1	1/25/2011	10.71	6.12	14.27	-360.1	0.04	7.8
MW-26-D2	1/25/2011	10.06	6.03	18.62	-299.6	0.00	5.5
MW-26VD	1/18/2011	7.36	11.88	16.34	-251.3	0.91	0.2
MW-27-D1	1/18/2011	11.22	6.82	8.056	-354.2	0.00	7.5
MW-27-D2	1/18/2011	10.92	6.43	19.31	-170.6	0.64	4.1
MW-28-D1	1/25/2011	11.66	6.04	8.870	-394.1	0.00	6.2
MW-28-D2	1/25/2011	13.10	6.48	22.60	-293.2	0.17	19.1
MW-29-D1	1/25/2011	12.32	6.68	4.431	-233.1	0.93	5.1
MW-29-D2	1/25/2011	10.36	5.62	19.37	-263.4	0.56	1.2
MW-29-VD	1/25/2011	13.32	6.53	23.28	-304.1	0 [1]	5.1
MW-30-D1	1/24/2011	9.01	6.22	8.620	-340.1	0.07	1.0
MW-30-D2	4/7/2011	11.75	6.72	11.16	-354.8	1.48	3.2
MW-30VD	1/25/2011	11.48	7.56	22.18	-321.7	0 [1]	6.2
MW-31-D1R	1/21/2011	9.04	6.58	8.320	-340.9	0.82	0.0
MW-31-D2R	1/12/2011	10.48	6.97	18.76	-329.6	0.88	0.0
MW-32D	1/19/2010	12.46	6.95	8.372	-337.7	0.00	0.0
MW-33D	1/27/2011	11.69	6.98	7.132	-335.6	0.93	11.7
MW-35D	1/27/2011	10.57	7.36	1.554	-334.0	0.75	9.8
MW-DR	1/26/2011	7.31	4.52	0.617	-214.3	1.04	11.8
P-10	4/7/2011	6.88	6.76	0.727	-97.1	9.57	16
P-18R	1/27/2011	2.86	7.24	0.671	-204.0	0.67	9.6

Notes:

[1] A negative dissolved oxygen reading was recorded, so a value of 0 mg/L has been recorded in this table.

ºC = Celsius.

mg/L = milligrams per liter.

mV = millivolts.

NTUs = Nephelometric Turbidity Units.

SU = Standard Units.

mS/cm = milliSiemens per centimeter.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10
Volatile Organics												
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0060 U	0.0054 U	0.0067 U	**0.068 DJ**	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
2-Butanone	0.12	500	mg/kg	0.030 U	0.027 U	0.0034 J	0.030 U	0.037	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U
2-Hexanone	- -	- -	mg/kg	0.030 U	0.027 U	0.033 U	0.030 U	0.037 U	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.030 U	0.027 U	0.033 U	0.030 U	0.037 U	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U
Acetone	0.05	500	mg/kg	0.030 U	0.027 U	0.035	0.030 U	**0.27**	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U
Benzene	0.06	44	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	**0.12 U [0.11 J]**	**0.11 J**
Bromodichloromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Bromoform	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Bromomethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Carbon Disulfide	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0083	0.0060 U	0.0074 U	0.029	0.13 UJ	0.12 UJ [0.19 UJ]	0.12 UJ
Carbon Tetrachloride	0.76	22	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Chlorobenzene	1.1	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Chloroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 UJ	0.12 UJ [0.19 UJ]	0.12 UJ
Chloroform	0.37	350	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Chloromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0060 U	0.0024 J	0.0050 J	0.023	0.0064 J	**0.26**	0.13 U	0.12 U [0.19 U]	0.12 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Cyclohexane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Dibromochloromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Ethylbenzene	1	390	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.020	**7.2 D**	0.028 U	**2.4**	**6.7 [10]**	**2.0**
Isopropylbenzene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0030 J	0.052	3.0 D	0.028 U	1.2	3.5 [5.2]	1.6
Methyl acetate	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.014 J	0.13 U	0.12 U [0.19 U]	0.12 U
Methylcyclohexane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.020	2.9 D	2.2 D	0.028 U	2.9	2.5 [6.4]	2.4
Methylene Chloride	0.05	500	mg/kg	0.021 UBJ	0.023 UBJ	0.032 UBJ	0.028 UBJ	0.044 UBJ	**0.064 J**	0.13 UJ	0.12 UJ [0.19 UJ]	**0.062 J**
Styrene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Tetrachloroethene	1.3	150	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Toluene	0.7	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0026 J	0.038	0.028 U	0.11 J	0.20 [0.39]	0.12 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Trichloroethene	0.47	200	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U
Vinyl Chloride	0.02	13	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	**0.044**	0.13 U	0.12 U [0.19 U]	0.12 U
Xylenes (total)	0.26	500	mg/kg	0.012 U	0.011 U	0.012 J	**16 D**	**73 D**	0.016 J	**5.2**	**6.1 [8.2]**	0.26
Total VOCs	- -	- -	mg/kg	ND	0.0024 J	0.087 J	19 J	86 J	0.43 J	12 J	19 [30 J]	6.4 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10
Semivolatile Organics												
1,1'-Biphenyl	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	0.11 J	0.18 J	0.21 U	0.58 J	0.61 J [1.5 J]	0.029 J
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.40 UJ	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [2.0 J]	0.21 U
2-Chloronaphthalene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2-Chlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2-Methylnaphthalene	- -	- -	mg/kg	0.20 U	0.039 J	0.23 U	6.3	9.9	0.21 U	16	27 [62]	4.2 J
2-Methylphenol	0.33	500	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
2-Nitroaniline	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
2-Nitrophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.20 UJ	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
3-Nitroaniline	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.40 UJ	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
4-Chloroaniline	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
4-Methylphenol	0.33	500	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
4-Nitroaniline	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
4-Nitrophenol	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
Acenaphthene	20	500	mg/kg	0.20 U	0.20 U	0.23 U	0.25 J	0.29 J	0.041 J	0.99 J	0.81 J [1.8 J]	0.12 J
Acenaphthylene	100	500	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Acetophenone	- -	- -	mg/kg	0.20 U	0.20 UJ	0.23 UJ	1.1 UJ	1.3 UJ	0.21 UJ	2.2 U	2.0 U [3.2 U]	0.21 U
Anthracene	100	500	mg/kg	0.20 U	0.20 U	0.23 U	0.29 J	0.35 J	0.023 J	0.37 J	0.43 J [0.98 J]	0.050 J
Atrazine	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Benzaldehyde	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Benzo(a)anthracene	1	5.6	mg/kg	0.056 J	0.014 J	0.23 U	0.22 J	0.25 J	0.21 U	0.37 J	0.26 J [0.40 J]	0.019 J
Benzo(a)pyrene	1	1	mg/kg	0.064 J	0.20 U	0.23 U	0.20 J	0.20 J	0.21 U	0.23 J	2.0 U [3.2 U]	0.21 U
Benzo(b)fluoranthene	1	5.6	mg/kg	0.097 J	0.020 J	0.23 U	0.22 J	0.22 J	0.21 U	0.27 J	0.20 J [0.39 J]	0.21 U
Benzo(g,h,i)perylene	100	500	mg/kg	0.040 J	0.20 U	0.23 U	0.18 J	0.10 J	0.21 U	0.18 J	2.0 U [0.22 J]	0.21 U
Benzo(k)fluoranthene	0.8	56	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	0.94 J	0.60 J	0.21 U	2.2 UB	2.0 UB [3.2 UB]	0.21 UB
Butylbenzylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Caprolactam	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Carbazole	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	0.097 J	0.025 J	0.14 J	2.0 U [3.2 U]	0.033 J
Chrysene	1	56	mg/kg	0.058 J	0.015 J	0.23 U	0.20 J	0.23 J	0.21 U	0.29 J	0.23 J [0.45 J]	0.017 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.020 J	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Dibenzofuran	7	350	mg/kg	0.20 U	0.20 U	0.23 U	0.12 J	0.16 J	0.082 J	0.79 J	0.76 J [1.5 J]	0.13 J
Diethylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Dimethylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10
Semivolatile Organics (Cont.)												
Di-n-Octylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Fluoranthene	100	500	mg/kg	0.082 J	0.021 J	0.23 U	0.66 J	0.86 J	0.073 J	1.0 J	0.69 J [1.4 J]	0.059 J
Fluorene	30	500	mg/kg	0.20 U	0.20 U	0.23 U	0.29 J	0.34 J	0.099 J	1.1 J	1.3 J [2.8 J]	0.29 J
Hexachlorobenzene	0.33	6	mg/kg	0.061 J	0.20 U	0.23 U	0.21 J	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Hexachlorobutadiene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.20 UJ	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Hexachloroethane	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.034 J	0.20 U	0.23 U	0.13 J	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Isophorone	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Naphthalene	12	500	mg/kg	0.20 U	0.032 J	0.23 U	1.8	5.2	0.21 U	5.4	**11 [29]**	2.6 J
Nitrobenzene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Pentachlorophenol	0.8	6.7	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U
Phenanthrene	100	500	mg/kg	0.026 J	0.20 U	0.23 U	0.87 J	1.2 J	0.26	3.6	3.2 [6.5]	0.45
Phenol	0.33	500	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U
Pyrene	100	500	mg/kg	0.066 J	0.019 J	0.23 U	0.56 J	0.68 J	0.022 J	0.94 J	0.67 J [1.3 J]	0.058 J
Total SVOCs	- -	- -	mg/kg	0.60 J	0.16 J	ND	14 J	21 J	0.63 J	32 J	47 J [110 J]	8.1 J
Inorganics												
Aluminum	- -	- -	mg/kg	6,030 J	4,630 J	1,960 J	2,380 J	2,950 J	1,040 J	4,860 J	2,230 J [4,990 J]	2,810 J
Antimony	- -	- -	mg/kg	18.2 U	17.0 U	20.1 U	18.9 U	21.8 U	18.2 U	19.9 U	18.1 U [28.9 U]	18.4 U
Arsenic	13	16	mg/kg	4.60	4.50	1.20 J	2.30 J	2.40 J	0.800 J	2.00 J	2.20 J [3.00 J]	2.30 J
Barium	350	400	mg/kg	20.4 J	19.2 J	8.53 J	15.6 J	19.1 J	3.68 J	26.7	14.0 [27.0]	16.0
Beryllium	7.2	590	mg/kg	0.214 J	0.156 J	0.0980 J	0.110 J	0.138 J	0.0490 J	0.224 J	0.166 J [0.227 J]	0.113 J
Cadmium	2.5	9.3	mg/kg	0.185 J	0.128 J	0.0720 J	0.212 J	0.140 J	0.0570 J	0.282 J	0.231 J [0.389 J]	0.246 UBJ
Calcium	- -	- -	mg/kg	2,940 J	1,190 J	799 J	19,600 J	1,180 J	213 J	28,000	113,000 [61,900]	1,670
Chromium	- -	- -	mg/kg	7.49	11.9	4.79	4.64	6.92	2.79	7.46	4.68 [7.99]	5.67
Cobalt	- -	- -	mg/kg	2.69	1.80	1.14	1.53	2.18	0.730	2.44	1.76 [3.26]	1.76
Copper	50	270	mg/kg	9.40	6.80	2.70	6.90	6.70	1.60	14.5 J	7.00 J [11.6 J]	7.40 J
Ferrous Iron	- -	- -	mg/kg	R	R	R	R	R	R	0.600 J	1.60 J [2.30 J]	0.500 J
Iron	- -	- -	mg/kg	8,480 J	6,610 J	3,680 J	4,480 J	5,190 J	2,560 J	5,670 J	5,180 J [7,700 J]	5,450 J
Lead	63	1,000	mg/kg	31.9	21.5	2.60	24.0	27.9	1.70	**69.6 J**	**52.4 J [72.6 J]**	25.9 J
Magnesium	- -	- -	mg/kg	1,190 J	1,110 J	706 J	11,200 J	1,060 J	261 J	5,250	63,000 [35,800]	1,330
Manganese	1,600	10,000	mg/kg	131 J	80.1 J	35.5 J	69.0 J	40.3 J	20.5 J	76.6 J	100 J [110 J]	68.7 J
Mercury	0.18	2.8	mg/kg	0.0333	0.0700	0.0250 U	0.0249 U	0.0302 U	0.0232 U	0.0329	0.0525 [0.0770]	0.0184 J
Nickel	30	310	mg/kg	6.08	4.70 J	3.26 J	4.06 J	5.01 J	1.56 J	7.11	4.78 J [7.77 J]	5.19 J
Potassium	- -	- -	mg/kg	281 J	774 J	535 J	368 J	597 J	206 J	548	490 [597]	498
Selenium	3.9	1,500	mg/kg	4.90 U	4.50 U	5.40 U	5.00 U	5.80 U	4.90 U	5.30 U	4.80 U [7.70 U]	4.90 U
Silver	2	1,500	mg/kg	0.608 U	0.568 U	0.669 U	0.631 U	0.727 U	0.608 U	0.662 U	0.602 U [0.962 U]	0.614 U
Sodium	- -	- -	mg/kg	41.2 J	89.8 J	52.2 J	40.5 J	55.4 J	67.7 J	119 J	153 J [169 J]	66.9 J
Thallium	- -	- -	mg/kg	7.30 U	6.80 U	8.00 U	7.60 U	8.70 U	7.30 U	7.90 U	7.20 U [11.5 U]	7.40 U
Vanadium	- -	- -	mg/kg	11.2	18.1	6.02	7.40	10.1	3.56	8.76	11.5 [11.9]	8.45
Zinc	109	10,000	mg/kg	32.5	18.8	7.50	20.7	17.6	3.30	57.3 J	21.1 J [37.8 J]	20.2 J
Miscellaneous												
Sulfate	- -	- -	mg/kg	124 U	283	168	225	248	140	78.1 J	397 [717]	569 J
Total Organic Carbon	- -	- -	mg/kg	3,340	23,600	1,520	4,830	6,700	1,390	6,440	7,720 [10,800]	6,430 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10	AMW-5 4 - 6 11/18/10	AMW-5 6 - 8 11/18/10	AMW-6 2 - 4 11/18/10	AMW-6 4 - 6 11/18/10	AMW-6 6 - 8 11/18/10	AMW-7 4 - 6 11/29/10	AMW-7 8 - 10 11/29/10
Volatile Organics														
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
2-Butanone	0.12	500	mg/kg	0.027 U	1.2 U	0.51 U	0.0040 J	0.011 J	0.0065 J	0.027 U	0.011 J	0.034 J	0.027 U	0.027 U
2-Hexanone	- -	- -	mg/kg	0.027 U	1.2 U	0.51 U	0.027 U	0.028 U	0.031 U	0.027 U	0.028 U	0.18 U	0.027 U	0.027 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.027 U	1.2 U	0.51 U	0.027 U	0.028 U	0.031 U	0.027 U	0.028 U	0.18 U	0.027 U	0.027 U
Acetone	0.05	500	mg/kg	0.027 U	1.2 U	0.51 U	**0.10**	**0.074**	0.047	0.027 U	**0.059**	**0.18**	0.0063 J	0.037
Benzene	0.06	44	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Bromodichloromethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Bromoform	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Bromomethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Carbon Disulfide	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Carbon Tetrachloride	0.76	22	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Chlorobenzene	1.1	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Chloroethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ
Chloroform	0.37	350	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Chloromethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Cyclohexane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Dibromochloromethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ
Ethylbenzene	1	390	mg/kg	0.0053 U	0.20 J	0.088 J	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Isopropylbenzene	- -	- -	mg/kg	0.0053 U	0.39	0.22	0.0053 U	0.0032 J	0.0044 J	0.0055 U	0.0057 U	0.016 J	0.0055 U	0.0055 U
Methyl acetate	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Methylcyclohexane	- -	- -	mg/kg	0.0053 U	3.2	1.3	0.0053 U	0.0024 J	0.0080	0.0055 U	0.0057 U	0.018 J	0.0055 U	0.0055 U
Methylene Chloride	0.05	500	mg/kg	0.0052 J	0.23 U	0.10 U	0.010	0.0081	0.0062	0.0062	0.0090	0.049	0.0076	0.016
Styrene	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Tetrachloroethene	1.3	150	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Toluene	0.7	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Trichloroethene	0.47	200	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Vinyl Chloride	0.02	13	mg/kg	0.0053 U	0.23 U	0.10 U	0.0053 U	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U
Xylenes (total)	0.26	500	mg/kg	0.011 U	0.46 U	0.20 U	0.011 U	0.0023 J	0.012 U	0.011 U	0.011 U	0.071 U	0.011 U	0.011 U
Total VOCs	- -	- -	mg/kg	0.0052 J	3.8 J	1.6 J	0.11 J	0.10 J	0.072 J	0.0062	0.079 J	0.30 J	0.014 J	0.053

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10	AMW-5 4 - 6 11/18/10	AMW-5 6 - 8 11/18/10	AMW-6 2 - 4 11/18/10	AMW-6 4 - 6 11/18/10	AMW-6 6 - 8 11/18/10	AMW-7 4 - 6 11/29/10	AMW-7 8 - 10 11/29/10
Semivolatile Organics														
1,1'-Biphenyl	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.35 U	R	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2-Chloronaphthalene	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2-Chlorophenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2-Methylnaphthalene	- -	- -	mg/kg	0.18 U	9.5	1.2	9.1 U	1.9 U	0.43 U	3.6 U	0.24 J	0.097 J	0.18 U	0.19 U
2-Methylphenol	0.33	500	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
2-Nitroaniline	- -	- -	mg/kg	0.35 U	1.9 U	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
2-Nitrophenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.18 U	R	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
3-Nitroaniline	- -	- -	mg/kg	0.35 U	1.9 UJ	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.35 U	1.9 UJ	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
4-Chloroaniline	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
4-Methylphenol	0.33	500	mg/kg	0.35 U	1.9 U	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
4-Nitroaniline	- -	- -	mg/kg	0.35 U	1.9 U	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
4-Nitrophenol	- -	- -	mg/kg	0.35 U	1.9 UJ	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
Acenaphthene	20	500	mg/kg	0.18 U	1.1	0.46 J	9.1 U	1.9 U	0.040 J	3.6 U	0.14 J	0.026 J	0.18 U	0.19 U
Acenaphthylene	100	500	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.025 J	0.18 U	0.19 U
Acetophenone	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 UJ	3.6 UJ	0.38 UJ	0.24 UJ	0.18 U	0.19 U
Anthracene	100	500	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	0.26 J	0.051 J	3.6 U	0.27 J	0.052 J	0.017 J	0.017 J
Atrazine	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Benzaldehyde	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Benzo(a)anthracene	1	5.6	mg/kg	0.020 J	0.42 J	0.26 J	0.96 J	0.69 J	0.14 J	0.44 J	0.56	0.15 J	0.088 J	0.054 J
Benzo(a)pyrene	1	1	mg/kg	0.018 J	0.36 J	0.30 J	0.94 J	0.62 J	0.13 J	0.42 J	0.54	0.16 J	0.087 J	0.056 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.021 J	0.42 J	0.38 J	**1.1 J**	0.72 J	0.15 J	0.52 J	0.63	0.19 J	0.093 J	0.064 J
Benzo(g,h,i)perylene	100	500	mg/kg	0.014 J	0.25 J	0.24 J	9.1 U	0.40 J	0.095 J	0.30 J	0.39	0.12 J	0.061 J	0.043 J
Benzo(k)fluoranthene	0.8	56	mg/kg	0.18 U	0.21 J	0.88 U	9.1 U	0.28 J	0.064 J	3.6 U	0.25 J	0.074 J	0.033 J	0.19 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.17 J	3.6 U	0.96	0.63	0.42	0.11 J
Butylbenzylphthalate	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.15 J	0.19 U
Caprolactam	- -	- -	mg/kg	0.18 U	R	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Carbazole	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	0.18 J	0.43 U	3.6 U	0.13 J	0.029 J	0.18 U	0.19 U
Chrysene	1	56	mg/kg	0.018 J	0.42 J	0.29 J	0.98 J	0.74 J	0.15 J	0.44 J	0.64	0.17 J	0.082 J	0.050 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.11 J	0.036 J	0.017 J	0.19 U
Dibenzofuran	7	350	mg/kg	0.18 U	0.79 J	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.11 J	0.027 J	0.18 U	0.19 U
Diethylphthalate	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Dimethylphthalate	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10	AMW-5 4 - 6 11/18/10	AMW-5 6 - 8 11/18/10	AMW-6 2 - 4 11/18/10	AMW-6 4 - 6 11/18/10	AMW-6 6 - 8 11/18/10	AMW-7 4 - 6 11/29/10	AMW-7 8 - 10 11/29/10
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	- -	- -	mg/kg	0.18 U	1.0 UJ	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Fluoranthene	100	500	mg/kg	0.036 J	1.3	0.77 J	1.9 J	1.3 J	0.28 J	1.0 J	1.1	0.28	0.17 J	0.11 J
Fluorene	30	500	mg/kg	0.18 U	1.5	0.66 J	9.1 U	0.22 J	0.067 J	3.6 U	0.28 J	0.064 J	0.18 U	0.19 U
Hexachlorobenzene	0.33	6	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Hexachlorobutadiene	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Hexachloroethane	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.18 U	0.20 J	0.16 J	9.1 U	0.33 J	0.076 J	3.6 U	0.34 J	0.10 J	0.049 J	0.033 J
Isophorone	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Naphthalene	12	500	mg/kg	0.18 U	2.5	0.44 J	9.1 U	1.9 U	0.43 U	3.6 U	0.088 J	0.029 J	0.18 U	0.19 U
Nitrobenzene	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Pentachlorophenol	0.8	6.7	mg/kg	0.35 U	1.9 UJ	1.7 U	18 U	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U
Phenanthrene	100	500	mg/kg	0.022 J	3.0	1.0	1.2 J	1.2 J	0.25 J	0.74 J	1.1	0.27	0.090 J	0.041 J
Phenol	0.33	500	mg/kg	0.18 U	1.0 U	0.88 U	9.1 U	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U
Pyrene	100	500	mg/kg	0.029 J	1.3	1.0	1.6 J	1.1 J	0.26 J	0.83 J	1.0	0.24	0.16 J	0.088 J
Total SVOCs	- -	- -	mg/kg	0.18 J	23 J	7.2 J	8.7 J	8.0 J	1.9 J	4.7 J	8.9 J	2.8 J	1.5 J	0.67 J
Inorganics														
Aluminum	- -	- -	mg/kg	8,070 J	1,390 J	4,010 J	5,780 J	4,360 J	5,980 J	3,660 J	3,620 J	8,470 J	4,490 J	3,290 J
Antimony	- -	- -	mg/kg	16.1 U	17.7 U	15.7 U	16.2 U	16.5 U	19.1 U	16.4 U	17.1 U	20.9 U	16.4 U	16.8 U
Arsenic	13	16	mg/kg	3.80	1.10 J	2.00 J	7.90	10.2	**24.4**	**16.2**	**20.1**	10.6	3.10 J	2.00 J
Barium	350	400	mg/kg	26.6	7.89	22.1	118	34.3	78.8	32.5	44.4	44.6	26.0	28.5
Beryllium	7.2	590	mg/kg	0.362	0.0530 J	0.186 J	0.261	0.251	0.283	0.174 J	0.185 J	0.448	0.200 J	0.142 J
Cadmium	2.5	9.3	mg/kg	0.193 J	0.0550 J	0.0920 J	0.560	1.88	1.36	0.199 J	0.356	0.468	0.463 J	0.224 UBJ
Calcium	- -	- -	mg/kg	556	218	428	24,500	8,860	2,420	5,420	1,520	2,140	875	743
Chromium	- -	- -	mg/kg	10.6	2.53	5.58	14.6	8.50	9.32	7.77	6.12	22.7	7.94	7.96
Cobalt	- -	- -	mg/kg	4.27	0.924	2.64	3.14	2.15	3.57	2.04	2.12	4.84	2.72	2.27
Copper	50	270	mg/kg	4.80	1.50	4.00	20.7	14.3	17.9	11.5	11.5	14.7	8.40	7.20
Ferrous Iron	- -	- -	mg/kg	R	R	1.70 J	R	11.2 J	R	R	R	R	R	R
Iron	- -	- -	mg/kg	10,100 J	1,860 J	5,410 J	8,320 J	6,550 J	8,740 J	6,630 J	5,890 J	18,200 J	10,600	5,780
Lead	63	1,000	mg/kg	8.20 J	4.70 J	9.00 J	61.5 J	24.2 J	21.1 J	50.8 J	**80.2 J**	43.8 J	22.4 J	18.5 J
Magnesium	- -	- -	mg/kg	1,070	309	638	3,570	2,400	1,010	2,300	577	2,900	878	766
Manganese	1,600	10,000	mg/kg	246	25.4	60.8	198	280	120	63.1	52.6	180	119 J	55.2 J
Mercury	0.18	2.8	mg/kg	0.0173 J	0.0240 U	0.0226	0.105	0.0309	**11.1**	0.0785	**0.199**	0.122	0.0492	**0.189**
Nickel	30	310	mg/kg	6.07 J	1.58 J	4.47 J	8.27 J	4.24 J	6.55 J	4.81 J	4.56 J	13.0 J	5.49	4.87 J
Potassium	- -	- -	mg/kg	305 J	202 J	298 J	527 J	547 J	444 J	432 J	332 J	1,630 J	541	420
Selenium	3.9	1,500	mg/kg	4.30 U	4.70 U	4.20 U	4.30 U	4.40 U	5.10 U	4.40 U	4.60 U	5.60 U	0.600 J	0.600 J
Silver	2	1,500	mg/kg	0.536 U	0.590 U	0.523 U	0.542 U	0.550 U	0.635 U	0.546 U	0.571 U	0.698 U	0.548 U	0.559 U
Sodium	- -	- -	mg/kg	83.1 J	34.0 J	36.2 J	347	125 J	143 J	524	153 J	392	70.5 J	131 J
Thallium	- -	- -	mg/kg	6.40 U	7.10 U	6.30 U	6.50 U	6.60 U	7.60 U	6.60 U	6.90 U	8.40 U	6.60 U	6.70 U
Vanadium	- -	- -	mg/kg	13.6	3.38	7.78	16.2	11.1	12.3	9.48	7.67	24.8	9.26	7.66
Zinc	109	10,000	mg/kg	20.8	4.40	10.3	**123**	52.8	44.6	51.6	96.9	75.0	**120 J**	29.0 J
Miscellaneous														
Sulfate	- -	- -	mg/kg	172	59.6 J	105 U	649	518	101 J	89.4 J	115 U	132 J	346	291
Total Organic Carbon	- -	- -	mg/kg	2,320	8,850	3,610	21,100	11,500	2,220	4,960	3,250	15,800	5,020	2,900

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-7 10 - 12 11/29/10	AMW-8 10 - 11 11/30/10	AMW-8 12 - 14 11/30/10	AMW-8 14 - 15 11/30/10	AMW-9 9 - 10 11/30/10	AMW-9 10 - 12 11/30/10	AMW-9 14 - 15 11/30/10	AMW-10 8.5 - 9.5 12/01/10	AMW-10 12 - 14 12/01/10	AMW-10 14 - 15 12/01/10	AMW-11 2 - 4 12/01/10	AMW-11 4 - 6 12/01/10
Volatile Organics															
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0065 U	0.025 J	0.071 U	0.085 U	0.057 J	0.017 J	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.19	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
2-Butanone	0.12	500	mg/kg	0.0052 J	**0.23 J**	0.089 J	0.42 U	0.32 U	**0.13 J**	0.28 U	0.98 U	0.63 U	1.0 U	0.66 U	0.029 U
2-Hexanone	- -	- -	mg/kg	0.032 U	0.37 U	0.36 U	0.42 U	0.32 U	0.25 U	0.28 U	0.98 U	0.63 U	1.0 U	0.66 U	0.029 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.032 U	0.37 U	0.36 U	0.42 U	0.32 U	0.25 U	0.28 U	0.98 U	0.63 U	1.0 U	0.66 U	0.029 U
Acetone	0.05	500	mg/kg	0.050	**0.24 J**	**0.17 J**	**0.15 J**	**0.38**	**0.18 J**	**0.19 J**	0.98 U	0.63 U	1.0 U	0.66 U	0.019 J
Benzene	0.06	44	mg/kg	0.0065 U	**0.078**	0.071 U	0.085 U	**0.61**	0.051	0.055 U	**0.48**	0.13 U	0.20 U	0.13 U	0.0058 U
Bromodichloromethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Bromoform	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Bromomethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Carbon Disulfide	- -	- -	mg/kg	0.0053 J	1.8	2.6	0.25	1.7	1.8	0.078	0.20 UJ	0.13 UJ	0.20 UJ	0.13 UJ	0.0058 U
Carbon Tetrachloride	0.76	22	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Chlorobenzene	1.1	500	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Chloroethane	- -	- -	mg/kg	0.0065 UJ	0.074 UJ	0.071 UJ	0.085 UJ	0.064 UJ	0.051 UJ	0.055 U	0.20 UJ	0.13 UJ	0.20 UJ	0.13 UJ	0.0058 U
Chloroform	0.37	350	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Chloromethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0015 J	**3.2 D**	**1.4**	0.11	**96 D**	**0.53**	0.18	**110 D**	0.13 U	**4.4**	0.13 U	0.0058 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Cyclohexane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.23	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Dibromochloromethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0065 UJ	0.074 UJ	0.071 UJ	0.085 UJ	0.064 UJ	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Ethylbenzene	1	390	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.47	0.051 U	0.055 U	0.83	0.13 U	0.20 U	0.13 U	0.0058 U
Isopropylbenzene	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.034 J	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0019 J
Methyl acetate	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0046 J	**3.3 D**	**1.4**	0.060 J	**9.0 D**	**1.5 D**	0.067	**6.7 D**	0.88	**1.8**	0.13 U	0.0058 U
Methylcyclohexane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.044 J	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0019 J
Methylene Chloride	0.05	500	mg/kg	0.023	**24 D**	**8.0 D**	**1.5**	**7.0 D**	**3.7 D**	**0.57 J**	**1.1 DJ**	**1.0 J**	**0.68 J**	0.13 UJ	0.0094 UB
Styrene	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Tetrachloroethene	1.3	150	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.034 J	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Toluene	0.7	500	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	**1.4**	0.051 U	0.055 U	**2.7 D**	0.13 U	0.18 J	0.13 U	0.0058 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0065 U	0.046 J	0.071 U	0.085 U	**1.4**	0.027 J	0.055 U	**3.3 D**	0.13 U	0.20 U	0.13 U	0.0058 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Trichloroethene	0.47	200	mg/kg	0.0065 U	0.020 J	0.071 U	0.085 U	**5.0 D**	0.051 U	0.041 J	0.13 J	0.13 U	0.20 U	0.13 U	0.0058 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U
Vinyl Chloride	0.02	13	mg/kg	0.0032 J	**1.9 D**	**0.17**	0.085 U	**15 EJ**	**3.1 EJ**	**0.026 J**	**2.3 D**	**0.095 J**	**0.12 J**	0.13 U	0.0058 U
Xylenes (total)	0.26	500	mg/kg	0.013 U	0.15 U	0.14 U	0.17 U	**2.5**	0.10 U	0.11 U	**6.4 D**	0.25 U	0.17 J	0.26 U	0.012 U
Total VOCs	- -	- -	mg/kg	0.093 J	35 J	14 J	2.1 J	140 J	11 J	1.2 J	130 J	2.0 J	7.4 J	ND	0.023 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-7 10 - 12 11/29/10	AMW-8 10 - 11 11/30/10	AMW-8 12 - 14 11/30/10	AMW-8 14 - 15 11/30/10	AMW-9 9 - 10 11/30/10	AMW-9 10 - 12 11/30/10	AMW-9 14 - 15 11/30/10	AMW-10 8.5 - 9.5 12/01/10	AMW-10 12 - 14 12/01/10	AMW-10 14 - 15 12/01/10	AMW-11 2 - 4 12/01/10	AMW-11 4 - 6 12/01/10
Semivolatile Organics															
1,1'-Biphenyl	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.070 J	0.033 J
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2-Chloronaphthalene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2-Chlorophenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2-Methylnaphthalene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.40	0.13 J
2-Methylphenol	0.33	500	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
2-Nitroaniline	- -	- -	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
2-Nitrophenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
3-Nitroaniline	- -	- -	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
4-Chloroaniline	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
4-Methylphenol	0.33	500	mg/kg	0.42 U	0.21 J	0.55 U	0.56 U	**1.6**	0.21 J	0.71 U	**0.90**	0.026 J	0.23 J	0.44 U	0.38 U
4-Nitroaniline	- -	- -	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
4-Nitrophenol	- -	- -	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
Acenaphthene	20	500	mg/kg	0.22 U	0.026 J	0.28 U	0.027 J	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.90	0.36
Acenaphthylene	100	500	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Acetophenone	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Anthracene	100	500	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.16 J	0.081 J
Atrazine	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Benzaldehyde	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Benzo(a)anthracene	1	5.6	mg/kg	0.024 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.079 J	0.048 J
Benzo(a)pyrene	1	1	mg/kg	0.025 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.037 J	0.027 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.028 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.067 JY	0.040 J
Benzo(g,h,i)perylene	100	500	mg/kg	0.021 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.016 J	0.024 J
Benzo(k)fluoranthene	0.8	56	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.069 JY	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.098 J	0.11 J	0.28 U	0.29 U	0.57	0.24 U	0.37 U	0.34 UB	0.22 UB	0.39 UB	0.23 UB	0.29 UB
Butylbenzylphthalate	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Caprolactam	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Carbazole	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.32	0.075 J
Chrysene	1	56	mg/kg	0.021 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.065 J	0.041 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Dibenzofuran	7	350	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.56	0.20
Diethylphthalate	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Dimethylphthalate	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-7 10 - 12 11/29/10	AMW-8 10 - 11 11/30/10	AMW-8 12 - 14 11/30/10	AMW-8 14 - 15 11/30/10	AMW-9 9 - 10 11/30/10	AMW-9 10 - 12 11/30/10	AMW-9 14 - 15 11/30/10	AMW-10 8.5 - 9.5 12/01/10	AMW-10 12 - 14 12/01/10	AMW-10 14 - 15 12/01/10	AMW-11 2 - 4 12/01/10	AMW-11 4 - 6 12/01/10
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Fluoranthene	100	500	mg/kg	0.041 J	0.050 J	0.027 J	0.060 J	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.48	0.25
Fluorene	30	500	mg/kg	0.22 U	0.025 J	0.28 U	0.024 J	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.53	0.20
Hexachlorobenzene	0.33	6	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Hexachlorobutadiene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Hexachloroethane	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Isophorone	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Naphthalene	12	500	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.85	0.30
Nitrobenzene	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U
Pentachlorophenol	0.8	6.7	mg/kg	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U
Phenanthrene	100	500	mg/kg	0.22 U	0.079 J	0.034 J	0.077 J	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	1.3	0.58
Phenol	0.33	500	mg/kg	0.22 U	0.13 J	0.28 U	0.29 U	**0.49**	0.24 U	0.37 U	0.21 J	0.22 U	0.34 U	0.23 U	0.20 U
Pyrene	100	500	mg/kg	0.035 J	0.032 J	0.28 U	0.038 J	0.34 U	0.24 U	0.37 U	0.34 U	0.22 U	0.34 U	0.32	0.19 J
Total SVOCs	- -	- -	mg/kg	0.29 J	0.66 J	0.061 J	0.23 J	2.7	0.21 J	ND	1.1 J	0.026 J	0.23 J	6.2 J	2.6 J
Inorganics															
Aluminum	- -	- -	mg/kg	4,510 J	12,300 J	14,000 J	13,600 J	15,900 J	6,040 J	18,600 J	12,300 J	8,940 J	10,800 J	5,460 J	4,040 J
Antimony	- -	- -	mg/kg	19.3 U	24.6 U	25.1 U	25.3 U	30.4 U	21.5 U	32.0 U	30.4 U	18.8 U	30.3 U	20.0 U	17.6 U
Arsenic	13	16	mg/kg	4.10 J	**13.2 J**	**16.1 J**	**13.7 J**	12.8 J	9.40 J	**15.3 J**	8.60	11.0	**13.4**	4.70	4.50
Barium	350	400	mg/kg	13.2	29.3	32.8	32.5	39.5	16.9	43.6	32.1	21.4	27.1	26.3	18.6
Beryllium	7.2	590	mg/kg	0.195 J	0.580	0.669	0.609	0.710	0.276 J	0.862	0.580	0.430	0.465	0.264 J	0.173 J
Cadmium	2.5	9.3	mg/kg	0.258 UBJ	0.407 J	0.549 J	0.491 J	0.466 J	0.335 J	0.675 J	0.418 J	0.306 J	0.326 J	0.267 UB	0.235 UBJ
Calcium	- -	- -	mg/kg	1,450	1,810	2,070	1,710	2,780	1,980	2,200	2,330	2,490	2,050	1,770	1,560 B
Chromium	- -	- -	mg/kg	12.1	35.9	41.1	38.4	43.9	19.8	51.5	35.3	25.6	29.1	12.9	9.82
Cobalt	- -	- -	mg/kg	3.05	7.12	8.30	7.95	8.47	3.69	10.4	6.38	4.99	5.86	3.47	2.76
Copper	50	270	mg/kg	5.60	11.9	13.9	13.0	13.9	5.80	17.4	10.8 J	8.30 J	10.1 J	9.70 J	11.4 J
Ferrous Iron	- -	- -	mg/kg	R	R	R	R	R	R	R	2.00 J	1.40 J	2.90 J	R	R
Iron	- -	- -	mg/kg	9,990	31,200	35,600	34,200	36,600	17,700	44,400	27,700 J	24,100 J	28,200 J	12,000 J	9,160 J
Lead	63	1,000	mg/kg	6.60 J	14.3 J	13.3 J	12.7 J	14.0 J	6.30 J	16.9 J	12.4 J	8.80 J	12.9 J	15.1 J	14.0 J
Magnesium	- -	- -	mg/kg	1,950	6,330	7,220	6,870	7,130	3,160	9,380	5,730	4,580	5,300	2,210	1,800
Manganese	1,600	10,000	mg/kg	82.8 J	214 J	267 J	268 J	268 J	132 J	378 J	204 J	176 J	217 J	111 J	92.4 J
Mercury	0.18	2.8	mg/kg	0.0219 J	0.0332 U	0.0168 J	0.0379	0.0284 J	0.0270 U	0.0441 U	**0.181**	0.0354	0.0378 U	0.0285	0.0187 J
Nickel	30	310	mg/kg	7.91	21.3	25.0	23.3	25.9	10.7	**31.4**	20.8	15.8	18.3	9.80	7.78
Potassium	- -	- -	mg/kg	1,010	3,560	4,050	3,730	4,350	1,800	5,240	3,410	2,660	2,890	1,210	825
Selenium	3.9	1,500	mg/kg	0.700 J	1.50 J	1.80 J	1.60 J	1.60 J	5.70 U	2.30 J	8.10 U	0.900 J	1.40 J	5.30 U	4.70 U
Silver	2	1,500	mg/kg	0.644 U	0.820 U	0.837 U	0.844 U	1.01 U	0.716 U	1.07 U	1.01 U	0.627 U	1.01 U	0.667 U	0.587 U
Sodium	- -	- -	mg/kg	742	4,550	5,570	5,460	1,790	2,210	8,060	1,790	3,340	4,840	289	231
Thallium	- -	- -	mg/kg	7.70 U	9.80 U	10.0 U	10.1 U	12.2 U	8.60 U	12.8 U	12.2 U	7.50 U	12.1 U	8.00 U	7.00 U
Vanadium	- -	- -	mg/kg	13.7	39.4	45.0	44.3	48.7	22.8	57.9	41.9	32.2	40.1	17.9	12.9
Zinc	109	10,000	mg/kg	23.4 J	53.2 J	60.6 J	57.2 J	65.3 J	34.0 J	82.6 J	51.6 J	39.0 J	44.8 J	30.2 J	28.1 J
Miscellaneous															
Sulfate	- -	- -	mg/kg	149	1,070	1,570	1,280	1,210	105 J	2,940	2,240	2,020	3,350	1,510	1,510
Total Organic Carbon	- -	- -	mg/kg	22,300	24,200	22,000	20,500	25,200	9,750	22,500	30,900	10,100	18,100	7,270	9,840

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-11 6 - 8 12/01/10	MW-23-D2R 18 - 20 12/07/10	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-31-D1R 0 - 2 11/17/10	MW-31-D1R 2 - 4 11/17/10	MW-31-D1R 4 - 6 11/17/10
Volatile Organics												
1,1,1-Trichloroethane	0.68	500	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,1-Dichloroethane	0.27	240	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,1-Dichloroethene	0.33	500	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.17 U	0.0060 UJ	0.0055 UJ	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,2-Dibromoethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,2-Dichloroethane	0.02	30	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,2-Dichloropropane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
2-Butanone	0.12	500	mg/kg	0.83 U	0.030 UJ	0.028 U	0.58 U	0.60 U	0.029 U	0.026 U	0.031 U	0.030 U
2-Hexanone	- -	- -	mg/kg	0.83 U	0.030 UJ	0.028 U	0.58 U	0.60 U	0.029 U	0.026 U	0.031 U	0.030 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.83 U	0.030 UJ	0.028 U	0.58 U	0.60 U	0.029 U	0.026 U	0.031 U	0.030 U
Acetone	0.05	500	mg/kg	0.83 U	0.017 J	0.028 U	0.58 U	0.60 U	0.020 J	0.0049 J	0.013 J	0.017 J
Benzene	0.06	44	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Bromodichloromethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Bromoform	- -	- -	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Bromomethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Carbon Disulfide	- -	- -	mg/kg	0.17 UJ	0.0060 U	0.0055 U	0.12 U	0.12 U	0.010	0.0052 U	0.0062 U	0.0059 U
Carbon Tetrachloride	0.76	22	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Chlorobenzene	1.1	500	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Chloroethane	- -	- -	mg/kg	0.17 UJ	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Chloroform	0.37	350	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Chloromethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.010	0.0052 U	0.0062 U	0.0059 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Cyclohexane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Dibromochloromethane	- -	- -	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Ethylbenzene	1	390	mg/kg	0.17 U	0.0060 UJ	0.0055 U	0.97	**1.4**	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Isopropylbenzene	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.29	0.32	0.0059 U	0.0052 U	0.0036 J	0.0057 J
Methyl acetate	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.014	0.0052 U	0.0062 U	0.0059 U
Methylcyclohexane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	2.4	1.8	0.0059 U	0.0052 U	0.011	0.015
Methylene Chloride	0.05	500	mg/kg	0.17 UJ	0.019	0.019	0.12 U	**0.21**	**0.12 B**	0.0080 J	0.031 UBJ	0.030 UBJ
Styrene	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Tetrachloroethene	1.3	150	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Toluene	0.7	500	mg/kg	0.17 U	0.0060 U	0.0055 U	**0.75**	0.21	0.0059 U	0.0052 U	0.0062 U	0.0059 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Trichloroethene	0.47	200	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0031 J	0.0052 U	0.0062 U	0.0059 U
Trichlorofluoromethane	- -	- -	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0059 U	0.0052 U	0.0062 U	0.0059 U
Vinyl Chloride	0.02	13	mg/kg	0.17 U	0.0060 U	0.0055 U	0.12 U	0.12 U	0.0020 J	0.0052 U	0.0062 U	0.0059 U
Xylenes (total)	0.26	500	mg/kg	0.33 U	0.012 U	0.011 U	**21**	**11**	0.012 U	0.010 U	0.0048 J	0.011 J
Total VOCs	- -	- -	mg/kg	ND	0.036 J	0.019	25	15	0.18 J	0.013 J	0.032 J	0.049 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-11 6 - 8 12/01/10	MW-23-D2R 18 - 20 12/07/10	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-31-D1R 0 - 2 11/17/10	MW-31-D1R 2 - 4 11/17/10	MW-31-D1R 4 - 6 11/17/10
Semivolatile Organics												
1,1'-Biphenyl	- -	- -	mg/kg	0.50 J	0.20 U	0.94 U	0.92 J	0.25 J	0.20 U	0.18 U	0.21 U	0.20 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2,4-Dinitrophenol	- -	- -	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2-Chloronaphthalene	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2-Chlorophenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2-Methylnaphthalene	- -	- -	mg/kg	2.3	0.20 U	0.94 U	6.2	1.7	0.20 U	0.18 U	0.057 J	0.049 J
2-Methylphenol	0.33	500	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
2-Nitroaniline	- -	- -	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
2-Nitrophenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
3-Nitroaniline	- -	- -	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	1.1 U	0.39 UJ	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
4-Chloroaniline	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
4-Methylphenol	0.33	500	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
4-Nitroaniline	- -	- -	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
4-Nitrophenol	- -	- -	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
Acenaphthene	20	500	mg/kg	4.2	0.084 J	0.94 U	5.7	1.7	0.20 U	0.18 U	0.066 J	0.085 J
Acenaphthylene	100	500	mg/kg	0.56 U	0.20 U	0.94 U	0.12 J	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Acetophenone	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 UJ	0.21 UJ	0.20 UJ
Anthracene	100	500	mg/kg	1.4	0.20 U	0.94 U	2.9	0.99 J	0.20 U	0.18 U	0.10 J	0.12 J
Atrazine	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Benzaldehyde	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Benzo(a)anthracene	1	5.6	mg/kg	0.54 J	0.20 U	0.94 U	**1.8**	0.70 J	0.20 U	0.18 U	0.13 J	0.14 J
Benzo(a)pyrene	1	1	mg/kg	0.20 J	0.20 U	0.94 U	0.83 J	0.38 J	0.20 U	0.18 U	0.095 J	0.094 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.28 J	0.20 U	0.94 U	**1.1**	0.41 J	0.20 U	0.014 J	0.10 J	0.11 J
Benzo(g,h,i)perylene	100	500	mg/kg	0.094 J	0.20 U	0.075 J	0.37 J	0.15 J	0.20 U	0.18 U	0.040 J	0.037 J
Benzo(k)fluoranthene	0.8	56	mg/kg	0.086 J	0.20 U	0.94 U	0.24 J	0.16 J	0.20 U	0.18 U	0.038 J	0.035 J
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.56 UB	0.25 UB	0.94 U	1.0 UB	1.0 UB	0.49	0.18 U	0.21 U	0.20 U
Butylbenzylphthalate	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Caprolactam	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Carbazole	- -	- -	mg/kg	1.6	0.078 J	0.94 U	1.8	0.47 J	0.20 U	0.18 U	0.017 J	0.045 J
Chrysene	1	56	mg/kg	0.46 J	0.20 U	0.94 U	**1.3**	0.55 J	0.20 U	0.18 U	0.094 J	0.096 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.56 U	0.20 UJ	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Dibenzofuran	7	350	mg/kg	3.0	0.071 J	0.94 U	3.6	1.1	0.20 U	0.18 U	0.044 J	0.060 J
Diethylphthalate	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Dimethylphthalate	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	AMW-11 6 - 8 12/01/10	MW-23-D2R 18 - 20 12/07/10	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-31-D1R 0 - 2 11/17/10	MW-31-D1R 2 - 4 11/17/10	MW-31-D1R 4 - 6 11/17/10
Semivolatile Organics (Cont.)												
Di-n-Octylphthalate	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Fluoranthene	100	500	mg/kg	4.0	0.029 J	0.94 U	8.7	2.8	0.20 U	0.18 U	0.41	0.43
Fluorene	30	500	mg/kg	3.4	0.067 J	0.94 U	4.5	1.4	0.20 U	0.18 U	0.084 J	0.11 J
Hexachlorobenzene	0.33	6	mg/kg	0.56 U	0.20 U	0.94 U	**0.37 J**	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Hexachlorobutadiene	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Hexachloroethane	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.074 J	0.20 U	0.94 U	0.30 J	0.14 J	0.20 U	0.18 U	0.037 J	0.035 J
Isophorone	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Naphthalene	12	500	mg/kg	4.7	0.20 U	0.94 U	7.4	1.4	0.20 U	0.18 U	0.21 U	0.036 J
Nitrobenzene	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Pentachlorophenol	0.8	6.7	mg/kg	1.1 U	0.39 U	1.8 U	1.9 U	2.0 U	0.39 U	0.34 U	0.41 U	0.40 U
Phenanthrene	100	500	mg/kg	11	0.24	0.94 U	15	4.6	0.20 U	0.18 U	0.45	0.56
Phenol	0.33	500	mg/kg	0.56 U	0.20 U	0.94 U	1.0 U	1.0 U	0.20 U	0.18 U	0.21 U	0.20 U
Pyrene	100	500	mg/kg	2.6	0.016 J	0.94 U	7.2	2.6	0.20 U	0.18 U	0.34	0.36
Total SVOCs	- -	- -	mg/kg	40 J	0.59 J	0.075 J	70 J	22 J	0.49	0.014 J	2.1 J	2.4 J
Inorganics												
Aluminum	- -	- -	mg/kg	3,750 J	2,270	2,650 J	3,370 J	2,610 J	2,410	4,400 J	1,180 J	901 J
Antimony	- -	- -	mg/kg	25.1 U	17.4 U	16.3 UJ	17.7 UJ	17.8 UJ	18.1 U	15.9 U	18.6 U	17.8 U
Arsenic	13	16	mg/kg	8.40	1.00 J	2.20 J	2.10 J	2.10 J	2.30 J	1.90 J	0.700 J	0.500 J
Barium	350	400	mg/kg	32.7	7.26	11.5	14.8	11.6	10.5	16.0 J	4.91 J	4.69 J
Beryllium	7.2	590	mg/kg	0.254 J	0.157 J	0.178 J	0.176 J	0.136 J	0.225 J	0.179 J	0.0530 J	0.0420 J
Cadmium	2.5	9.3	mg/kg	0.334 UBJ	0.232 U	0.200 J	0.222 J	0.172 J	0.0660 J	0.100 J	0.0550 J	0.0490 J
Calcium	- -	- -	mg/kg	1,500	526	6,530 J	8,410 J	8,240 J	553	369 J	368 J	232 J
Chromium	- -	- -	mg/kg	17.2	6.70	5.13	5.55	4.42	8.06	4.92	2.08	2.19
Cobalt	- -	- -	mg/kg	2.81	1.01	1.49	2.27	1.41	1.99	2.61	0.641	0.388 J
Copper	50	270	mg/kg	35.1 J	4.10	9.10	9.50	5.90	3.40	5.10	1.50	1.10 J
Ferrous Iron	- -	- -	mg/kg	R	0.900 J	1.80 J	0.600 J	1.10 J	2.40 UJ	R	R	R
Iron	- -	- -	mg/kg	15,500 J	3,640	4,820 J	4,550 J	3,880 J	5,350	5,520 J	1,950 J	1,370 J
Lead	63	1,000	mg/kg	10.2 J	1.80 J	23.6	39.6	20.6	2.30	11.8	2.80	1.80
Magnesium	- -	- -	mg/kg	1,330	641	4,010 J	5,240 J	4,510 J	928	777 J	334 J	281 J
Manganese	1,600	10,000	mg/kg	54.2 J	31.6	42.1 J	46.8 J	39.6 J	37.5	154 J	26.2 J	12.4 J
Mercury	0.18	2.8	mg/kg	0.0389	0.0235 U	0.0223	0.0158 J	0.0177 J	0.0229 J	0.0202	0.0237 U	0.0217 U
Nickel	30	310	mg/kg	5.83 J	3.31 J	4.35 J	5.66 J	3.83 J	4.37 J	4.71 J	1.59 J	1.17 J
Potassium	- -	- -	mg/kg	801	387	339	402	334	607	382 J	220 J	226 J
Selenium	3.9	1,500	mg/kg	1.30 J	4.60 U	4.30 U	4.70 U	4.70 U	4.80 U	4.20 U	5.00 U	4.80 U
Silver	2	1,500	mg/kg	0.835 U	0.581 U	0.544 U	0.589 U	0.593 U	0.604 U	0.530 U	0.620 U	0.594 U
Sodium	- -	- -	mg/kg	406	205	37.5 J	49.3 J	40.3 J	752	29.6 J	31.3 J	48.2 J
Thallium	- -	- -	mg/kg	10.0 U	7.00 U	6.50 U	7.10 U	7.10 U	7.20 U	6.40 U	7.40 U	7.10 U
Vanadium	- -	- -	mg/kg	27.1	5.91	7.04	8.63	7.14	10.7	7.37	2.91	2.69
Zinc	109	10,000	mg/kg	19.7 J	5.00	15.1	18.6	13.6	8.40	15.2	4.70	4.00
Miscellaneous												
Sulfate	- -	- -	mg/kg	2,630	318	111 U	306	122 U	403	83.8 J	98.3 J	99.7 J
Total Organic Carbon	- -	- -	mg/kg	4,430	1,210 U	4,480	10,500	4,420	1,220 U	2,780	2,090	2,320

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	P-18R 0 - 2 12/02/10	P-18R 4 - 6 12/02/10	P-18R 6 - 8 12/02/10	TP-1-1 4.0 11/29/10	TP-1-2 3.0 11/30/10
Volatile Organics												
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
2-Butanone	0.12	500	mg/kg	0.027 U	0.031 U [0.030 U]	0.027 U	0.030 U	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U
2-Hexanone	- -	- -	mg/kg	0.027 U	0.031 U [0.030 U]	0.027 U	0.030 U	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.027 U	0.031 U [0.030 U]	0.027 U	0.030 U	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U
Acetone	0.05	500	mg/kg	0.027 U	0.017 J [0.019 J]	0.014 J	0.020 J	0.028 U	0.038	0.030 J	0.018 J	0.020 J
Benzene	0.06	44	mg/kg	0.0054 U	0.0061 U [0.0028 J]	0.0055 U	0.0060 U	0.0056 U	0.0056 J	0.011	0.0059 U	0.0054 U
Bromodichloromethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Bromoform	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Bromomethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Carbon Disulfide	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Carbon Tetrachloride	0.76	22	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Chlorobenzene	1.1	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Chloroethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 UJ	0.0054 UJ
Chloroform	0.37	350	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Chloromethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Cyclohexane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Dibromochloromethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 UJ	0.0054 UJ
Ethylbenzene	1	390	mg/kg	0.0054 U	0.0061 U [0.0031 J]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Isopropylbenzene	- -	- -	mg/kg	0.0054 U	0.012 J [0.044 DJ]	0.0045 J	0.0060 U	0.0056 U	0.0058 J	0.0072	0.0059 U	0.0054 U
Methyl acetate	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Methylcyclohexane	- -	- -	mg/kg	0.0042 J	0.054 J [0.18 DJ]	0.014	0.0019 J	0.0056 U	0.0065	0.0071	0.0059 U	0.0054 U
Methylene Chloride	0.05	500	mg/kg	0.025 UBJ	0.033 UBJ [0.031 UBJ]	0.022 UBJ	0.021	0.0077 UB	0.013 UB	0.022	0.0085	0.0097
Styrene	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Tetrachloroethene	1.3	150	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Toluene	0.7	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0014 J	0.0054 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Trichloroethene	0.47	200	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Vinyl Chloride	0.02	13	mg/kg	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U
Xylenes (total)	0.26	500	mg/kg	0.011 U	0.0046 J [0.0068 J]	0.0026 J	0.012 U	0.011 U	0.0022 J	0.0025 J	0.011 J	0.011 U
Total VOCs	- -	- -	mg/kg	0.0042 J	0.088 J [0.26 J]	0.035 J	0.043 J	ND	0.058 J	0.080 J	0.039 J	0.030 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	P-18R 0 - 2 12/02/10	P-18R 4 - 6 12/02/10	P-18R 6 - 8 12/02/10	TP-1-1 4.0 11/29/10	TP-1-2 3.0 11/30/10
Semivolatile Organics												
1,1'-Biphenyl	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	R	0.40 U	0.41 U	0.40 U	0.36 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2-Chloronaphthalene	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2-Chlorophenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2-Methylnaphthalene	- -	- -	mg/kg	0.13 J	0.29 [0.31]	1.9 U	0.21 U	0.96 U	0.031 J	0.033 J	0.031 J	0.19 U
2-Methylphenol	0.33	500	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
2-Nitroaniline	- -	- -	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
2-Nitrophenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
3-Nitroaniline	- -	- -	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
4-Chloroaniline	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
4-Methylphenol	0.33	500	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
4-Nitroaniline	- -	- -	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
4-Nitrophenol	- -	- -	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
Acenaphthene	20	500	mg/kg	0.29 J	0.41 [0.53]	0.19 J	0.046 J	7.1 J	0.092 J	0.15 J	0.018 J	0.19 U
Acenaphthylene	100	500	mg/kg	0.029 J	0.21 U [0.20 U]	1.9 U	0.21 U	0.20 J	0.21 U	0.21 U	0.20 U	0.19 U
Acetophenone	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 UJ	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Anthracene	100	500	mg/kg	0.60	0.40 [0.53]	0.89 J	0.12 J	0.76 J	0.022 J	0.038 J	0.060 J	0.19 U
Atrazine	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Benzaldehyde	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Benzo(a)anthracene	1	5.6	mg/kg	**3.3**	0.64 [0.78]	**8.9**	0.25	**2.0**	0.038 J	0.063 J	0.20	0.19 U
Benzo(a)pyrene	1	1	mg/kg	**3.0**	0.61 [0.63]	**11**	0.19 J	0.58 J	0.027 J	0.039 J	0.19 J	0.19 U
Benzo(b)fluoranthene	1	5.6	mg/kg	**3.9**	0.74 [0.75]	**11**	0.21	0.90 J	0.034 J	0.050 J	0.22	0.19 U
Benzo(g,h,i)perylene	100	500	mg/kg	1.2	0.22 [0.27]	6.3	0.13 J	0.17 J	0.022 J	0.024 J	0.15 J	0.19 U
Benzo(k)fluoranthene	0.8	56	mg/kg	**1.2**	0.26 [0.28]	**4.5**	0.061 J	0.34 J	0.21 U	0.21 U	0.085 J	0.19 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.60	0.10 J [0.11 J]	1.2 J	0.38 UB	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Butylbenzylphthalate	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Caprolactam	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Carbazole	- -	- -	mg/kg	0.050 J	0.044 J [0.053 J]	1.9 U	0.072 J	0.082 J	0.21 U	0.21 U	0.032 J	0.19 U
Chrysene	1	56	mg/kg	**2.5**	0.50 [0.61]	**8.5**	0.19 J	**1.8**	0.040 J	0.065 J	0.19 J	0.19 U
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.27 J	0.053 J [0.057 J]	**1.7 J**	0.029 J	0.96 U	0.21 U	0.21 U	0.029 J	0.19 U
Dibenzofuran	7	350	mg/kg	0.16 J	0.24 [0.31]	1.9 U	0.034 J	0.53 J	0.031 J	0.039 J	0.20 U	0.19 U
Diethylphthalate	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 UB	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Dimethylphthalate	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	P-18R 0 - 2 12/02/10	P-18R 4 - 6 12/02/10	P-18R 6 - 8 12/02/10	TP-1-1 4.0 11/29/10	TP-1-2 3.0 11/30/10
Semivolatile Organics (Cont.)												
Di-n-Octylphthalate	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Fluoranthene	100	500	mg/kg	5.6	1.5 [2.0]	11	0.59	16	0.14 J	0.30	0.48	0.19 U
Fluorene	30	500	mg/kg	0.32 J	0.43 [0.55]	0.22 J	0.066 J	1.6 J	0.081 J	0.099 J	0.026 J	0.19 U
Hexachlorobenzene	0.33	6	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Hexachlorobutadiene	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Hexachloroethane	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	**0.87**	0.16 J [0.19 J]	**5.8**	0.091 J	0.17 J	0.21 U	0.21 U	0.12 J	0.19 U
Isophorone	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Naphthalene	12	500	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Nitrobenzene	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.37 U	0.21 U [0.16 J]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Pentachlorophenol	0.8	6.7	mg/kg	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U
Phenanthrene	100	500	mg/kg	1.5	1.7 [2.2]	1.4 J	0.39	3.8 J	0.15 J	0.26	0.29	0.19 U
Phenol	0.33	500	mg/kg	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U
Pyrene	100	500	mg/kg	4.6	1.2 [1.5]	12	0.53	13	0.13 J	0.28	0.36	0.19 U
Total SVOCs	- -	- -	mg/kg	30 J	9.5 J [12 J]	85 J	3.0 J	49 J	0.84 J	1.4 J	2.5 J	ND
Inorganics												
Aluminum	- -	- -	mg/kg	4,020 J	1,340 J [1,430 J]	2,720 J	2,330	7,410 J	505 J	1,770 J	1,830 J	2,370 J
Antimony	- -	- -	mg/kg	16.7 U	18.4 U [18.3 U]	17.0 U	17.2 U	16.9 UJ	17.9 UJ	17.6 UJ	17.5 U	16.4 U
Arsenic	13	16	mg/kg	2.20	1.00 J [0.900 J]	1.60 J	1.80 J	3.80 J	2.40 UJ	0.900 J	1.40 J	1.50 J
Barium	350	400	mg/kg	15.1 J	4.83 J [4.63 J]	14.1 J	7.98	21.7	2.37	8.06	18.4	9.88
Beryllium	7.2	590	mg/kg	0.158 J	0.0420 J [0.0680 J]	0.130 J	0.181 J	0.299 J	0.238 UJ	0.0890 J	0.0580 J	0.104 J
Cadmium	2.5	9.3	mg/kg	0.120 J	0.0750 J [0.0990 J]	0.171 J	0.229 U	0.123 J	0.238 U	0.0450 J	0.250 J	0.218 UBJ
Calcium	- -	- -	mg/kg	2,220 J	304 J [245 J]	9,650 J	237	2,080 J	91.1 J	455 J	5,090	1,440 B
Chromium	- -	- -	mg/kg	5.73	2.88 [2.21]	5.37	6.07	8.36	0.961	3.62	4.59	6.17
Cobalt	- -	- -	mg/kg	2.33	0.667 [0.786]	1.49	0.797	3.45	0.329 J	0.671	0.927	1.32
Copper	50	270	mg/kg	6.10	1.60 [2.00]	4.90	1.60	7.30	0.600 J	2.30	3.50	3.30
Ferrous Iron	- -	- -	mg/kg	R	R [R]	R	1.40 J	2.60 J	1.80 J	2.50 J	R	R
Iron	- -	- -	mg/kg	5,650 J	2,130 J [2,120 J]	4,420 J	5,180	9,100 J	805 J	3,130 J	3,540	4,430
Lead	63	1,000	mg/kg	17.7	2.50 [3.60]	15.6	1.50 J	28.5	1.30	8.90	12.0 J	3.80 J
Magnesium	- -	- -	mg/kg	920 J	370 J [331 J]	2,450 J	691	2,060 J	132 J	567 J	709	752
Manganese	1,600	10,000	mg/kg	84.4 J	21.1 J [22.0 J]	55.7 J	36.9	138 J	7.50 J	27.1 J	40.4 J	26.0 J
Mercury	0.18	2.8	mg/kg	0.0377	0.0228 U [0.0221 U]	0.0119 J	0.0186 J	0.0269	0.0250 U	0.0239 U	0.0234 U	0.0218 U
Nickel	30	310	mg/kg	4.44 J	1.90 J [1.88 J]	3.88 J	1.97 J	6.33	0.616 J	1.86 J	2.56 J	3.77 J
Potassium	- -	- -	mg/kg	510 J	247 J [249 J]	324 J	392	347	94.4	258	504	516
Selenium	3.9	1,500	mg/kg	4.50 U	4.90 U [4.90 U]	4.50 U	4.60 U	4.50 U	4.80 U	4.70 U	4.70 U	4.40 U
Silver	2	1,500	mg/kg	0.557 U	0.614 U [0.611 U]	0.565 U	0.573 U	0.563 U	0.596 U	0.586 U	0.585 U	0.546 U
Sodium	- -	- -	mg/kg	128 J	53.7 J [49.8 J]	52.4 J	662	49.9 J	16.8 J	35.0 J	87.6 J	58.2 J
Thallium	- -	- -	mg/kg	6.70 U	7.40 U [7.30 U]	6.80 U	6.90 U	6.80 U	7.10 U	7.00 U	7.00 U	6.60 U
Vanadium	- -	- -	mg/kg	7.66	3.78 [2.89]	6.16	7.85	12.7	1.16	4.58	5.77	7.31
Zinc	109	10,000	mg/kg	20.6	6.60 [6.50]	21.0	5.20	22.1	1.60 J	8.10	32.6 J	10.5 J
Miscellaneous												
Sulfate	- -	- -	mg/kg	112 U	131 [136]	114 U	400	87.2 J	66.9 J	139	846	477
Total Organic Carbon	- -	- -	mg/kg	1,780	3,760 [1,300]	5,630	1,260 U	3,800	2,420	5,560	3,800	1,320 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-1-3 3.5 11/30/10	TP-2-1 5.5 11/30/10	TP-2-2 5.5 11/30/10	TP-3-1 5.0 12/01/10	TP-3-2 6.8 12/01/10	TP-3-3 6.5 12/01/10	TP-4-B-1 1.5 12/02/10	TP-4-D-1 7.0 12/02/10	TP-4-F-1 4.0 12/02/10	TP-5-1 5.0 12/02/10	TP-5-2 5.5 12/02/10
Volatile Organics														
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 UJ	0.0053 UJ	0.0059 UJ	0.15 U	0.032 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
2-Butanone	0.12	500	mg/kg	0.029 U	0.0049 J	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U	0.77 U	0.16 U
2-Hexanone	- -	- -	mg/kg	0.029 U	0.031 U	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U	0.77 U	0.16 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.029 U	0.031 U	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U	0.77 U	0.16 U
Acetone	0.05	500	mg/kg	0.015 J	0.035	0.015 J	0.032 J	0.026 J	0.017 J	0.0062 J	0.0067 J	0.022 J	0.77 U	0.16 U
Benzene	0.06	44	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Bromodichloromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Bromoform	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Bromomethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Carbon Disulfide	- -	- -	mg/kg	0.0057 U	0.0048 J	0.0064 U	0.0073 U	0.0057 J	0.0073 U	0.0055 U	0.0053 U	0.0034 J	0.15 U	0.032 U
Carbon Tetrachloride	0.76	22	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Chlorobenzene	1.1	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Chloroethane	- -	- -	mg/kg	0.0057 UJ	0.0062 UJ	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Chloroform	0.37	350	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Chloromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Cyclohexane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.17	0.032 U
Dibromochloromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0057 UJ	0.0062 UJ	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Ethylbenzene	1	390	mg/kg	0.0057 U	0.0016 J	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Isopropylbenzene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.17	0.032 U
Methyl acetate	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.28	0.032 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Methylcyclohexane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0013 J	0.87	0.014 J
Methylene Chloride	0.05	500	mg/kg	0.011	0.012	0.013	0.0094	0.012	0.0082	0.013	0.0097	0.017	0.15 U	**0.11**
Styrene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Tetrachloroethene	1.3	150	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Toluene	0.7	500	mg/kg	0.0057 U	0.0019 J	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Trichloroethene	0.47	200	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Vinyl Chloride	0.02	13	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U
Xylenes (total)	0.26	500	mg/kg	0.011 U	0.0095 J	0.0014 J	0.015 U	0.014 U	0.015 U	0.011 U	0.011 U	0.012 U	0.21 J	0.064 U
Total VOCs	- -	- -	mg/kg	0.026 J	0.070 J	0.029 J	0.041 J	0.044 J	0.025 J	0.019 J	0.016 J	0.044 J	1.7 J	0.12 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-1-3 3.5 11/30/10	TP-2-1 5.5 11/30/10	TP-2-2 5.5 11/30/10	TP-3-1 5.0 12/01/10	TP-3-2 6.8 12/01/10	TP-3-3 6.5 12/01/10	TP-4-B-1 1.5 12/02/10	TP-4-D-1 7.0 12/02/10	TP-4-F-1 4.0 12/02/10	TP-5-1 5.0 12/02/10	TP-5-2 5.5 12/02/10
Semivolatile Organics														
1,1'-Biphenyl	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2-Chloronaphthalene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2-Chlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2-Methylnaphthalene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.092 J	0.14 J
2-Methylphenol	0.33	500	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
2-Nitroaniline	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
2-Nitrophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
3-Nitroaniline	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
4-Chloroaniline	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
4-Methylphenol	0.33	500	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
4-Nitroaniline	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
4-Nitrophenol	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
Acenaphthene	20	500	mg/kg	0.20 U	0.21 U	0.22 U	0.11 J	0.24 U	0.25 U	0.057 J	0.18 U	0.20 U	0.27 U	0.11 J
Acenaphthylene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.022 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U	0.27 U	0.20 U
Acetophenone	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Anthracene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.040 J	0.24 U	0.25 U	0.10 J	0.18 U	0.20 U	0.27 U	0.086 J
Atrazine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Benzaldehyde	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Benzo(a)anthracene	1	5.6	mg/kg	0.20 U	0.21 U	0.22 U	0.16 J	0.24 U	0.25 U	0.34	0.18 U	0.20 U	0.27 U	0.27
Benzo(a)pyrene	1	1	mg/kg	0.20 U	0.21 U	0.22 U	0.16 J	0.24 U	0.25 U	0.41	0.18 U	0.20 U	0.27 U	0.27
Benzo(b)fluoranthene	1	5.6	mg/kg	0.20 U	0.21 U	0.22 U	0.17 J	0.24 U	0.25 U	0.50	0.18 U	0.20 U	0.27 U	0.34
Benzo(g,h,i)perylene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.11 J	0.24 U	0.25 U	0.24	0.18 U	0.20 U	0.27 U	0.13 J
Benzo(k)fluoranthene	0.8	56	mg/kg	0.20 U	0.21 U	0.22 U	0.055 J	0.24 U	0.25 U	0.17 J	0.18 U	0.20 U	0.27 U	0.11 J
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 UB	0.24 UB	0.25 UB	0.21 UB	0.18 UB	0.20 UB	0.27 UB	0.20 UB
Butylbenzylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Caprolactam	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Carbazole	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.042 J	0.18 U	0.20 U	0.27 U	0.046 J
Chrysene	1	56	mg/kg	0.20 U	0.21 U	0.22 U	0.15 J	0.24 U	0.25 U	0.35	0.18 U	0.20 U	0.27 U	0.27
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Dibenzofuran	7	350	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.081 J
Diethylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Dimethylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-1-3 3.5 11/30/10	TP-2-1 5.5 11/30/10	TP-2-2 5.5 11/30/10	TP-3-1 5.0 12/01/10	TP-3-2 6.8 12/01/10	TP-3-3 6.5 12/01/10	TP-4-B-1 1.5 12/02/10	TP-4-D-1 7.0 12/02/10	TP-4-F-1 4.0 12/02/10	TP-5-1 5.0 12/02/10	TP-5-2 5.5 12/02/10
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Fluoranthene	100	500	mg/kg	0.20 U	0.019 J	0.22 U	0.21 J	0.24 U	0.25 U	0.71	0.18 U	0.20 U	0.27 U	0.66
Fluorene	30	500	mg/kg	0.20 U	0.21 U	0.22 U	0.15 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U	0.27 U	0.13 J
Hexachlorobenzene	0.33	6	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Hexachlorobutadiene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Hexachloroethane	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.20 U	0.21 U	0.22 U	0.083 J	0.24 U	0.25 U	0.21	0.18 U	0.20 U	0.27 U	0.12 J
Isophorone	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Naphthalene	12	500	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.19 J	0.20 U
Nitrobenzene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Pentachlorophenol	0.8	6.7	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U
Phenanthrene	100	500	mg/kg	0.20 U	0.024 J	0.22 U	0.049 J	0.24 U	0.25 U	0.29	0.037 J	0.019 J	0.039 J	0.63
Phenol	0.33	500	mg/kg	0.20 U	0.11 J	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U
Pyrene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.23 J	0.24 U	0.25 U	0.70	0.18 U	0.20 U	0.27 U	0.69
Total SVOCs	- -	- -	mg/kg	ND	0.15 J	ND	1.7 J	ND	ND	4.2 J	0.037 J	0.019 J	0.32 J	4.1 J
Inorganics														
Aluminum	- -	- -	mg/kg	1,250 J	1,320 J	927 J	2,710 J	11,000 J	1,600 J	3,710 J	404 J	745 J	9,740 J	3,430 J
Antimony	- -	- -	mg/kg	17.6 U	18.5 U	18.9 U	21.7 U	20.6 U	22.5 U	15.9 UJ	14.7 UJ	17.2 UJ	23.0 UJ	17.0 UJ
Arsenic	13	16	mg/kg	2.30 UJ	1.30 J	2.50 UJ	1.50 J	10.1	1.00 J	4.10 J	0.400 J	2.30 UJ	11.0 J	2.70 J
Barium	350	400	mg/kg	6.17	10.1	8.32	15.9	25.2	8.27	17.6	1.28	2.18	34.4	113
Beryllium	7.2	590	mg/kg	0.234 U	0.246 U	0.252 U	0.124 J	0.513	0.0510 J	0.278 J	0.195 U	0.229 UJ	0.595 J	0.228 J
Cadmium	2.5	9.3	mg/kg	0.234 UBJ	0.246 UBJ	0.252 UBJ	0.289 UBJ	0.314 J	0.300 UBJ	0.284	0.0300 J	0.229 U	0.366	0.218 J
Calcium	- -	- -	mg/kg	687	306	464	983	1,630	426	4,140 J	65.8 J	165 J	3,570 J	5,800 J
Chromium	- -	- -	mg/kg	3.51	3.69	2.14	6.76	28.5	3.59	7.72	0.701	1.26	26.4	7.41
Cobalt	- -	- -	mg/kg	0.491 J	0.825	0.331 J	1.54	5.86	1.14	2.42	0.142 J	0.468 J	6.33	2.08
Copper	50	270	mg/kg	1.40	5.90	0.700 J	3.60 J	12.5 J	2.60 J	14.2	0.600 J	1.10	11.3	6.10
Ferrous Iron	- -	- -	mg/kg	R	R	R	R	R	R	1.90 J	1.40 J	R	1.70 J	1.30 J
Iron	- -	- -	mg/kg	2,380	3,240	1,170	5,200 J	22,200 J	2,770 J	6,560 J	764 J	1,070 J	25,100 J	6,100 J
Lead	63	1,000	mg/kg	1.60 J	2.10 J	1.10 J	3.00 J	11.4 J	1.80 J	28.7	0.600 J	1.90	13.1	28.3
Magnesium	- -	- -	mg/kg	422	441	269	1,040	4,380	632	2,230 J	56.2 J	122 J	3,850 J	1,870 J
Manganese	1,600	10,000	mg/kg	15.2 J	27.5 J	11.1 J	44.4 J	192 J	25.6 J	77.9 J	3.80 J	7.60 J	240 J	76.0 J
Mercury	0.18	2.8	mg/kg	0.0227 U	0.0119 J	0.0250 U	0.0270 U	0.0166 J	0.0273 U	**0.606**	0.0198 U	0.0226 U	0.0306 U	0.0155 J
Nickel	30	310	mg/kg	1.63 J	2.00 J	1.20 J	4.38 J	18.0	3.04 J	5.97	0.531 J	1.20 J	15.7	4.59 J
Potassium	- -	- -	mg/kg	352	355	225	751	2,290	479	456	59.5	115	2,170	521
Selenium	3.9	1,500	mg/kg	4.70 U	4.90 U	5.00 U	5.80 U	0.800 J	6.00 U	4.20 U	3.90 U	4.60 U	6.10 U	4.50 U
Silver	2	1,500	mg/kg	0.586 U	0.616 U	0.629 U	0.722 U	0.688 U	0.751 U	**3.32**	0.489 U	0.574 U	0.767 U	0.568 U
Sodium	- -	- -	mg/kg	38.8 J	65.0 J	39.2 J	117 J	1,150	161 J	121 J	15.6 J	19.2 J	171 J	107 J
Thallium	- -	- -	mg/kg	7.00 U	7.40 U	7.60 U	8.70 U	8.30 U	9.00 U	6.40 U	5.90 U	6.90 U	9.20 U	6.80 U
Vanadium	- -	- -	mg/kg	4.28	3.92	2.15	9.50	35.7	4.39	11.1	0.704	1.33	31.4	9.55
Zinc	109	10,000	mg/kg	4.90 J	6.10 J	3.70 J	12.5 J	43.6 J	7.20 J	62.8	1.40 J	2.10 J	48.6	68.6
Miscellaneous														
Sulfate	- -	- -	mg/kg	271	307	261	814	2,270	520	221	106 U	136	620	64.7 J
Total Organic Carbon	- -	- -	mg/kg	1,200 U	1,250 U	1,200 U	1,900	7,750	1,410	2,740	1,100 U	1,160 U	19,100	26,100

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-5-3 6.0 12/02/10	TP-6-1 5.0 12/03/10	TP-6-2 5.5 12/03/10	TP-6-3 6.0 12/03/10	TP-7-1 5.0 12/06/10	TP-7-2 5.0 12/06/10	TP-8-1 4.5 12/06/10	TP-8-2 4.0 12/06/10	TP-9-1 6.5 12/07/10	TP-9-2 6.0 12/07/10	TP-9-3 6.5 12/07/10
Volatile Organics														
1,1,1-Trichloroethane	0.68	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 UJ	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,1-Dichloroethane	0.27	240	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,1-Dichloroethene	0.33	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.33 J	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U
1,2-Dibromoethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,2-Dichloroethane	0.02	30	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,2-Dichloropropane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
2-Butanone	0.12	500	mg/kg	0.52 U	0.0079 J	0.028 U	2.9 U	0.027 U	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U [2.1 U]	0.011 J
2-Hexanone	- -	- -	mg/kg	0.52 U	0.026 U	0.028 U	2.9 U	0.027 U	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U [2.1 U]	0.040 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.52 U	0.026 U	0.028 U	2.9 U	0.027 U	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U [2.1 U]	0.040 U
Acetone	0.05	500	mg/kg	0.52 U	**0.080**	0.018 J	2.9 U	0.026 J	2.7 U	0.51 U	0.010 J	1.1 U	1.1 U [2.1 U]	**0.055**
Benzene	0.06	44	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Bromodichloromethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Bromoform	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U
Bromomethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Carbon Disulfide	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U
Carbon Tetrachloride	0.76	22	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U
Chlorobenzene	1.1	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Chloroethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Chloroform	0.37	350	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Chloromethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Cyclohexane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	4.0	0.0055 U	1.9	0.10 U	0.0054 U	0.22 U	0.12 J [0.61 J]	0.0079 U
Dibromochloromethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U
Ethylbenzene	1	390	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Isopropylbenzene	- -	- -	mg/kg	0.057 J	0.0053 U	0.0056 U	1.8	0.0055 U	0.35 J	0.87	0.0054 U	0.22 U	0.37 [1.1]	0.0079 U
Methyl acetate	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Methylcyclohexane	- -	- -	mg/kg	0.071 J	0.0053 U	0.0056 U	25 J	0.0020 J	17	2.8 J	0.0054 U	0.17 J	0.60 [2.9 J]	0.0018 J
Methylene Chloride	0.05	500	mg/kg	0.10 U	0.038 J	0.041 J	0.57 U	0.017	0.54 U	**0.082 J**	0.016	0.22 U	0.23 U [0.41 U]	0.020
Styrene	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Tetrachloroethene	1.3	150	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Toluene	0.7	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Trichloroethene	0.47	200	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Trichlorofluoromethane	- -	- -	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Vinyl Chloride	0.02	13	mg/kg	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U
Xylenes (total)	0.26	500	mg/kg	0.21 U	0.011 U	0.011 U	1.1 U	0.0031 J	1.1 U	0.21 U	0.011 U	0.44 U	0.45 U [0.82 U]	0.016 U
Total VOCs	- -	- -	mg/kg	0.13 J	0.13 J	0.059 J	31 J	0.048 J	20 J	3.8 J	0.026 J	0.17 J	1.1 J [4.6 J]	0.088 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-5-3 6.0 12/02/10	TP-6-1 5.0 12/03/10	TP-6-2 5.5 12/03/10	TP-6-3 6.0 12/03/10	TP-7-1 5.0 12/06/10	TP-7-2 5.0 12/06/10	TP-8-1 4.5 12/06/10	TP-8-2 4.0 12/06/10	TP-9-1 6.5 12/07/10	TP-9-2 6.0 12/07/10	TP-9-3 6.5 12/07/10
Semivolatile Organics														
1,1'-Biphenyl	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,4-Dichlorophenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,4-Dimethylphenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,4-Dinitrophenol	- -	- -	mg/kg	3.5 U	3.5 UJ	0.36 UJ	9.4 UJ	0.36 UJ	9.1 UJ	1.8 UJ	0.36 UJ	1.9 UJ	1.8 UJ [3.5 UJ]	0.51 UJ
2,4-Dinitrotoluene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2,6-Dinitrotoluene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2-Chloronaphthalene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2-Chlorophenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2-Methylnaphthalene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.025 J	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2-Methylphenol	0.33	500	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
2-Nitroaniline	- -	- -	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
2-Nitrophenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
3-Nitroaniline	- -	- -	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
4-Chloroaniline	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
4-Methylphenol	0.33	500	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
4-Nitroaniline	- -	- -	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
4-Nitrophenol	- -	- -	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
Acenaphthene	20	500	mg/kg	0.22 J	1.8 U	0.19 U	0.94 J	0.020 J	1.7 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Acenaphthylene	100	500	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Acetophenone	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Anthracene	100	500	mg/kg	1.8 U	0.17 J	0.19 U	0.82 J	0.035 J	1.5 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Atrazine	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Benzaldehyde	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Benzo(a)anthracene	1	5.6	mg/kg	1.8 U	0.50 J	0.019 J	**2.7 J**	0.099 J	**3.7 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Benzo(a)pyrene	1	1	mg/kg	1.8 U	0.48 J	0.019 J	**2.7 J**	0.10 J	**3.7 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Benzo(b)fluoranthene	1	5.6	mg/kg	1.8 U	0.50 J	0.023 J	**2.8 J**	0.12 J	**4.1 J**	0.072 J	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Benzo(g,h,i)perylene	100	500	mg/kg	1.8 U	0.44 J	0.017 J	1.5 J	0.081 J	2.1 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Benzo(k)fluoranthene	0.8	56	mg/kg	1.8 U	1.8 U	0.19 U	**1.2 J**	0.034 J	**1.1 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	1.8 UB	1.8 UB	0.19 UB	4.8 U	0.19 UB	4.7 UB	0.95 UB	0.18 UB	0.99 UB	0.94 U [1.8 UB]	0.26 UB
Butylbenzylphthalate	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Caprolactam	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Carbazole	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Chrysene	1	56	mg/kg	1.8 U	0.52 J	0.024 J	**2.3 J**	0.11 J	**3.5 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Dibenzofuran	7	350	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J	1.1 J	0.95 U	0.18 U	0.99 U	0.88 J [1.4 J]	0.26 U
Diethylphthalate	- -	- -	mg/kg	1.8 U	1.8 U	0.19 UB	4.8 U	0.19 UB	4.7 U	0.95 U	0.18 UB	0.99 U	0.94 U [1.8 U]	0.26 UB
Dimethylphthalate	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Di-n-Butylphthalate	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-5-3 6.0 12/02/10	TP-6-1 5.0 12/03/10	TP-6-2 5.5 12/03/10	TP-6-3 6.0 12/03/10	TP-7-1 5.0 12/06/10	TP-7-2 5.0 12/06/10	TP-8-1 4.5 12/06/10	TP-8-2 4.0 12/06/10	TP-9-1 6.5 12/07/10	TP-9-2 6.0 12/07/10	TP-9-3 6.5 12/07/10
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Fluoranthene	100	500	mg/kg	0.20 J	1.2 J	0.046 J	4.8	0.19	7.0	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Fluorene	30	500	mg/kg	0.21 J	1.8 U	0.19 U	1.1 J	0.025 J	1.9 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Hexachlorobenzene	0.33	6	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Hexachlorobutadiene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Hexachloroethane	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	1.8 U	0.31 J	0.19 U	**1.1 J**	0.059 J	**1.8 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Isophorone	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Naphthalene	12	500	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Nitrobenzene	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Pentachlorophenol	0.8	6.7	mg/kg	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U
Phenanthrene	100	500	mg/kg	0.40 J	1.2 J	0.042 J	1.7 J	0.14 J	4.2 J	0.95 U	0.18 U	0.99 U	1.5 [2.5]	0.26 U
Phenol	0.33	500	mg/kg	1.8 U	1.8 U	0.19 U	4.8 U	0.035 J	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U
Pyrene	100	500	mg/kg	0.23 J	1.1 J	0.039 J	4.8	0.19	7.7	0.11 J	0.18 U	0.077 J	0.94 U [1.8 U]	0.26 U
Total SVOCs	- -	- -	mg/kg	1.3 J	6.4 J	0.23 J	28 J	1.3 J	45 J	0.18 J	ND	0.077 J	2.4 J [3.9 J]	ND
Inorganics														
Aluminum	- -	- -	mg/kg	4,230 J	4,640	637	3,000	3,500	2,280	728	545	4,520	564 [512]	11,200
Antimony	- -	- -	mg/kg	15.5 UJ	15.7 U	16.7 U	16.4 U	16.2 U	16.1 U	17.7 U	16.5 U	17.5 U	16.0 U [14.8 U]	23.2 U
Arsenic	13	16	mg/kg	1.50 J	**28.1**	0.500 J	1.90 J	6.50	3.60	2.40 U	2.20 U	2.40	2.10 U [2.00 U]	10.3
Barium	350	400	mg/kg	16.8	43.2	6.25	14.0	22.7	21.4	3.31	2.64	19.5	2.12 [1.37]	32.4
Beryllium	7.2	590	mg/kg	0.225 J	0.241	0.223 U	0.157 J	0.278	0.218	0.0470 J	0.0430 J	0.283	0.0440 J [0.0490 J]	0.822
Cadmium	2.5	9.3	mg/kg	0.115 J	0.660	0.223 U	0.0790 J	0.0760 J	0.258	0.235 U	0.220 U	0.234 U	0.213 U [0.197 U]	0.362
Calcium	- -	- -	mg/kg	140 J	10,800	490	1,040	3,010	9,740	229	150	800	106 [91.2]	2,480
Chromium	- -	- -	mg/kg	6.06	9.72	1.57	6.88	4.99	5.83	1.82	1.27	13.4	1.35 [1.14]	31.9
Cobalt	- -	- -	mg/kg	3.48	2.68	0.285 J	2.26	2.62	1.36	0.406 J	0.247 J	1.95	0.411 J [0.347 J]	5.96
Copper	50	270	mg/kg	4.50	11.9	0.700 J	4.00	5.70	13.4	1.00 J	0.700 J	22.3	0.700 J [0.600 J]	11.4
Ferrous Iron	- -	- -	mg/kg	4.40 J	22.1 J	R	0.700 J	R	8.30 J	0.900 J	R	1.10 J	0.400 J [0.600 J]	2.20 J
Iron	- -	- -	mg/kg	6,640 J	8,290	917	4,740	6,380	3,860	973	628	6,920	778 [753]	27,900
Lead	63	1,000	mg/kg	3.60	57.9	0.600 J	9.70	17.8 J	35.0 J	2.80 J	0.700 J	4.70 J	0.700 J [0.500 J]	7.70 J
Magnesium	- -	- -	mg/kg	694 J	2,270	230	1,170	714	2,320	214	165	1,610	108 [95.0]	4,700
Manganese	1,600	10,000	mg/kg	49.2 J	110	8.30	36.9	91.7	49.7	9.50	6.60	61.6	6.70 [6.40]	361
Mercury	0.18	2.8	mg/kg	0.0209 U	0.0732	0.0220 U	0.0224 U	0.0256	0.104	0.0220 U	0.0216 U	0.0213 U	0.0230 U [0.0165 J]	0.0313 U
Nickel	30	310	mg/kg	4.67 J	5.61	0.810 J	5.40 J	3.98 J	5.85	1.08 J	0.792 J	5.55 J	0.964 J [0.846 J]	18.5
Potassium	- -	- -	mg/kg	299	436	259	705	436	359	196	148	1,170	110 [99.7]	2,680
Selenium	3.9	1,500	mg/kg	4.10 U	4.20 U	4.50 U	4.40 U	4.30 U	4.30 U	4.70 U	4.40 U	4.70 U	4.30 U [3.90 U]	6.20 U
Silver	2	1,500	mg/kg	0.518 U	0.524 U	0.556 U	0.546 U	0.541 U	0.537 U	0.589 U	0.549 U	0.584 U	0.533 U [0.493 U]	0.774 U
Sodium	- -	- -	mg/kg	60.9 J	303	44.3 J	107 J	132 J	115 J	41.6 J	48.9 J	148 J	32.3 J [45.2 J]	351
Thallium	- -	- -	mg/kg	6.20 U	6.30 U	6.70 U	6.60 U	6.50 U	6.40 U	7.10 U	6.60 U	7.00 U	6.40 U [5.90 U]	9.30 U
Vanadium	- -	- -	mg/kg	8.11	12.1	1.75	7.97	7.37	7.57	2.72	1.40	14.4	1.42 [1.29]	38.4
Zinc	109	10,000	mg/kg	10.5	67.6	2.00 J	15.9	31.4	75.1	2.40	1.80 J	24.0	1.50 J [1.50 J]	47.1
Miscellaneous														
Sulfate	- -	- -	mg/kg	369	375	112 U	69.6 J	112 U	110 U	94.2 J	109 U	116 U	113 U [107 U]	805
Total Organic Carbon	- -	- -	mg/kg	6,310	12,800	1,210 U	14,000	1,700	8,210	1,160 U	1,100 U	1,120 U	1,090 U [1,130 U]	21,200

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-10-1 6.0 12/07/10	TP-10-2 6.0 12/07/10	TP-10-3 6.5 12/07/10	TP-11-1 5.0 12/07/10	TP-12-1 4.7 12/07/10
Volatile Organics								
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
1,2-Dibromoethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
2-Butanone	0.12	500	mg/kg	0.028 U	0.028 U	0.031 U	0.20 U	0.58 U
2-Hexanone	- -	- -	mg/kg	0.028 U	0.028 U	0.031 U	0.20 U	0.58 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.028 U	0.028 U	0.031 U	0.20 U	0.58 U
Acetone	0.05	500	mg/kg	0.025 J	0.028 U	0.018 J	**0.058 J**	0.58 U
Benzene	0.06	44	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Bromodichloromethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Bromoform	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Bromomethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Carbon Disulfide	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Carbon Tetrachloride	0.76	22	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Chlorobenzene	1.1	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloroethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloroform	0.37	350	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloromethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Cyclohexane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Dibromochloromethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Dichlorodifluoromethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Ethylbenzene	1	390	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Isopropylbenzene	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0013 J	0.026 J	0.97
Methyl acetate	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Methylcyclohexane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0045 J	0.10	0.97 J
Methylene Chloride	0.05	500	mg/kg	0.017	0.018	0.015	**0.086**	0.12 U
Styrene	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Tetrachloroethene	1.3	150	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Toluene	0.7	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Trichloroethene	0.47	200	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Vinyl Chloride	0.02	13	mg/kg	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U
Xylenes (total)	0.26	500	mg/kg	0.011 U	0.011 U	0.012 U	0.020 J	0.23 U
Total VOCs	- -	- -	mg/kg	0.042 J	0.018	0.039 J	0.29 J	1.9 J

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-10-1 6.0 12/07/10	TP-10-2 6.0 12/07/10	TP-10-3 6.5 12/07/10	TP-11-1 5.0 12/07/10	TP-12-1 4.7 12/07/10
Semivolatile Organics								
1,1'-Biphenyl	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.020 J	0.78 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dichlorophenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dimethylphenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dinitrophenol	- -	- -	mg/kg	1.9 UJ	1.8 UJ	0.41 U	0.45 U	1.5 U
2,4-Dinitrotoluene	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2,6-Dinitrotoluene	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2-Chloronaphthalene	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2-Chlorophenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2-Methylnaphthalene	- -	- -	mg/kg	1.0 U	0.94 U	0.034 J	0.44	13
2-Methylphenol	0.33	500	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
2-Nitroaniline	- -	- -	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
2-Nitrophenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
3-Nitroaniline	- -	- -	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloroaniline	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
4-Methylphenol	0.33	500	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitroaniline	- -	- -	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitrophenol	- -	- -	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
Acenaphthene	20	500	mg/kg	1.0 U	0.94 U	0.31	0.10 J	0.69 J
Acenaphthylene	100	500	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Acetophenone	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Anthracene	100	500	mg/kg	1.0 U	0.068 J	0.11 J	0.099 J	0.78 U
Atrazine	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Benzaldehyde	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Benzo(a)anthracene	1	5.6	mg/kg	0.18 J	0.24 J	0.026 J	0.039 J	0.26 J
Benzo(a)pyrene	1	1	mg/kg	0.17 J	0.26 J	0.21 U	0.024 J	0.23 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.15 J	0.25 J	0.017 J	0.029 J	0.39 JY
Benzo(g,h,i)perylene	100	500	mg/kg	0.13 J	0.14 J	0.21 U	0.23 U	0.19 J
Benzo(k)fluoranthene	0.8	56	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.48 JY
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	1.0 UB	0.94 UB	0.21 UB	0.23 UB	0.34 J
Butylbenzylphthalate	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Caprolactam	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Carbazole	- -	- -	mg/kg	1.0 U	0.94 U	0.020 J	0.033 J	0.78 U
Chrysene	1	56	mg/kg	0.13 J	0.23 J	0.024 J	0.030 J	0.22 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Dibenzofuran	7	350	mg/kg	1.0 U	0.94 U	0.19 J	0.093 J	0.78 U
Diethylphthalate	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 UB	0.78 U
Dimethylphthalate	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Di-n-Butylphthalate	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	TP-10-1 6.0 12/07/10	TP-10-2 6.0 12/07/10	TP-10-3 6.5 12/07/10	TP-11-1 5.0 12/07/10	TP-12-1 4.7 12/07/10
Semivolatile Organics (Cont.)								
Di-n-Octylphthalate	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Fluoranthene	100	500	mg/kg	0.23 J	0.42 J	0.21 U	0.13 J	0.58 J
Fluorene	30	500	mg/kg	1.0 U	0.94 U	0.23	0.15 J	1.6
Hexachlorobenzene	0.33	6	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorobutadiene	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Hexachloroethane	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.094 J	0.11 J	0.21 U	0.23 U	0.16 J
Isophorone	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Naphthalene	12	500	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.27 J
Nitrobenzene	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Pentachlorophenol	0.8	6.7	mg/kg	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U
Phenanthrene	100	500	mg/kg	0.11 J	0.94 U	0.21	0.27	3.3
Phenol	0.33	500	mg/kg	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U
Pyrene	100	500	mg/kg	0.30 J	0.41 J	0.15 J	0.11 J	0.75 J
Total SVOCs	- -	- -	mg/kg	1.5 J	2.1 J	1.3 J	1.6 J	22 J
Inorganics								
Aluminum	- -	- -	mg/kg	1,730	2,440	5,570	3,760	3,550
Antimony	- -	- -	mg/kg	16.8 U	15.7 U	17.7 U	20.4 U	17.6 U
Arsenic	13	16	mg/kg	7.90	**20.7**	1.00 J	3.00	1.70 J
Barium	350	400	mg/kg	37.4	44.9	16.8	14.6	13.0
Beryllium	7.2	590	mg/kg	0.155 J	0.182 J	0.369	0.304	0.277
Cadmium	2.5	9.3	mg/kg	0.109 J	0.222	0.0400 J	0.382	0.0870 J
Calcium	- -	- -	mg/kg	1,890	8,390	387	1,190	4,180
Chromium	- -	- -	mg/kg	3.01	4.57	6.72	10.4	9.55
Cobalt	- -	- -	mg/kg	1.38	1.61	1.70	2.72	1.69
Copper	50	270	mg/kg	6.00	9.40	5.00	8.10	5.60
Ferrous Iron	- -	- -	mg/kg	0.700 J	2.70 J	2.10 J	1.00 J	1.20 J
Iron	- -	- -	mg/kg	5,430	4,600	6,830	7,510	6,210
Lead	63	1,000	mg/kg	**200 J**	41.8 J	8.30 J	13.4 J	7.70 J
Magnesium	- -	- -	mg/kg	570	2,420	823	1,480	2,050
Manganese	1,600	10,000	mg/kg	50.4	74.6	50.0	73.7	46.6
Mercury	0.18	2.8	mg/kg	0.0325	0.0675	0.0251 U	0.0279 U	**1.35**
Nickel	30	310	mg/kg	2.78 J	3.98 J	5.02 J	6.14 J	6.08
Potassium	- -	- -	mg/kg	243	268	365	910	853
Selenium	3.9	1,500	mg/kg	4.50 U	4.20 U	4.70 U	5.40 U	4.70 U
Silver	2	1,500	mg/kg	0.561 U	0.523 U	0.589 U	0.679 U	0.587 U
Sodium	- -	- -	mg/kg	840	83.2 J	116 J	57.9 J	78.5 J
Thallium	- -	- -	mg/kg	6.70 U	6.30 U	7.10 U	8.20 U	7.00 U
Vanadium	- -	- -	mg/kg	4.74	6.75	9.88	12.5	11.6
Zinc	109	10,000	mg/kg	60.6	80.7	14.0	24.2	17.1
Miscellaneous								
Sulfate	- -	- -	mg/kg	441	231	394	138 U	221
Total Organic Carbon	- -	- -	mg/kg	2,730	3,350	1,730	1,250 U	1,470

See Notes on Page 25.

Table 5. Summary of 2010 Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Notes:

1. Bold values exceed the Unrestricted Use SCOs presented in Table 375-6.8(a) of 6 NYCRR Part 375 (NYSDEC 2006).
2. Shaded values exceed the Restricted Use - Commercial SCOs presented in Table 375-6.8(b) of 6 NYCRR Part 375 (NYSDEC 2006).
3. Duplicate results are shown in brackets.

Abbreviations and Acronyms:

VOCs =	Volatile organics.
SVOCs =	Semivolatile organics.
mg/kg =	Milligram per kilogram.
NYCRR =	New York Codes, Rules and Regulations.
NYSDEC =	New York State Department of Environmental Conservation.

Analytical Qualifiers:

U =	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
B =	The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
D =	Concentration is based on a diluted sample analysis.
E =	The compound was quantitated above the calibration range.
J =	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
JY =	The compound was reported due to the lack of chromatographic resolution between benzo(b)fluoranthene and benzo(k)fluoranthene concentrations.
ND =	None detected.
R =	The sample results are rejected.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	MW-DR 01/26/11	MW-23-D1R 01/19/11
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	**25**	5.0 U	5.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	**300**	5.0 U	5.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
2-Butanone	50	ug/L	40 U	200 U	80 U	50 U	50 U	50 U	2,000 U	2,000 U	250 U	50 U	50 U	10 U
2-Hexanone	50	ug/L	20 U	100 U	40 U	25 U	25 U	25 U	1,000 U	1,000 U	130 U	25 U	25 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	20 U	100 U	40 U	25 U	25 U	25 U	1,000 U	1,000 U	130 U	25 U	25 U	5.0 U
Acetone	50	ug/L	40 U	200 U	34 J	50 U	46 J	20 J	2,000 U	2,000 U	250 U	50 U	50 U	10 U
Benzene	1	ug/L	4.0 U	20 U	**510**	**22**	**7.0**	**6.4**	200 U	200 U	**260**	**68**	**9.5**	**21**
Bromodichloromethane	50	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Bromoform	50	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Bromomethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Carbon Disulfide	60	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	27	5.0 U	5.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Chlorobenzene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Chloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Chloroform	7	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Chloromethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**22**	**62**	8.0 U	5.0 U	5.0 U	5.0 U	**29,000 D**	**98,000 D**	**240,000 D**	5.0 U	5.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Cyclohexane	- -	ug/L	49	210	130	38	6.8	3.5 J	200 U	120 J	85	49	6.9	1.8
Dibromochloromethane	50	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Ethylbenzene	5	ug/L	**25**	**1,300**	**140**	5.0 U	5.0 U	5.0 U	200 U	200 U	**250**	**5.7**	5.0 U	2.4
Isopropylbenzene	5	ug/L	**6.3**	**130**	**110**	**11**	5.0 U	5.0 U	200 U	200 U	**24 J**	**15**	5.0 U	**18**
Methyl acetate	- -	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	6.7	20 U	**26**	5.0 U	5.0 U	3.5 J	**790**	**890**	**1,900**	5.0 U	7.6	**100 D**
Methylcyclohexane	- -	ug/L	31	130	50	33	3.2 J	5.0 U	200 U	130 J	80	11	5.0 U	2.3
Methylene Chloride	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	**1,700**	**830**	**810**	5.0 U	5.0 U	1.0 U
Styrene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Tetrachloroethene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Toluene	5	ug/L	**8.6**	**69**	**36**	3.0 J	5.0 U	5.0 U	**110 J**	**190 J**	**590**	4.8 J	5.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Trichloroethene	5	ug/L	2.6 J	20 U	8.0 U	5.0 U	5.0 U	5.0 U	**110 J**	**1,900**	**58,000 D**	5.0 U	5.0 U	2.6
Trichlorofluoromethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	1.0 U
Vinyl Chloride	2	ug/L	**13**	**26**	8.0 U	5.0 U	5.0 U	5.0 U	**10,000**	**12,000**	**20,000 D**	5.0 U	5.0 U	1.0 U
Xylenes (total)	5	ug/L	**70**	**7,200 D**	**100**	**13**	4.0 J	4.1 J	400 U	**170 J**	**560**	**18**	10 U	1.3 J
Total VOCs	- -	ug/L	230 J	9,100	1,100 J	120 J	67 J	38 J	42,000 J	110,000 J	320,000 J	170 J	24	150 J

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	MW-DR 01/26/11	MW-23-D1R 01/19/11
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	4.9 U	19 U	4.7 U	0.71 J	1.5 J	4.7 U	4.7 U	2.0 J	1.5 J	**11**	4.7 U	5.2 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2,4,5-Trichlorophenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2,4,6-Trichlorophenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2,4-Dichlorophenol	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2,4-Dimethylphenol	50	ug/L	4.9 U	2.9 J	4.7 U	4.8 U	4.7 U	3.0 J	4.7 U	4.7 U	5.2 U	7.2	4.7 U	5.2 U
2,4-Dinitrophenol	10	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
2,4-Dinitrotoluene	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2,6-Dinitrotoluene	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2-Chloronaphthalene	10	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2-Chlorophenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2-Methylnaphthalene	- -	ug/L	11	96	99	15	19	4.1 J	4.7 U	19	26	90	4.7 U	0.94 J
2-Methylphenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	1.2 J	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
2-Nitroaniline	5	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
2-Nitrophenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
3-Nitroaniline	5	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
4-Chloroaniline	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
4-Methylphenol	- -	ug/L	9.9 U	10 J	12	3.2 J	7.1 J	6.4 J	5.7 J	27	49	1.3 J	9.4 U	10 U
4-Nitroaniline	5	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
4-Nitrophenol	- -	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
Acenaphthene	20	ug/L	4.9 U	3.6 J	2.4 J	2.5 J	2.6 J	2.7 J	3.6 J	11	5.3	**160**	4.7 U	1.3 J
Acenaphthylene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	0.52 J	4.7 U	4.7 U	0.36 J	5.2 U	5.0 U	4.7 U	5.2 U
Acetophenone	- -	ug/L	4.9 U	NA	4.7 U	4.8 U	2.6 J	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Anthracene	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	16	4.7 U	5.2 U
Atrazine	7.5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Benzaldehyde	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Benzo(a)anthracene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**2.9 J**	4.7 U	5.2 U
Benzo(a)pyrene	ND or 0	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**0.91 J**	4.7 U	5.2 U
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**1.1 J**	4.7 U	5.2 U
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 UB	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 UB	4.7 UB	5.2 UB	5.0 U	4.7 U	5.2 U
Butylbenzylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Caprolactam	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Carbazole	- -	ug/L	4.9 U	1.8 J	1.0 J	1.2 J	3.5 J	1.3 J	0.40 J	3.3 J	3.0 J	45	4.7 U	5.2 U
Chrysene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**2.7 J**	4.7 U	5.2 U
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Dibenzofuran	- -	ug/L	9.9 U	38 U	9.4 U	1.3 J	2.3 J	0.81 J	9.4 U	2.2 J	1.5 J	110	9.4 U	10 U
Diethylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	0.60 J	5.0 U	4.7 U	5.2 U
Dimethylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Di-n-Butylphthalate	50	ug/L	0.56 J	19 U	4.7 U	4.8 U	4.7 U	0.33 J	0.39 J	0.51 J	0.75 J	5.0 U	4.7 U	5.2 U
Di-n-Octylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	2.4 J	4.7 U	5.2 U

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	MW-DR 01/26/11	MW-23-D1R 01/19/11
Semivolatile Organics (Cont.)														
Fluoranthene	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	0.39 J	4.7 U	5.2 U	28	4.7 U	5.2 U
Fluorene	50	ug/L	4.9 U	2.4 J	3.0 J	11	1.7 J	2.5 J	4.7 U	2.1 J	1.7 J	**110**	4.7 U	5.2 U
Hexachlorobenzene	0.04	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Hexachlorobutadiene	0.5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Hexachlorocyclopentadiene	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Hexachloroethane	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Isophorone	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	1.4 J	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Naphthalene	10	ug/L	10	**220**	**120**	**18**	**45**	**50**	4.7 U	**84**	**81**	**400**	4.7 U	1.3 J
Nitrobenzene	0.4	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
N-Nitrosodiphenylamine	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	5.2 U
Pentachlorophenol	- -	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	10 U
Phenanthrene	50	ug/L	4.9 U	2.2 J	2.1 J	0.82 J	1.5 J	4.7 U	4.7 U	4.7 U	0.83 J	**140**	4.7 U	5.2 U
Phenol	2	ug/L	4.9 U	19 U	**15**	**42**	**110**	**84**	**3.9 J**	**5.3**	**12**	5.0 U	4.7 U	5.2 U
Pyrene	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	0.36 J	4.7 U	5.2 U	18	4.7 U	5.2 U
Total SVOCs	- -	ug/L	24 J	340 J	250 J	96 J	200 J	160 J	18 J	160 J	190 J	1,100 J	ND	3.5 J
Inorganics														
Aluminum	- -	ug/L	69.0 J	200 U	370	200	3,800	180 J	480	180 J	75.0 J	4,300	1,700	380
Antimony	3	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	25	ug/L	10.0 U	10.0 U	5.60 J	10.0 U	10.0 U	10.0 U	9.70 J	10.0 U	10.0 U	6.20 J	**39.0**	10.0 U
Barium	1,000	ug/L	38.0	69.0	27.0	9.70	13.0	14.0	150	28.0	63.0	48.0	31.0	79.0
Beryllium	3	ug/L	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	5	ug/L	1.00 U	1.00 U	1.00 U	0.520 J	0.450 J	0.560 J	0.330 J	1.00 U	1.00 U	0.630 J	1.10	0.410 J
Calcium	- -	ug/L	123,000	93,300	104,000	81,500	142,000	47,200	34,600	58,000	71,800	87,400	46,000 J	145,000
Chromium	50	ug/L	4.00 U	4.00 U	25.0	4.00 U	1.10 J	1.00 J	1.70 J	2.00 J	1.40 J	7.80	5.80	4.00 U
Cobalt	- -	ug/L	1.20 J	4.00 U	0.690 J	4.00 U	0.760 J	4.00 U	0.920 J	4.00 U	4.00 U	1.70 J	0.990 J	0.640 J
Copper	200	ug/L	6.40 J	10.0 U	10.0 U	10.0 U	5.30 J	10.0 U	10.0 U	10.0 U	10.0 U	3.30 J	9.30 J	2.20 J
Iron	300	ug/L	**1,700**	**10,800**	**6,300**	**3,600**	160	120	**2,900**	**6,100**	**4,700**	**13,800**	**3,200**	**4,000**
Lead	25	ug/L	5.00 U	5.00 U	10.0	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	8.20	9.40	5.00 U
Magnesium	35,000	ug/L	11,000	16,100	13,400 J	12,700	470	33,500	17,300	21,500	**36,800**	**38,700**	20,400	**49,300**
Manganese	300	ug/L	**910**	**450**	300	**440**	4.20	35.0	140	240	300	**560**	66.0	**3,300**
Mercury	0.7	ug/L	0.200 U	0.200 U	0.130 J	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	100	ug/L	2.00 J	1.70 J	16.0	5.30 J	19.0	6.30 J	3.50 J	2.20 J	2.30 J	5.20 J	3.70 J	2.70 J
Potassium	- -	ug/L	14,000	18,400	18,300	25,100	42,300	46,000	19,700	22,900	31,300	13,500	16,500	23,600
Selenium	10	ug/L	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	50	ug/L	3.00 U	3.00 U	3.00 U	1.70 J	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	20,000	ug/L	**53,000**	**43,000**	**90,800**	**277,000**	**259,000**	**491,000**	**248,000**	**165,000**	**289,000**	**164,000**	**186,000**	**349,000**
Thallium	0.5	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	- -	ug/L	5.90	3.80 J	6.10	6.10	6.40	6.30	4.80 J	5.10	5.70	14.0	7.00	11.0
Zinc	2,000	ug/L	4.30 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	3.00 J	1.90 J	2.30 J	35.0	32.0	4.20 J
Inorganics-Filtered														
Aluminum	- -	ug/L	200 UB	200 U	200 UB	220	3,800	200 U	200 UB	200 UB	200 UB	260	200 U	200 U
Antimony	3	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	25	ug/L	10.0 U	7.60 J	8.30 J	10.0 U	6.50 J	10.0 U	11.0	5.70 J	10.0 U	10.0 U	20.0	10.0 U
Barium	1,000	ug/L	39.0	69.0	26.0	9.70	11.0	14.0	140	26.0	63.0	36.0	30.0	66.0
Beryllium	- -	ug/L	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	5	ug/L	1.00 U	1.00 U	1.00 U	0.510 J	0.450 J	0.640 J	1.00 U	0.380 J	1.00 U	0.530 J	0.550 J	0.440 J
Calcium	- -	ug/L	114,000	87,200	101,000	83,600	142,000	46,700	30,900	55,800	69,000	89,900	54,000 J	145,000

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	MW-DR 01/26/11	MW-23-D1R 01/19/11
Inorganics-Filtered (Cont.)														
Chromium	50	ug/L	1.40 J	1.30 J	1.90 J	4.00 U	4.00 U	1.20 J	1.50 J	1.90 J	2.60 J	0.940 J	1.20 J	4.00 U
Cobalt	- -	ug/L	0.800 J	4.00 U	4.00 U	4.00 U	0.660 J	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U
Copper	200	ug/L	10.0 U	1.60 J	10.0 U	10.0 U	2.80 J	2.10 J	10.0 U	10.0 U	10.0 U	1.70 J	1.70 J	10.0 U
Iron	300	ug/L	**1,500**	**10,600**	**5,900**	**2,700**	61.0	42.0 J	**2,400**	**5,900**	**4,200**	**8,700**	**1,700**	**3,000**
Lead	25	ug/L	5.00 U	5.00 U	6.90	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Magnesium	35,000	ug/L	11,100	16,200	14,900 J	12,900	490	33,300	16,300	21,200	**39,000**	**41,600**	25,800	**44,700**
Manganese	300	ug/L	**920**	**450**	290	**460**	1.90 J	33.0	110	250	280	**560**	85.0	**2,500**
Mercury	0.7	ug/L	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	100	ug/L	10.0 U	10.0 U	3.40 J	4.90 J	20.0	6.30 J	1.90 J	10.0 U	1.30 J	10.0 U	1.70 J	2.00 J
Potassium	- -	ug/L	13,300	17,500	18,200	25,400	43,900	46,400	18,200	21,500	31,000	13,700	18,500	23,700
Selenium	10	ug/L	15.0 UJ	15.0 UJ	15.0 UJ	15.0 U	15.0 U	15.0 U	15.0 UJ	15.0 UJ	15.0 UJ	15.0 U	15.0 U	15.0 U
Silver	50	ug/L	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	20,000	ug/L	**53,200**	**42,100**	**96,400**	**280,000**	**266,000**	**479,000**	**242,000**	**163,000**	**306,000**	**167,000**	**206,000**	**286,000**
Thallium	0.5	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	- -	ug/L	2.60 J	2.50 J	4.00 J	6.30	5.20	5.40	3.80 J	3.80 J	3.50 J	5.80	3.20 J	7.80
Zinc	2,000	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.90 J	1.80 J	10.0 U	4.20 J	4.40 J	10.0 U	2.00 J
Miscellaneous														
Alkalinity	- -	ug/L	259,000	216,000	425,000	292,000	338,000	309,000	250,000	159,000	150,000	414,000	228,000	308,000
Alkalinity, Bicarbonate	- -	ug/L	259,000	216,000	425,000	292,000	338,000	309,000	250,000	159,000	150,000	414,000	228,000	308,000
Ammonia Nitrogen	- -	ug/L	3,200	3,000	11,000	13,900	18,700	17,000	3,800	7,400	7,100	3,900	1,100	2,700
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	300 U	750 U	750 U	1,500 UJ	1,500 UJ	1,500 UJ	300 U	300 U	300 U	1,500 UJ	150 UJ	1.5 U
Ethene	- -	ug/L	300 U	750 U	750 U	1,500 UJ	1,500 UJ	1,500 UJ	390 J	210 J	630 J	1,500 UJ	150 UJ	1.5 U
Methane	- -	ug/L	3,300 J	5,100 J	12,000 D	14,000 J	9,600 J	16,000 J	1,600	2,900 J	NA	11,000 J	1,400 J	7,800 DJ
Nitrate Nitrogen	- -	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Nitrite Nitrogen	- -	ug/L	50 U	50 U	50 U	50 U	160	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Orthophosphate	- -	ug/L	260	350	400	540 J	280 J	1,500 J	430	750	790	840 J	330 J	170
Soluble Organic Carbon	- -	ug/L	16,700	29,400	37,400	36,800	41,500	37,200	14,800	15,900	16,900	28,200	14,700	14,700
Sulfate	250,000	ug/L	195,000	143,000	5,000 UB	5,000 UB	11,000 UB	5,000 UB	5,000 UB	5,000 UB	5,000 UB	6,500 UB	31,400	260,000
Sulfide	50	ug/L	100 U	100 U	100 U	100 U	100 U	**310**	100 U	100 U	**620**	100 U	100 U	**220**
Total Dissolved Solids	- -	ug/L	624,000	540,000	628,000	1,010,000	1,170,000	1,600,000	839,000	803,000	1,210,000	829,000	730,000	1,740,000

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D2 01/19/11	MW-24-VD 01/19/11	MW-25-D1 01/19/11	MW-25-D2 01/19/11	MW-25-D3 01/21/11	MW-25-VD 01/19/11	MW-26-D1 01/25/11
Volatile Organics											
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	0.57 J	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	2.3	2.0	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	**23**	3.8	1.0 U	**23**	**5.7**	1.0 U	1.0 U	5.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	**0.61 J**	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
2-Butanone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	10 U	31 J
2-Hexanone	50	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Acetone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	5.3 J	10 U	**74 J**
Benzene	1	ug/L	1.0 U [1.0 U]	**22**	**3.5**	1.0 U	**25**	**9.5**	1.0 U	1.0 U	5.0 U
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	5.0 U
Bromomethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon Disulfide	60	ug/L	1.3 [1.2]	1.0 U	1.0 U	1.0 U	12	1.2	2.0	13	37
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	5.0 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroform	7	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	**7,400 D**	**1,200 D**	1.0 U	**5,100 D**	**3,500 D**	1.3	**11**	5.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U
Cyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.8	1.0 U	1.0 U	5.0 U
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	**11**	1.9	1.0 U	**12**	3.9	1.0 U	1.0 U	5.0 U
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	1.1	1.0 U	1.0 U	1.5	0.86 J	1.0 U	1.0 U	5.0 U
Methyl acetate	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U	5.0 U
Methyl tert-butyl ether	10	ug/L	**200 D [190 D]**	**1,100 D**	**280 D**	1.0 U	**960 D**	**130 E**	1.0 U	1.0 U	5.0 U
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	5.0	0.94 J	1.0 U	1.0 U	5.0 U
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	0.76 J	1.0 U	1.0 U	**340 D**	**3,700 D**	**43**	3.4	5.0 U
Styrene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	4.5	1.0 U	1.0 U	5.0 U
Toluene	5	ug/L	1.0 U [1.0 U]	**19**	3.0	1.0 U	**31**	**24**	1.0 U	1.0 U	5.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	**44**	**6.7**	1.0 U	**58**	1.0 U	1.0 U	1.0 U	5.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 UJ	5.0 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	**65**	2.5	1.0 U	**110 D**	**17,000 D**	4.5	**180 D**	5.0 U
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Vinyl Chloride	2	ug/L	**7.8 [6.5]**	**1,800 D**	**300 D**	1.0 U	**5,900 D**	**140 EJ**	1.0 U	1.0 U	5.0 U
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	**31**	4.8	2.0 U	**40**	**16**	2.0 U	2.0 U	10 U
Total VOCs	- -	ug/L	210 [200]	11,000 J	1,800	0.61 J	13,000	25,000 J	57 J	210	140 J

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D2 01/19/11	MW-24-VD 01/19/11	MW-25-D1 01/19/11	MW-25-D2 01/19/11	MW-25-D3 01/21/11	MW-25-VD 01/19/11	MW-26-D1 01/25/11
Semivolatile Organics											
1,1'-Biphenyl	5	ug/L	4.9 U [4.9 U]	2.5 J	5.0 U	4.8 U	3.4 J	24 U	5.0 U	4.7 U	5.0 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2,4,5-Trichlorophenol	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2,4,6-Trichlorophenol	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2,4-Dichlorophenol	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2,4-Dimethylphenol	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	1.1 J	24 U	5.0 U	4.7 U	5.0 U
2,4-Dinitrophenol	10	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
2,4-Dinitrotoluene	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2,6-Dinitrotoluene	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2-Chloronaphthalene	10	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2-Chlorophenol	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2-Methylnaphthalene	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2-Methylphenol	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
2-Nitroaniline	5	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
2-Nitrophenol	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
3,3'-Dichlorobenzidine	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
3-Nitroaniline	5	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
4-Bromophenyl-phenylether	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
4-Chloroaniline	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
4-Methylphenol	- -	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	0.53 J	9.5 U	45
4-Nitroaniline	5	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
4-Nitrophenol	- -	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
Acenaphthene	20	ug/L	1.3 J [1.2 J]	**53**	7.8	4.8 U	**76**	7.7 J	5.0 U	4.7 U	5.0 U
Acenaphthylene	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Acetophenone	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Anthracene	50	ug/L	4.9 U [4.9 U]	0.50 J	5.0 U	4.8 U	1.6 J	24 U	5.0 U	4.7 U	5.0 U
Atrazine	7.5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Benzaldehyde	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Benzo(a)anthracene	0.002	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Benzo(a)pyrene	ND or 0	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Benzo(b)fluoranthene	0.002	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Benzo(g,h,i)perylene	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Benzo(k)fluoranthene	0.002	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
bis(2-Chloroethyl)ether	1	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 UB [4.9 UB]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 UJ	4.7 U	5.0 U
Butylbenzylphthalate	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Caprolactam	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Carbazole	- -	ug/L	0.50 J [0.52 J]	22	3.2 J	4.8 U	42	24 U	5.0 U	4.7 U	5.0 U
Chrysene	0.002	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Dibenzofuran	- -	ug/L	0.53 J [0.54 J]	19	0.56 J	9.6 U	40	48 U	10 U	9.5 U	10 U
Diethylphthalate	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Dimethylphthalate	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Di-n-Butylphthalate	50	ug/L	0.41 J [0.53 J]	0.51 J	0.33 J	4.8 U	0.50 J	24 U	0.36 J	4.7 U	5.0 U
Di-n-Octylphthalate	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D2 01/19/11	MW-24-VD 01/19/11	MW-25-D1 01/19/11	MW-25-D2 01/19/11	MW-25-D3 01/21/11	MW-25-VD 01/19/11	MW-26-D1 01/25/11
Semivolatile Organics (Cont.)											
Fluoranthene	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	0.52 J	24 U	5.0 U	4.7 U	5.0 U
Fluorene	50	ug/L	0.54 J [0.58 J]	6.9	5.0 U	4.8 U	20	24 U	5.0 U	4.7 U	5.0 U
Hexachlorobenzene	0.04	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Hexachlorobutadiene	0.5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Hexachlorocyclopentadiene	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Hexachloroethane	5	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Isophorone	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Naphthalene	10	ug/L	4.9 U [4.9 U]	**21**	2.9 J	4.8 U	**23**	24 U	5.0 U	4.7 U	0.80 J
Nitrobenzene	0.4	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
N-Nitrosodiphenylamine	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Pentachlorophenol	- -	ug/L	9.7 U [9.8 U]	10 U	9.9 U	9.6 U	9.5 U	48 U	10 U	9.5 U	10 U
Phenanthrene	50	ug/L	4.9 U [4.9 U]	6.7	0.87 J	4.8 U	26	24 U	5.0 U	4.7 U	5.0 U
Phenol	2	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	**6.5**	4.7 U	**14**
Pyrene	50	ug/L	4.9 U [4.9 U]	5.0 U	5.0 U	4.8 U	4.7 U	24 U	5.0 U	4.7 U	5.0 U
Total SVOCs	- -	ug/L	5.7 J [5.8 J]	130 J	16 J	ND	230 J	7.7 J	7.4 J	ND	60 J
Inorganics											
Aluminum	- -	ug/L	200 U [200 U]	200 U	200 U	200 U	200 U	76.0 J	200 U	55.0 J	4,000
Antimony	3	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	25	ug/L	10.0 U [10.0 U]	10.0 U	10.0 U	10.0 U	6.00 J	10.0 U	10.0 U	6.00 J	9.20 J
Barium	1,000	ug/L	110 [110]	20.0	20.0	67.0	18.0	23.0	140	110	270
Beryllium	3	ug/L	2.00 U [2.00 U]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	5	ug/L	0.580 J [0.640 J]	0.860 J	0.860 J	0.990 J	0.770 J	0.850 J	0.800 J	0.840 J	0.940 J
Calcium	- -	ug/L	166,000 J [163,000 J]	109,000	106,000	342,000	102,000	137,000	334,000	359,000	662,000
Chromium	50	ug/L	2.00 J [1.90 J]	2.40 J	2.50 J	4.00 U	2.90 J	2.50 J	8.40	4.00 U	9.10
Cobalt	- -	ug/L	4.00 U [4.00 U]	0.760 J	4.00 U	4.00 U	4.00 U	0.770 J	1.50 J	4.00 U	3.00 J
Copper	200	ug/L	10.0 U [10.0 U]	2.00 J	1.70 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	4.40 J
Iron	300	ug/L	65.0 [60.0]	50.0 U	65.0	**29,300**	50.0 U	140	**880**	**14,500**	**2,400**
Lead	25	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.90
Magnesium	35,000	ug/L	**286,000 J [284,000 J]**	**365,000**	**297,000**	**1,210,000**	**362,000**	**331,000**	**797,000 J**	**1,090,000**	**234,000**
Manganese	300	ug/L	**890 [850]**	43.0	63.0	**670**	58.0	120	**740**	**810**	**390**
Mercury	0.7	ug/L	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	100	ug/L	10.0 U [10.0 U]	10.0 U	10.0 U	1.50 J	10.0 U	10.0 U	3.80 J	2.10 J	20.0
Potassium	- -	ug/L	95,100 J [95,400 J]	101,000	98,700	306,000	105,000	112,000	270,000	283,000	184,000
Selenium	10	ug/L	15.0 U [15.0 U]	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	50	ug/L	3.00 U [3.00 U]	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	20,000	ug/L	**2,570,000 J [2,550,000 J]**	**2,530,000**	**2,330,000**	**8,710,000**	**2,530,000**	**2,670,000**	**6,280,000 J**	**7,760,000**	**3,700,000**
Thallium	0.5	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	- -	ug/L	11.0 [10.0]	5.90	7.10	6.70	6.20	8.00	5.80	5.20	6.20
Zinc	2,000	ug/L	10.0 U [10.0 U]	10.0 U	1.70 J	10.0 U	10.0 U	3.00 J	10.0 U	10.0 U	15.0
Inorganics-Filtered											
Aluminum	- -	ug/L	200 UB [200 UB]	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UB
Antimony	3	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	25	ug/L	9.50 J [7.20 J]	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U
Barium	1,000	ug/L	120 [120]	20.0	20.0	65.0	18.0	24.0	140	96.0	250
Beryllium	- -	ug/L	2.00 U [2.00 U]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	5	ug/L	0.620 J [0.650 J]	0.800 J	0.640 J	0.770 J	0.790 J	0.700 J	0.820 J	0.890 J	0.880 J
Calcium	- -	ug/L	185,000 J [186,000 J]	108,000	102,000	333,000	102,000	139,000	317,000	324,000	614,000

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D2 01/19/11	MW-24-VD 01/19/11	MW-25-D1 01/19/11	MW-25-D2 01/19/11	MW-25-D3 01/21/11	MW-25-VD 01/19/11	MW-26-D1 01/25/11
Inorganics-Filtered (Cont.)											
Chromium	50	ug/L	3.80 J [4.00]	2.40 J	2.10 J	4.00 U	3.00 J	2.20 J	4.10	4.00 U	3.60 J
Cobalt	- -	ug/L	1.10 J [0.770 J]	4.00 U	4.00 U	0.930 J	4.00 U	4.00 U	1.00 J	4.00 U	1.50 J
Copper	200	ug/L	10.0 U [10.0 U]	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 UB	10.0 U	10.0 U
Iron	300	ug/L	75.0 [87.0]	50.0 U	50.0 U	**27,400**	50.0 U	50.0 U	**640**	**1,700**	50.0 U
Lead	25	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Magnesium	35,000	ug/L	**319,000 J [326,000 J]**	**365,000**	**289,000**	**1,180,000**	**370,000**	**339,000**	**859,000**	**865,000**	**252,000**
Manganese	300	ug/L	**880 [910]**	43.0	62.0	**600**	59.0	120	**720**	**880**	**400**
Mercury	0.7	ug/L	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.160 J
Nickel	100	ug/L	10.0 U [10.0 U]	10.0 U	10.0 U	2.20 J	10.0 U	10.0 U	2.50 J	10.0 U	12.0
Potassium	- -	ug/L	107,000 J [108,000 J]	101,000	97,000	317,000	109,000	117,000	244,000	234,000	185,000
Selenium	10	ug/L	15.0 UJ [15.0 UJ]	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	50	ug/L	3.00 U [3.00 U]	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	20,000	ug/L	**2,990,000 J [3,030,000 J]**	**2,460,000**	**2,150,000**	**8,550,000**	**2,720,000**	**2,780,000**	**6,940,000**	**6,250,000**	**3,530,000**
Thallium	0.5	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	- -	ug/L	6.80 [6.70]	5.50	5.60	5.10	5.80	7.30	8.00	4.60 J	5.00 U
Zinc	2,000	ug/L	10.0 U [10.0 U]	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.70 J	110
Miscellaneous											
Alkalinity	- -	ug/L	717,000 [725,000]	1,400,000	931,000	408,000	1,160,000	866,000	1,100,000	564,000	455,000
Alkalinity, Bicarbonate	- -	ug/L	717,000 [725,000]	1,400,000	931,000	408,000	1,160,000	866,000	1,100,000	564,000	455,000
Ammonia Nitrogen	- -	ug/L	3,300 [3,700]	5,500	4,900	3,700	6,100	6,400	1,200	3,900	1,300
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	300 U [300 U]	21	4.1	4.6	29	6.4	300 U	1.5 U	1.5 U
Ethene	- -	ug/L	300 U [300 U]	110 D	23	1.5 U	97	21	300 U	1.5 U	1.5 U
Methane	- -	ug/L	420 J [1,400 J]	1,900 DJ	1,100 DJ	170 DJ	4,200 DJ	2,700 DJ	270	330 DJ	1.6 J
Nitrate Nitrogen	- -	ug/L	50 U [50 U]	50 U	120	50 U	50 U	50 U	50 U	50 U	50 U
Nitrite Nitrogen	- -	ug/L	50 U [50 U]	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Orthophosphate	- -	ug/L	520 [430]	890	580	110	440	590	270	390	230
Soluble Organic Carbon	- -	ug/L	11,200 [11,000]	18,100	12,500	5,000	15,600	12,700	29,200 J	4,900	46,700
Sulfate	250,000	ug/L	436,000 [438,000]	128,000	359,000	1,800,000	434,000	404,000	1,850,000	1,310,000	466,000
Sulfide	50	ug/L	**18,800 [19,200]**	**78 J**	**300**	100 U	**53 J**	**300**	**7,100**	**210**	**850**
Total Dissolved Solids	- -	ug/L	9,010,000 [8,600,000]	8,300,000	8,080,000	30,100,000	8,670,000	9,670,000	23,300,000	25,200,000	12,500,000

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-26-D2 01/25/11	MW-26-VD 01/18/11	MW-27-D1 01/18/11	MW-27-D2 01/18/11	MW-28-D1 01/25/11	MW-28-D2 01/25/11	MW-29-D1 01/25/11	MW-29-D2 01/25/11	MW-30-D1 01/24/11
Volatile Organics											
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1,2-Trichloroethane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	5	ug/L	0.51 J	1.0 U	1.0 U	0.44 J	1.1	0.87 J	1.0 U	1.0 U	2.0 [2.0]
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dibromoethane	0.0006	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	0.6	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,3-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,4-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
2-Butanone	50	ug/L	10 U	53	10 U	10 U	10 U	10 U	10 U	10 U	10 U [10 U]
2-Hexanone	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]
Acetone	50	ug/L	10 U	**84**	10 U	10 U	4.2 J	4.2 J	8.9 J	4.8 J	10 U [10 U]
Benzene	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	**12**	1.0 U	**130 D**	1.0 U	**81 [87]**
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromoform	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Bromomethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Carbon Disulfide	60	ug/L	1.0 U	59	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	1.0 U [1.0 U]
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chloroethane	5	ug/L	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ [1.0 UJ]
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Chloromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	**29**	1.0 U	1.1	**6.6**	1.0 U	1.0 U	1.0 U [1.0 U]
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Cyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	26	1.0 U	1.4 [1.6]
Dibromochloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Dichlorodifluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Ethylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	4.2	1.0 U	1.0 U	1.0 U	1.8 [1.8]
Isopropylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16**	1.0 U	0.97 J [1.1]
Methyl acetate	- -	ug/L	1.0 U	5.5	1.0 U	1.0 U	1.0 U	1.0 U	27 J	1.0 U	1.0 U [1.0 U]
Methyl tert-butyl ether	10	ug/L	1.0 U	1.5	**26**	1.0 U	**38**	2.7	**550 D**	1.0 U	**680 D [680 D]**
Methylcyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13	1.0 U	1.0 U [1.0 U]
Methylene Chloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Styrene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Toluene	5	ug/L	1.0 U	0.93 J	1.0 U	1.0 U	1.0 U	1.0 U	3.7	1.0 U	0.55 J [0.56 J]
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Trichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.51 J	1.0 U	0.86 J	1.0 U [1.0 U]
Trichlorofluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Vinyl Chloride	2	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	0.91 J	2.0 U	**16**	2.0 U	2.0 U [2.0 U]
Total VOCs	- -	ug/L	0.51 J	200 J	55	0.44 J	63 J	15 J	790 J	8.1 J	770 J [770 J]

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-26-D2 01/25/11	MW-26-VD 01/18/11	MW-27-D1 01/18/11	MW-27-D2 01/18/11	MW-28-D1 01/25/11	MW-28-D2 01/25/11	MW-29-D1 01/25/11	MW-29-D2 01/25/11	MW-30-D1 01/24/11
Semivolatile Organics											
1,1'-Biphenyl	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,4,5-Trichlorophenol	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,4,6-Trichlorophenol	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,4-Dichlorophenol	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,4-Dimethylphenol	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,4-Dinitrophenol	10	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
2,4-Dinitrotoluene	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2,6-Dinitrotoluene	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2-Chloronaphthalene	10	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2-Chlorophenol	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2-Methylnaphthalene	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	1.9 J	4.7 U	4.8 U [4.9 U]
2-Methylphenol	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
2-Nitroaniline	5	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
2-Nitrophenol	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
3-Nitroaniline	5	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
4-Chloroaniline	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
4-Methylphenol	- -	ug/L	9.8 U	47	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
4-Nitroaniline	5	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
4-Nitrophenol	- -	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
Acenaphthene	20	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	13	5.0 U	0.89 J	4.7 U	15 [15]
Acenaphthylene	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Acetophenone	- -	ug/L	4.9 U	1.1 J	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Anthracene	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	1.4 J	5.0 U	4.9 U	4.7 U	0.74 J [0.63 J]
Atrazine	7.5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Benzaldehyde	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Benzo(a)anthracene	0.002	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Benzo(a)pyrene	ND or 0	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Butylbenzylphthalate	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Caprolactam	- -	ug/L	4.9 U	4.8 U	14	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Carbazole	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	4.4 J	5.0 U	4.9 U	4.7 U	7.5 [7.7]
Chrysene	0.002	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Dibenzofuran	- -	ug/L	9.8 U	9.5 U	11 U	10 U	0.85 J	9.9 U	9.8 U	9.4 U	2.1 J [2.3 J]
Diethylphthalate	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Dimethylphthalate	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Di-n-Butylphthalate	50	ug/L	4.9 U	0.48 J	0.44 J	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	0.39 J [0.33 J]
Di-n-Octylphthalate	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-26-D2 01/25/11	MW-26-VD 01/18/11	MW-27-D1 01/18/11	MW-27-D2 01/18/11	MW-28-D1 01/25/11	MW-28-D2 01/25/11	MW-29-D1 01/25/11	MW-29-D2 01/25/11	MW-30-D1 01/24/11
Semivolatile Organics (Cont.)											
Fluoranthene	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	3.6 J	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Fluorene	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Hexachlorobenzene	0.04	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Hexachlorobutadiene	0.5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Hexachlorocyclopentadiene	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Hexachloroethane	5	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Isophorone	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Naphthalene	10	ug/L	4.9 U	1.7 J	5.3 U	5.2 U	2.0 J	5.0 U	4.9 U	4.7 U	0.92 J [1.0 J]
Nitrobenzene	0.4	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
N-Nitrosodiphenylamine	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Pentachlorophenol	- -	ug/L	9.8 U	9.5 U	11 U	10 U	10 U	9.9 U	9.8 U	9.4 U	9.6 U [9.7 U]
Phenanthrene	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	9.6	5.0 U	4.9 U	4.7 U	6.5 [6.6]
Phenol	2	ug/L	4.9 U	**8.4**	5.3 U	5.2 U	5.0 U	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Pyrene	50	ug/L	4.9 U	4.8 U	5.3 U	5.2 U	1.8 J	5.0 U	4.9 U	4.7 U	4.8 U [4.9 U]
Total SVOCs	- -	ug/L	ND	59 J	14 J	ND	37 J	ND	2.8 J	ND	33 J [34 J]
Inorganics											
Aluminum	- -	ug/L	1,100	200 U	97.0 J	120 J	280 UB	370	200 UB	200 UB	200 UB [200 UB]
Antimony	3	ug/L	20.0 U	20.0 UJ	20.0 UJ	20.0 UJ	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Arsenic	25	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U [10.0 U]
Barium	1,000	ug/L	48.0	390	34.0	49.0	37.0	46.0	15.0	110	44.0 [44.0]
Beryllium	3	ug/L	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U [2.00 U]
Cadmium	5	ug/L	1.60	1.00 UB	0.450 J	0.790 J	0.700 J	0.780 J	0.530 J	0.840 J	0.600 J [0.790 J]
Calcium	- -	ug/L	299,000	996,000	97,800	293,000	96,800	276,000	52,500	1,190,000	107,000 [107,000]
Chromium	50	ug/L	8.30	4.80	4.50	5.40	3.80 J	5.20	3.30 J	2.00 J	3.90 J [3.70 J]
Cobalt	- -	ug/L	1.50 J	4.70	0.650 J	1.10 J	0.940 J	1.20 J	4.00 U	1.20 J	1.10 J [0.930 J]
Copper	200	ug/L	13.0	7.00 J	3.80 J	2.10 J	2.70 J	2.20 J	2.20 J	10.0 U	3.00 J [2.50 J]
Iron	300	ug/L	**1,300**	90.0	110	170	220	**530**	290	22.0 J	100 [130]
Lead	25	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U [5.00 U]
Magnesium	35,000	ug/L	**681,000**	13,300	**294,000**	**731,000**	**275,000**	**609,000**	**112,000**	**288,000 J**	**283,000 [279,000]**
Manganese	300	ug/L	140	3.90 UB	77.0	**600**	110	190	220	8.60	94.0 [93.0]
Mercury	0.7	ug/L	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U [0.200 U]
Nickel	100	ug/L	1.50 J	43.0	10.0 U	2.00 J	10.0 U	10.0 U	10.0 U	5.70 J	10.0 U [10.0 U]
Potassium	- -	ug/L	235,000	216,000	103,000	226,000	108,000	215,000	58,800	339,000	113,000 [114,000]
Selenium	10	ug/L	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U [15.0 U]
Silver	50	ug/L	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U [3.00 U]
Sodium	20,000	ug/L	**5,620,000**	**4,670,000**	**2,230,000**	**5,750,000**	**2,310,000**	**5,020,000**	**903,000**	**7,780,000**	**2,400,000 [2,400,000]**
Thallium	0.5	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Vanadium	- -	ug/L	9.70	5.00 U	4.70 J	7.10	5.10	6.60	3.20 J	5.00 U	5.20 [5.40]
Zinc	2,000	ug/L	33.0	4.40 J	2.20 J	10.0 U	10.0 U	1.80 J	5.70 J	10.0 U	3.70 J [1.80 J]
Inorganics-Filtered											
Aluminum	- -	ug/L	200 UB	200 U	200 U	200 U	200 UB	200 U	200 U	200 U	200 UB [200 UB]
Antimony	3	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Arsenic	25	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U [10.0 U]
Barium	1,000	ug/L	48.0	370	33.0	47.0	37.0	44.0	15.0	110	44.0 [44.0]
Beryllium	- -	ug/L	2.00 U	2.00 U	2.00 U	2.00 UB	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U [2.00 U]
Cadmium	5	ug/L	1.10	1.00 U	0.530 J	0.420 J	0.880 J	0.970 J	0.500 J	0.680 J	0.730 J [0.600 J]
Calcium	- -	ug/L	286,000	987,000	102,000	290,000	98,100	265,000	51,300	1,080,000	107,000 [107,000]

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-26-D2 01/25/11	MW-26-VD 01/18/11	MW-27-D1 01/18/11	MW-27-D2 01/18/11	MW-28-D1 01/25/11	MW-28-D2 01/25/11	MW-29-D1 01/25/11	MW-29-D2 01/25/11	MW-30-D1 01/24/11
Inorganics-Filtered (Cont.)											
Chromium	50	ug/L	4.90	2.40 J	3.80 J	4.60	3.50 J	4.20	3.50 J	1.30 J	3.20 J [3.60 J]
Cobalt	- -	ug/L	1.40 J	4.20	0.680 J	1.30 J	0.840 J	0.840 J	4.00 U	1.20 J	0.840 J [4.00 U]
Copper	200	ug/L	2.10 J	2.90 J	10.0 U	10.0 U	2.60 J	2.00 J	2.50 J	10.0 U	1.50 J [2.10 J]
Iron	300	ug/L	250	50.0 U	50.0 U	50.0 U	40.0 J	290	200	19.0 J	50.0 U [50.0 U]
Lead	25	ug/L	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U [5.00 U]
Magnesium	35,000	ug/L	**729,000**	12,400	**291,000**	**693,000**	**283,000**	**563,000**	**113,000**	**392,000 J**	**277,000 [281,000]**
Manganese	300	ug/L	130	3.00 UB	72.0	**570**	110	190	210	21.0	86.0 [86.0]
Mercury	0.7	ug/L	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.120 J	0.200 U [0.200 U]
Nickel	100	ug/L	10.0 U	41.0	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	3.80 J	10.0 U [10.0 U]
Potassium	- -	ug/L	235,000	210,000	105,000	221,000	115,000	217,000	61,200	349,000	114,000 [114,000]
Selenium	10	ug/L	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U [15.0 U]
Silver	50	ug/L	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U [3.00 U]
Sodium	20,000	ug/L	**5,920,000**	**4,710,000**	**2,220,000**	**5,620,000**	**2,280,000**	**4,650,000**	**907,000**	**7,510,000**	**2,230,000 [2,450,000]**
Thallium	0.5	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U [20.0 U]
Vanadium	- -	ug/L	6.60	5.00 U	4.50 J	5.80	4.50 J	6.20	3.60 J	5.00 U	5.50 [4.50 J]
Zinc	2,000	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	3.70 J	10.0 U	10.0 U [10.0 U]
Miscellaneous											
Alkalinity	- -	ug/L	487,000	219,000	897,000	451,000	882,000	503,000	519,000	12,600 UB	939,000 [898,000]
Alkalinity, Bicarbonate	- -	ug/L	487,000	219,000	897,000	451,000	882,000	503,000	519,000	12,600 UB	939,000 [898,000]
Ammonia Nitrogen	- -	ug/L	3,500	4,700	6,700	2,900	6,300	3,800	7,300	4,900	8,000 [7,700]
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	150 U	1.5 U	1.5 U	1.5 U	0.15 U	0.15 U	0.15 U	15 U	150 U [1,500 U]
Ethene	- -	ug/L	150 U	13	1.5 U	1.5 U	0.15 U	0.15 U	0.15 U	15 U	150 U [1,500 U]
Methane	- -	ug/L	270 J	260 D	9,300 D	210 D	1.2 J	0.26 J	16,000 D	19 J	1,700 J [1,200 J]
Nitrate Nitrogen	- -	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U [50 U]
Nitrite Nitrogen	- -	ug/L	50 U	50 U	50 U	50 U	50 UJ	50 UJ	50 UJ	50 U	50 U [50 U]
Orthophosphate	- -	ug/L	440	59	440	330	370	490	140	60	290 J [270 J]
Soluble Organic Carbon	- -	ug/L	6,700	193,000	13,800	6,700	12,200	7,200	15,000	1,700	12,300 [12,800]
Sulfate	250,000	ug/L	1,420,000	708,000	311,000	1,350,000	134,000	1,290,000	5,000 U	1,850,000	25,000 U [25,000 UB]
Sulfide	50	ug/L	**1,300**	**8,000**	**250 J**	**140**	**140**	**850**	**78 J**	100 U	**190 J [520 J]**
Total Dissolved Solids	- -	ug/L	19,000,000	17,700,000	6,870,000	19,000,000	7,380,000	18,700,000	2,840,000	30,100,000	7,950,000 [7,550,000]

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 04/07/11	MW-30-VD 01/25/11	MW-31-D1R 01/21/11	MW-31-D2R 01/21/11	MW-32D 01/19/11	MW-33D 01/27/11	MW-35D 01/27/11	P-10 04/07/11	P-18R 01/27/11
Volatile Organics											
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.1	0.99 J	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	**5.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	**1.5 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
2-Butanone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U
2-Hexanone	50	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	25 U
Acetone	50	ug/L	10 U [10 U]	10 U	10 U	3.9 J	10 U	10 U	10 U	23	50 U
Benzene	1	ug/L	1.0 U [1.0 U]	1.0 U	**5.6**	1.0 U	1.0 U	1.0 U	**3.7**	**3.1**	**160**
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromoform	50	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Bromomethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Carbon Disulfide	60	ug/L	1.0 U [1.0 U]	7.1	0.83 J	0.58 J	1.0 U	1.0 U	0.87 J	1.0 U	5.0 U
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroethane	5	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloroform	7	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Chloromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	2.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Cyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13	8.6	30
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	**5.3**	1.0 U	1.0	1.0 U	1.0 U	1.0 U	3.8 J
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.3	1.0 U	**17**	2.6	**36**
Methyl acetate	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Methyl tert-butyl ether	10	ug/L	1.0 U [0.42 J]	**90**	**20**	1.0 U	**13**	4.2	3.0	1.0 U	5.0 U
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1	11	14
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Styrene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Toluene	5	ug/L	1.0 U [1.0 U]	1.0 U	2.4	1.0 U	1.0 U	1.0 U	1.0 U	0.72 J	4.0 J
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	4.1	1.0 U	1.0 U	0.65 J	1.0 U	1.0 U	1.0 U	5.0 U
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Vinyl Chloride	2	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	2.0 U	**12**	2.0 U	2.0 U	2.0 U	0.66 J	0.86 J	**9.0 J**
Total VOCs	- -	ug/L	ND [0.42 J]	110 J	49 J	5.5 J	16 J	4.2	40 J	50 J	260 J

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 04/07/11	MW-30-VD 01/25/11	MW-31-D1R 01/21/11	MW-31-D2R 01/21/11	MW-32D 01/19/11	MW-33D 01/27/11	MW-35D 01/27/11	P-10 04/07/11	P-18R 01/27/11
Semivolatile Organics											
1,1'-Biphenyl	5	ug/L	NA	4.8 U	**9.4**	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,4,5-Trichlorophenol	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,4,6-Trichlorophenol	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,4-Dichlorophenol	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,4-Dimethylphenol	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,4-Dinitrophenol	10	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
2,4-Dinitrotoluene	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2,6-Dinitrotoluene	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2-Chloronaphthalene	10	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2-Chlorophenol	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2-Methylnaphthalene	- -	ug/L	NA	4.8 U	2.8 J	5.1 U	4.7 U	4.8 U	4.8 U	NA	22
2-Methylphenol	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
2-Nitroaniline	5	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
2-Nitrophenol	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
3,3'-Dichlorobenzidine	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
3-Nitroaniline	5	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
4-Bromophenyl-phenylether	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
4-Chloro-3-Methylphenol	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
4-Chloroaniline	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
4-Chlorophenyl-phenylether	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
4-Methylphenol	- -	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	1.2 J
4-Nitroaniline	5	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
4-Nitrophenol	- -	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
Acenaphthene	20	ug/L	NA	4.8 U	**90**	5.1 U	1.5 J	4.8 U	2.3 J	NA	9.8
Acenaphthylene	- -	ug/L	NA	4.8 U	1.8 J	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Acetophenone	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Anthracene	50	ug/L	NA	4.8 U	1.3 J	5.1 U	1.8 J	4.8 U	4.8 U	NA	0.63 J
Atrazine	7.5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Benzaldehyde	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Benzo(a)anthracene	0.002	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Benzo(a)pyrene	ND or 0	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Benzo(b)fluoranthene	0.002	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Benzo(g,h,i)perylene	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Benzo(k)fluoranthene	0.002	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
bis(2-Chloroethoxy)methane	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
bis(2-Chloroethyl)ether	1	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	1.8 J	4.8 U	NA	5.3 U
Butylbenzylphthalate	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Caprolactam	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Carbazole	- -	ug/L	NA	4.8 U	49	5.1 U	21	4.8 U	4.8 U	NA	1.7 J
Chrysene	0.002	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Dibenzo(a,h)anthracene	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Dibenzofuran	- -	ug/L	NA	9.6 U	32	10 U	9.5 U	9.6 U	0.69 J	NA	2.2 J
Diethylphthalate	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Dimethylphthalate	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Di-n-Butylphthalate	50	ug/L	NA	4.8 U	0.39 J	5.1 U	4.7 U	4.8 U	0.37 J	NA	5.3 U
Di-n-Octylphthalate	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 04/07/11	MW-30-VD 01/25/11	MW-31-D1R 01/21/11	MW-31-D2R 01/21/11	MW-32D 01/19/11	MW-33D 01/27/11	MW-35D 01/27/11	P-10 04/07/11	P-18R 01/27/11
Semivolatile Organics (Cont.)											
Fluoranthene	50	ug/L	NA	4.8 U	1.0 J	5.1 U	1.2 J	4.8 U	4.8 U	NA	0.65 J
Fluorene	50	ug/L	NA	4.8 U	19	5.1 U	4.7 U	4.8 U	4.8 U	NA	4.0 J
Hexachlorobenzene	0.04	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Hexachlorobutadiene	0.5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Hexachlorocyclopentadiene	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Hexachloroethane	5	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Isophorone	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Naphthalene	10	ug/L	NA	4.8 U	**130**	5.1 U	4.7 U	4.8 U	4.8 U	NA	6.3
Nitrobenzene	0.4	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
N-Nitroso-di-n-propylamine	- -	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
N-Nitrosodiphenylamine	50	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Pentachlorophenol	- -	ug/L	NA	9.6 U	9.5 U	10 U	9.5 U	9.6 U	9.6 U	NA	11 U
Phenanthrene	50	ug/L	NA	4.8 U	25	5.1 U	25	4.8 U	4.8 U	NA	2.3 J
Phenol	2	ug/L	NA	4.8 U	4.8 U	5.1 U	4.7 U	4.8 U	4.8 U	NA	5.3 U
Pyrene	50	ug/L	NA	4.8 U	0.39 J	5.1 U	0.46 J	4.8 U	4.8 U	NA	0.46 J
Total SVOCs	- -	ug/L	NA	ND	360 J	ND	51 J	1.8 J	3.4 J	NA	51 J
Inorganics											
Aluminum	- -	ug/L	550 [380]	200 UB	130 J	210	200 U	690	6,200	110 J	270
Antimony	3	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	25	ug/L	6.10 J [10.0 U]	6.10 J	8.10 J	10.0 U	10.0 U	10.0 U	7.60 J	10.0 U	5.60 J
Barium	1,000	ug/L	47.0 [47.0]	99.0	59.0	140	29.0	19.0	33.0	22.0	43.0
Beryllium	3	ug/L	2.00 U [2.00 U]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	5	ug/L	1.00 [1.20]	1.10	0.610 J	0.760 J	0.780 J	0.940 J	0.650 J	1.00 U	0.500 J
Calcium	- -	ug/L	133,000 [134,000]	289,000	120,000	371,000	89,900	74,400	111,000	138,000	81,900
Chromium	50	ug/L	5.60 [5.10]	4.30	3.90 J	3.50 J	2.40 J	3.20 J	15.0	7.20	1.10 J
Cobalt	- -	ug/L	0.860 J [1.00 J]	1.60 J	0.800 J	1.70 J	4.00 U	4.00 U	2.70 J	4.00 U	1.50 J
Copper	200	ug/L	3.20 J [1.60 J]	10.0 U	2.30 J	1.60 J	10.0 U	2.50 J	7.70 J	10.0 U	1.80 J
Iron	300	ug/L	**500 [380]**	95.0	170	99.0	44.0 J	**650**	**8,100**	**3,500**	**8,700**
Lead	25	ug/L	3.60 J [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	8.40	4.90 J	5.00 U
Magnesium	35,000	ug/L	**304,000 [303,000]**	**707,000**	**273,000 J**	**540,000 J**	**209,000**	**182,000**	30,500	10,700	16,100
Manganese	300	ug/L	150 [150]	150	**430**	120	40.0	48.0	160	260	**420**
Mercury	0.7	ug/L	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	100	ug/L	1.40 J [10.0 U]	3.90 J	10.0 U	2.70 J	10.0 U	1.30 J	7.70 J	6.10 J	3.60 J
Potassium	- -	ug/L	123,000 [123,000]	258,000	118,000	222,000	84,500	74,000	21,300	8,600	15,500
Selenium	10	ug/L	15.0 U [15.0 U]	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	50	ug/L	3.00 U [3.00 U]	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	20,000	ug/L	**2,900,000 [2,870,000]**	**6,100,000**	**2,370,000 J**	**5,180,000 J**	**1,840,000**	**1,690,000**	**273,000**	**53,600**	**73,900**
Thallium	0.5	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	- -	ug/L	4.20 J [4.70 J]	8.00	5.80	3.90 J	5.30	5.60	17.0	3.40 J	5.90
Zinc	2,000	ug/L	4.40 J [2.30 J]	2.30 J	3.30 J	10.0 U	10.0 U	3.80 J	26.0	6.30 J	8.50 J
Inorganics-Filtered											
Aluminum	- -	ug/L	200 U [200 U]	200 UB	200 U	67.0 J	200 U	73.0 J	200	200 U	60.0 J
Antimony	3	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Arsenic	25	ug/L	10.0 U [10.0 U]	7.80 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	6.10 J
Barium	1,000	ug/L	47.0 [47.0]	100	59.0	130	28.0	19.0	11.0	22.0	42.0
Beryllium	- -	ug/L	2.00 U [2.00 U]	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U
Cadmium	5	ug/L	0.890 J [0.660 J]	1.00	0.990 J	1.10	0.950 J	0.770 J	0.480 J	1.00 U	0.530 J
Calcium	- -	ug/L	138,000 [137,000]	280,000	118,000	363,000	90,500	73,000	97,100	136,000	80,900

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 04/07/11	MW-30-VD 01/25/11	MW-31-D1R 01/21/11	MW-31-D2R 01/21/11	MW-32D 01/19/11	MW-33D 01/27/11	MW-35D 01/27/11	P-10 04/07/11	P-18R 01/27/11
Inorganics-Filtered (Cont.)											
Chromium	50	ug/L	3.10 J [2.60 J]	3.80 J	2.00 J	2.20 J	2.50 J	1.40 J	1.00 J	4.00 U	1.00 J
Cobalt	- -	ug/L	4.00 U [4.00 U]	1.50 J	0.810 J	1.00 J	4.00 U	4.00 U	4.00 U	4.00 U	1.40 J
Copper	200	ug/L	10.0 U [10.0 U]	10.0 U	10.0 UB	10.0 UB	1.70 J	3.60 J	2.30 J	1.70 J	2.20 J
Iron	300	ug/L	50.0 UB [50.0 U]	50.0 U	50.0 U	25.0 J	50.0 U	50.0 U	250	**2,800**	**9,500**
Lead	25	ug/L	5.00 U [5.00 U]	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U
Magnesium	35,000	ug/L	**315,000 [310,000]**	**703,000**	**268,000**	**595,000**	**215,000**	**186,000**	27,300	10,000	16,800
Manganese	300	ug/L	150 [150]	160	**420**	120	37.0	40.0	63.0	250	**450**
Mercury	0.7	ug/L	0.200 U [0.200 U]	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U
Nickel	100	ug/L	10.0 U [1.30 J]	3.20 J	10.0 U	3.20 J	10.0 U	10.0 U	10.0 U	10.0 U	3.40 J
Potassium	- -	ug/L	138,000 [138,000]	270,000	106,000	204,000	92,400	75,300	20,600	7,900	15,200
Selenium	10	ug/L	15.0 U [15.0 U]	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U
Silver	50	ug/L	3.00 U [3.00 U]	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U
Sodium	20,000	ug/L	**2,940,000 [2,890,000]**	**5,830,000**	**2,460,000**	**4,800,000**	**1,890,000**	**1,660,000**	**281,000**	**44,500**	**80,400**
Thallium	0.5	ug/L	20.0 U [20.0 U]	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Vanadium	- -	ug/L	3.50 J [3.60 J]	6.50	6.00	3.80 J	4.80 J	2.70 J	1.80 J	1.50 J	5.10
Zinc	2,000	ug/L	2.50 J [1.90 J]	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	2.00 J	2.00 J	6.50 J
Miscellaneous											
Alkalinity	- -	ug/L	NA	778,000	854,000	537,000	924,000	597,000	282,000	NA	270,000
Alkalinity, Bicarbonate	- -	ug/L	NA	778,000	854,000	537,000	924,000	597,000	282,000	NA	270,000
Ammonia Nitrogen	- -	ug/L	NA	2,600	5,100	1,900	5,800	2,900	5,100	NA	5,100
Chloride	250,000	ug/L	**5,720,000 [5,620,000]**	NA	NA	NA	NA	NA	NA	59,300	NA
Ethane	- -	ug/L	NA	1.5 UJ	300 U	300 U	1.5 U	150 UJ	1,500 UJ	NA	1,500 UJ
Ethene	- -	ug/L	NA	1.5 UJ	300 U	300 U	1.5 U	150 UJ	1,500 UJ	NA	1,500 UJ
Methane	- -	ug/L	NA	57 DJ	590	270	1,700 DJ	310 J	12,000 J	NA	12,000 J
Nitrate Nitrogen	- -	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U
Nitrite Nitrogen	- -	ug/L	NA	50 U	50 U	50 U	50 U	50 U	50 U	NA	50 U
Orthophosphate	- -	ug/L	NA	290	1,000 U	270	380	590	1,300	NA	390
Soluble Organic Carbon	- -	ug/L	NA	6,000	13,100	20,900	13,300	11,000	19,100	NA	14,300
Sulfate	250,000	ug/L	NA	1,280,000	149,000	1,360,000	15,200	181,000	6,100	NA	5,000 UB
Sulfide	50	ug/L	NA	**170**	**120**	**5,500**	**470**	**13,200**	**1,000**	NA	100 U
Total Dissolved Solids	- -	ug/L	NA	19,900,000	7,590,000	17,300,000	6,040,000	4,920,000	1,050,000	NA	493,000

See Notes on Page 17.

Table 6. Summary of 2011 Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Notes:

1. Bold values exceed the NYSDEC TOGS 1.1.1 Water Guidance Values (last amended June 2004).
2. Duplicate results are shown in brackets.

Abbreviations and Acronyms:

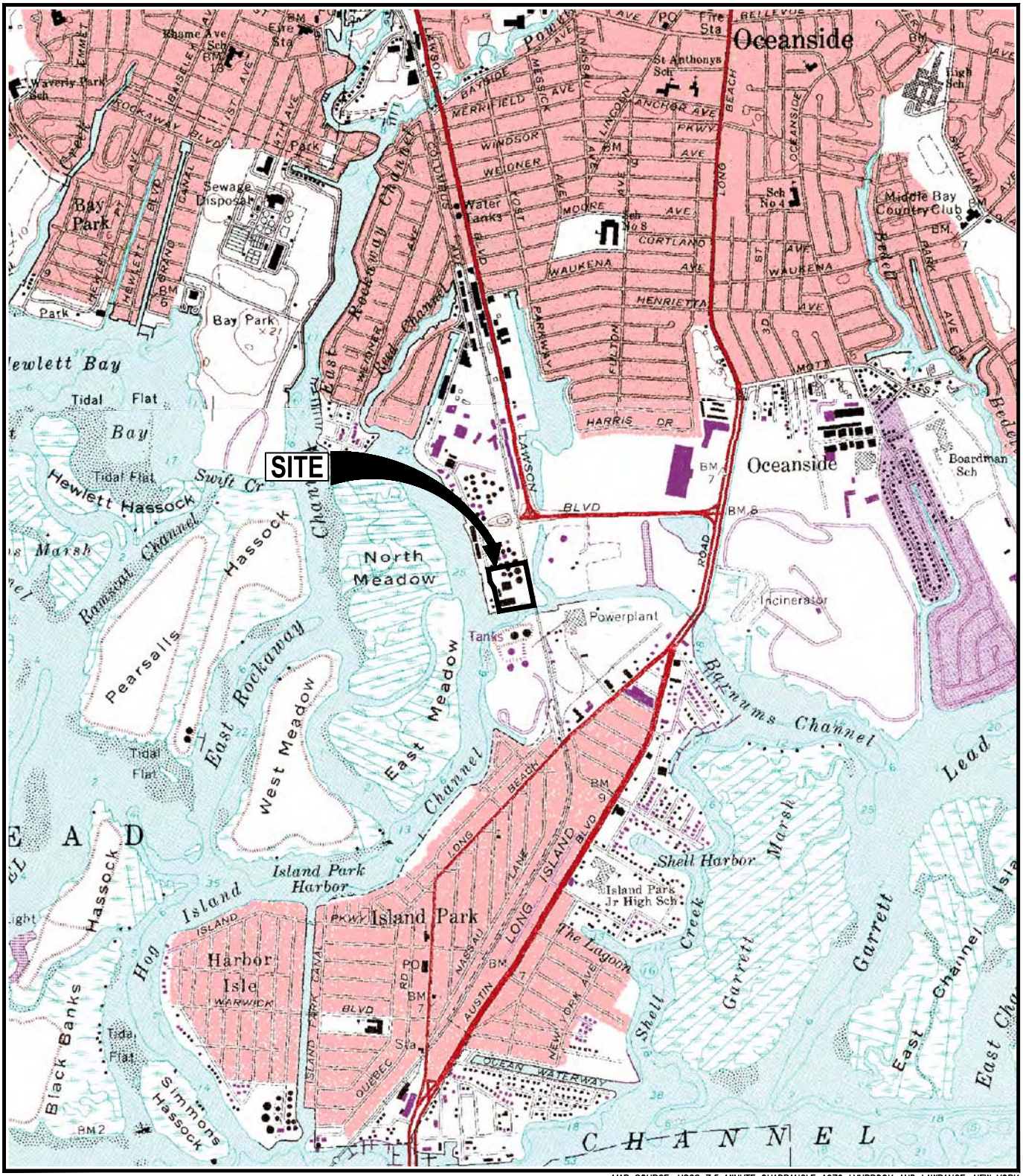
NA =	Not analyzed.
VOCs =	Volatile organics.
SVOCs =	Semivolatile organics.
ug/L =	Micrograms per liter.
T.O.G.S. =	Technical & Operational Guidance Series
NYSDEC =	New York State Department of Environmental Conservation.

Analytical Qualifiers:

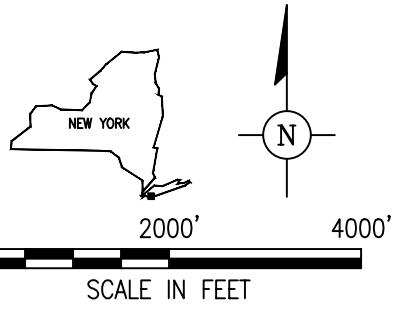
*** =**	Laboratory duplicate analysis was outside control limits.
B =	The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
D =	Concentration is based on a diluted sample analysis.
E =	The compound was quantitated above the calibration range.
J =	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
ND =	None detected.
U =	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

ARCADIS

Figures



MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE 1979 LYNBROOK AND LAWRANCE, NEW YORK



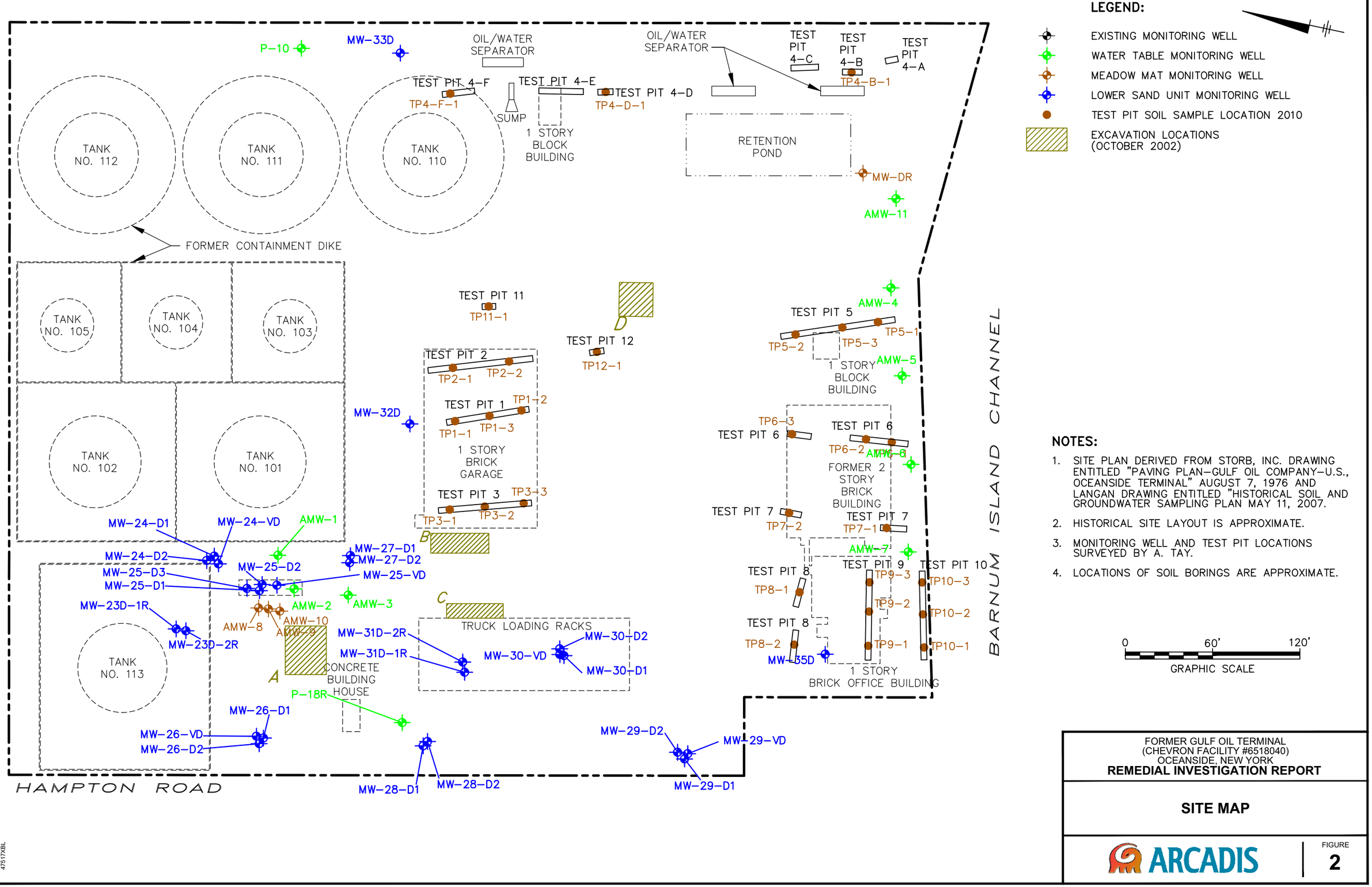
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

SITE LOCATION MAP

ARCADIS

FIGURE
1

CITY:Melville - NY DIV/GROUP:ENR1 DB:A.Sanchez LD: PIC: PM: TM: LYR:ON=*;OFF=*REF*
G:\ENVCAD\Melville-NY\AVD\2010\RETURN-TO\Mahwah-NJ\B0047517\0003\00001\RI_Location Map.dwg LAYOUT: 1 SAVED: 5/17/2011 11:56 AM ACADVER: 18.0S (LMS TECH) PAGESETUP: NY-PDF PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 5/17/2011 11:58 AM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME:
LAWRENCE.TIF
LYNBROOK.TIF
SEA CLIFF.TIF



NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
4. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.

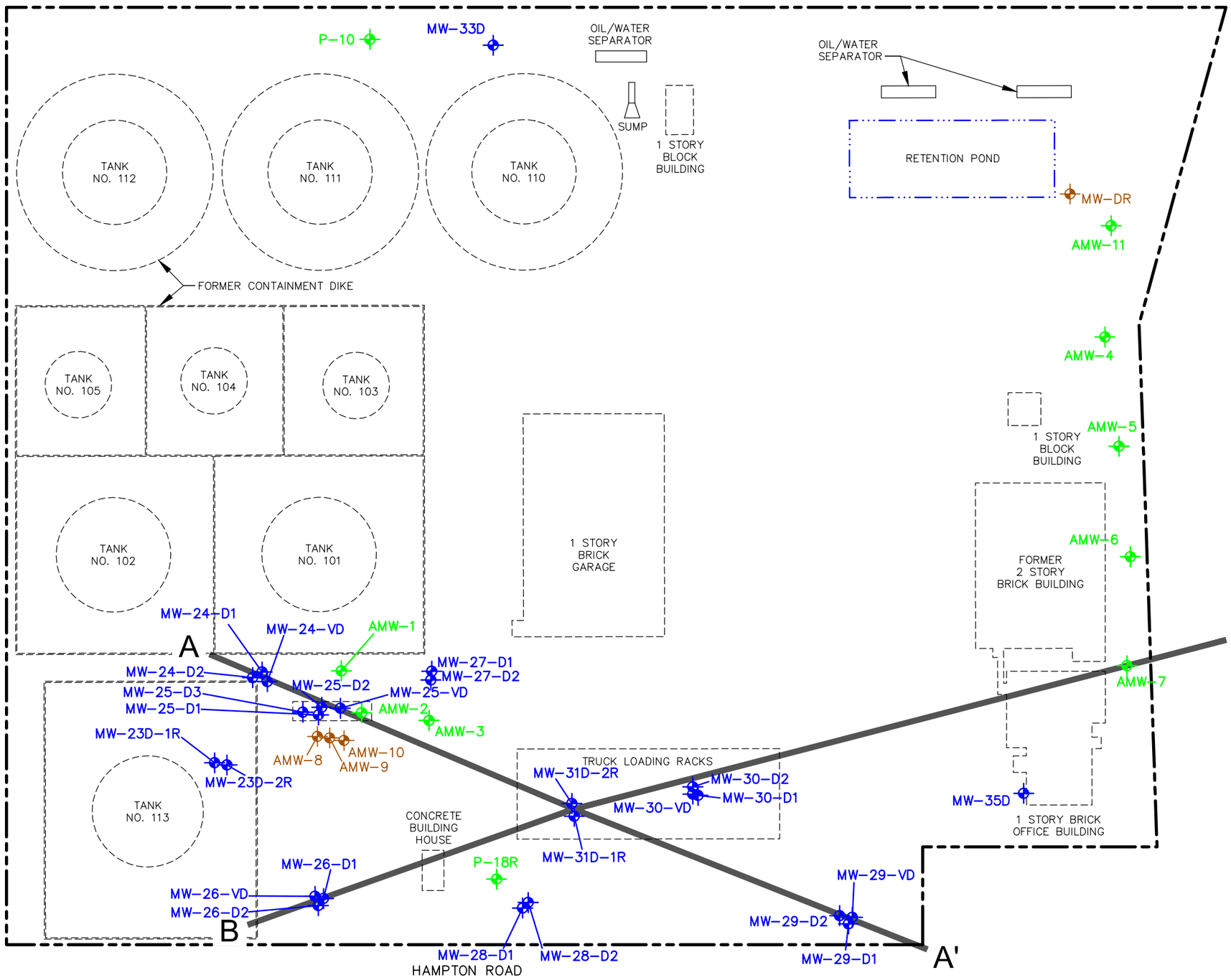
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

SITE MAP

ARCADIS

FIGURE **2**

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF* PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:55 PM BY: STOWELL, GARY
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400005\DWG\475178\01.DWG LAYOUT: 2 SAVED: 5/26/2011 3:40 PM ACADVER: 18.0S (LMS TECH)
XREFS: 47517X01 47517XBL IMAGES: PROJECTNAME: ----



LEGEND:

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- A—A' LINE OF CROSS SECTION

NOTES:

1. MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

0 60' 120'

GRAPHIC SCALE

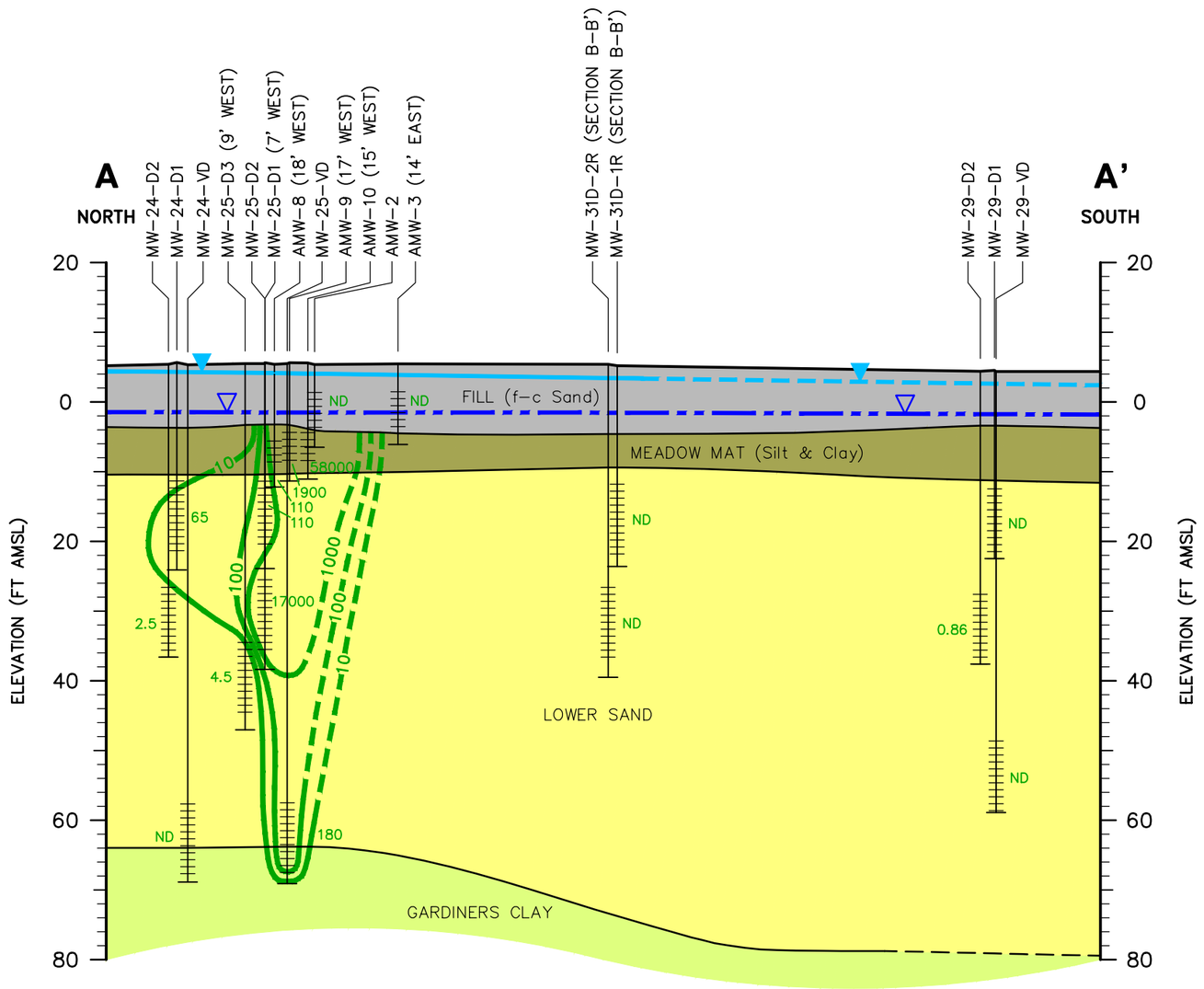
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

CROSS-SECTION LOCATION MAP

ARCADIS

FIGURE
3

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: L. FORAKER, R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR.ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0004\0001\DWG\475171V01.DWG LAYOUT: 3 SAVED: 5/26/2011 3:44 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: IMAGES: PROJECTNAME: ---
475117X01
475117XBL



LEGEND:

- WELL OR BORING ID
- GROUND SURFACE
- WATER TABLE (DASHED WHERE INFERRED)
- CONFINED WATER SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- SCREEN
- TCE CONCENTRATION (µg/L)
- TCE CONCENTRATION (DASHED WHERE INFERRED)
- BOTTOM OF BORING
- FILL
- MEADOW MAT
- LOWER SAND
- GARDINERS CLAY

NOTES:

1. GROUNDWATER ANALYTICAL DATA COLLECTED IN 2011.
2. ND – NOT DETECTED.
3. DUPLICATE ANALYSIS SEPARATED BY BRACKETS [].

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

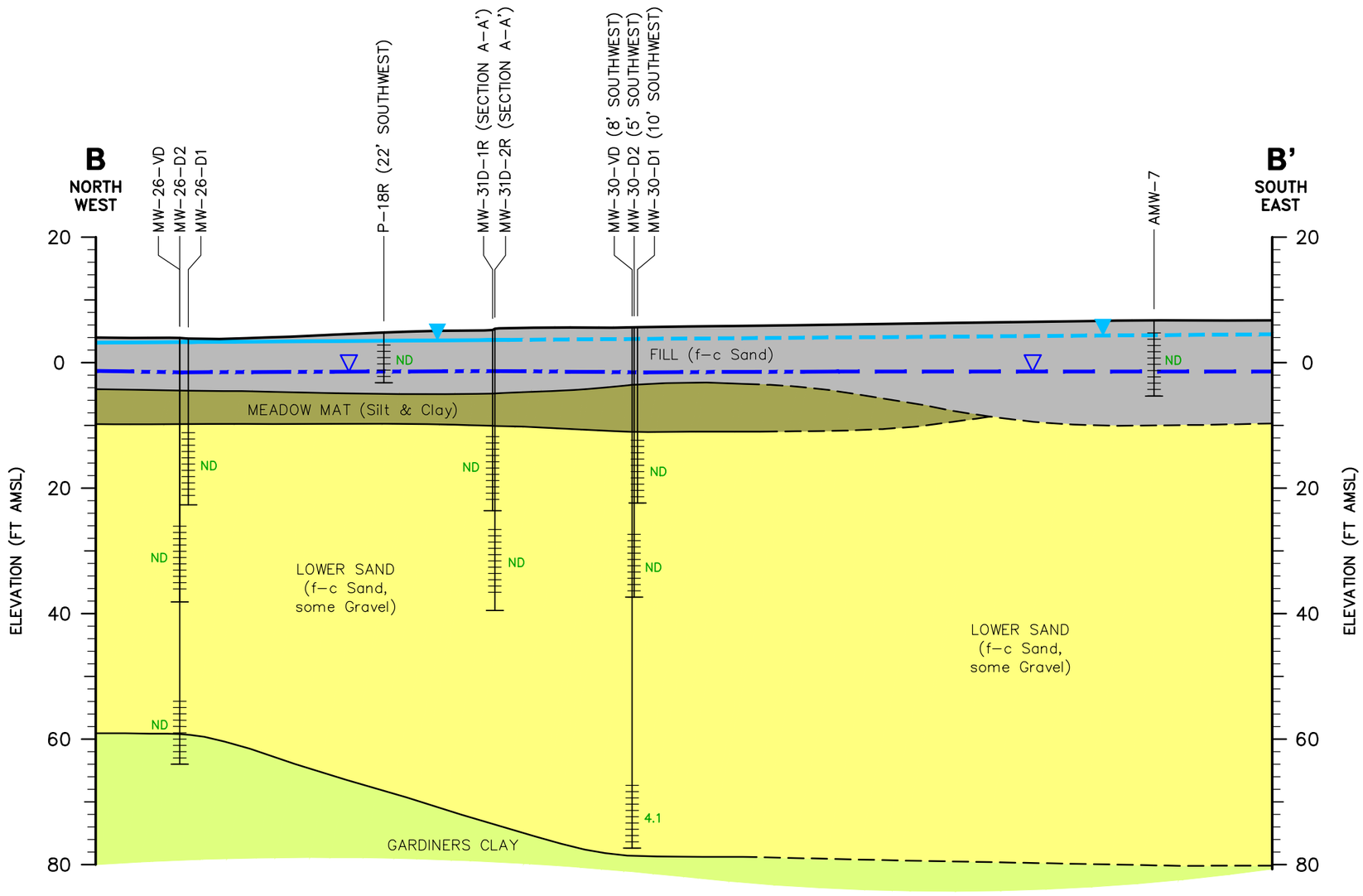
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

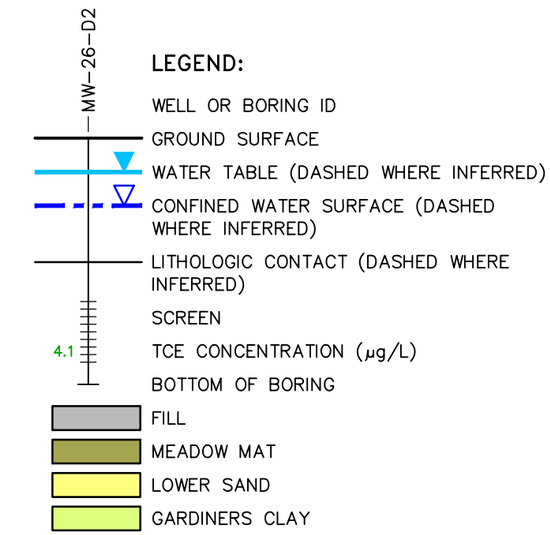
GEOLOGIC CROSS SECTION A - A' WITH TRICHLOROETHENE (TCE) CONCENTRATIONS

ARCADIS

FIGURE
4

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: L. FORAKER, R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400001\DWG\475171V02.DWG LAYOUT: 4 SAVED: 5/26/2011 3:43 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: 475171X01 475171XBL IMAGES: PROJECTNAME: ---





NOTES:

1. GROUNDWATER ANALYTICAL DATA COLLECTED IN 2011.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

GEOLOGIC CROSS SECTION B - B' WITH TRICHLOROETHENE (TCE) CONCENTRATIONS

ARCADIS

FIGURE
5

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: L. FORAKER, R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0004\0001\DWG\475171V03.DWG LAYOUT: 5 SAVED: 5/26/2011 3:45 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: IMAGES: PROJECTNAME: ---
475117X01
475117XBL

AMW-2

Depth(feet)	(0 – 2')	(2 – 4')	(4 – 6')
Date	11/16/2010	11/16/2010	11/16/2010
Benzene	ND (0.0060)	ND (0.0074)	ND (0.028)
cis-1,2-DCE	0.023	0.0064 J	**0.26**
Ethylbenzene	0.02	**7.2 D**	ND (0.028)
MTBE	ND (0.0060)	ND (0.0074)	0.014 J
Methylene Chloride	ND(0.028 BJ)	ND (0.044 BJ)	**0.064 J**
Toluene	0.0026 J	0.038	ND (0.028)
TCE	ND (0.0060)	ND (0.0074)	ND (0.028)
VC	ND (0.0060)	ND (0.0074)	**0.044**
Xylenes	**16 D**	**73 D**	0.016 J
Total SVOCs	14 J	21 J	0.63 J

AMW-1

Depth(feet)	(0 – 2')	(2 – 4')	(4 – 6')
Date	11/16/2010	11/16/2010	11/16/2010
Benzene	ND (0.0060)	ND (0.0054)	ND (0.0067)
cis-1,2-DCE	ND (0.0060)	0.0024 J	0.0050 J
Ethylbenzene	ND (0.0060)	ND (0.0054)	ND (0.0067)
MTBE	ND (0.0060)	ND (0.0054)	ND (0.0067)
Methylene Chloride	ND (0.021 BJ)	ND (0.023 BJ)	ND (0.032 BJ)
Toluene	ND (0.0060)	ND (0.0054)	ND (0.0067)
TCE	ND (0.0060)	ND (0.0054)	ND (0.0067)
VC	ND (0.0060)	ND (0.0054)	ND (0.0067)
Xylenes	ND (0.012)	ND (0.011)	0.012 J
Total SVOCs	0.60 J	0.16 J	ND

AMW-3

Depth(feet)	(0 – 2')	(2 – 4')	(4 – 6')
Date	11/30/2010	11/30/2010	11/30/2010
Benzene	ND (0.13)	**ND (0.12) [0.11 J]**	**0.11 J**
cis-1,2-DCE	ND (0.13)	ND (0.12) [ND (0.19)]	ND (0.12)
Ethylbenzene	**2.4**	**6.7 [10]**	**2.0**
MTBE	ND (0.13)	ND (0.12) [ND (0.19)]	ND (0.12)
Methylene Chloride	ND (0.13)	ND (0.12) [ND (0.19)]	**0.062 J**
Toluene	0.11 J	0.20 [0.39]	ND (0.12)
TCE	ND (0.13)	ND (0.12) [ND (0.19)]	ND (0.12)
VC	ND (0.13)	ND (0.12) [ND (0.19)]	ND (0.12)
Xylenes	**5.2**	**6.1 [8.2]**	0.26
Total SVOCs	32 J	47 J [110 J]	8.1 J

LB-11

Depth(feet)	(3.5 – 4')
Date	3/12/2004
Benzene	0.033
cis-1,2-DCE	ND
Ethylbenzene	0.0025
MTBE	0.017
Methylene Chloride	0.0025
Toluene	0.055
TCE	ND
VC	ND
Xylenes	0.0087
Total SVOCs	NA

TP2-1

Depth()	(5.5')
Date	11/30/2010
Benzene	ND (0.0062)
cis-1,2-DCE	ND (0.0062)
Ethylbenzene	0.0016 J
MTBE	ND (0.0062)
Methylene Chloride	0.012
Toluene	0.0019 J
TCE	ND (0.0062)
VC	ND (0.0062)
Xylenes	0.0095 J
Total SVOCs	0.15 J

TP1-1

Depth()	(4')
Date	11/29/2010
Benzene	ND (0.0059)
cis-1,2-DCE	ND (0.0059)
Ethylbenzene	ND (0.0059)
MTBE	ND (0.0059)
Methylene Chloride	0.0085
Toluene	0.0014 J
TCE	ND (0.0059)
VC	ND (0.0059)
Xylenes	0.011 J
Total SVOCs	2.5 J

TP2-2

Depth()	(5.5')
Date	11/30/2010
Benzene	ND (0.0064)
cis-1,2-DCE	ND (0.0064)
Ethylbenzene	ND (0.0064)
MTBE	ND (0.0064)
Methylene Chloride	0.013
Toluene	ND (0.0064)
TCE	ND (0.0064)
VC	ND (0.0064)
Xylenes	0.0014 J
Total SVOCs	ND

TP1-3

Depth()	(3.5')
Date	11/30/2010
Benzene	ND (0.0057)
cis-1,2-DCE	ND (0.0057)
Ethylbenzene	ND (0.0057)
MTBE	ND (0.0057)
Methylene Chloride	0.011
Toluene	ND (0.0057)
TCE	ND (0.0057)
VC	ND (0.0057)
Xylenes	ND (0.011)
Total SVOCs	ND

TP1-2

Depth()	(3')
Date	11/30/2010
Benzene	ND (0.0054)
cis-1,2-DCE	ND (0.0054)
Ethylbenzene	ND (0.0054)
MTBE	ND (0.0054)
Methylene Chloride	0.0097
Toluene	ND (0.0054)
TCE	ND (0.0054)
VC	ND (0.0054)
Xylenes	ND (0.011)
Total SVOCs	ND

TP3-1

Depth()	(5')
Date	12/1/2010
Benzene	ND (0.0073)
cis-1,2-DCE	ND (0.0073)
Ethylbenzene	ND (0.0073)
MTBE	ND (0.0073)
Methylene Chloride	0.0094
Toluene	ND (0.0073)
TCE	ND (0.0073)
VC	ND (0.0073)
Xylenes	ND (0.015)
Total SVOCs	1.7 J

VRU-7

Depth(feet)	(7.5 – 8')
Date	9/22/2004
Benzene	ND
cis-1,2-DCE	0.13
Ethylbenzene	0.032
MTBE	0.0088
Methylene Chloride	**0.086**
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.071
Total SVOCs	NA

VRU-8

Depth(feet)	(8 – 8.5')
Date	9/22/2004
Benzene	ND
cis-1,2-DCE	**0.40**
Ethylbenzene	ND
MTBE	0.18
Methylene Chloride	**0.056**
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

LB-8

Depth(feet)	(4 – 4.5')
Date	3/11/2004
Benzene	**3.3**
cis-1,2-DCE	ND
Ethylbenzene	**38**
MTBE	ND
Methylene Chloride	ND
Toluene	0.3
TCE	ND
VC	ND
Xylenes	**13**
Total SVOCs	NA

VRU-1

Depth(feet)	(8 – 8.5')
Date	9/22/2004
Benzene	ND
cis-1,2-DCE	**2.5**
Ethylbenzene	ND
MTBE	0.71
Methylene Chloride	**4.7**
Toluene	ND
TCE	**26**
VC	ND
Xylenes	**0.50**
Total SVOCs	NA

LB-1

Depth(feet)	(9 – 9.5')
Date	3/10/2004
Benzene	**0.22**
cis-1,2-DCE	**32**
Ethylbenzene	0.64
MTBE	**1.1**
Methylene Chloride	**28**
Toluene	**1.1**
TCE	**920**
VC	**0.079 J**
Xylenes	**3.9**
Total SVOCs	NA

LB-6

Depth(feet)	(7.5 – 8')
Date	3/11/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	0.0012
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.00060 J
Total SVOCs	NA

VRU-3

Depth(feet)	(9 – 9.5')
Date	9/22/2004
Benzene	ND
cis-1,2-DCE	**4.2**
Ethylbenzene	ND
MTBE	0.33
Methylene Chloride	**4.9**
Toluene	0.14
TCE	**26**
VC	ND
Xylenes	0.13
Total SVOCs	NA

MW-25-D3

Depth(feet)	(0 – 2')	(2 – 4')	(4 – 6')
Date	12/2/2010	12/2/2010	12/2/2010
Benzene	ND (0.0055)	ND (0.12)	ND (0.12)
cis-1,2-DCE	ND (0.0055)	ND (0.12)	ND (0.12)
Ethylbenzene	ND (0.0055)	0.97	**1.4**
MTBE	ND (0.0055)	ND (0.12)	ND (0.12)
Methylene Chloride	0.019	ND (0.12)	**0.21**
Toluene	ND (0.0055)	**0.75**	0.21
TCE	ND (0.0055)	ND (0.12)	ND (0.12)
VC	ND (0.0055)	ND (0.12)	ND (0.12)
Xylenes	ND (0.011)	**21**	**11**
Total SVOCs	0.075 J	70 J	22 J

VRU-2

Depth(feet)	(8.5 – 9')
Date	9/22/2004
Benzene	**0.11**
cis-1,2-DCE	**27**
Ethylbenzene	0.42
MTBE	0.82
Methylene Chloride	**0.052 J**
Toluene	0.56
TCE	ND
VC	ND
Xylenes	**2.0**
Total SVOCs	NA

VRU-5

Depth(feet)	(15.5 – 16')
Date	9/22/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

GP-3(2002)

Depth(feet)	(2')
Date	5/2/2002
Benzene	0.017
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.0082
Total SVOCs	NA

GP-5(2002)

Depth(feet)	(2 – 4')
Date	5/2/2002
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	0.0076
VC	ND
Xylenes	ND
Total SVOCs	NA

GP-4(2002)

Depth(feet)	(2')
Date	5/2/2002
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	0.1
VC	ND
Xylenes	ND
Total SVOCs	NA

VRU-6

Depth(feet)	(8.5 – 9')
Date	9/22/2004
Benzene	**0.11**
cis-1,2-DCE	**42**
Ethylbenzene	ND
MTBE	**1.8**
Methylene Chloride	**8.1**
Toluene	ND
TCE	**46**
VC	**0.63 J**
Xylenes	ND
Total SVOCs	NA

GP-2(2002)

Depth(feet)	(6')
Date	5/2/2002
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	**8.8**
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	ND
VC	ND
Xylenes	**11**
Total SVOCs	NA

PX-A5

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.15**
cis-1,2-DCE	NA
Ethylbenzene	**26**
MTBE	ND
Methylene Chloride	NA
Toluene	0.23
TCE	NA
VC	NA
Xylenes	**6.9**
Total SVOCs	16 J

PX-A4

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	0.037
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	0.15 J

GP-8(2002)

Depth(feet)	(1 – 2')
Date	5/2/2008
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	0.002
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.0044
Total SVOCs	NA

LB-7

Depth(feet)	(1.5 – 2')
Date	3/15/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.0025
Total SVOCs	NA

PX-A6

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.57**
cis-1,2-DCE	NA
Ethylbenzene	**9.6**
MTBE	ND
Methylene Chloride	NA
Toluene	0.17
TCE	NA
VC	NA
Xylenes	**21**
Total SVOCs	1.6 J

LB-3

Depth(feet)	(2.5 – 3')
Date	3/10/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	0.32 J
MTBE	ND
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

PX-A3

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.15 [0.18]**
cis-1,2-DCE	NA
Ethylbenzene	**46 [38]**
MTBE	ND [ND]
Methylene Chloride	NA
Toluene	0.099 [0.068]
TCE	NA
VC	NA
Xylenes	**1.3 [0.87]**
Total SVOCs	20 J [52]

PX-A9

Depth(feet)	(4 – 4.5')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	0.051
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.1
Total SVOCs	0.055

GP-7(2002)

Depth(feet)	(3 – 4')
Date	5/2/2002
Benzene	**2.8**
cis-1,2-DCE	ND
Ethylbenzene	**76**
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	ND
VC	ND
Xylenes	**3.0**
Total SVOCs	NA

GP-9(2002)

Depth(feet)	(2 – 3')
Date	5/2/2002
Benzene	**0.20**
cis-1,2-DCE	ND
Ethylbenzene	0.18
MTBE	NA
Methylene Chloride	NA
Toluene	0.18
TCE	ND
VC	ND
Xylenes	**0.53**
Total SVOCs	NA

PX-A8

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.082**
cis-1,2-DCE	NA
Ethylbenzene	**16**
MTBE	ND
Methylene Chloride	NA
Toluene	0.38
TCE	NA
VC	NA
Xylenes	**87**
Total SVOCs	2.1

LB-2

Depth(feet)	(4 – 4.5')
Date	3/10/2004
Benzene	0.033
cis-1,2-DCE	0.040 J
Ethylbenzene	**7.5**
MTBE	ND
Methylene Chloride	ND
Toluene	0.098
TCE	ND
VC	ND
Xylenes	**14**
Total SVOCs	NA

VRU-9

Depth(feet)	(7.5 – 8')
Date	9/22/2004
Benzene	0.012
cis-1,2-DCE	0.12
Ethylbenzene	ND
MTBE	0.006
Methylene Chloride	0.016
Toluene	0.0034
TCE	0.0031 J
VC	0.016
Xylenes	0.0049
Total SVOCs	NA

LB-4

Depth(feet)	(4 – 4.5')
Date	3/10/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

GP-6(2002)

Depth(feet)	(2')
Date	5/2/2002
Benzene	**14**
cis-1,2-DCE	ND
Ethylbenzene	**160**
MTBE	NA
Methylene Chloride	NA
Toluene	**32**
TCE	ND
VC	ND
Xylenes	**1000**
Total SVOCs	NA

MW-31D-2R

Depth(feet)	(2 – 4')	(4 – 6')	(6 – 8')
Date	11/17/2010	11/17/2010	11/17/2010
Benzene	ND (0.0054)	ND (0.0061) [0.0028 J]	ND (0.0055)
cis-1,2-DCE	ND (0.0054)	ND (0.0061) [ND (0.0061]	ND (0.0055)
Ethylbenzene	ND (0.0054)	ND(0.0061)\ [0.0031 J]	ND (0.0055)
MTBE	ND (0.0054)	ND (0.0061) [ND (0.0061]	ND (0.0055)
Methylene Chloride	0.025 UBJ	ND (0.033 BJ) [ND (0.031 BJ)]	ND (0.022 BJ)
Toluene	ND (0.0054)	ND (0.0061) [ND (0.0061]	ND (0.0055)
TCE	ND (0.0054)	ND (0.0061) [ND (0.0061]	ND (0.0055)
VC	ND (0.0054)	ND (0.0061) [ND (0.0061]	ND (0.0055)
Xylenes	ND (0.011)	0.0046 J [0.0068 J]	0.0026 J
Total SVOCs	30 J	9.5 J [12 J]	85 J

PX-A1

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.72**
cis-1,2-DCE	NA
Ethylbenzene	**32**
MTBE	ND
Methylene Chloride	NA
Toluene	0.19
TCE	NA
VC	NA
Xylenes	**4.2**
Total SVOCs	76 J

PX-A7

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**5.4**
cis-1,2-DCE	NA
Ethylbenzene	**98**
MTBE	ND
Methylene Chloride	NA
Toluene	**1.9**
TCE	NA
VC	NA
Xylenes	**160**
Total SVOCs	6.6 J

PX-A2

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**1.9**
cis-1,2-DCE	NA
Ethylbenzene	**80**
MTBE	ND
Methylene Chloride	NA
Toluene	0.42
TCE	NA
VC	NA
Xylenes	**37**
Total SVOCs	48 J

LB-5

Depth(feet)	(3.5 – 4')
Date	3/10/2004
Benzene	0.0021
cis-1,2-DCE	0.0013 J
Ethylbenzene	0.017
MTBE	0.0012
Methylene Chloride	ND
Toluene	ND
TCE	0.0017 J
VC	ND
Xylenes	0.00078 J
Total SVOCs	NA

GP-10(2002)

Depth(feet)	(2 – 3')
Date	5/2/2002
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	**7.2**
MTBE	NA
Methylene Chloride	NA
Toluene	0.12
TCE	ND
VC	ND
Xylenes	**0.64**
Total SVOCs	NA

P-18R

Depth(feet)	(0 – 2')	(4 – 6')	(6 – 8')
Date	12/2/2010	12/2/2010	12/2/2010
Benzene	ND (0.0056)	0.0056 J	0.011
cis-1,2-DCE	ND (0.0056)	ND (0.0062)	ND (0.0062)
Ethylbenzene	ND (0.0056)	ND (0.0062)	ND (0.0062)
MTBE	ND (0.0056)	ND (0.0062)	ND (0.0062)
Methylene Chloride	ND (0.0077 B)	ND (0.013)	0.022
Toluene	ND (0.0056)	ND (0.0062)	ND (0.0062)
TCE	ND (0.0056)	ND (0.0062)	ND (0.0062)
VC	ND (0.0056)	ND (0.0062)	ND (0.0062)
Xylenes	ND (0.011)	0.0022 J	0.0025 J
Total SVOCs	49 J	0.84 J	1.4 J

GP-1(2002)

Depth(feet)	(6')
Date	5/2/2002
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	0.052
MTBE	NA
Methylene Chloride	NA
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

MW-31D-1R

Depth(feet)	(0 – 2')	(2 – 4')	(4 – 6')
Date	11/17/2010	11/17/2010	11/17/2010
Benzene	ND (0.0052)	ND (0.0062)	ND (0.0059)
cis-1,2-DCE	ND (0.0052)	ND (0.0062)	ND (0.0059)
Ethylbenzene	ND (0.0052)	ND (0.0062)	ND (0.0059)
MTBE	ND (0.0052)	ND (0.0062)	ND (0.0059)
Methylene Chloride	0.0080 J	ND (0.031 BJ)	ND (0.030 BJ)
Toluene	ND (0.0052)	ND (0.0062)	ND (0.0059)
TCE	ND (0.0052)	ND (0.0062)	ND (0.0059)
VC	ND (0.0052)	ND (0.0062)	ND (0.0059)
Xylenes	ND (0.01)	0.0048 J	0.011 J
Total SVOCs	0.014 J	2.1 J	2.4 J

PX-B6

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**3.5**
cis-1,2-DCE	NA
Ethylbenzene	**73**
MTBE	0.096
Methylene Chloride	NA
Toluene	0.22
TCE	NA
VC	NA
Xylenes	**6.9**
Total SVOCs	19 J

PX-B5

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	15 J

TP3-2

Depth()	(6.8')
Date	12/1/2010
Benzene	ND (0.0071)
cis-1,2-DCE	ND (0.0071)
Ethylbenzene	ND (0.0071)
MTBE	ND (0.0071)
Methylene Chloride	0.012
Toluene	ND (0.0071)
TCE	ND (0.0071)
VC	ND (0.0071)
Xylenes	ND (0.014)
Total SVOCs	ND

PX-B1

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**1.2**
cis-1,2-DCE	NA
Ethylbenzene	**2.5**
MTBE	0.063
Methylene Chloride	NA
Toluene	0.074
TCE	NA
VC	NA
Xylenes	**1.1**
Total SVOCs	11

PX-B4

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.12**
cis-1,2-DCE	NA
Ethylbenzene	**1.2**
MTBE	0.026
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**1.9**
Total SVOCs	11

TP3-3

Depth()	(6.5')
Date	12/1/2010
Benzene	ND (0.0073)
cis-1,2-DCE	ND (0.0073)
Ethylbenzene	ND (0.0073)
MTBE	ND (0.0073)
Methylene Chloride	0.0082
Toluene	ND (0.0073)
TCE	ND (0.0073)
VC	ND (0.0073)
Xylenes	ND (0.015)
Total SVOCs	ND

PX-B7

Depth(feet)	(4 – 4.5')
Date	10/30/2002
Benzene	**3.0**
cis-1,2-DCE	NA
Ethylbenzene	**22**
MTBE	ND
Methylene Chloride	NA
Toluene	0.11
TCE	NA
VC	NA
Xylenes	**3.6**
Total SVOCs	ND

LB-9

Depth(feet)	(2.5 – 3')
Date	3/11/2004
Benzene	**0.18**
cis-1,2-DCE	ND
Ethylbenzene	0.078
MTBE	ND
Methylene Chloride	**0.078**
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.086 J
Total SVOCs	NA

PX-B2

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	0.022
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	0.94 J

PX-B3

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	0.043
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	0.026
Methylene Chloride	NA
Toluene	0.1
TCE	NA
VC	NA
Xylenes	0.2
Total SVOCs	ND

LB-10

Depth(feet)	(4 – 4.5')
Date	3/12/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

PX-C5

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.23**
cis-1,2-DCE	NA
Ethylbenzene	**6.6**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**1.1**
Total SVOCs	6.1 J

PX-C4

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	0.039
cis-1,2-DCE	NA
Ethylbenzene	**20**
MTBE	0.029
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.38**
Total SVOCs	11 J

PX-C3

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	0.7
MTBE	0.031
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	13

PX-C7

Depth(feet)	(4 – 4.5')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	0.035
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	ND

PX-C2

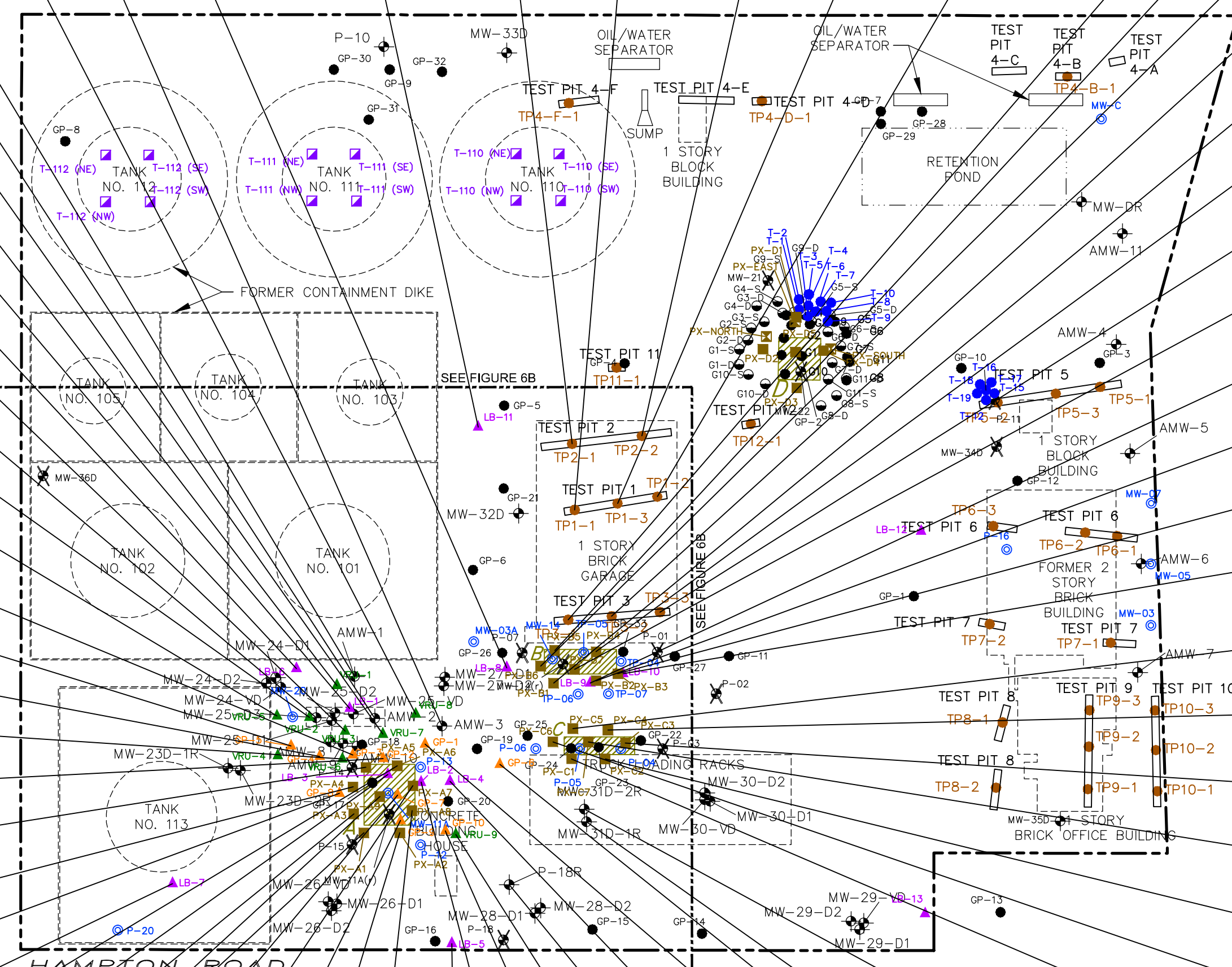
Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	0.042
cis-1,2-DCE	NA
Ethylbenzene	**3.3**
MTBE	0.031
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.83**
Total SVOCs	12 J

PX-C6

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.066**
cis-1,2-DCE	NA
Ethylbenzene	**4.8**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.27**
Total SVOCs	5.5 J

PX-C1

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	0.05
cis-1,2-DCE	NA
Ethylbenzene	**1.4**
MTBE	0.026
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.35**
Total SVOCs	23 J



LEGEND:

- TEMPORARY PIEZOMETER (INSTALLED BY LBG)
- EXISTING MONITORING WELL
- ABANDONED MONITORING POINT
- PAIRED WELL LOCATION
- DESTROYED MONITORING POINT (MARCH – AUGUST 2005 GULF SITE DEMOLITION)
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- TEST PIT SOIL SAMPLE LOCATION 2010
- EXCAVATION LOCATIONS (OCTOBER 2002)

ANALYTE	SHORT NAME	PART 375 UNRESTRICTED USE SCOs
Benzene	B	0.06
Ethylbenzene	E	1
Toluene	T	0.7
Xylenes (total)	X	0.26
Trichloroethene	TCE	0.47
cis-1,2-Dichloroethene	cis-1,2-DCE	0.25
Vinyl Chloride	VC	0.02
Methylene Chloride	MC	0.05

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
4. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.
5. CONSTITUENT LIST IS BASED ON THE CONSTITUENTS OF CONCERNS IDENTIFIED IN THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN.
6. ALL CONCENTRATIONS ARE MILLIGRAMS PER KILOGRAM (mg/kg) AND DEPTH INTERVALS ARE IN FEET BELOW GROUND SURFACE.
7. BOLDED VALUES EXCEED PART 375 UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (SCOs).
8. ND = NOT DETECTED.
9. – = NOT ANALYZED.
10. J = INDICATES AN ESTIMATED VALUE.
11. NA = NOT AVAILABLE.
12. D = CONCENTRATION BASED ON A DILUTED ANALYSIS.
13. E = INDICATES AN ESTIMATED VALUE.

0 60' 120'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

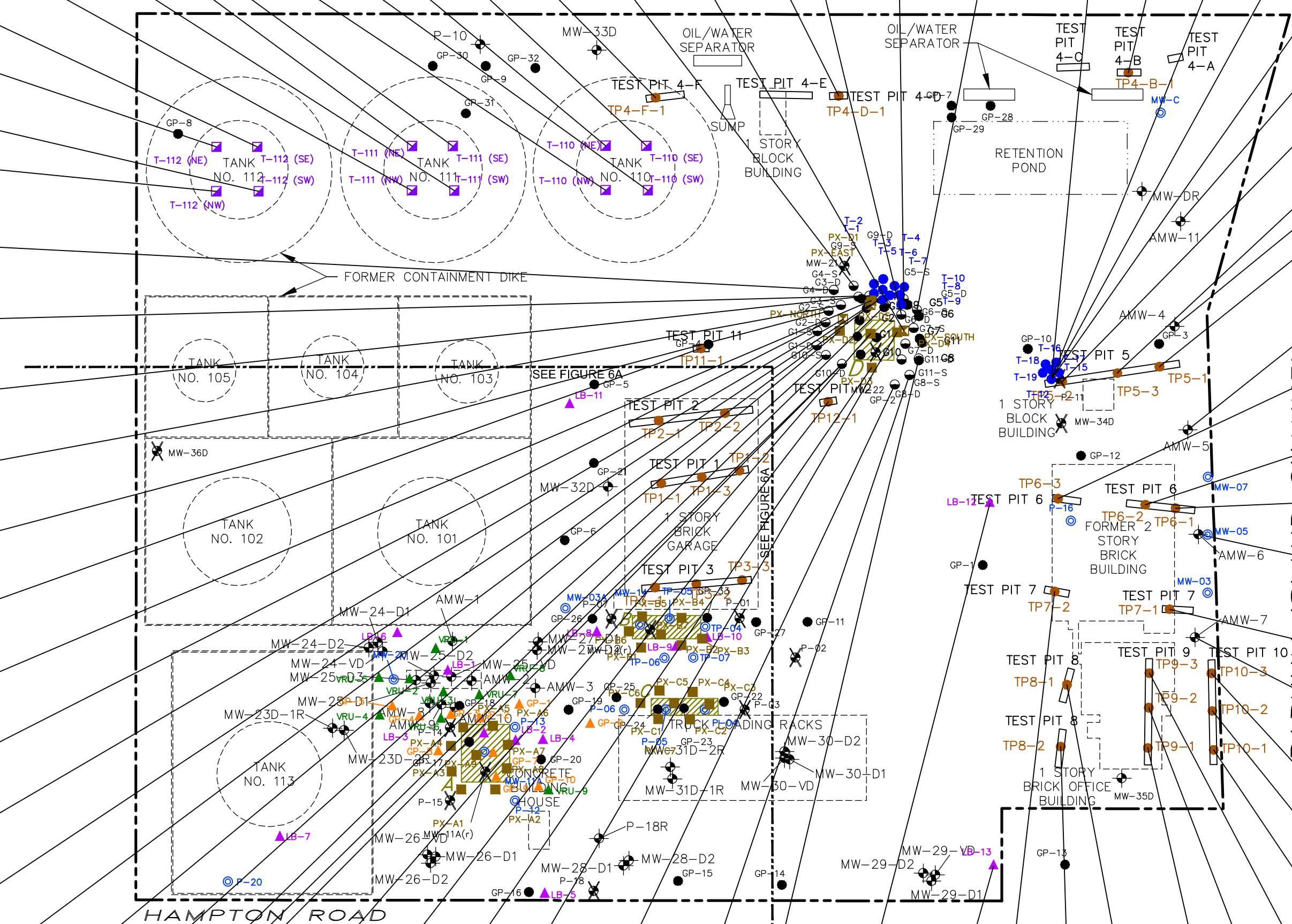
VOCS AND TOTAL SVOC CONCENTRATIONS IN SOIL - FILL

ARCADIS

FIGURE **6A**

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0004\00005\DWG\47517C01.DWG LAYOUT: 6A SAVED: 5/26/2011 3:48 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00 IMAGES: PROJECTNAME: ----

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF* PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
G:\ENVCAD\SYRACUSE\ACT\B0047517\0004\00005\DWG\47517C02.DWG LAYOUT: 6B SAVED: 5/26/2011 3:49 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV
XREFS: 47517X01 47517X00 IMAGES: PROJECTNAME: ----



T-111 (NE)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	ND

T-111 (NW)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	ND

T-112 (NE)

Depth(feet)	(1 – 2')
Date	1/28/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	ND

T-112 (NW)

Depth(feet)	(1 – 2')
Date	1/28/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	ND

G9-S1

Depth(feet)	(1.5 – 2')	(1.5 – 2')
Date	11/16/2004	11/18/2004
Benzene	**1.7**	**1.6**
cis-1,2-DCE	NA	NA
Ethylbenzene	**31**	**31**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.26	0.37
TCE	NA	NA
VC	NA	NA
Xylenes	**3.5**	**11**
Total SVOCs	10 J	6.3 J

G3-S1

Depth(feet)	(1.5 – 2')
Date	11/16/2004
Benzene	**5.7**
cis-1,2-DCE	NA
Ethylbenzene	**28**
MTBE	ND
Methylene Chloride	NA
Toluene	0.33
TCE	NA
VC	NA
Xylenes	**1.9**
Total SVOCs	8.4 J

TP11-1

Depth()	(5')
Date	12/7/2010
Benzene	ND (0.040)
cis-1,2-DCE	ND (0.040)
Ethylbenzene	ND (0.040)
MTBE	ND (0.040)
Methylene Chloride	**0.086**
Toluene	ND (0.040)
TCE	ND (0.040)
VC	ND (0.040)
Xylenes	0.020 J
Total SVOCs	1.6 J

G2-D1

Depth(feet)	(3 – 3.5')
Date	11/16/2004
Benzene	**4.1**
cis-1,2-DCE	NA
Ethylbenzene	**7.3**
MTBE	0.22
Methylene Chloride	NA
Toluene	0.16 J
TCE	NA
VC	NA
Xylenes	**2.3**
Total SVOCs	3.5 J

PX-EAST

Depth(feet)	(2 – 3')
Date	11/18/2004
Benzene	**3.1**
cis-1,2-DCE	NA
Ethylbenzene	**17**
MTBE	ND
Methylene Chloride	NA
Toluene	0.33
TCE	NA
VC	NA
Xylenes	**3.1**
Total SVOCs	12 J

PX-D2

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**14**
cis-1,2-DCE	NA
Ethylbenzene	**230**
MTBE	ND
Methylene Chloride	NA
Toluene	**2.1**
TCE	NA
VC	NA
Xylenes	**400**
Total SVOCs	22

G5-S1

Depth(feet)	(1.5 – 2')	(1.5 – 2')
Date	11/16/2004	11/18/2004
Benzene	**6.4**	**9.1**
cis-1,2-DCE	NA	NA
Ethylbenzene	**46**	**58**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.57	0.69
TCE	NA	NA
VC	NA	NA
Xylenes	**4.1**	**3.1**
Total SVOCs	10 J	16 J

T-111 (SE)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.006
Total SVOCs	ND

T-111 (SW)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	ND

T-112 (SE)

Depth(feet)	(1 – 2')
Date	1/28/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.56**
Total SVOCs	2.8

T-112 (SW)

Depth(feet)	(1 – 2')
Date	1/28/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.43**
Total SVOCs	4.4

G4-D1

Depth(feet)	(3 – 3.5')	(3 – 3.5')
Date	11/16/2004	11/18/2004
Benzene	**4.7**	**4.2**
cis-1,2-DCE	NA	NA
Ethylbenzene	**20**	**41**
MTBE	0.64	ND
Methylene Chloride	NA	NA
Toluene	0.27	0.38
TCE	NA	NA
VC	NA	NA
Xylenes	**2.0**	**3.1**
Total SVOCs	6.4 J	12 J

G3-D1

Depth(feet)	(3 – 3.5')
Date	11/16/2004
Benzene	**8.3**
cis-1,2-DCE	NA
Ethylbenzene	**40**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**1.8**
Total SVOCs	10 J

G2-S1

Depth(feet)	(1.5 – 2')
Date	11/16/2004
Benzene	**13**
cis-1,2-DCE	NA
Ethylbenzene	**140**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**250**
Total SVOCs	16 J

PX-D1

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**6.0**
cis-1,2-DCE	NA
Ethylbenzene	**53**
MTBE	ND
Methylene Chloride	NA
Toluene	0.48
TCE	NA
VC	NA
Xylenes	**3.6**
Total SVOCs	6.3

PX-NORTH

Depth(feet)	(2 – 3')
Date	11/18/2004
Benzene	**21**
cis-1,2-DCE	NA
Ethylbenzene	**180**
MTBE	ND
Methylene Chloride	NA
Toluene	**2.7**
TCE	NA
VC	NA
Xylenes	**240**
Total SVOCs	27 J

G9-D1

Depth(feet)	(3 – 3.5')	(3 – 3.5')
Date	11/18/2004	11/18/2004
Benzene	**5.7**	**0.71**
cis-1,2-DCE	NA	NA
Ethylbenzene	**25**	**4.6**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	ND	ND
TCE	NA	NA
VC	NA	NA
Xylenes	**66**	**0.39**
Total SVOCs	11	7.0 J

G10-S1

Depth(feet)	(1.5 – 2')	(1.5 – 2')
Date	11/17/2004	11/18/2004
Benzene	**0.16**	**0.25**
cis-1,2-DCE	NA	NA
Ethylbenzene	0.24	**7.8**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	ND	ND
TCE	NA	NA
VC	NA	NA
Xylenes	0.25	**6.3**
Total SVOCs	1.1 J	18

G10-D1

Depth(feet)	(3 – 3.5')
Date	11/16/2004
Benzene	**3.0**
cis-1,2-DCE	NA
Ethylbenzene	**1.1**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.97**
Total SVOCs	5.4 J

G10-D2

Depth(feet)	(3 – 3.5')
Date	11/18/2004
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	0.27
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.091
Total SVOCs	2.1 J

T-110 (NW)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.024
Total SVOCs	ND

T-110 (NE)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.042
Total SVOCs	ND

TP4-F-1

Depth()	(4')
Date	12/2/2010
Benzene	ND (0.0059)
cis-1,2-DCE	ND (0.0059)
Ethylbenzene	ND (0.0059)
MTBE	ND (0.0059)
Methylene Chloride	0.017
Toluene	ND (0.0059)
TCE	ND (0.0059)
VC	ND (0.0059)
Xylenes	ND (0.012)
Total SVOCs	0.019 J

PX-SOUTH

Depth(feet)	(2 – 3')
Date	11/18/2004
Benzene	**1.7**
cis-1,2-DCE	NA
Ethylbenzene	**3.3**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**0.60**
Total SVOCs	14 J

G6-D1

Depth(feet)	(3 – 3.5')	(3 – 3.5')
Date	11/16/2004	11/18/2004
Benzene	**10**	**6.2**
cis-1,2-DCE	NA	NA
Ethylbenzene	**3.3**	**3.4**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.52	ND
TCE	NA	NA
VC	NA	NA
Xylenes	**1.4**	**0.82**
Total SVOCs	15	2.9 J

G6-S1

Depth(feet)	(1.5 – 2')	(1.5 – 2')
Date	11/16/2004	11/18/2004
Benzene	**4.2**	**10**
cis-1,2-DCE	NA	NA
Ethylbenzene	**13**	**5.7**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.57	0.54
TCE	NA	NA
VC	NA	NA
Xylenes	**8.7**	**1.6**
Total SVOCs	12	28 J

TP4-B-1

Depth()	(1.5')
Date	12/2/2010
Benzene	ND (0.0055)
cis-1,2-DCE	ND (0.0055)
Ethylbenzene	ND (0.0055)
MTBE	ND (0.0055)
Methylene Chloride	0.013
Toluene	ND (0.0055)
TCE	ND (0.0055)
VC	ND (0.0055)
Xylenes	ND (0.011)
Total SVOCs	4.2 J

T12-D2

Depth(feet)	(3 – 3.5')
Date	11/18/2004
Benzene	**23**
cis-1,2-DCE	NA
Ethylbenzene	**13**
MTBE	ND
Methylene Chloride	NA
Toluene	0.52
TCE	NA
VC	NA
Xylenes	**2.8**
Total SVOCs	21

AMW-11

Depth(feet)	(2 – 4')	(4 – 6')	(6 – 8')
Date	12/1/2010	12/1/2010	12/1/2010
Benzene	ND (0.13)	ND (0.0058)	ND (0.17)
cis-1,2-DCE	ND (0.13)	ND (0.0058)	ND (0.17)
Ethylbenzene	ND (0.13)	ND (0.0058)	ND (0.17)
MTBE	ND (0.13)	ND (0.0058)	ND (0.17)
Methylene Chloride	ND (0.13)J	ND (0.0094)	ND (0.17)
Toluene	ND (0.13)	ND (0.0058)	ND (0.17)
TCE	ND (0.13)	ND (0.0058)	ND (0.17)
VC	ND (0.13)	ND (0.0058)	ND (0.17)
Xylenes	ND (0.26)	ND (0.012)	ND (0.33)
Total SVOCs	6.2 J	2.6 J	40 J

T-110 (SW)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	0.009
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.098
Total SVOCs	ND

T-110 (SE)

Depth(feet)	(1 – 2')
Date	1/31/2003
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	0.022
Total SVOCs	ND

G4-S1

Depth(feet)	(1.5 – 2')	(1.5 – 2')
Date	11/16/2004	11/18/2004
Benzene	**3.5**	**3.2**
cis-1,2-DCE	NA	NA
Ethylbenzene	**40**	**41**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.39	ND
TCE	NA	NA
VC	NA	NA
Xylenes	**13**	**13**
Total SVOCs	11 J	19 J

TP4-D-1

Depth()	(7')
Date	12/2/2010
Benzene	ND (0.0053)
cis-1,2-DCE	ND (0.0053)
Ethylbenzene	ND (0.0053)
MTBE	ND (0.0053)
Methylene Chloride	0.0097
Toluene	ND (0.0053)
TCE	ND (0.0053)
VC	ND (0.0053)
Xylenes	ND (0.011)
Total SVOCs	0.037 J

G5-D1

Depth(feet)	(3 – 3.5')	(3 – 3.5')
Date	11/16/2004	11/18/2004
Benzene	**5.7**	**3.3**
cis-1,2-DCE	NA	NA
Ethylbenzene	**9.1**	**4.4**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.44	0.21
TCE	NA	NA
VC	NA	NA
Xylenes	**2.5**	**0.60**
Total SVOCs	12 J	6.3 J

T12-D1

Depth(feet)	(3 – 3.5')
Date	11/17/2004
Benzene	**11**
cis-1,2-DCE	NA
Ethylbenzene	**6.7**
MTBE	ND
Methylene Chloride	NA
Toluene	0.36
TCE	NA
VC	NA
Xylenes	**2.1**
Total SVOCs	30

T12-S1

Depth(feet)	(1.5 – 2')
Date	11/16/2004
Benzene	**8.2**
cis-1,2-DCE	NA
Ethylbenzene	**3.6**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**1.4**
Total SVOCs	13 J

T12-S2

Depth(feet)	(1.5 – 2')
Date	11/18/2004
Benzene	**17**
cis-1,2-DCE	NA
Ethylbenzene	**13**
MTBE	ND
Methylene Chloride	NA
Toluene	0.54
TCE	NA
VC	NA
Xylenes	**3.6**
Total SVOCs	20 J

TP5-2

Depth()	(5.5')
Date	12/2/2010
Benzene	ND (0.032)
cis-1,2-DCE	ND (0.032)
Ethylbenzene	ND (0.032)
MTBE	ND (0.032)
Methylene Chloride	**0.11**
Toluene	ND (0.032)
TCE	ND (0.032)
VC	ND (0.032)
Xylenes	ND (0.064)
Total SVOCs	4.1 J

TP5-3

Depth()	(6')
Date	12/2/2010
Benzene	ND (0.10)
cis-1,2-DCE	ND (0.10)
Ethylbenzene	ND (0.10)
MTBE	ND (0.10)
Methylene Chloride	ND (0.10)
Toluene	ND (0.10)
TCE	ND (0.10)
VC	ND (0.10)
Xylenes	ND (0.21)
Total SVOCs	1.3 J

AMW-4

Depth(feet)	(2 – 4')	(4 – 6')	(6 – 8')
Date	11/18/2010	11/18/2010	11/18/2010
Benzene	ND (0.0053)	ND (0.23)	ND (0.10)
cis-1,2-DCE	ND (0.0053)	ND (0.23)	ND (0.10)
Ethylbenzene	ND (0.0053)	0.20 J	0.088 J
MTBE	ND (0.0053)	ND (0.23)	ND (0.10)
Methylene Chloride	0.0052 J	ND (0.23)	ND (0.10)
Toluene	ND (0.0053)	ND (0.23)	ND (0.10)
TCE	ND (0.0053)	ND (0.23)	ND (0.10)
VC	ND (0.0053)	ND (0.23)	ND (0.10)
Xylenes	ND (0.011)	ND (0.46)	ND (0.20)
Total SVOCs	0.18 J	23 J	7.2 J

TP5-1

Depth()	(5')
Date	12/2/2010
Benzene	ND (0.15)
cis-1,2-DCE	ND (0.15)
Ethylbenzene	ND (0.15)
MTBE	ND (0.15)
Methylene Chloride	ND (0.15)
Toluene	ND (0.15)
TCE	ND (0.15)
VC	ND (0.15)
Xylenes	0.21 J
Total SVOCs	0.32 J

AMW-5

Depth(feet)	(2 – 4')	(4 – 6')	(6 – 8')
Date	11/18/2010	11/18/2010	11/18/2010
Benzene	ND (0.0053)	ND (0.0056)	ND (0.0062)
cis-1,2-DCE	ND (0.0053)	ND (0.0056)	ND (0.0062)
Ethylbenzene	ND (0.0053)	ND (0.0056)	ND (0.0062)
MTBE	ND (0.0053)	ND (0.0056)	ND (0.0062)
Methylene Chloride	0.01	0.0081	0.0062
Toluene	ND (0.0053)	ND (0.0056)	ND (0.0062)
TCE	ND (0.0053)	ND (0.0056)	ND (0.0062)
VC	ND (0.0053)	ND (0.0056)	ND (0.0062)
Xylenes	ND (0.011)	0.0023 J	ND (0.012)
Total SVOCs	8.7 J	8.0 J	1.9 J

TP6-3

Depth()	(5.5')
Date	12/3/2010
Benzene	ND (0.57)
cis-1,2-DCE	ND (0.57)
Ethylbenzene	ND (0.57)
MTBE	ND (0.57)
Methylene Chloride	ND (0.57)
Toluene	ND (0.57)
TCE	ND (0.57)
VC	ND (0.57)
Xylenes	ND (1.1)
Total SVOCs	28 J

TP6-2

Depth()	(5.5')
Date	12/3/2010
Benzene	ND (0.0056)
cis-1,2-DCE	ND (0.0056)
Ethylbenzene	ND (0.0056)
MTBE	ND (0.0056)
Methylene Chloride	0.041 J
Toluene	ND (0.0056)
TCE	ND (0.0056)
VC	ND (0.0056)
Xylenes	ND (0.011)
Total SVOCs	0.23 J

AMW-6

Depth(feet)	(2 – 4')	(4 – 6')	(6 – 8')
Date	11/18/2010	11/18/2010	11/18/2010
Benzene	ND (0.0055)	ND (0.0057)	ND (0.036)
cis-1,2-DCE	ND (0.0055)	ND (0.0057)	ND (0.036)
Ethylbenzene	ND (0.0055)	ND (0.0057)	ND (0.036)
MTBE	ND (0.0055)	ND (0.0057)	ND (0.036)
Methylene Chloride	0.0062	0.009	0.049
Toluene	ND (0.0055)	ND (0.0057)	ND (0.036)
TCE	ND (0.0055)	ND (0.0057)	ND (0.036)
VC	ND (0.0055)	ND (0.0057)	ND (0.036)
Xylenes	ND (0.011)	ND (0.011)	ND (0.071)
Total SVOCs	4.7 J	8.9 J	2.8 J

TP6-1

Depth()	(5')
Date	12/3/2010
Benzene	ND (0.0053)
cis-1,2-DCE	ND (0.0053)
Ethylbenzene	ND (0.0053)
MTBE	ND (0.0053)
Methylene Chloride	0.038 J
Toluene	ND (0.0053)
TCE	ND (0.0053)
VC	ND (0.0053)
Xylenes	ND (0.011)
Total SVOCs	6.4 J

AMW-7

Depth(feet)	(4 – 6')	(8 – 10')	(10 – 12')
Date	11/29/2010	11/29/2010	11/29/2010
Benzene	ND (0.0055)	ND (0.0055)	ND (0.0065)
cis-1,2-DCE	ND (0.0055)	ND (0.0055)	0.0015 J
Ethylbenzene	ND (0.0055)	ND (0.0055)	ND (0.0065)
MTBE	ND (0.0055)	ND (0.0055)	0.0046 J
Methylene Chloride	0.0076	0.016	0.023
Toluene	ND (0.0055)	ND (0.0055)	ND (0.0065)
TCE	ND (0.0055)	ND (0.0055)	ND (0.0065)
VC	ND (0.0055)	ND (0.0055)	0.0032 J
Xylenes	ND (0.011)	ND (0.011)	ND (0.013)
Total SVOCs	1.5 J	0.67 J	0.29 J

TP7-1

Depth()	(5')
Date	12/6/2010
Benzene	ND (0.0055)
cis-1,2-DCE	ND (0.0055)
Ethylbenzene	ND (0.0055)
MTBE	ND (0.0055)
Methylene Chloride	0.017
Toluene	ND (0.0055)
TCE	ND (0.0055)
VC	ND (0.0055)
Xylenes	0.0031 J
Total SVOCs	1.3 J

PX-D5

Depth(feet)	(4 – 4.5')
Date	10/30/2002
Benzene	ND
cis-1,2-DCE	NA
Ethylbenzene	ND
MTBE	0.03
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	ND
Total SVOCs	NA

PX-D3

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**0.52**
cis-1,2-DCE	NA
Ethylbenzene	**3.1**
MTBE	0.034
Methylene Chloride	NA
Toluene	0.11
TCE	NA
VC	NA
Xylenes	**1.5**
Total SVOCs	NA

G8-D1

Depth(feet)	(3 – 3.5')	(3 – 3.5')
Date	11/16/2004	11/18/2004
Benzene	**0.98**	**2.1**
cis-1,2-DCE	NA	NA
Ethylbenzene	**1.3**	**1.1**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	0.36	0.41
TCE	NA	NA
VC	NA	NA
Xylenes	**5.8**	**6.2**
Total SVOCs	12	14 J

G11-D1

Depth(feet)	(3 – 3.5')
Date	11/16/2004
Benzene	**1.6**
cis-1,2-DCE	NA
Ethylbenzene	**1.3**
MTBE	ND
Methylene Chloride	NA
Toluene	ND
TCE	NA
VC	NA
Xylenes	**2.1**
Total SVOCs	6.0 J

LB-13

Depth(feet)	(3.5 – 4')
Date	3/11/2004
Benzene	**0.16**
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	**0.99**
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

TP8-2

Depth()	(4')
Date	12/6/2010
Benzene	ND (0.0054)
cis-1,2-DCE	ND (0.0054)
Ethylbenzene	ND (0.0054)
MTBE	ND (0.0054)
Methylene Chloride	0.016
Toluene	ND (0.0054)
TCE	ND (0.0054)
VC	ND (0.0054)
Xylenes	ND (0.011)
Total SVOCs	ND

TP9-1

Depth()	(6.5')
Date	12/7/2010
Benzene	ND (0.22)
cis-1,2-DCE	ND (0.22)
Ethylbenzene	ND (0.22)
MTBE	ND (0.22)
Methylene Chloride	ND (0.22)
Toluene	ND (0.22)
TCE	ND (0.22)
VC	ND (0.22)
Xylenes	ND (0.44)
Total SVOCs	0.077 J

TP9-3

Depth()	(6.5')
Date	12/7/2010
Benzene	ND (0.0079)
cis-1,2-DCE	ND (0.0079)
Ethylbenzene	ND (0.0079)
MTBE	ND (0.0079)
Methylene Chloride	0.02
Toluene	ND (0.0079)
TCE	ND (0.0079)
VC	ND (0.0079)
Xylenes	ND (0.016)
Total SVOCs	ND

TP10-2

Depth()	(6')
Date	12/7/2010
Benzene	ND (0.0056)
cis-1,2-DCE	ND (0.0056)
Ethylbenzene	ND (0.0056)
MTBE	ND (0.0056)
Methylene Chloride	0.018
Toluene	ND (0.0056)
TCE	ND (0.0056)
VC	ND (0.0056)
Xylenes	ND (0.011)
Total SVOCs	2.1 J

TP12-1

Depth()	(4.7')
Date	12/7/2010
Benzene	ND (0.12)
cis-1,2-DCE	ND (0.12)
Ethylbenzene	ND (0.12)
MTBE	ND (0.12)
Methylene Chloride	ND (0.12)
Toluene	ND (0.12)
TCE	ND (0.12)
VC	ND (0.12)
Xylenes	ND (0.23)
Total SVOCs	22 J

PX-D4

Depth(feet)	(2 – 3')
Date	10/30/2002
Benzene	**7.9**
cis-1,2-DCE	NA
Ethylbenzene	**63**
MTBE	ND
Methylene Chloride	NA
Toluene	**0.72**
TCE	NA
VC	NA
Xylenes	**7.6**
Total SVOCs	29 J

G8-S1

Depth(feet)	(1.5 – 2')	(1.5 – 2')
Date	11/16/2004	11/18/2004
Benzene	**14**	**3.8**
cis-1,2-DCE	NA	NA
Ethylbenzene	**2.2**	**7.0**
MTBE	ND	ND
Methylene Chloride	NA	NA
Toluene	**0.80**	0.22
TCE	NA	NA
VC	NA	NA
Xylenes	**4.3**	**0.84**
Total SVOCs	26	16 J

LB-12

Depth(feet)	(3.5 – 4')	(11.5 – 12')
Date	3/12/2004	3/12/2004
Benzene	ND	0.0013 J
cis-1,2-DCE	ND	ND
Ethylbenzene	0.23	ND
MTBE	ND	ND
Methylene Chloride	ND	ND
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	**0.33**	ND
Total SVOCs	NA	NA

TP7-2

Depth()	(5')
Date	12/6/2010
Benzene	ND (0.54)
cis-1,2-DCE	ND (0.54)
Ethylbenzene	ND (0.54)
MTBE	ND (0.54)
Methylene Chloride	ND (0.54)
Toluene	ND (0.54)
TCE	ND (0.54)
VC	ND (0.54)
Xylenes	ND (1.1)
Total SVOCs	45 J

TP8-1

Depth()	(4.5')
Date	12/6/2010
Benzene	ND (0.10)
cis-1,2-DCE	ND (0.10)
Ethylbenzene	ND (0.10)
MTBE	ND (0.10)
Methylene Chloride	**0.082 J**
Toluene	ND (0.10)
TCE	ND (0.10)
VC	ND (0.10)
Xylenes	ND (0.21)
Total SVOCs	0.18 J

TP9-2

Depth()	(6')
Date	12/7/2010
Benzene	ND (0.23) [ND(0.41)]
cis-1,2-DCE	ND (0.23) [ND(0.41)]
Ethylbenzene	ND (0.23) [ND(0.41)]
MTBE	ND (0.23) [ND(0.41)]
Methylene Chloride	ND (0.23) [ND(0.41)]
Toluene	ND (0.23) [ND(0.41)]
TCE	ND (0.23) [ND(0.41)]
VC	ND (0.23) [ND(0.41)]
Xylenes	ND (0.45)[ND (0.82)]
Total SVOCs	2.4 J [3.9 J]

TP10-1

Depth()	(6')
Date	12/7/2010
Benzene	ND (0.0056)
cis-1,2-DCE	ND (0.0056)
Ethylbenzene	ND (0.0056)
MTBE	ND (0.0056)
Methylene Chloride	0.017
Toluene	ND (0.0056)
TCE	ND (0.0056)
VC	ND (0.0056)
Xylenes	ND (0.011)
Total SVOCs	1.5 J

TP10-3

Depth()	(6.5')
Date	12/7/2010
Benzene	ND (0.0062)
cis-1,2-DCE	ND (0.0062)
Ethylbenzene	ND (0.0062)
MTBE	ND (0.0062)
Methylene Chloride	0.015
Toluene	ND (0.0062)
TCE	ND (0.0062)
VC	ND (0.0062)
Xylenes	ND (0.012)
Total SVOCs	1.3 J

LEGEND:

- TEMPORARY PIEZOMETER (INSTALLED BY LBG)
- EXISTING MONITORING WELL
- ABANDONED MONITORING POINT
- PAIRED WELL LOCATION
- DESTROYED MONITORING POINT (MARCH – AUGUST 2005 GULF SITE DEMOLITION)
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- TEST PIT SOIL SAMPLE LOCATION 2010
- EXCAVATION LOCATIONS (OCTOBER 2002)

ANALYTE	SHORT NAME	PART 375 UNRESTRICTED USE SCOs
Benzene	B	0.06
Ethylbenzene	E	1
Toluene	T	0.7
Xylenes (total)	X	0.26
Trichloroethene	TCE	0.47
cis-1,2-Dichloroethene	cis-1,2-DCE	0.25
Vinyl Chloride	VC	0.02
Methylene Chloride	MC	0.05

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
4. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.
5. CONSTITUENT LIST IS BASED ON THE CONSTITUENTS OF CONCERNS IDENTIFIED IN THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN.
6. ALL CONCENTRATIONS ARE MILLIGRAMS PER KILOGRAM (mg/kg) AND DEPTH INTERVALS ARE IN FEET BELOW GROUND SURFACE.
7. BOLDED VALUES EXCEED PART 375 UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (SCOs).
8. ND = NOT DETECTED.
9. – = NOT ANALYZED.
10. J = INDICATES AN ESTIMATED VALUE.
11. NA = NOT AVAILABLE.
12. D = CONCENTRATION BASED ON A DILUTED ANALYSIS.
13. E = INDICATES AN ESTIMATED VALUE.

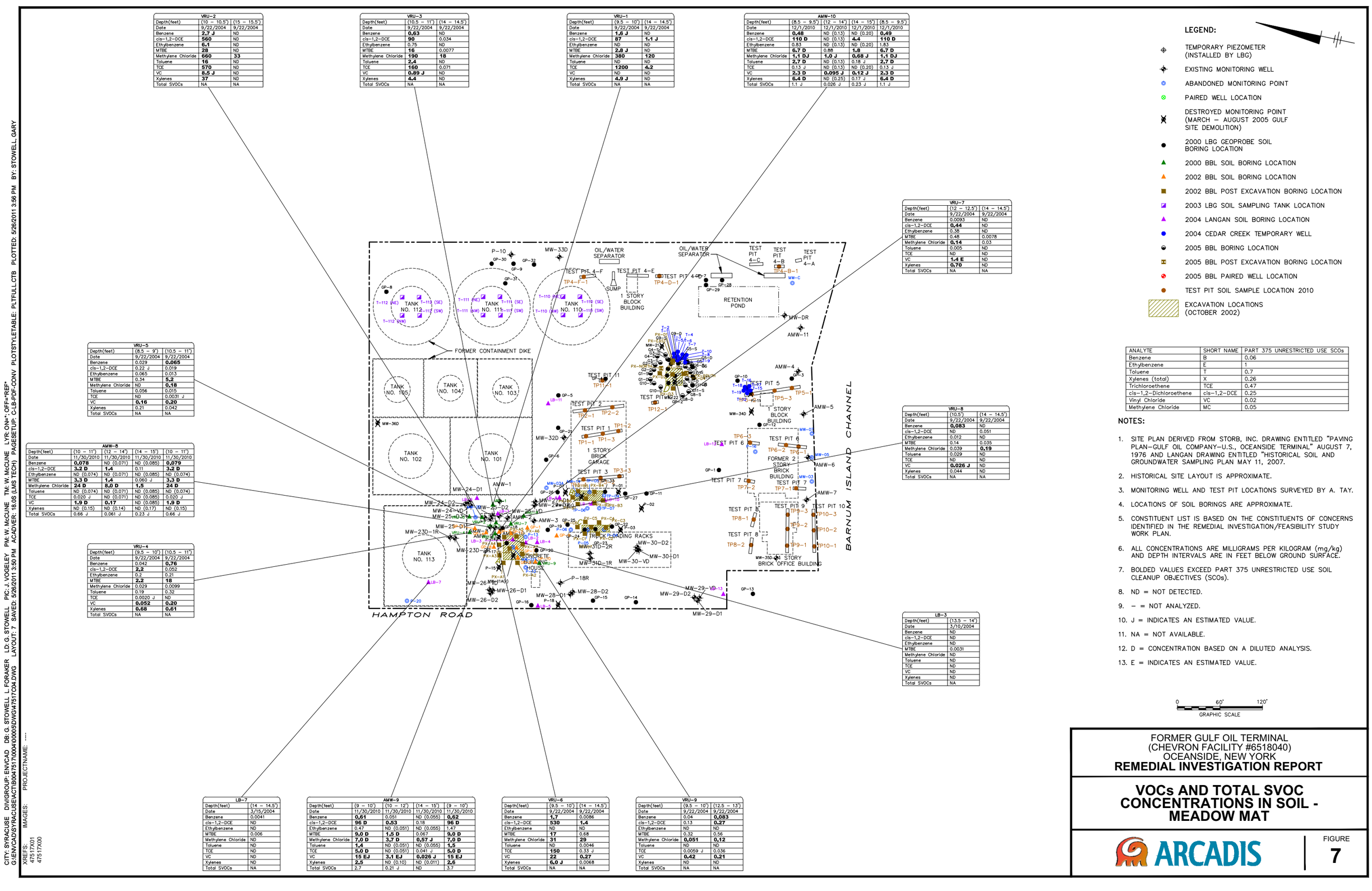
0 60' 120'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

VOCS AND TOTAL SVOC CONCENTRATIONS IN SOIL - FILL

ARCADIS

FIGURE
6B



CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400005\DWG\47517C04.DWG LAYOUT: 7 SAVED: 9/26/2011 3:50 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 9/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00
IMAGES: PROJECTNAME: ----

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\00475170\00400\00005\DWG\475170C05.DWG LAYOUT: 8 SAVED: 5/26/2011 3:51 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00 IMAGES: PROJECTNAME: ----

LB-1	
Depth(feet)	(17.5 – 18')
Date	3/10/2004
Benzene	0.0013
cis-1,2-DCE	**0.26 J**
Ethylbenzene	0.0011
MTBE	0.077
Methylene Chloride	0.045
Toluene	0.002
TCE	**1.3**
VC	0.01
Xylenes	0.00072 J
Total SVOCs	NA

MW-25-VD		
Depth(feet)	(18 – 18.5')	(68 – 68.5')
Date	12/14/2006	12/15/2006
Benzene	ND	ND
cis-1,2-DCE	0.015	ND
Ethylbenzene	ND	ND
MTBE	0.0087	ND
Methylene Chloride	0.031	ND
Toluene	ND	ND
TCE	0.011	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.82 J	0.082

LB-8		
Depth(feet)	(22 – 22.5')	
Date	3/11/2004	
Benzene	ND	[ND]
cis-1,2-DCE	ND	[ND]
Ethylbenzene	ND	[ND]
MTBE	0.014	[0.0063]
Methylene Chloride	ND	[ND]
Toluene	ND	[ND]
TCE	ND	[ND]
VC	ND	[ND]
Xylenes	ND	[ND]
Total SVOCs	NA	

LB-11	
Depth(feet)	(24 – 24.5')
Date	3/12/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	0.0042
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

MW-33D		
Depth(feet)	(19 – 19.5')	(23 – 23.5')
Date	12/12/2006	12/12/2006
Benzene	ND	ND
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	ND	ND
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.13	0.063

MW-32D		
Depth(feet)	(27 – 27.5')	(31 – 31.5')
Date	12/13/2006	12/13/2006
Benzene	ND	ND
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	ND	ND
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.07	0.091

LB-9	
Depth(feet)	(19.5 – 20')
Date	3/11/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	0.0065
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

LB-10	
Depth(feet)	(24 – 24.5')
Date	3/12/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	0.00065 J
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

MW-34D		
Depth(feet)	(25 – 25.5')	(29 – 29.5')
Date	12/12/2006	12/12/2006
Benzene	ND	ND
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	0.0029	0.023
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.11	ND

LB-12	
Depth(feet)	(21 – 21.5')
Date	3/12/2004
Benzene	ND
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	0.0052
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

MW-30-VD		
Depth(feet)	(28 – 30')	(68 – 70')
Date	12/27/2006	12/27/2006
Benzene	ND	0.0046
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	0.0083	**0.12**
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.12	0.15

MW-35D		
Depth(feet)	(15 – 15.5')	(20 – 20.5')
Date	12/11/2006	12/11/2006
Benzene	ND	ND
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	0.0049	0.0051
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.078	0.056

LB-13	
Depth(feet)	(17.5 – 18')
Date	3/11/2004
Benzene	0.014
cis-1,2-DCE	ND
Ethylbenzene	ND
MTBE	0.26
Methylene Chloride	ND
Toluene	ND
TCE	ND
VC	ND
Xylenes	0.0016 J
Total SVOCs	NA

MW-36D		
Depth(feet)	(23 – 23.5')	(31 – 31.5')
Date	12/19/2006	12/19/2006
Benzene	ND	ND
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	0.012	ND
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.088	0.1

LB-6	
Depth(feet)	(18 – 18.5')
Date	3/11/2004
Benzene	0.012
cis-1,2-DCE	**0.57**
Ethylbenzene	0.011
MTBE	0.18
Methylene Chloride	0.024
Toluene	0.028
TCE	**2.9**
VC	0.0068
Xylenes	0.035
Total SVOCs	NA

MW-24-VD			
Depth(feet)	(19 – 19.5')	(68 – 68.5')	(73 – 73.5')
Date	12/20/2006	12/21/2006	12/21/2006
Benzene	ND	ND [ND]	ND
cis-1,2-DCE	ND	ND [ND]	ND
Ethylbenzene	ND	ND [ND]	ND
MTBE	ND	ND [ND]	ND
Methylene Chloride	0.019	ND [ND]	ND
Toluene	ND	ND [ND]	ND
TCE	0.0030 J	ND [ND]	ND
VC	ND	ND [ND]	ND
Xylenes	ND	ND [ND]	ND
Total SVOCs	0.024 J	0.058 J [0.051 J]	ND

MW-25-D3	
Depth(feet)	(21 – 23')
Date	12/9/2010
Benzene	ND (0.0059)
cis-1,2-DCE	0.01
Ethylbenzene	ND (0.0059)
MTBE	0.014
Methylene Chloride	**0,12 B**
Toluene	ND (0.0059)
TCE	0.0031 J
VC	0.0020 J
Xylenes	ND (0.012)
Total SVOCs	0.49

MW-23D-2R	
Depth(feet)	(18 – 20')
Date	12/7/2010
Benzene	ND (0.0060)
cis-1,2-DCE	ND (0.0060)
Ethylbenzene	ND (0.0060)
MTBE	ND (0.0060)
Methylene Chloride	0.019
Toluene	ND (0.0060)
TCE	ND (0.0060)
VC	ND (0.0060)
Xylenes	ND (0.012)
Total SVOCs	0.59 J

VRU-4	
Depth(feet)	(17.5 – 18')
Date	9/22/2004
Benzene	ND
cis-1,2-DCE	0.0054 J
Ethylbenzene	ND
MTBE	ND
Methylene Chloride	**0.24**
Toluene	ND
TCE	ND
VC	ND
Xylenes	ND
Total SVOCs	NA

LB-3	
Depth(feet)	(18.5 – 19')
Date	3/10/2004
Benzene	ND
cis-1,2-DCE	0.043
Ethylbenzene	ND
MTBE	0.22
Methylene Chloride	ND
Toluene	ND
TCE	0.0075 J
VC	ND
Xylenes	ND
Total SVOCs	NA

MW-26-VD		
Depth(feet)	(19 – 21')	(58 – 60')
Date	12/28/2006	12/29/2006
Benzene	ND	ND
cis-1,2-DCE	ND	ND
Ethylbenzene	ND	ND
MTBE	ND	ND
Methylene Chloride	0.044	ND
Toluene	ND	ND
TCE	ND	ND
VC	ND	ND
Xylenes	ND	ND
Total SVOCs	0.11	0.074

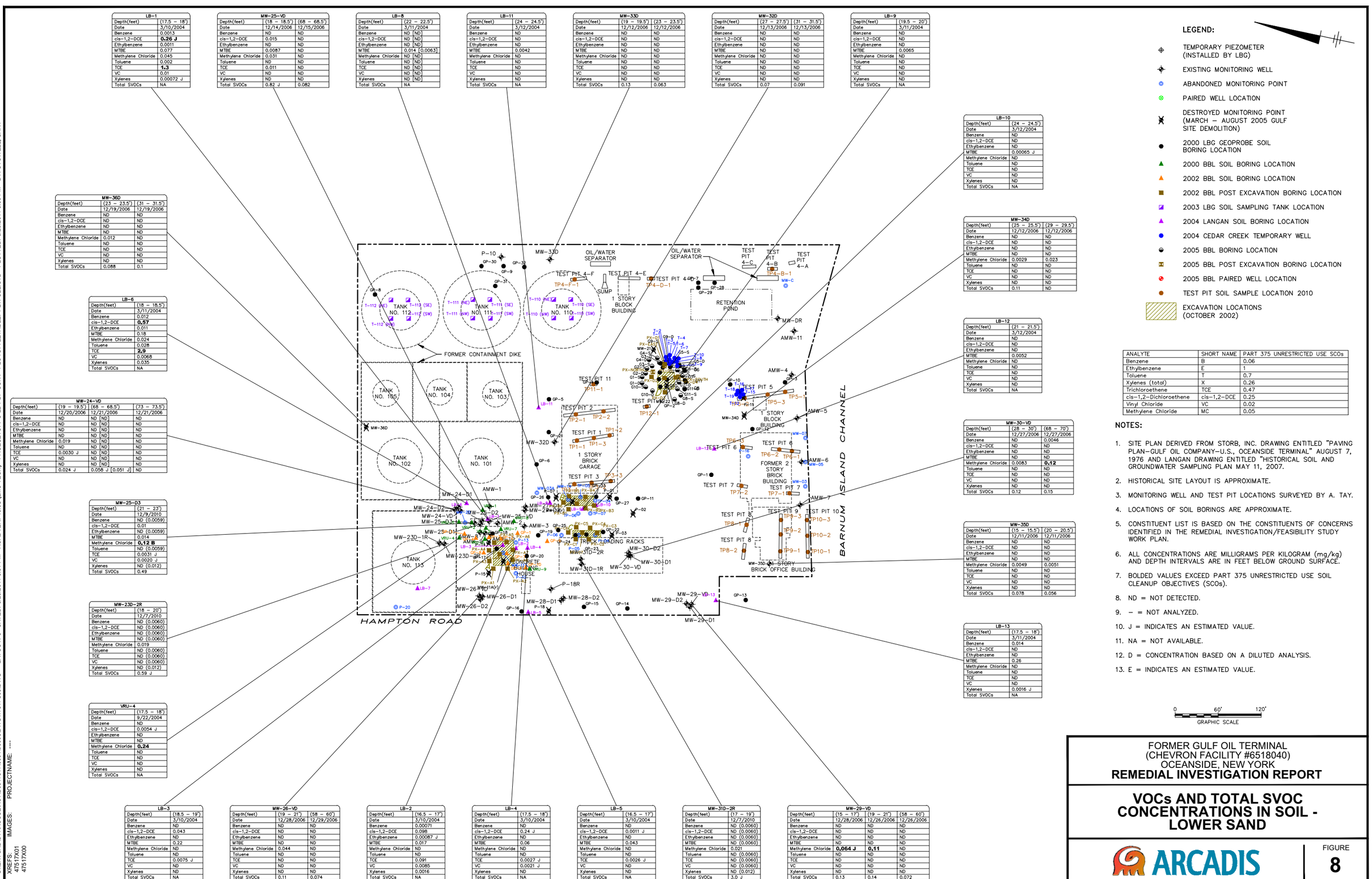
LB-2	
Depth(feet)	(16.5 – 17')
Date	3/10/2004
Benzene	0.00071
cis-1,2-DCE	0.098
Ethylbenzene	0.00087 J
MTBE	0.017
Methylene Chloride	ND
Toluene	ND
TCE	0.091
VC	0.0085
Xylenes	0.0016
Total SVOCs	NA

LB-4	
Depth(feet)	(17.5 – 18')
Date	3/10/2004
Benzene	0.24 J
cis-1,2-DCE	ND
Ethylbenzene	0.06
MTBE	ND
Methylene Chloride	ND
Toluene	0.0027 J
VC	0.0021 J
Xylenes	ND
Total SVOCs	NA

LB-5	
Depth(feet)	(16.5 – 17')
Date	3/10/2004
Benzene	ND
cis-1,2-DCE	0.0011 J
Ethylbenzene	ND
MTBE	0.043
Methylene Chloride	ND
Toluene	ND
TCE	0.0026 J
VC	ND
Xylenes	ND
Total SVOCs	NA

MW-31D-2R	
Depth(feet)	(17 – 19')
Date	12/7/2010
Benzene	ND (0.0060)
cis-1,2-DCE	ND (0.0060)
Ethylbenzene	ND (0.0060)
MTBE	ND (0.0060)
Methylene Chloride	0.021
Toluene	ND (0.0060)
TCE	ND (0.0060)
VC	ND (0.0060)
Xylenes	ND (0.012)
Total SVOCs	3.0 J

MW-29-VD		
Depth(feet)	(15 – 17')	(19 – 21')	(58 – 60')
Date	12/28/2006	12/26/2006	12/26/2006
Benzene	ND	ND	ND
cis-1,2-DCE	ND	ND	ND
Ethylbenzene	ND	ND	ND
MTBE	ND	ND	ND
Methylene Chloride	**0.064 J**	**0.11**	ND
Toluene	ND	ND	ND
TCE	ND	ND	ND
VC	ND	ND	ND
Xylenes	ND	ND	ND
Total SVOCs	0.13	0.14	0.072



LEGEND:

- TEMPORARY PIEZOMETER (INSTALLED BY LBG)
- EXISTING MONITORING WELL
- ABANDONED MONITORING POINT
- PAIRED WELL LOCATION
- DESTROYED MONITORING POINT (MARCH – AUGUST 2005 GULF SITE DEMOLITION)
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- TEST PIT SOIL SAMPLE LOCATION 2010
- EXCAVATION LOCATIONS (OCTOBER 2002)

ANALYTE	SHORT NAME	PART 375 UNRESTRICTED USE SCOs
Benzene	B	0.06
Ethylbenzene	E	1
Toluene	T	0.7
Xylenes (total)	X	0.26
Trichloroethene	TCE	0.47
cis-1,2-Dichloroethene	cis-1,2-DCE	0.25
Vinyl Chloride	VC	0.02
Methylene Chloride	MC	0.05

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
4. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.
5. CONSTITUENT LIST IS BASED ON THE CONSTITUENTS OF CONCERNS IDENTIFIED IN THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN.
6. ALL CONCENTRATIONS ARE MILLIGRAMS PER KILOGRAM (mg/kg) AND DEPTH INTERVALS ARE IN FEET BELOW GROUND SURFACE.
7. BOLDED VALUES EXCEED PART 375 UNRESTRICTED USE SOIL CLEANUP OBJECTIVES (SCOs).
8. ND = NOT DETECTED.
9. – = NOT ANALYZED.
10. J = INDICATES AN ESTIMATED VALUE.
11. NA = NOT AVAILABLE.
12. D = CONCENTRATION BASED ON A DILUTED ANALYSIS.
13. E = INDICATES AN ESTIMATED VALUE.

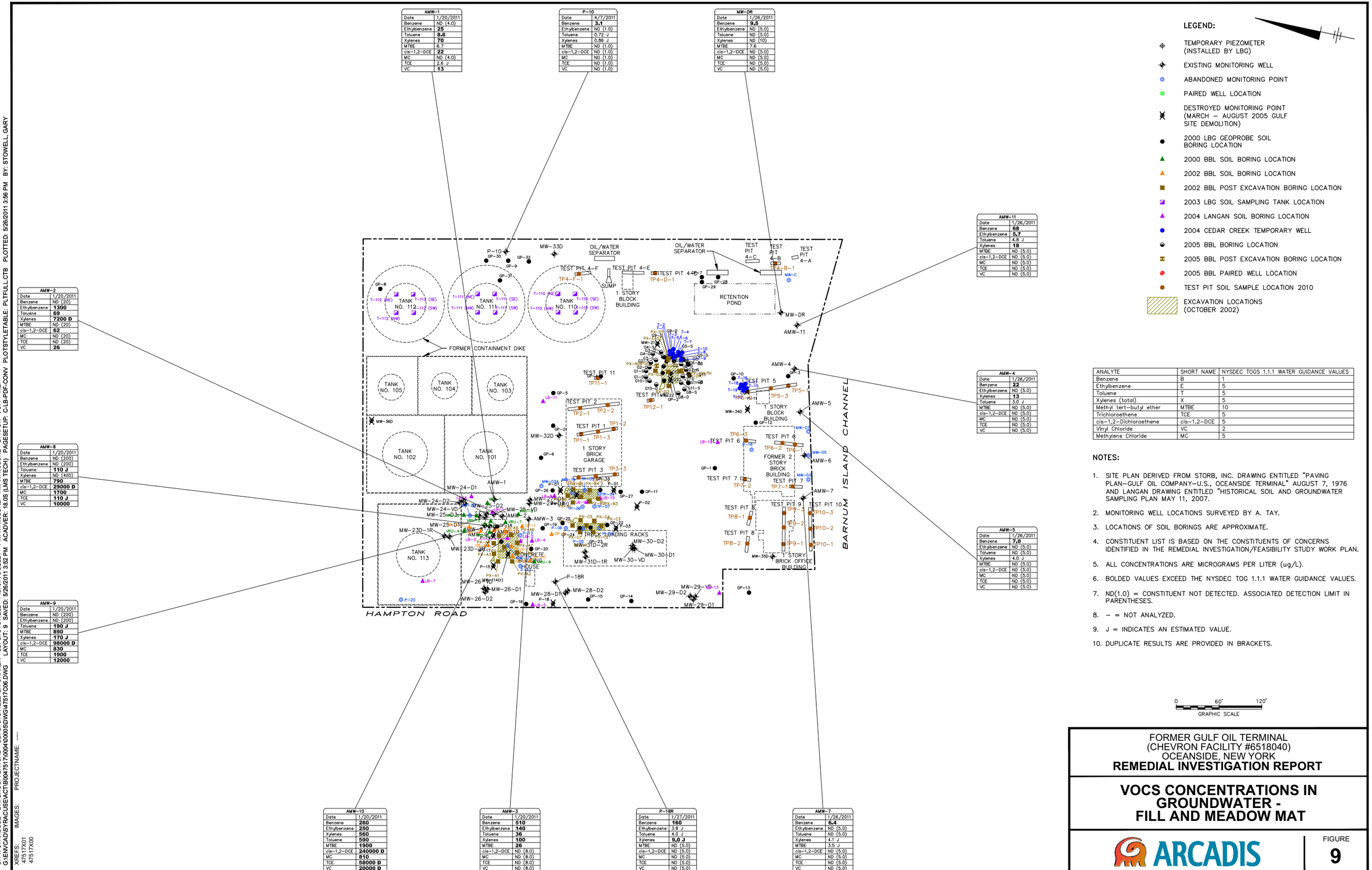
0 60' 120'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

VOCs AND TOTAL SVOC CONCENTRATIONS IN SOIL - LOWER SAND

ARCADIS

FIGURE **8**



ANALYTE	SHORT NAME	NYSDEC TOGS 1.1.1 WATER GUIDANCE VALUES
Benzene	B	1
Ethylbenzene	E	5
Toluene	T	5
Xylenes (total)	X	5
Methyl tert-butyl ether	MTBE	10
Trichloroethene	TCE	5
cis-1,2-Dichloroethene	cis-1,2-DCE	5
Vinyl Chloride	VC	2
Methylene Chloride	MC	5

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
3. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.
4. CONSTITUENT LIST IS BASED ON THE CONSTITUENTS OF CONCERNS IDENTIFIED IN THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN.
5. ALL CONCENTRATIONS ARE MICROGRAMS PER LITER (ug/L).
6. BOLDED VALUES EXCEED THE NYSDEC TOG 1.1.1 WATER GUIDANCE VALUES.
7. ND(1.0) = CONSTITUENT NOT DETECTED. ASSOCIATED DETECTION LIMIT IN PARENTHESES.
8. – = NOT ANALYZED.
9. J = INDICATES AN ESTIMATED VALUE.
10. DUPLICATE RESULTS ARE PROVIDED IN BRACKETS.

0 60' 120'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

VOCS CONCENTRATIONS IN GROUNDWATER - FILL AND MEADOW MAT

ARCADIS

FIGURE 9

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400005\DWG\47517C06.DWG LAYOUT: 9 SAVED: 5/26/2011 3:52 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00 IMAGES: PROJECTNAME: ----

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\0004\00005\DWG\47517C07.DWG LAYOUT: 10 SAVED: 5/26/2011 3:52 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 3:56 PM BY: STOWELL, GARY
XREFS: IMAGES: PROJECTNAME: ----
47517X01
47517X00

MW-27		
WELL ID	MW-27-D1	MW-27-D2
Date	1/18/2011	1/18/2011
Benzene	ND (1.0)	ND (1.0)
Ethylbenzene	ND (1.0)	ND (1.0)
Toluene	ND (1.0)	ND (1.0)
Xylenes	ND (2.0)	ND (2.0)
MTBE	**26**	ND (1.0)
cis-1,2-DCE	**29**	ND (1.0)
MC	ND (1.0)	ND (1.0)
TCE	ND (1.0)	ND (1.0)
VC	ND (1.0)	ND (1.0)

MW-33D	
Date	1/27/2011
Benzene	ND (1.0)
Ethylbenzene	ND (1.0)
Toluene	ND (1.0)
Xylenes	ND (2.0)
MTBE	4.2
cis-1,2-DCE	ND (1.0)
MC	ND (1.0)
TCE	ND (1.0)
VC	ND (1.0)

MW-32D	
Date	1/19/2011
Benzene	ND (1.0)
Ethylbenzene	1
Toluene	ND (1.0)
Xylenes	ND (2.0)
MTBE	**13**
cis-1,2-DCE	ND (1.0)
MC	ND (1.0)
TCE	0.65 J
VC	ND (1.0)

MW-24			
WELL ID	MW-24-D1	MW-24-D2	MW-24-VD
Date	1/19/2011	1/19/2011	1/19/2011
Benzene	**22**	**3.5**	ND (1.0)
Ethylbenzene	**11**	1.9	ND (1.0)
Toluene	**19**	3	ND (1.0)
Xylenes	**31**	4.8	ND (2.0)
MTBE	**1100 D**	**280 D**	ND (1.0)
cis-1,2-DCE	**7400 D**	**1200 D**	ND (1.0)
MC	0.76 J	ND (1.0)	ND (1.0)
TCE	**65**	2.5	ND (1.0)
VC	**1800 D**	**300 D**	ND (1.0)

MW-25				
WELL ID	MW-25-D1	MW-25-D2	MW-25-D3	MW-25-VD
Date	1/19/2011	1/19/2011	1/21/2011	1/19/2011
Benzene	**25**	**9.5**	ND (1.0)	ND (1.0)
Ethylbenzene	**12**	3.9	ND (1.0)	ND (1.0)
Toluene	**31**	**24**	ND (1.0)	ND (1.0)
Xylenes	**40**	**16**	ND (2.0)	ND (2.0)
MTBE	**960 D**	**130 D**	ND (1.0)	ND (1.0)
cis-1,2-DCE	**5100 D**	**3500 D**	1.3	**11**
MC	**340 D**	**3700 D**	**43**	3.4
TCE	**110 D**	**17000 D**	4.5	**180**
VC	**5900 D**	**140 EJ**	ND (1.0)	ND (1.0)

MW-23		
WELL ID	MW-23-D1R	MW-23-D2R
Date	1/19/2011	1/20/2011
Benzene	**21**	ND (1.0) [ND (1.0)]
Ethylbenzene	2.4	ND (1.0) [ND (1.0)]
Toluene	ND (1.0)	ND (1.0) [ND (1.0)]
Xylenes	1.3 J	ND (2.0) [ND (2.0)]
MTBE	**100 D**	**200 D [190 D]**
cis-1,2-DCE	ND (1.0)	ND (1.0) [ND (1.0)]
MC	ND (1.0)	ND (1.0) [ND (1.0)]
TCE	2.6	ND (1.0) [ND (1.0)]
VC	ND (1.0)	**7.8 [6.5]**

MW-26			
WELL ID	MW-26-D1	MW-26-D2	MW-26-VD
Date	1/25/2011	1/25/2011	1/18/2011
Benzene	ND (5.0)	ND (1.0)	ND (1.0)
Ethylbenzene	ND (5.0)	ND (1.0)	ND (1.0)
Toluene	ND (5.0)	ND (1.0)	0.93 J
Xylenes	ND (10)	ND (2.0)	ND (2.0)
MTBE	ND (5.0)	ND (1.0)	1.5
cis-1,2-DCE	ND (5.0)	ND (1.0)	ND (1.0)
MC	ND (5.0)	ND (1.0)	ND (1.0)
TCE	ND (5.0)	ND (1.0)	ND (1.0)
VC	ND (5.0)	ND (1.0)	ND (1.0)

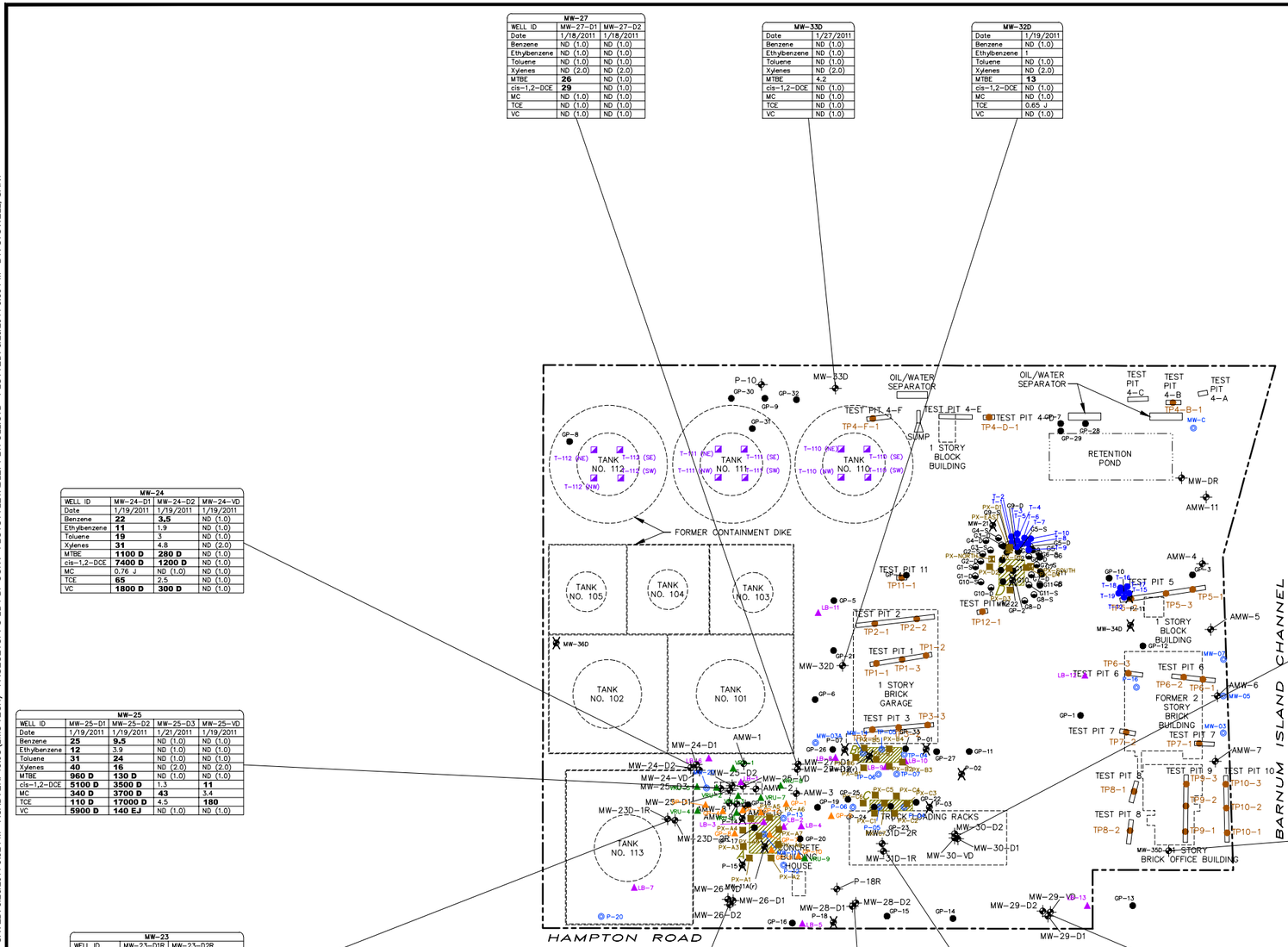
MW-28		
Date	1/25/2011	1/25/2011
Benzene	**12**	ND (1.0)
Ethylbenzene	4.2	ND (1.0)
Toluene	ND (1.0)	ND (1.0)
Xylenes	0.91 J	ND (2.0)
MTBE	**38**	2.7
cis-1,2-DCE	1.1	**6.6**
MC	ND (1.0)	ND (1.0)
TCE	ND (1.0)	0.51 J
VC	1.4	ND (1.0)

MW-31		
WELL ID	MW-31-D1R	MW-31-D2R
Date	1/21/2011	1/21/2011
Benzene	**5.6**	ND (1.0)
Ethylbenzene	**5.3**	ND (1.0)
Toluene	2.4	ND (1.0)
Xylenes	**12**	ND (2.0)
MTBE	**20**	ND (1.0)
cis-1,2-DCE	2.1	ND (1.0)
MC	ND (1.0)	ND (1.0)
TCE	ND (1.0)	ND (1.0)
VC	ND (1.0)	ND (1.0)

MW-30			
WELL ID	MW-30-D1	MW-30-D2	MW-30-VD
Date	1/24/2011	4/7/2011	1/25/2011
Benzene	**81 [87]**	ND (1.0) [ND (1.0)]	ND (1.0)
Ethylbenzene	1.8 [1.8]	ND (1.0) [ND (1.0)]	ND (1.0)
Toluene	0.55 J [0.56 J]	ND (1.0) [ND (1.0)]	ND (1.0)
Xylenes	ND (2.0) [ND (2.0)]	ND (2.0) [ND (2.0)]	ND (2.0)
MTBE	**680 D [680 D]**	ND (1.0) [0.42 J]	**90**
cis-1,2-DCE	ND (1.0) [ND (1.0)]	ND (1.0) [ND (1.0)]	ND (1.0)
MC	ND (1.0) [ND (1.0)]	ND (1.0) [ND (1.0)]	ND (1.0)
TCE	ND (1.0) [ND (1.0)]	ND (1.0) [ND (1.0)]	4.1
VC	ND (1.0) [ND (1.0)]	ND (1.0) [ND (1.0)]	ND (1.0)

MW-35D	
Date	1/27/2011
Benzene	**3.7**
Ethylbenzene	ND (1.0)
Toluene	ND (1.0)
Xylenes	0.66 J
MTBE	3
cis-1,2-DCE	ND (1.0)
MC	ND (1.0)
TCE	ND (1.0)
VC	ND (1.0)

MW-29			
WELL ID	MW-29-D1	MW-29-D2	MW-29-VD
Date	1/25/2011	1/25/2011	1/25/2011
Benzene	**130 D**	ND (1.0)	ND (1.0)
Ethylbenzene	ND (1.0)	ND (1.0)	ND (1.0)
Toluene	3.7	ND (1.0)	ND (1.0)
Xylenes	**16**	ND (2.0)	ND (2.0)
MTBE	**550 D**	ND (1.0)	**15**
cis-1,2-DCE	ND (1.0)	ND (1.0)	ND (1.0)
MC	ND (1.0)	ND (1.0)	ND (1.0)
TCE	ND (1.0)	0.86 J	ND (1.0)
VC	ND (1.0)	ND (1.0)	ND (1.0)



LEGEND:

- TEMPORARY PIEZOMETER (INSTALLED BY LBG)
- EXISTING MONITORING WELL
- ABANDONED MONITORING POINT
- PAIRED WELL LOCATION
- DESTROYED MONITORING POINT (MARCH – AUGUST 2005 GULF SITE DEMOLITION)
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- TEST PIT SOIL SAMPLE LOCATION 2010
- EXCAVATION LOCATIONS (OCTOBER 2002)

ANALYTE	SHORT NAME	NYSDEC TOGS 1.1.1 WATER GUIDANCE VALUES
Benzene	B	1
Ethylbenzene	E	5
Toluene	T	5
Xylenes (total)	X	5
Methyl tert-butyl ether	MTBE	10
Trichloroethene	TCE	5
cis-1,2-Dichloroethene	cis-1,2-DCE	5
Vinyl Chloride	VC	2
Methylene Chloride	MC	5

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
3. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.
4. CONSTITUENT LIST IS BASED ON THE CONSTITUENTS OF CONCERNS IDENTIFIED IN THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN.
5. ALL CONCENTRATIONS ARE MICROGRAMS PER LITER (ug/L).
6. BOLDED VALUES EXCEED THE NYSDEC TOG 1.1.1 WATER GUIDANCE VALUES.
7. ND(1.0) = CONSTITUENT NOT DETECTED. ASSOCIATED DETECTION LIMIT IN PARENTHESES.
8. – = NOT ANALYZED.
9. J = INDICATES AN ESTIMATED VALUE.
10. DUPLICATE RESULTS ARE PROVIDED IN BRACKETS.

0 60' 120'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

VOCs CONCENTRATIONS IN GROUNDWATER - LOWER SAND

ARCADIS

FIGURE
10

Appendix A

Boring Logs and Test Pit Logs

Date Start/Finish: 11/16/10 - 11/17/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164743.22
Easting: 108958.48
Casing Elevation: 7.94

Borehole Depth: 14' bgs
Surface Elevation: 5.18

Descriptions By: MWE

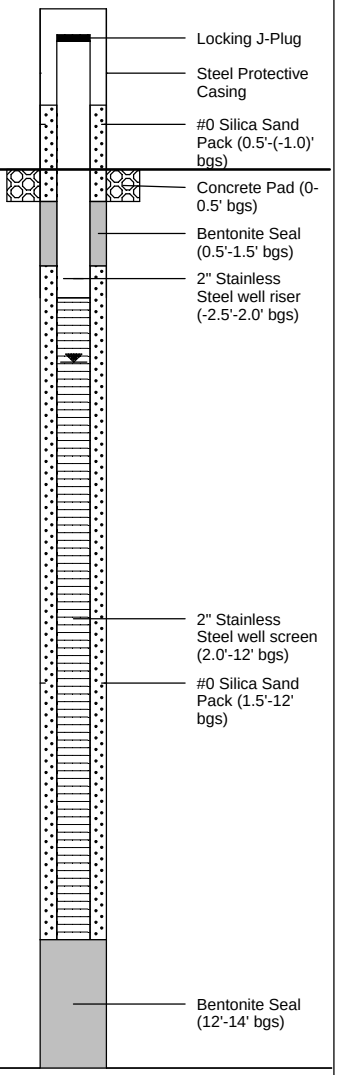
Well/Boring ID: **AMW-1**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to coarse unsorted SAND, little fine to medium subangular Gravel, trace Organics, Silt (M,NP)
		2	2-4	Grab	19.4		trace sheen at water table
5	0	3	4-6	Grab	1.4		Brown fine SAND, trace Organics, fine to medium subangular Gravel (S,NP) moderate to trace petroleum-like odor, decrease with depth (4-10' bgs)
		4	6-8	Grab	0.9		
		5	8-10	NR	NA		No Recovery
10	-5	6	10-12	0.7	23.7		Brown fine to coarse SAND, little fine Gravel (S,NP)
		7	12-14	2.0	16.6		Grey SILT, some Clay, little to trace fine Sand, Organics (S,MP) moderate sulfur-like odor
15	-10						End of boring at 14' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-1 (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, and sulfate.

Date Start/Finish: 11/16/10 - 11/17/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164727.82
Easting: 1080938.22
Casing Elevation: 8.14

Borehole Depth: 9' bgs
Surface Elevation: 5.37

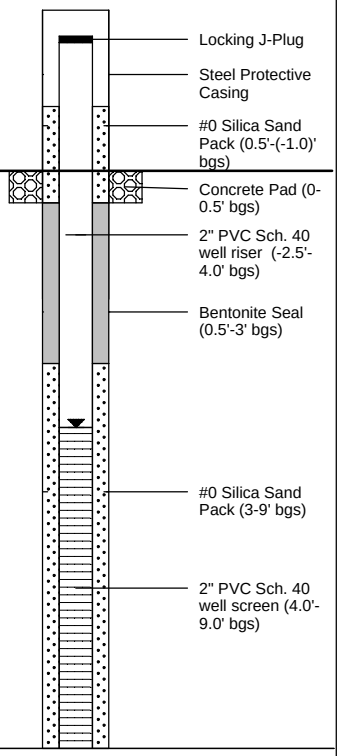
Descriptions By: MWE

Well/Boring ID: **AMW-2**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 0						
5 / 0	1	0-2	Grab	794		Brown fine to medium SAND, some fine to coarse subangular Gravel, trace Organics, Silt (M,NP) heavy petroleum-like odor, dark staining starting at 1.5' bgs (1.5'-4.0' bgs)
	2	2-4	Grab	1,599		Dark brown and black fine to medium SAND, little to some Organics (roots mainly), little fine to coarse subangular Gravel, trace Silt (loose) (M,NP)
5 / 0	3	4-6	Grab	37.8		Brown fine SAND, little to trace fine to medium subangular Gravel, trace Organics (S,NP) faint petroleum-like odor (4.0'-8.0' bgs, possibly drawn from above)
	4	6-8	Grab	23.6		
	5	8-10	1.0	4.7		
10 / -5						End of boring at 9' bgs
15 / -10						



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-2 (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/30/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164690.55
Easting: 1080941.49
Casing Elevation: 7.53

Borehole Depth: 10' bgs
Surface Elevation: 5.41

Descriptions By: MWE

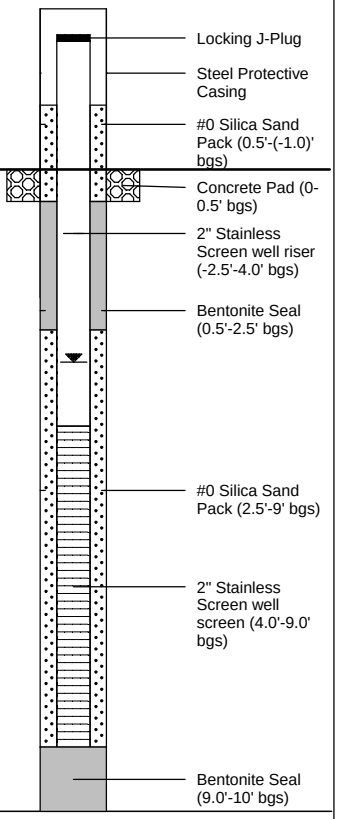
Well/Boring ID: **AMW-3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	273		Brown to grey fine to coarse SAND and fine to coarse GRAVEL, trace Silt, Organics (M,NP)
	2	2-4	Grab	384		moderate petroleum-like odor, increase with depth
5 / 0	3	4-6	Grab	339		heavy petroleum-like odor
	4	6-8	Grab	211		Grey fine to medium SAND, little fine to medium Gravel (S,NP)
	5	8-10	1.0	67.8		Grey SILT and CLAY, little Peat, trace Organics, fine Sand (S,P) moderate petroleum-like odor, decrease with depth
10 / -5						End of boring at 10' bgs
15 / -10						

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-3 (0-2'), (2-4'), (4-6') & Dup-2-113010 @ (2-4') / MS/MSD @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/18/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164369.13
Easting: 1081225.55
Casing Elevation: 6.36

Borehole Depth: 12' bgs
Surface Elevation: 6.60

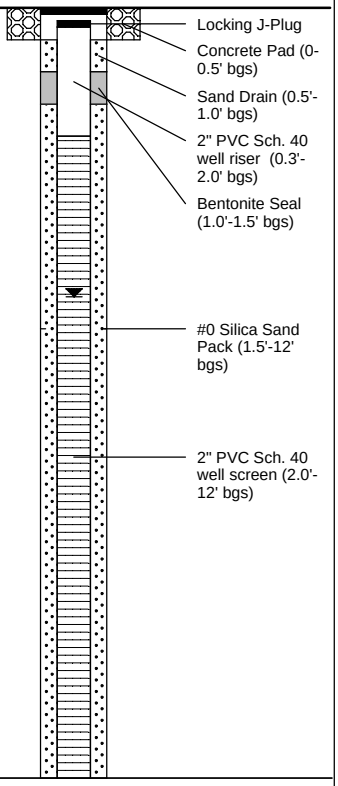
Descriptions By: MWE

Well/Boring ID: **AMW-4**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.2		Red to brown fine to medium SAND, little subangular Gravel, Silt, and trace Organics (M,NP)
5	2	2-4	Grab	0.0		
0	3	4-6	Grab	455		Grey to brown fine to coarse SAND, little Silt, Clay, and fine to medium Gravel (S,NP) moderate petroleum-like odor, decreses with depth
5	4	6-8	Grab	155		
10	5	8-10	0.3	27.8		
-5	6	10-12	2.0	11.7		increase Silt and Clay with depth Grey SILT and CLAY, trace fine Sand, Organics (S,MP)
15						End of boring at 12' bgs



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-4 (2-4'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/18/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164349.38
Easting: 1081168.32
Casing Elevation: 6.71

Borehole Depth: 12' bgs
Surface Elevation: 6.98

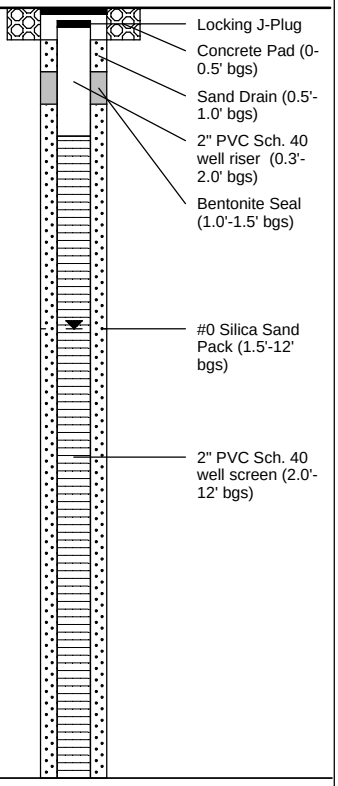
Descriptions By: MWE

Well/Boring ID: **AMW-5**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	0	1	0-2	Grab	1.1		Brown fine to coarse SAND, little to some fine to medium subangular Gravel, little Silt (M,NP)
		2	2-4	Grab	2.0		
5	-5	3	4-6	Grab	268		moderate petroleum-like odor at water table
		4	6-8	Grab	133		
		5	8-10	1.1	3.2		Grey to brown fine to coarse SAND, little fine to medium subangular Gravel, Silt (S,NP)
10	-10	6	10-12	2.0	2.3		
							Grey SILT and CLAY, trace fine Sand, Organics (S,MP)
							End of boring at 12' bgs
15	-15						



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-5 (2-4'), (4-6'), 6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/18/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164330.31
Easting: 1081109.98
Casing Elevation: 6.26

Borehole Depth: 12' bgs
Surface Elevation: 6.76

Descriptions By: MWE

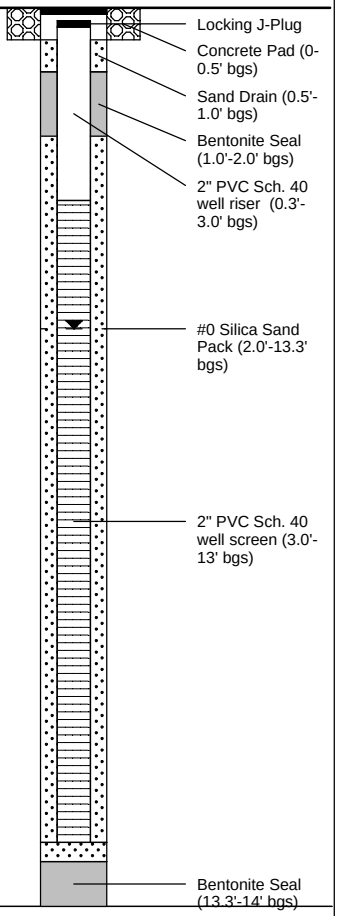
Well/Boring ID: **AMW-6**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	1.1		Brown fine to coarse SAND, some fine to medium subangular Gravel, trace Silt (M,NP)
	2	2-4	Grab	0.2		
5 / 0	3	4-6	Grab	10.6		moderate petroleum-like odor at water table
	4	6-8	Grab	29.8		
						Grey to brown SILT, some Clay, little Organics, trace Peat (S,MP)
	5	8-10	0.3	3.8		Grey to brown fine to coarse SAND, little to trace fine to medium Gravel (S,NP)
10 / -5	6	10-12	2.0	1.7		trace petroleum-like odor
	7	12-14	2.0	1.9		trace thin lenses of silt and organics (10-14' bgs)
						increase silt with depth
15						End of boring at 14' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-6 (2-4'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/2910
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164319.6
Easting: 1081050.81
Casing Elevation: 6.43

Borehole Depth: 12' bgs
Surface Elevation: 6.74

Descriptions By: MWE

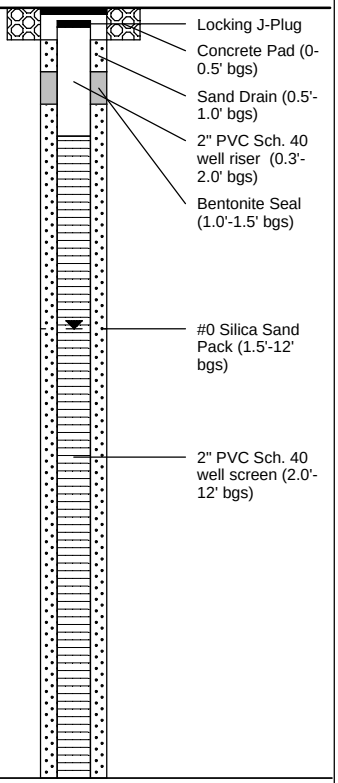
Well/Boring ID: **AMW-7**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt (M,NP)
5	2	2-4	Grab	0.0		
	3	4-6	Grab	0.0		
0	4	6-8	Grab	0.4		faint petroleum-like odor
	5	8-10	2.0	18.9		
10	6	10-12	2.0	1.7		Brown fine to medium SAND, little grey fine Sand, trace fine Gravel (S,NP) odor
-5						Grey to brown fine SAND, little to some Silt, trace Clay (layered between sand seams (1-2 mm))
15						End of boring at 12' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-7 (4-6'), (8-10'), (10-12') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11-30-10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164748.61
Easting: 1080920.06
Casing Elevation: 7.90

Borehole Depth: 16' bgs
Surface Elevation: 5.41

Descriptions By: MWE

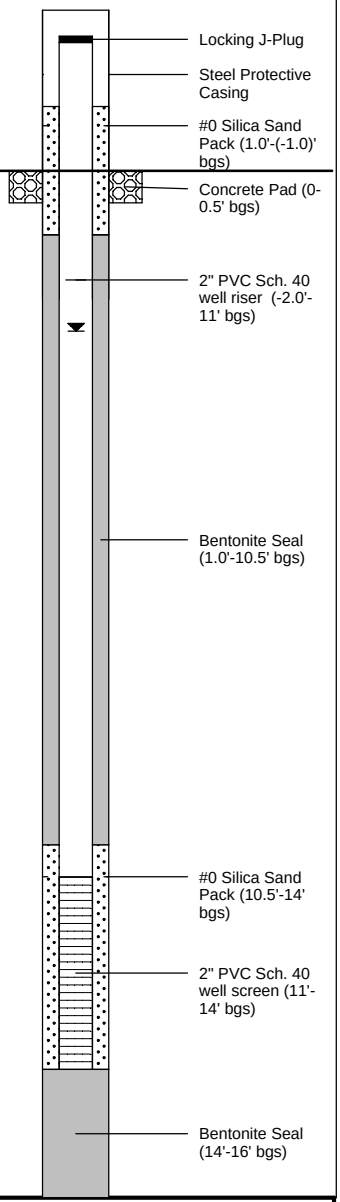
Well/Boring ID: **AMW-8**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	10.0		Brown fine to coarse SAND, some fine to medium subangular Gravel, trace Silt, Organics (M,NP) faint petroleum-like odor, increase with depth
		2	2-4	Grab	43.8		Grey to brown fine to coarse SAND, little fine to medium Gravel (S,NP) moderate petroleum-like odor, trace sheen in water at water table
5	0	3	4-6	Grab	6.9		
		4	6-8	Grab	3.9		
		5	8-10	0.2	18.9		No Recovery
10	-5	6	10-12	1.0	4.7		Grey SILT and CLAY, some Peat, little fine Sand (S,MP) moderate sulfur-like odor, trace petroleum-like odor
		7	12-14	2.0	18.7		
15	-10	8	14-16	2.0	8.6		Grey to brown fine to medium SAND, little Silt, Organics, Peat, Clay (S,NP) End of boring at 16' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-8 (10-11'), (12-14'), (14-15') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11-30-10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164741.70
Easting: 1080920.72
Casing Elevation: 7.52

Borehole Depth: 16' bgs
Surface Elevation: 5.62

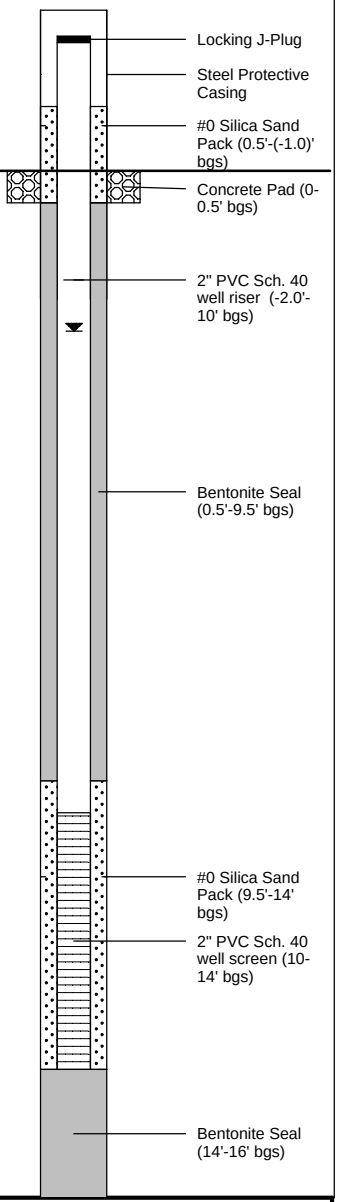
Descriptions By: MWE

Well/Boring ID: **AMW-9**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	4.7		Brown to grey fine to coarse SAND, little fine to medium Gravel, trace Silt, Organics (M,NP)
	2	2-4	Grab	27.3		faint petroleum-like odor
5 / 0	3	4-6	Grab	7.3		Grey fine to medium SAND, little to trace fine Gravel (S,NP)
	4	6-8	Grab	3.8		
	5	8-10	2.0	117.6		Grey SILT and CLAY, trace Peat, fine Sand, Organics (S,P)
10 / -5	6	10-12	2.0	110.0		moderate sulfur and petroleum-like odor
	7	12-14	2.0	62.7		
15 / -10	8	14-16	2.0	37.3		Grey to brown fine to coarse SAND, little fine to medium Gravel, trace Clay, Silt (S,NP) End of boring at 16' bgs



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-9 (9-10'), (10-12'), (14-15') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11-30-10/12-1-10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164734.01
Easting: 1080921.08
Casing Elevation: 7.70

Borehole Depth: 16' bgs
Surface Elevation: 5.61

Descriptions By: MWE

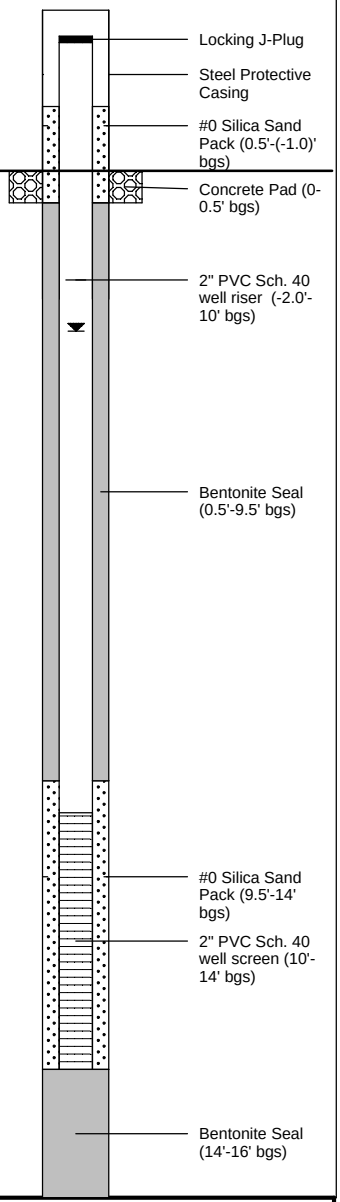
Well/Boring ID: **AMW-10**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	129		Brown fine to medium SAND, little fine to medium Gravel, trace Silt, Organics (M,NP) moderate petroleum-like odor, increase with depth
0	2	2-4	Grab	39.9		Grey Similar Soils (S,NP)
5 / 0	3	4-6	Grab	143		decreasing odor with depth
	4	6-8	Grab	11.7		
	5	8-10	2.0	83.7		Grey SILT and CLAY, little Peat, trace fine Sand, Organics (S,P)
10 / -5	6	10-12	2.0	37.3		
	7	12-14	2.0	98.6		moderate sulfur and petroleum-like odor
15 / -10	8	14-16	2.0	17.6		Grey to brown fine to coarse SAND, little Silt, trace Clay, fine Gravel (S,NP) End of boring at 16' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-10 (8.5-9.5'), (12-14'), (14-15') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/1/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164378.82
Easting: 1081286.48
Casing Elevation: 4.37

Borehole Depth: 12' bgs
Surface Elevation: 4.59

Descriptions By: MWE

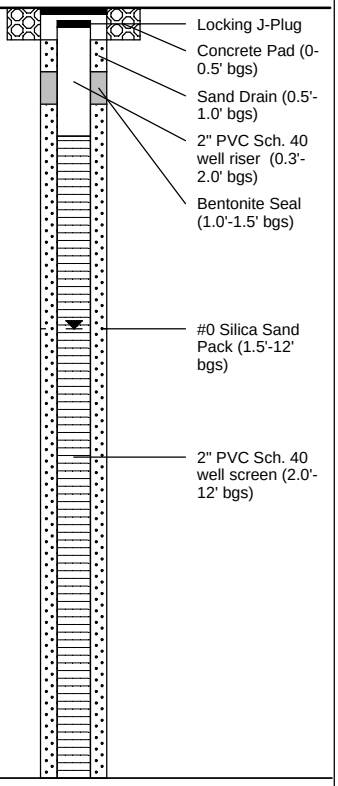
Well/Boring ID: **AMW-11**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt (M,NP)
5 / 0	2	2-4	Grab	1.9		Grey to brown Similar Soils, increse Silt and grey color with depth (S,NP) faint petroleum-like odor
	3	4-6	Grab	9.2		
	4	6-8	Grab	4.2		
10 / -5	5	8-10	2.0	3.7		
	6	10-12	1.8	4.2		
15 / -10						End of boring at 12' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-11 (2-4'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164635.52
Easting: 1080863.65
Casing Elevation: 4.64

Borehole Depth: 10' bgs
Surface Elevation: 5.07

Descriptions By: MWE

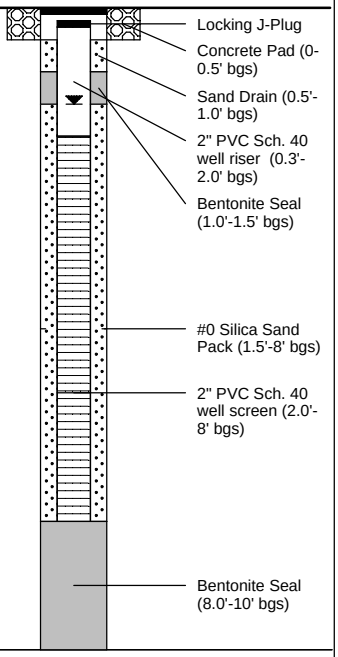
Well/Boring ID: **P-18R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt, Organics (M,NP)
		2	2-4	Grab	0.0		Brown fine to coarse SAND, some fine to medium Gravel, little Silt (S,NP)
5	0	3	4-6	Grab	1.9		Grey and brown fine to medium SAND, little fine Gravel, trace Silt (S,NP) moderate petroleum-like odor, decreses with depth
		4	6-8	Grab	0.8		
		5	8-10	Grab	27.2		Grey SILT and CLAY, little to trace Peat, fine Sand (S,P) moderate to heavy sulfur and petroleum-like odor
10	-5						End of boring at 10' bgs
15	-10						

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ P-18R (0-2'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 - 12/7/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164794.20
Easting: 1080894.52
Casing Elevation: 7.20

Borehole Depth: 41' bgs
Surface Elevation: 5.68

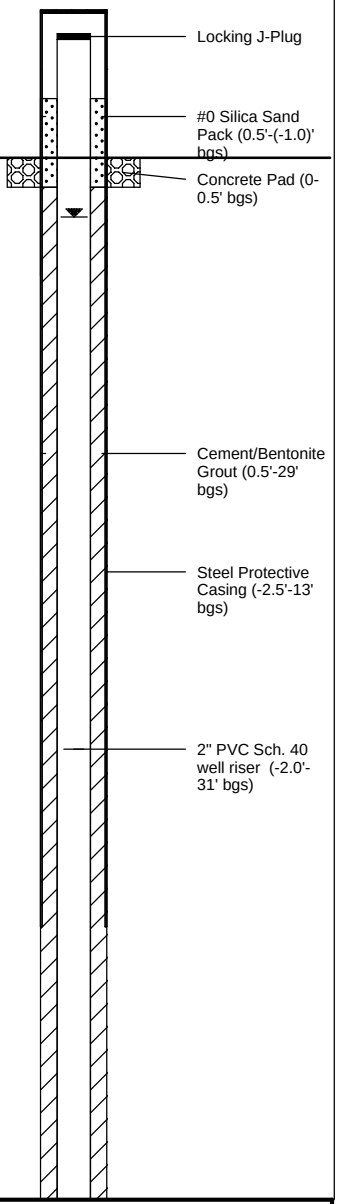
Descriptions By: MWE

Well/Boring ID: **MW-23-D2R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	0.7		Brown fine to coarse SAND and fine to medium subangular Gravel (S,NP)
	2	2-4	Grab	16.9		
5 / 0	3	4-6	Grab	6.9		Brown to grey fine to medium SAND, little to trace fine to medium Gravel (S,NP)
	4	6-8	Grab	3.2		
	5	8-10	2.0	13.2		Grey CLAY and SILT, little to trace fine Sand, Organics, trace fine to medium Gravel (S,MP)
10 / -5						drilled to 13' bgs to set 4" steel casing
	6	13-15	2.0	19.7		Drilled from 14' to 15' before beginning mud rotary
15 / -10	7	15-17	2.0	7.8		Grey to brown fine to medium SAND, trace fine to medium Gravel (S,NP)
	7	15-17	2.0	7.8		



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Replacement Well - No Soil Sample

Date Start/Finish: 12/2/10 - 12/7/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164794.20
Easting: 1080894.52
Casing Elevation: 7.20

Borehole Depth: 41' bgs
Surface Elevation: 5.68

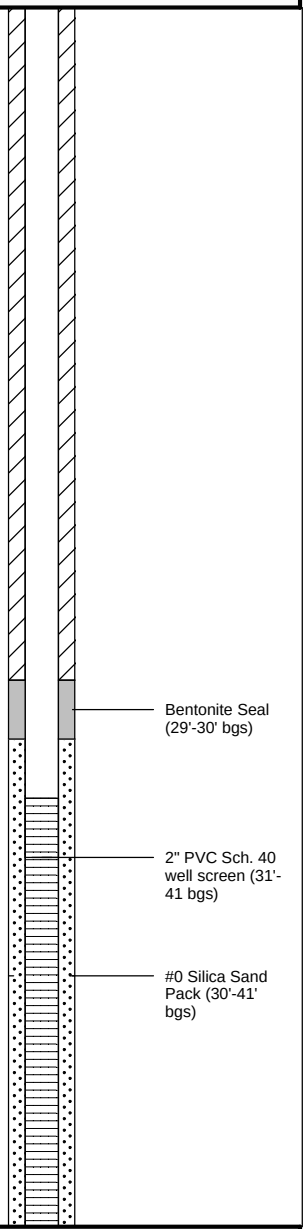
Descriptions By: MWE

Well/Boring ID: **MW-23-D2R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		8	17-19	2.0	8.2		
20		9	19-21	2.0	1.1		
	-15	10	21-23	2.0	0.8		
		11	23-25	2.0	0.0		Brown fine to coarse SAND (S,NP)
25		12	25-27	2.0	0.0		
	-20	13	27-29	2.0	0.0		Brown medium to coarse SAND, little fine Sand (S,NP)
		8	29-31	2.0	0.0		
30		14	31-33	2.0	0.0		
	-25	15	33-35	2.0	0.0		Brown coarse SAND, trace fine to medium Sand (S,NP)
35							drilled to 41' bgs (unable to sample due to running sand)
	-30						



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Replacement Well - No Soil Sample

Date Start/Finish: 12/2/10 - 12/7/10 **Drilling Company:** Parratt Wolff **Driller's Name:** J. Price **Drilling Method:** 4.24" HSA **Sampling Method:** 2" x 2' Split Spoon **Rig Type:** Vac Unit/IR 466	**Northing:** 164794.20 **Easting:** 1080894.52 **Casing Elevation:** 7.20 **Borehole Depth:** 41' bgs **Surface Elevation:** 5.68 **Descriptions By:** MWE	**Well/Boring ID:** **MW-23-D2R** **Client:** Chevron **Location:** Oceanside Former Gulf Terminal Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40	-35							
45	-40						End of boring at 41' bgs	
50	-45							
55	-50							

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Replacement Well - No Soil Sample

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

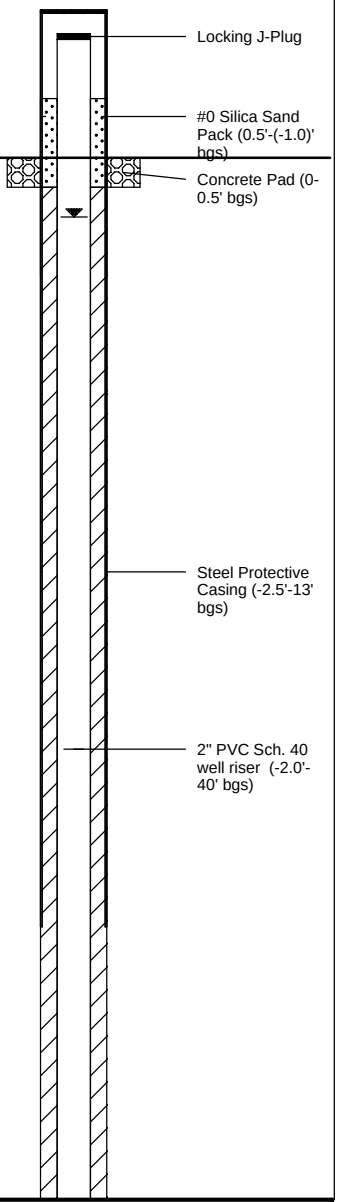
Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to medium Gravel, Organics (roots), Silt (M,NP)
		2	2-4	Grab	1,031		moderate to heavy petroleum-like odor
5	0	3	4-6	Grab	82.6		Grey to brown fine to medium SAND, some fine to medium Gravel, little Silt (S,NP)
		4	6-8	Grab	45.6		moderate petroleum-like odor
		5	8-10	2.0	27.8		Grey SILT and CLAY, little Organics (peat, roots), trace fine Sand (S,P)
10	-5	6	10-12	2.0	38.3		
		7	12-13	1.0	17.2		set 4" steel casing and switched to Mud-Rotary at 13' bgs
		8	13-15	2.0	23.2		
15	-10	9	15-17	2.0	17.8		
		9	15-17	2.0	17.8		Brown to grey fine to medium SAND, little Peat, Silt, trace Clay (S,NP) faint odor
							Brown fine to medium SAND, trace fine Gravel (S,NP)

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		10	17-19	2.0	17.9		faint petroleum-like odor (possibly drawdown)
20	-15	11	19-21	2.0	23.7		
		12	21-23	2.0	39.8		
		13	23-25	2.0	3.2		
25	-20	14	25-27	2.0	0.3		Brown fine to coarse SAND, trace fine Gravel (S,NP)
		15	27-29	2.0	0.3		
30	-25	16	29-31	2.0	0.0		
		17	31-33	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 38' bgs
35	-30						

Well/Boring Construction

Cement/Bentonite Grout (0.5'-35' bgs)

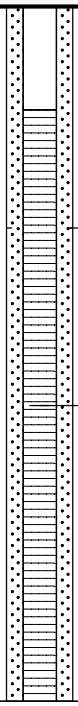
Bentonite Seal (35'-38' bgs)

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10 **Drilling Company:** Parratt Wolff **Driller's Name:** J. Price **Drilling Method:** 4.24" HSA **Sampling Method:** 2" x 2' Split Spoon **Rig Type:** Vac Unit/IR 466	**Northing:** 164759.23 **Easting:** 1080931.65 **Casing Elevation:** 5.66 **Borehole Depth:** 50' bgs **Surface Elevation:** 5.49 **Descriptions By:** MWE	**Well/Boring ID:** **MW-25-D3** **Client:** Chevron **Location:** Oceanside Former Gulf Terminal Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		18	38-40	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 43' bgs	
40	-35							
		19	43-45	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 48' bgs	
45	-40							
		20	48-50	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP)	
50	-45						End of boring at 50' bgs	



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/16/10 - 12/6/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164601.03
Easting: 1080906.14
Casing Elevation: 6.62

Borehole Depth: 27' bgs
Surface Elevation: 5.21

Descriptions By: MWE

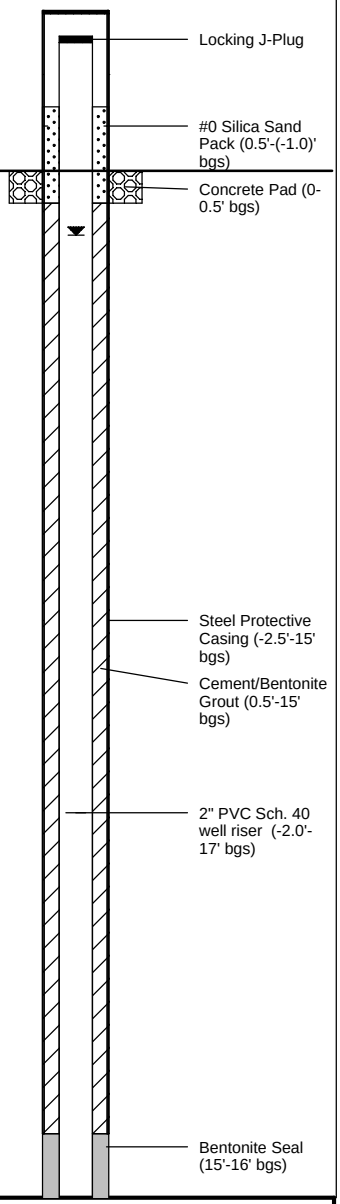
Well/Boring ID: **MW-31D-1R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.6		Brown fine to coarse SAND and GRAVEL (S,NP)
		2	2-4	Grab	21.8		moderate petroleum-like odor
5	0	3	4-6	Grab	0.8		Brown fine to coarse SAND, little fine to medium Gravel (S,NP)
		4	6-8	Grab	0.5		
		5	8-10	2.0	2.6		
10	-5	6	10-12	2.0	1.7		Grey SILT and CLAY, little Wood (fibrous), Organics, trace fine Sand (S,MP)
		7	12-14	2.0	0.8		faint sulfur and petroleum-like odor (9.5'-23' bgs)
							Drilled to 15' bgs to set 4" steel casing
15	-10	8	15-17	NR	NA		No Recovery

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-1R**

Borehole Depth: 27' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		8	15-17	NR	NA			
		9	17-19	1.2	2.5		Brown to grey fine to medium SAND, trace fine to medium Gravel (S,NP)	
20	-15	10	19-21	1.0	8.6		faint sulfur and petroleum-like odor (9.5'-23' bgs)	#0 Silica Sand Pack (16'-27' bgs)
		11	21-23	2.0	0.0			2" PVC Sch. 40 well screen (17'-27' bgs)
		12	23-25	1.3	0.0			
25	-20	13	25-27	1.0	0.0			
							End of boring at 27' bgs	
30	-25							
35								

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/17/10 - 12/7/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164603.76
Easting: 1080912.75
Casing Elevation: 6.11

Borehole Depth: 42' bgs
Surface Elevation: 5.41

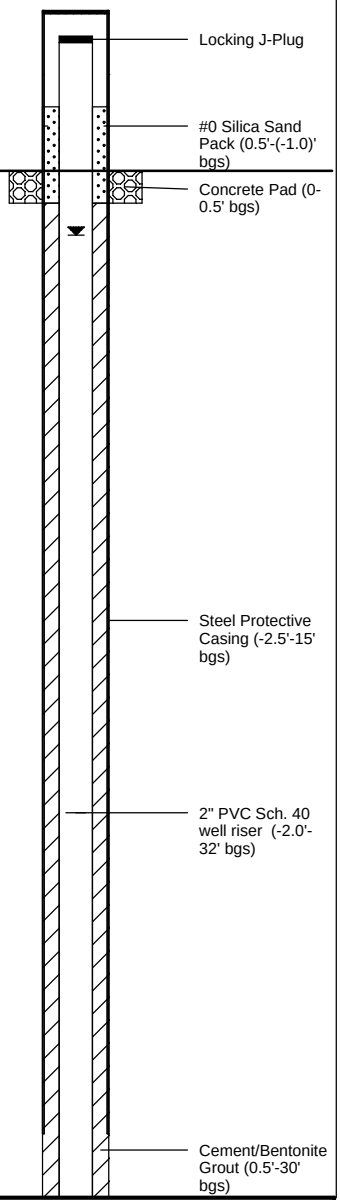
Descriptions By: MWE

Well/Boring ID: **MW-31D-2R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.2		Brown fine to coarse SAND and fine to medium subangular Gravel (S,NP)
		2	2-4	Grab	2.3		
5	0	3	4-6	Grab	78.4		Brown to grey fine to medium SAND, little to trace fine to medium Gravel (S,NP) heavy petroleum-like odor at water table
		4	6-8	Grab	11.7		
		5	8-10	2.0	6.8		
10	-5	6	10-12	2.0	3.4		Grey CLAY and SILT, little to trace fine Sand, Organics, trace fine to medium Gravel (S,MP) meadowmat material
		7	12-14	2.0	2.3		heavy sulfur-like odor
							Drilled from 14' to 15' before beginning mud rotary
15	-10	8	15-17	1.0	52.4		Grey to brown fine to medium SAND, trace fine to medium Gravel (S,NP)



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

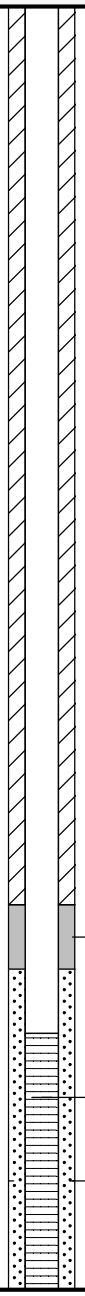
Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		8	15-17	1.0	52.4		
		9	17-19	1.6	20.0		
20	-15	10	19-21	2.0	6.8		
		11	21-23	2.0	2.8		
		12	23-25	2.0	1.7		Brown fine to coarse SAND
25	-20	13	25-27	2.0	0.6		
		14	27-29	2.0	0.0		Brown medium to coarse SAND, little fine Sand (S,NP)
30	-25	15	29-31	2.0	0.0		
		16	31-33	2.0	0.0		
		17	33-35	2.0	0.0		Brown coarse SAND, trace fine to medium Sand (S,NP)
35	-30						Drilled to 42' bgs, unable to keep hole open for representative sample collection

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

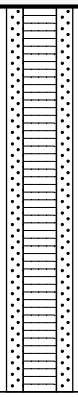
Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 / -35							
45 / -40						End of boring at 42' bgs	
50 / -45							

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

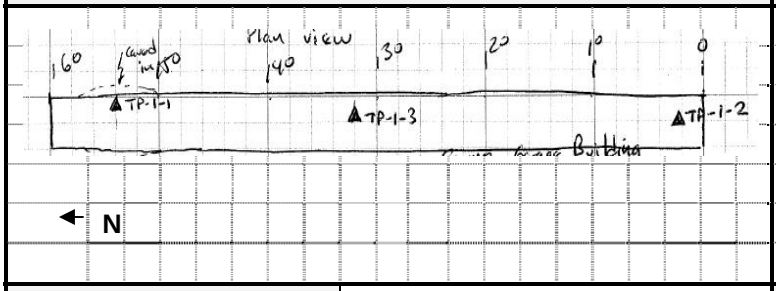
Test Pit Log

Test Pit ID: TP-1

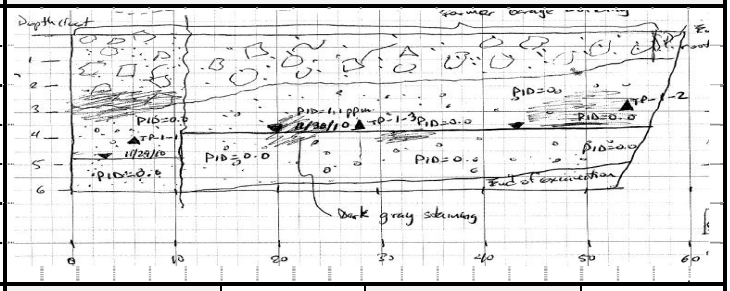
Client:	Chevron Environmental Management	**Date:**	11/29/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View



Profile View



Test Pit Dimensions:	**60' x 3'**	**Total Depth:**	**6'**	**Depth to Water:**	**3.7'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
4'	0.0	Gray medium to coarse Sand and fine to medium subrounded gravel.	TP-1-1
3.5'	0.0	Gray medium to coarse Sand and fine to medium subrounded gravel	TP-1-3
3	0.0	Gray medium to coarse Sand and fine to medium subrounded gravel	TP-1-2

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, sand and gravel
3 ft to 6 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

At 22' (laterally) trace sheen coming from a dark gray stained spot.

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-1-1 to TP-1-10

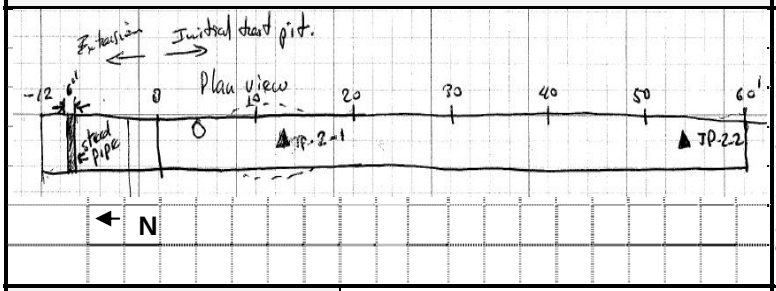
Test Pit Log

Test Pit ID: TP-2

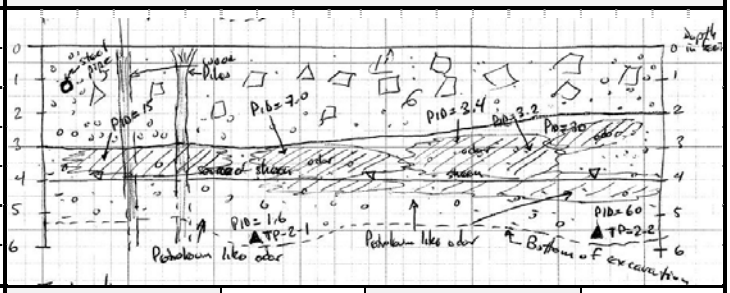
Client:	Chevron Environmental Management	**Date:**	11/30/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View



Profile View



Test Pit Dimensions:	**72' x 3'**	**Total Depth:**	**5.5'**	**Depth to Water:**	**4'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
5.5'	1.6	Gray medium to coarse Sand and some fine to medium subrounded gravel.	TP-2-1
5.5'	60	Gray medium to coarse Sand and some fine to medium subrounded gravel.	TP-2-2

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, wire, sand and gravel, trace silt and clay
3 ft to 6 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

A 6" steel pipe was found in the extension of TP-2 to the North

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-2-1 to TP-2-6

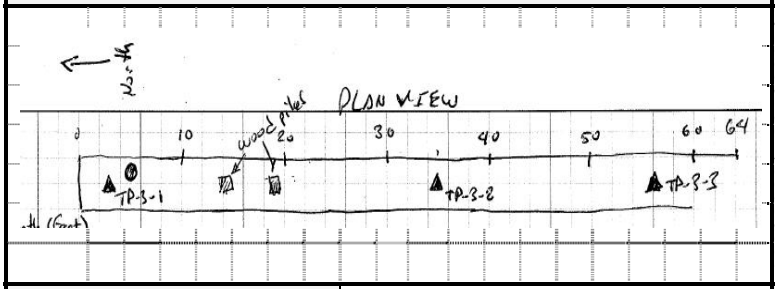
Test Pit Log

Test Pit ID: TP-3

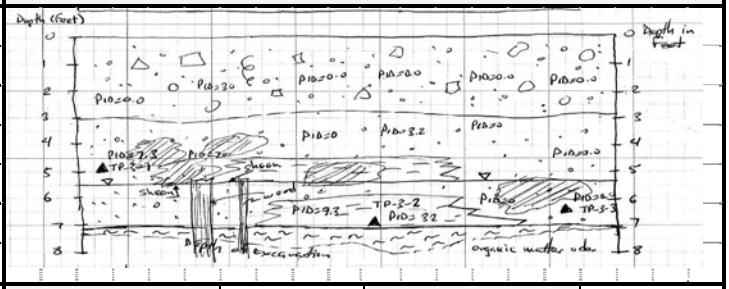
Client:	Chevron Environmental Management	**Date:**	12/1/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View



Profile View



Test Pit Dimensions:	**64' x 3'**	**Total Depth:**	**8.0'**	**Depth to Water:**	**5.3'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
5'	7.3	Gray medium to coarse Sand and some fine to medium subrounded gravel.	TP-3-1
6.8'	32	Gray silty clay plastic.	TP-3-2
6.5	0.0	Gray medium to coarse Sand and some fine to medium subrounded gravel.	TP-3-3

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, sand and gravel
3 ft to 6 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet
7 to 8 ft bgs: Meadow Mat

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

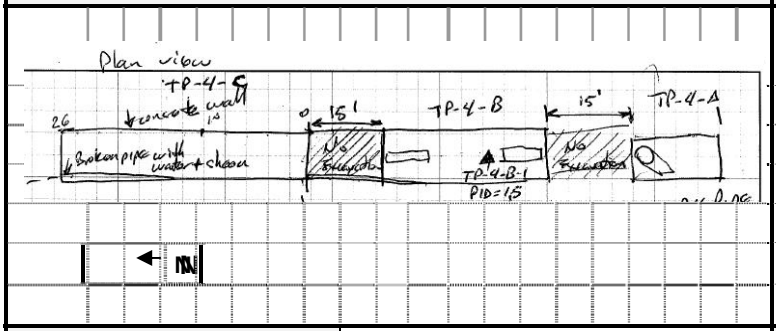
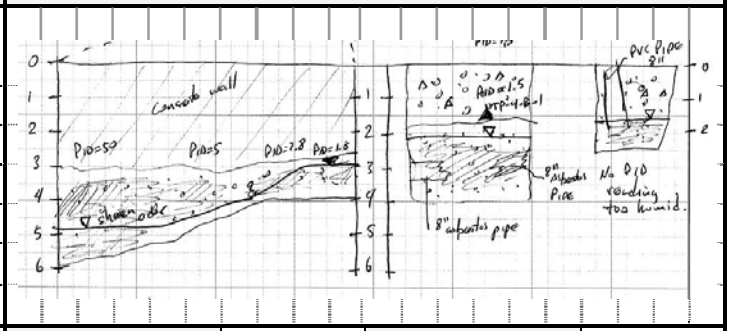
TP-3-1 to TP-3-10

Test Pit Log

Test Pit ID: TP-4-A-C

Client:	Chevron Environmental Management	**Date:**	12/2/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View	Profile View
	

Test Pit Dimensions:	**56' x 3'**	**Total Depth:**	**6.0'**	**Depth to Water:**	**1.5-3'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
1.5'	1.5	Fill	TP-4-B-1

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, sand and gravel
3 ft to 6 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

Some broken 8" asbestos-cement pipes found in TP-4-B

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-4a-1 to TP-4a2
	TP-4b-1
	TP-4c-1 to TP-4c3

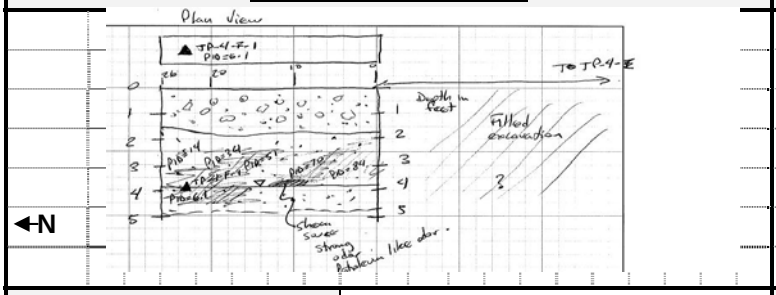
Test Pit Log

Test Pit ID: TP-4-D-F

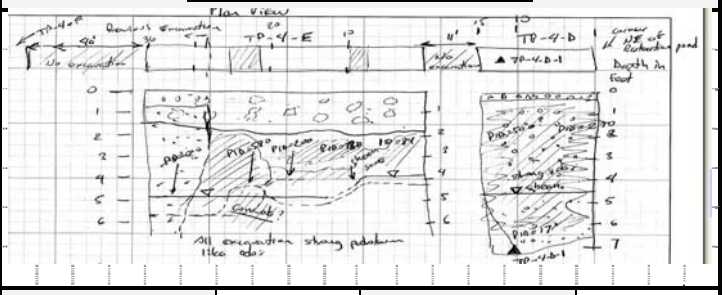
Client:	Chevron Environmental Management	**Date:**	12/2/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan and Profile View 4F



Plan and Profile View 4D to 4E



Test Pit Dimensions:	**77' x 3'**	**Total Depth:**	**7.5'**	**Depth to Water:**	**3.8-4.5'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
7'	17	Medium to coarse sand and little subrounded gravel	TP-4-D-1
4'	6.1	Medium to coarse sand and little subrounded gravel	TP-4-F-1

Notes:

0 to 2 ft bgs: Fill: Dark grey concrete fragments, sand and gravel
3 ft to 7 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

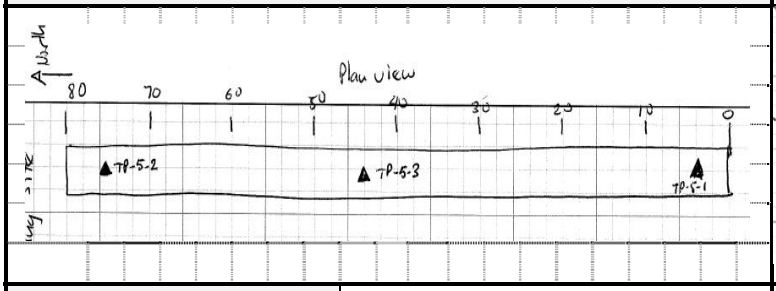
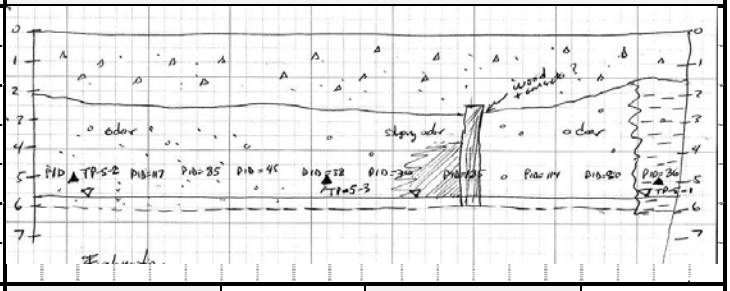
	TP-4d-1 to TP-4d-3
	TP-4e-1 to TP-4-e-5
	TP-4f-1

Test Pit Log

Test Pit ID: TP-5

Client:	Chevron Environmental Management	**Date:**	12/2/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View	Profile View
	

Test Pit Dimensions:	**80' x 3'**	**Total Depth:**	**6.0'**	**Depth to Water:**	**5.6'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
5'	36	Silty clay, plastic.	TP-5-1
5.5'	117	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-5-2
6.5	38	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-5-3

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, sand and gravel
3 ft to 6 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

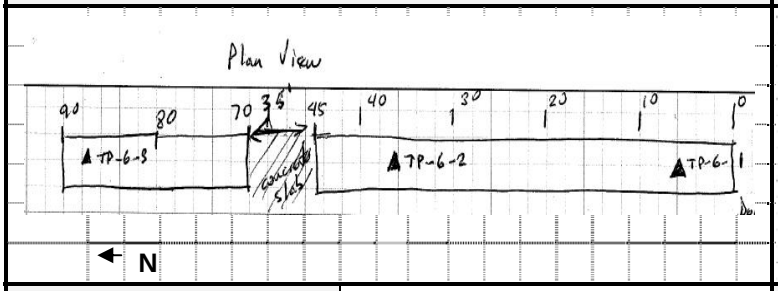
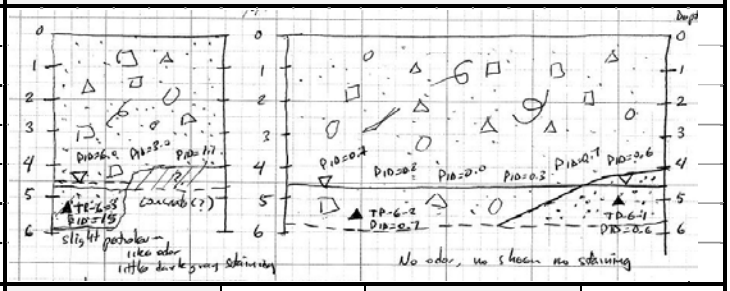
	TP-5-1 to TP-3-5

Test Pit Log

Test Pit ID: TP-6

Client:	Chevron Environmental Management	**Date:**	12/3/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View	Profile View
	

Test Pit Dimensions:	**90' x 3'**	**Total Depth:**	**6.0'**	**Depth to Water:**	**4.5'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
5'	0.6	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-6-1
5.5'	0.7	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-6-2
5.5'	15	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-6-3

Notes:

0 to 4 ft bgs: Fill: Dark grey concrete fragments, rebar, steel wire, sand and gravel
4 ft to 6 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

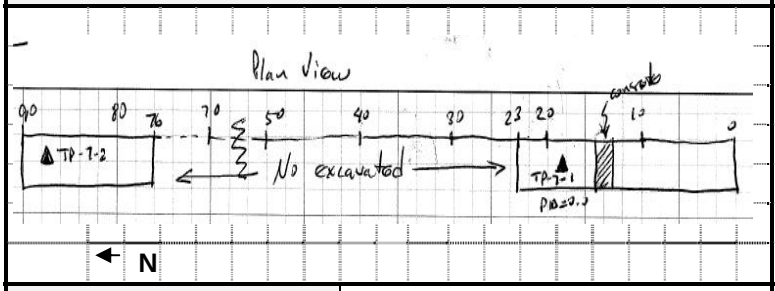
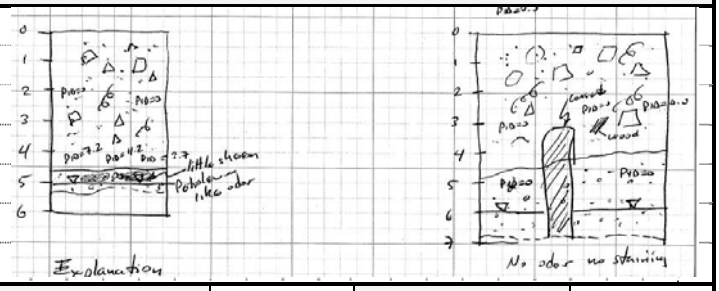
	TP-6-1 to TP-6-8

Test Pit Log

Test Pit ID: TP-7

Client:	Chevron Environmental Management	**Date:**	12/6/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View	Profile View
	

Test Pit Dimensions:	**90' x 3'**	**Total Depth:**	**7.0'**	**Depth to Water:**	**5-6'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
5'	0.0	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-7-1
5'	7.2	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-7-2

Notes:

0 to 4.5 ft bgs: Fill: Dark grey concrete fragments, rebar, steel wire, sand and gravel
4 .5 ft to 7 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-7-1 to TP-7-4

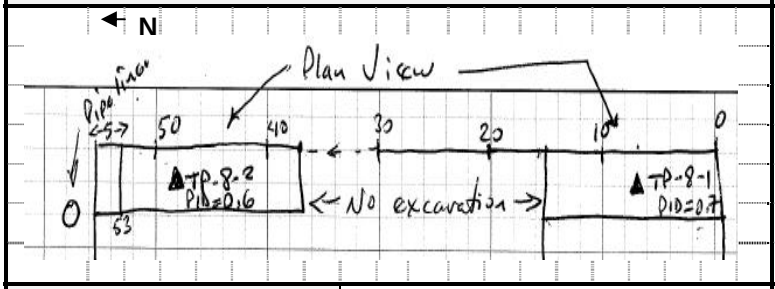
Test Pit Log

Test Pit ID: TP-8

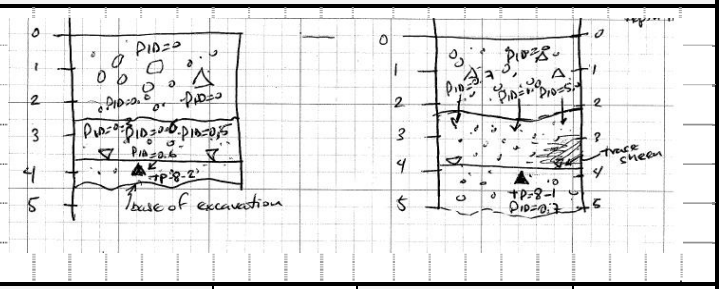
Client:	Chevron Environmental Management	**Date:**	12/6/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View



Profile View



Test Pit Dimensions:	**53' x 3'**	**Total Depth:**	**5.0'**	**Depth to Water:**	**3.7'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
4.5'	0.7	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-8-1
4'	0.6	Gray medium to coarse Sand and little fine to medium subrounded gravel.	TP-8-2

Notes:

0 to 2 ft bgs: Fill: Dark grey concrete fragments, sand and gravel
2 ft to 5 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

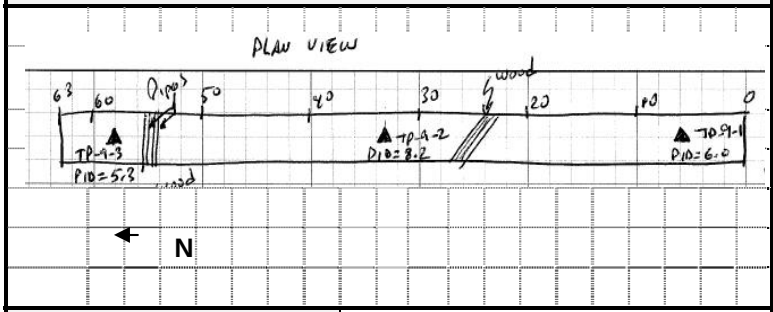
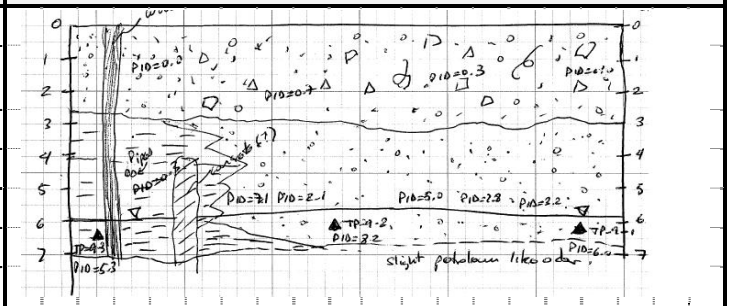
	TP-8-1 to TP-8-4

Test Pit Log

Test Pit ID: TP-9

Client:	Chevron Environmental Management	**Date:**	12/7/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View	Profile View
	

Test Pit Dimensions:	**63' x 3'**	**Total Depth:**	**7.5'**	**Depth to Water:**	**6'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
6.5'	6.0	Gray medium to coarse Sand and some fine to medium subrounded gravel.	TP-9-1
6'	8.2	Gray medium to coarse Sand and some fine to medium subrounded gravel.	TP-9-2
6.5'	5.3	Organic silty clay, plastic.	TP-9-3

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, rebar, steel wire, sand and gravel
3 ft to 6.5 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet
6.5 to 7 ft bgs: Meadow Mat

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-9-1 to TP-9-5

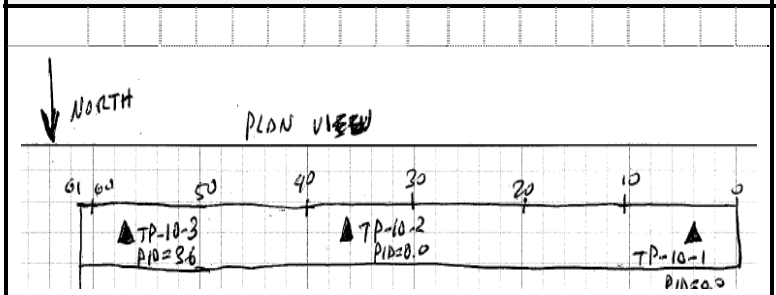
Test Pit Log

Test Pit ID: TP-10

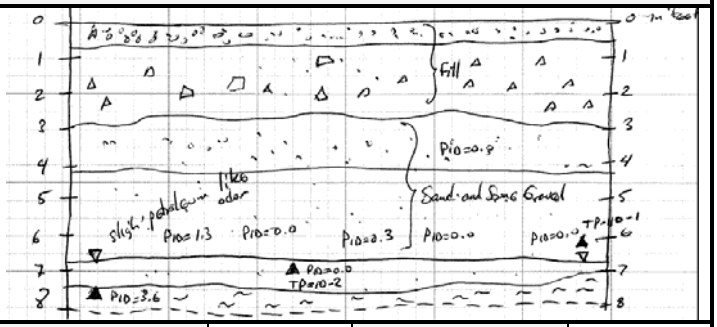
Client:	Chevron Environmental Management	**Date:**	12/7/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View



Profile View



Test Pit Dimensions:	**61' x 3'**	**Total Depth:**	**8.0'**	**Depth to Water:**	**6.7'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
6.0'	0.0	Gray coarse Sand and some fine to medium subrounded gravel.	TP-10-1
6'	0.0	Gray coarse Sand and some fine to medium subrounded gravel	TP-10-2
6.5'	3.6	Organic silt (Meadow Mat)	TP-10-3

Notes:

0 to 3 ft bgs: Fill: Dark grey concrete fragments, rebar, steel wire, sand and gravel
3 ft to 7.5 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet
7.5 to 8 ft bgs: Meadow Mat

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-10-1 to TP-10-5

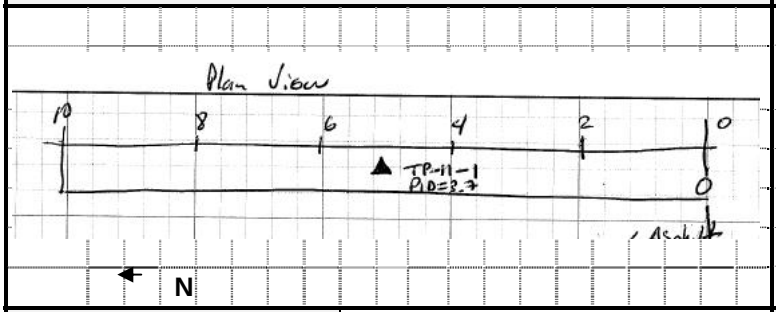
Test Pit Log

Test Pit ID: TP-11

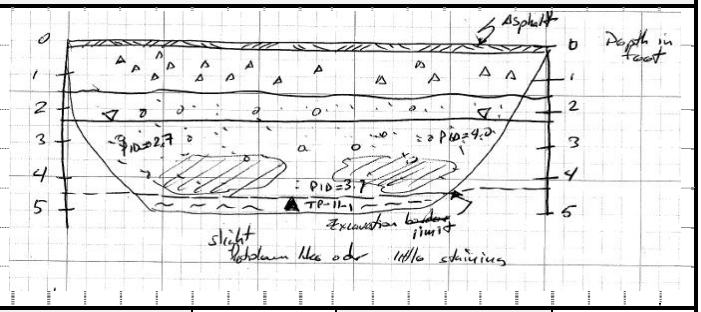
Client:	Chevron Environmental Management	**Date:**	12/7/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View



Profile View



Test Pit Dimensions:	**10' x 3'**	**Total Depth:**	**5.0'**
Depth to Water:	**2.3'**		

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
4.6'	3.7	Gray coarse Sand and fine to medium subrounded gravel.	TP-11-1

Notes:

0 to 2 ft bgs: Fill: Dark grey concrete fragments, rebar, steel wire, sand and gravel
3 ft to 4.5 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet
4.5 to 5 ft bgs: Meadow Mat
The walls at 1.5' bgs.
Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

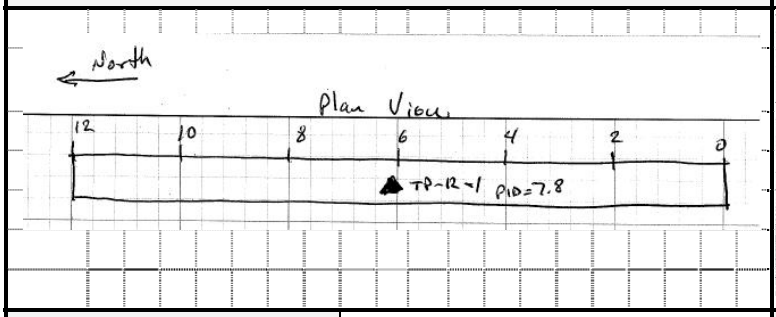
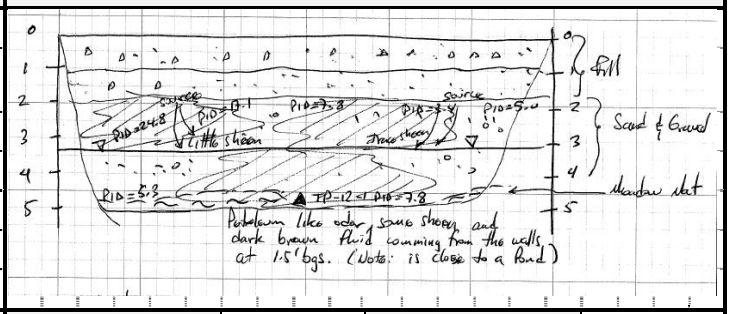
	TP-11-1 to TP-11-3

Test Pit Log

Test Pit ID: TP-12

Client:	Chevron Environmental Management	**Date:**	12/7/2010
Project:	Former Gulf Oceanside Site	**Weather:**	cloudy
Location:	Oceanside, NY	**Temperature:**	30s
Project #:	B0047517.0004.0001	**Wind:**	SW
Geologist:	Ricardo Jaimes, P.G.	**Subcontractor:**	Parratt-Wolff
Coordinates:	NA	**Equipment:**	Case loader/backhoe 580N

Sketch of Test Pit Layout:

Plan View	Profile View
	

Test Pit Dimensions:	**12' x 3'**	**Total Depth:**	**5.0'**	**Depth to Water:**	**3.2'**

Depth Interval (feet)	PID Screening Result (ppm)	Description of Soil/Material	Samples Collected
4.7'	7.8	Gray coarse Sand and fine subrounded gravel.	TP-12-1

Notes:

0 to 2 ft bgs: Fill: Dark grey concrete fragments, rebar, steel wire, sand and gravel

2 ft to 4.5 ft bgs: Gray to brown medium to coarse sand, fine to medium gravel, loose, moist to wet

4.5 to 5 ft bgs: Meadow Mat

Soil samples submitted for analysis of VOCs, SVOCs, TAL Metals, ferrous iron, TOCs, and sulfate.

Photograph Summary:

	TP-12-1 to TP-12-5

ARCADIS

Appendix B

Historical Soil and Groundwater Data

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10
Volatile Organics																
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0060 U	0.0054 U	0.0067 U	**0.068 DJ**	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
2-Butanone	0.12	500	mg/kg	0.030 U	0.027 U	0.0034 J	0.030 U	0.037	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U	0.027 U	1.2 U	0.51 U	0.0040 J
2-Hexanone	- -	- -	mg/kg	0.030 U	0.027 U	0.033 U	0.030 U	0.037 U	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.030 U	0.027 U	0.033 U	0.030 U	0.037 U	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
Acetone	0.05	500	mg/kg	0.030 U	0.027 U	0.035	0.030 U	**0.27**	0.14 U	0.64 U	0.59 U [0.95 U]	0.62 U	0.027 U	1.2 U	0.51 U	**0.10**
Benzene	0.06	44	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	**0.12 U [0.11 J]**	**0.11 J**	0.0053 U	0.23 U	0.10 U	0.0053 U
Bromodichloromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Bromoform	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Bromomethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Carbon Disulfide	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0083	0.0060 U	0.0074 U	0.029	0.13 UJ	0.12 UJ [0.19 UJ]	0.12 UJ	0.0053 U	0.23 U	0.10 U	0.0053 U
Carbon Tetrachloride	0.76	22	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Chlorobenzene	1.1	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Chloroethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 UJ	0.12 UJ [0.19 UJ]	0.12 UJ	0.0053 U	0.23 U	0.10 U	0.0053 U
Chloroform	0.37	350	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Chloromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0060 U	0.0024 J	0.0050 J	0.023	0.0064 J	**0.26**	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Cyclohexane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Dibromochloromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Ethylbenzene	1	390	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.020	**7.2 D**	0.028 U	**2.4**	**6.7 [10]**	**2.0**	0.0053 U	0.20 J	0.088 J	0.0053 U
Isopropylbenzene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0030 J	0.052	3.0 D	0.028 U	1.2	3.5 [5.2]	1.6	0.0053 U	0.39	0.22	0.0053 U
Methyl acetate	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.014 J	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Methylcyclohexane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.020	2.9 D	2.2 D	0.028 U	2.9	2.5 [6.4]	2.4	0.0053 U	3.2	1.3	0.0053 U
Methylene Chloride	0.05	500	mg/kg	0.021 UBJ	0.023 UBJ	0.032 UBJ	0.028 UBJ	0.044 UBJ	**0.064 J**	0.13 UJ	0.12 UJ [0.19 UJ]	**0.062 J**	0.0052 J	0.23 U	0.10 U	0.010
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10
Volatile Organics (Cont.)																
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Toluene	0.7	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0026 J	0.038	0.028 U	0.11 J	0.20 [0.39]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Total VOCs	- -	- -	mg/kg	ND	0.0024 J	0.087 J	19 J	86 J	0.43 J	12 J	19 [30 J]	6.4 J	0.0052 J	3.8 J	1.6 J	0.11 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Trichloroethene	0.47	200	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	0.028 U	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Vinyl Chloride	0.02	13	mg/kg	0.0060 U	0.0054 U	0.0067 U	0.0060 U	0.0074 U	**0.044**	0.13 U	0.12 U [0.19 U]	0.12 U	0.0053 U	0.23 U	0.10 U	0.0053 U
Xylenes (total)	0.26	500	mg/kg	0.012 U	0.011 U	0.012 J	**16 D**	**73 D**	0.016 J	**5.2**	**6.1 [8.2]**	0.26	0.011 U	0.46 U	0.20 U	0.011 U
Semivolatile Organics																
1,1'-Biphenyl	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	0.11 J	0.18 J	0.21 U	0.58 J	0.61 J [1.5 J]	0.029 J	0.18 U	1.0 U	0.88 U	9.1 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.40 UJ	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	R	1.7 U	18 U
2,4-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [2.0 J]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2-Chloronaphthalene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2-Chlorophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2-Methylnaphthalene	- -	- -	mg/kg	0.20 U	0.039 J	0.23 U	6.3	9.9	0.21 U	16	27 [62]	4.2 J	0.18 U	9.5	1.2	9.1 U
2-Methylphenol	0.33	500	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
2-Nitroaniline	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 U	1.7 U	18 U
2-Nitrophenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.20 UJ	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	R	0.88 U	9.1 U
3-Nitroaniline	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 UJ	1.7 U	18 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.40 UJ	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 UJ	1.7 U	18 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
4-Chloroaniline	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
4-Methylphenol	0.33	500	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 U	1.7 U	18 U
4-Nitroaniline	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 U	1.7 U	18 U
4-Nitrophenol	- -	- -	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 UJ	1.7 U	18 U
Acenaphthene	20	500	mg/kg	0.20 U	0.20 U	0.23 U	0.25 J	0.29 J	0.041 J	0.99 J	0.81 J [1.8 J]	0.12 J	0.18 U	1.1	0.46 J	9.1 U
Acenaphthylene	100	500	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Acetophenone	- -	- -	mg/kg	0.20 U	0.20 UJ	0.23 UJ	1.1 UJ	1.3 UJ	0.21 UJ	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Anthracene	100	500	mg/kg	0.20 U	0.20 U	0.23 U	0.29 J	0.35 J	0.023 J	0.37 J	0.43 J [0.98 J]	0.050 J	0.18 U	1.0 U	0.88 U	9.1 U

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10
Semivolatile Organics (Cont.)																
Atrazine	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Benzaldehyde	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Benzo(a)anthracene	1	5.6	mg/kg	0.056 J	0.014 J	0.23 U	0.22 J	0.25 J	0.21 U	0.37 J	0.26 J [0.40 J]	0.019 J	0.020 J	0.42 J	0.26 J	0.96 J
Benzo(a)pyrene	1	1	mg/kg	0.064 J	0.20 U	0.23 U	0.20 J	0.20 J	0.21 U	0.23 J	2.0 U [3.2 U]	0.21 U	0.018 J	0.36 J	0.30 J	0.94 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.097 J	0.020 J	0.23 U	0.22 J	0.22 J	0.21 U	0.27 J	0.20 J [0.39 J]	0.21 U	0.021 J	0.42 J	0.38 J	**1.1 J**
Benzo(g,h,i)perylene	100	500	mg/kg	0.040 J	0.20 U	0.23 U	0.18 J	0.10 J	0.21 U	0.18 J	2.0 U [0.22 J]	0.21 U	0.014 J	0.25 J	0.24 J	9.1 U
Benzo(k)fluoranthene	0.8	56	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	0.21 J	0.88 U	9.1 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	0.94 J	0.60 J	0.21 U	2.2 UB	2.0 UB [3.2 UB]	0.21 UB	0.18 U	1.0 U	0.88 U	9.1 U
Butylbenzylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Caprolactam	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	R	0.88 U	9.1 U
Carbazole	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	0.097 J	0.025 J	0.14 J	2.0 U [3.2 U]	0.033 J	0.18 U	1.0 U	0.88 U	9.1 U
Chrysene	1	56	mg/kg	0.058 J	0.015 J	0.23 U	0.20 J	0.23 J	0.21 U	0.29 J	0.23 J [0.45 J]	0.017 J	0.018 J	0.42 J	0.29 J	0.98 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.020 J	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Dibenzofuran	7	350	mg/kg	0.20 U	0.20 U	0.23 U	0.12 J	0.16 J	0.082 J	0.79 J	0.76 J [1.5 J]	0.13 J	0.18 U	0.79 J	0.88 U	9.1 U
Diethylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Dimethylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Di-n-Octylphthalate	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 UJ	0.88 U	9.1 U
Fluoranthene	100	500	mg/kg	0.082 J	0.021 J	0.23 U	0.66 J	0.86 J	0.073 J	1.0 J	0.69 J [1.4 J]	0.059 J	0.036 J	1.3	0.77 J	1.9 J
Fluorene	30	500	mg/kg	0.20 U	0.20 U	0.23 U	0.29 J	0.34 J	0.099 J	1.1 J	1.3 J [2.8 J]	0.29 J	0.18 U	1.5	0.66 J	9.1 U
Hexachlorobenzene	0.33	6	mg/kg	0.061 J	0.20 U	0.23 U	0.21 J	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Hexachlorobutadiene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.20 UJ	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Hexachloroethane	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.034 J	0.20 U	0.23 U	0.13 J	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	0.20 J	0.16 J	9.1 U
Isophorone	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Naphthalene	12	500	mg/kg	0.20 U	0.032 J	0.23 U	1.8	5.2	0.21 U	5.4	**11 [29]**	2.6 J	0.18 U	2.5	0.44 J	9.1 U
Nitrobenzene	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Pentachlorophenol	0.8	6.7	mg/kg	0.40 U	0.38 U	0.44 U	2.1 U	2.5 U	0.41 U	4.3 U	4.0 U [6.3 U]	0.41 U	0.35 U	1.9 UJ	1.7 U	18 U
Phenanthrene	100	500	mg/kg	0.026 J	0.20 U	0.23 U	0.87 J	1.2 J	0.26	3.6	3.2 [6.5]	0.45	0.022 J	3.0	1.0	1.2 J
Phenol	0.33	500	mg/kg	0.20 U	0.20 U	0.23 U	1.1 U	1.3 U	0.21 U	2.2 U	2.0 U [3.2 U]	0.21 U	0.18 U	1.0 U	0.88 U	9.1 U
Pyrene	100	500	mg/kg	0.066 J	0.019 J	0.23 U	0.56 J	0.68 J	0.022 J	0.94 J	0.67 J [1.3 J]	0.058 J	0.029 J	1.3	1.0	1.6 J
Total SVOCs	- -	- -	mg/kg	0.60 J	0.16 J	ND	14 J	21 J	0.63 J	32 J	47 J [110 J]	8.1 J	0.18 J	23 J	7.2 J	8.7 J
Inorganics																
Aluminum	- -	- -	mg/kg	6,030 J	4,630 J	1,960 J	2,380 J	2,950 J	1,040 J	4,860 J	2,230 J [4,990 J]	2,810 J	8,070 J	1,390 J	4,010 J	5,780 J
Antimony	- -	- -	mg/kg	18.2 U	17.0 U	20.1 U	18.9 U	21.8 U	18.2 U	19.9 U	18.1 U [28.9 U]	18.4 U	16.1 U	17.7 U	15.7 U	16.2 U
Arsenic	13	16	mg/kg	4.60	4.50	1.20 J	2.30 J	2.40 J	0.800 J	2.00 J	2.20 J [3.00 J]	2.30 J	3.80	1.10 J	2.00 J	7.90
Barium	350	400	mg/kg	20.4 J	19.2 J	8.53 J	15.6 J	19.1 J	3.68 J	26.7	14.0 [27.0]	16.0	26.6	7.89	22.1	118
Beryllium	7.2	590	mg/kg	0.214 J	0.156 J	0.0980 J	0.110 J	0.138 J	0.0490 J	0.224 J	0.166 J [0.227 J]	0.113 J	0.362	0.0530 J	0.186 J	0.261
Cadmium	2.5	9.3	mg/kg	0.185 J	0.128 J	0.0720 J	0.212 J	0.140 J	0.0570 J	0.282 J	0.231 J [0.389 J]	0.246 UBJ	0.193 J	0.0550 J	0.0920 J	0.560

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-1 0 - 2 11/16/10	AMW-1 2 - 4 11/16/10	AMW-1 4 - 6 11/16/10	AMW-2 0 - 2 11/16/10	AMW-2 2 - 4 11/16/10	AMW-2 4 - 6 11/16/10	AMW-3 0 - 2 11/30/10	AMW-3 2 - 4 11/30/10	AMW-3 4 - 6 11/30/10	AMW-4 2 - 4 11/18/10	AMW-4 4 - 6 11/18/10	AMW-4 6 - 8 11/18/10	AMW-5 2 - 4 11/18/10
Inorganics (Cont.)																
Calcium	- -	- -	mg/kg	2,940 J	1,190 J	799 J	19,600 J	1,180 J	213 J	28,000	113,000 [61,900]	1,670	556	218	428	24,500
Chromium	- -	- -	mg/kg	7.49	11.9	4.79	4.64	6.92	2.79	7.46	4.68 [7.99]	5.67	10.6	2.53	5.58	14.6
Cobalt	- -	- -	mg/kg	2.69	1.80	1.14	1.53	2.18	0.730	2.44	1.76 [3.26]	1.76	4.27	0.924	2.64	3.14
Copper	50	270	mg/kg	9.40	6.80	2.70	6.90	6.70	1.60	14.5 J	7.00 J [11.6 J]	7.40 J	4.80	1.50	4.00	20.7
Ferrous Iron	- -	- -	mg/kg	R	R	R	R	R	R	0.600 J	1.60 J [2.30 J]	0.500 J	R	R	1.70 J	R
Iron	- -	- -	mg/kg	8,480 J	6,610 J	3,680 J	4,480 J	5,190 J	2,560 J	5,670 J	5,180 J [7,700 J]	5,450 J	10,100 J	1,860 J	5,410 J	8,320 J
Lead	63	1,000	mg/kg	31.9	21.5	2.60	24.0	27.9	1.70	**69.6 J**	**52.4 J [72.6 J]**	25.9 J	8.20 J	4.70 J	9.00 J	61.5 J
Magnesium	- -	- -	mg/kg	1,190 J	1,110 J	706 J	11,200 J	1,060 J	261 J	5,250	63,000 [35,800]	1,330	1,070	309	638	3,570
Manganese	1,600	10,000	mg/kg	131 J	80.1 J	35.5 J	69.0 J	40.3 J	20.5 J	76.6 J	100 J [110 J]	68.7 J	246	25.4	60.8	198
Mercury	0.18	2.8	mg/kg	0.0333	0.0700	0.0250 U	0.0249 U	0.0302 U	0.0232 U	0.0329	0.0525 [0.0770]	0.0184 J	0.0173 J	0.0240 U	0.0226	0.105
Nickel	30	310	mg/kg	6.08	4.70 J	3.26 J	4.06 J	5.01 J	1.56 J	7.11	4.78 J [7.77 J]	5.19 J	6.07 J	1.58 J	4.47 J	8.27 J
Potassium	- -	- -	mg/kg	281 J	774 J	535 J	368 J	597 J	206 J	548	490 [597]	498	305 J	202 J	298 J	527 J
Selenium	3.9	1,500	mg/kg	4.90 U	4.50 U	5.40 U	5.00 U	5.80 U	4.90 U	5.30 U	4.80 U [7.70 U]	4.90 U	4.30 U	4.70 U	4.20 U	4.30 U
Silver	2	1,500	mg/kg	0.608 U	0.568 U	0.669 U	0.631 U	0.727 U	0.608 U	0.662 U	0.602 U [0.962 U]	0.614 U	0.536 U	0.590 U	0.523 U	0.542 U
Sodium	- -	- -	mg/kg	41.2 J	89.8 J	52.2 J	40.5 J	55.4 J	67.7 J	119 J	153 J [169 J]	66.9 J	83.1 J	34.0 J	36.2 J	347
Thallium	- -	- -	mg/kg	7.30 U	6.80 U	8.00 U	7.60 U	8.70 U	7.30 U	7.90 U	7.20 U [11.5 U]	7.40 U	6.40 U	7.10 U	6.30 U	6.50 U
Vanadium	- -	- -	mg/kg	11.2	18.1	6.02	7.40	10.1	3.56	8.76	11.5 [11.9]	8.45	13.6	3.38	7.78	16.2
Zinc	109	10,000	mg/kg	32.5	18.8	7.50	20.7	17.6	3.30	57.3 J	21.1 J [37.8 J]	20.2 J	20.8	4.40	10.3	**123**
Miscellaneous																
Sulfate	- -	- -	mg/kg	124 U	283	168	225	248	140	78.1 J	397 [717]	569 J	172	59.6 J	105 U	649
Total Organic Carbon	- -	- -	mg/kg	3,340	23,600	1,520	4,830	6,700	1,390	6,440	7,720 [10,800]	6,430 J	2,320	8,850	3,610	21,100
TPH																
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-5 4 - 6 11/18/10	AMW-5 6 - 8 11/18/10	AMW-6 2 - 4 11/18/10	AMW-6 4 - 6 11/18/10	AMW-6 6 - 8 11/18/10	AMW-7 4 - 6 11/29/10	AMW-7 8 - 10 11/29/10	AMW-7 10 - 12 11/29/10	AMW-8 10 - 11 11/30/10	AMW-8 12 - 14 11/30/10	AMW-8 14 - 15 11/30/10	AMW-9 9 - 10 11/30/10	AMW-9 10 - 12 11/30/10	AMW-9 14 - 15 11/30/10
Volatile Organics																	
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.025 J	0.071 U	0.085 U	0.057 J	0.017 J	0.055 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.19	0.051 U	0.055 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
2-Butanone	0.12	500	mg/kg	0.011 J	0.0065 J	0.027 U	0.011 J	0.034 J	0.027 U	0.027 U	0.0052 J	**0.23 J**	0.089 J	0.42 U	0.32 U	**0.13 J**	0.28 U
2-Hexanone	- -	- -	mg/kg	0.028 U	0.031 U	0.027 U	0.028 U	0.18 U	0.027 U	0.027 U	0.032 U	0.37 U	0.36 U	0.42 U	0.32 U	0.25 U	0.28 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.028 U	0.031 U	0.027 U	0.028 U	0.18 U	0.027 U	0.027 U	0.032 U	0.37 U	0.36 U	0.42 U	0.32 U	0.25 U	0.28 U
Acetone	0.05	500	mg/kg	**0.074**	0.047	0.027 U	**0.059**	**0.18**	0.0063 J	0.037	0.050	**0.24 J**	**0.17 J**	**0.15 J**	**0.38**	**0.18 J**	**0.19 J**
Benzene	0.06	44	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	**0.078**	0.071 U	0.085 U	**0.61**	0.051	0.055 U
Bromodichloromethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Bromoform	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Bromomethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Carbon Disulfide	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0053 J	1.8	2.6	0.25	1.7	1.8	0.078
Carbon Tetrachloride	0.76	22	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Chlorobenzene	1.1	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Chloroethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ	0.0065 UJ	0.074 UJ	0.071 UJ	0.085 UJ	0.064 UJ	0.051 UJ	0.055 U
Chloroform	0.37	350	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Chloromethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0015 J	**3.2 D**	**1.4**	0.11	**96 D**	**0.53**	0.18
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Cyclohexane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.23	0.051 U	0.055 U
Dibromochloromethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ	0.0065 UJ	0.074 UJ	0.071 UJ	0.085 UJ	0.064 UJ	0.051 U	0.055 U
Ethylbenzene	1	390	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.47	0.051 U	0.055 U
Isopropylbenzene	- -	- -	mg/kg	0.0032 J	0.0044 J	0.0055 U	0.0057 U	0.016 J	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.034 J	0.051 U	0.055 U
Methyl acetate	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0046 J	**3.3 D**	**1.4**	0.060 J	**9.0 D**	**1.5 D**	0.067
Methylcyclohexane	- -	- -	mg/kg	0.0024 J	0.0080	0.0055 U	0.0057 U	0.018 J	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.044 J	0.051 U	0.055 U
Methylene Chloride	0.05	500	mg/kg	0.0081	0.0062	0.0062	0.0090	0.049	0.0076	0.016	0.023	**24 D**	**8.0 D**	**1.5**	**7.0 D**	**3.7 D**	**0.57 J**
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-5 4 - 6 11/18/10	AMW-5 6 - 8 11/18/10	AMW-6 2 - 4 11/18/10	AMW-6 4 - 6 11/18/10	AMW-6 6 - 8 11/18/10	AMW-7 4 - 6 11/29/10	AMW-7 8 - 10 11/29/10	AMW-7 10 - 12 11/29/10	AMW-8 10 - 11 11/30/10	AMW-8 12 - 14 11/30/10	AMW-8 14 - 15 11/30/10	AMW-9 9 - 10 11/30/10	AMW-9 10 - 12 11/30/10	AMW-9 14 - 15 11/30/10
Volatile Organics (Cont.)																	
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.034 J	0.051 U	0.055 U
Toluene	0.7	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	**1.4**	0.051 U	0.055 U
Total VOCs	- -	- -	mg/kg	0.10 J	0.072 J	0.0062	0.079 J	0.30 J	0.014 J	0.053	0.093 J	35 J	14 J	2.1 J	140 J	11 J	1.2 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.046 J	0.071 U	0.085 U	**1.4**	0.027 J	0.055 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Trichloroethene	0.47	200	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.020 J	0.071 U	0.085 U	**5.0 D**	0.051 U	0.041 J
Trichlorofluoromethane	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.074 U	0.071 U	0.085 U	0.064 U	0.051 U	0.055 U
Vinyl Chloride	0.02	13	mg/kg	0.0056 U	0.0062 U	0.0055 U	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0032 J	**1.9 D**	**0.17**	0.085 U	**15 EJ**	**3.1 EJ**	**0.026 J**
Xylenes (total)	0.26	500	mg/kg	0.0023 J	0.012 U	0.011 U	0.011 U	0.071 U	0.011 U	0.011 U	0.013 U	0.15 U	0.14 U	0.17 U	**2.5**	0.10 U	0.11 U
Semivolatile Organics																	
1,1'-Biphenyl	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,4-Dichlorophenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,4-Dimethylphenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,4-Dinitrophenol	- -	- -	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
2,4-Dinitrotoluene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2,6-Dinitrotoluene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2-Chloronaphthalene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2-Chlorophenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2-Methylnaphthalene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.24 J	0.097 J	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2-Methylphenol	0.33	500	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
2-Nitroaniline	- -	- -	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
2-Nitrophenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
3-Nitroaniline	- -	- -	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
4-Chloroaniline	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
4-Methylphenol	0.33	500	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.21 J	0.55 U	0.56 U	**1.6**	0.21 J	0.71 U
4-Nitroaniline	- -	- -	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
4-Nitrophenol	- -	- -	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
Acenaphthene	20	500	mg/kg	1.9 U	0.040 J	3.6 U	0.14 J	0.026 J	0.18 U	0.19 U	0.22 U	0.026 J	0.28 U	0.027 J	0.34 U	0.24 U	0.37 U
Acenaphthylene	100	500	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.025 J	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Acetophenone	- -	- -	mg/kg	1.9 U	0.43 UJ	3.6 UJ	0.38 UJ	0.24 UJ	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Anthracene	100	500	mg/kg	0.26 J	0.051 J	3.6 U	0.27 J	0.052 J	0.017 J	0.017 J	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-5	AMW-5	AMW-6	AMW-6	AMW-6	AMW-7	AMW-7	AMW-7	AMW-8	AMW-8	AMW-8	AMW-9	AMW-9	AMW-9
Sample Depth(feet):				4 - 6	6 - 8	2 - 4	4 - 6	6 - 8	4 - 6	8 - 10	10 - 12	10 - 11	12 - 14	14 - 15	9 - 10	10 - 12	14 - 15
Date Collected:				11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/29/10	11/29/10	11/29/10	11/30/10	11/30/10	11/30/10	11/30/10	11/30/10	11/30/10
Semivolatile Organics (Cont.)																	
Atrazine	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Benzaldehyde	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Benzo(a)anthracene	1	5.6	mg/kg	0.69 J	0.14 J	0.44 J	0.56	0.15 J	0.088 J	0.054 J	0.024 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Benzo(a)pyrene	1	1	mg/kg	0.62 J	0.13 J	0.42 J	0.54	0.16 J	0.087 J	0.056 J	0.025 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Benzo(b)fluoranthene	1	5.6	mg/kg	0.72 J	0.15 J	0.52 J	0.63	0.19 J	0.093 J	0.064 J	0.028 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Benzo(g,h,i)perylene	100	500	mg/kg	0.40 J	0.095 J	0.30 J	0.39	0.12 J	0.061 J	0.043 J	0.021 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Benzo(k)fluoranthene	0.8	56	mg/kg	0.28 J	0.064 J	3.6 U	0.25 J	0.074 J	0.033 J	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	1.9 U	0.17 J	3.6 U	0.96	0.63	0.42	0.11 J	0.098 J	0.11 J	0.28 U	0.29 U	0.57	0.24 U	0.37 U
Butylbenzylphthalate	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.15 J	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Caprolactam	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Carbazole	- -	- -	mg/kg	0.18 J	0.43 U	3.6 U	0.13 J	0.029 J	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Chrysene	1	56	mg/kg	0.74 J	0.15 J	0.44 J	0.64	0.17 J	0.082 J	0.050 J	0.021 J	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	1.9 U	0.43 U	3.6 U	0.11 J	0.036 J	0.017 J	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Dibenzofuran	7	350	mg/kg	1.9 U	0.43 U	3.6 U	0.11 J	0.027 J	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Diethylphthalate	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Dimethylphthalate	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Di-n-Butylphthalate	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Di-n-Octylphthalate	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Fluoranthene	100	500	mg/kg	1.3 J	0.28 J	1.0 J	1.1	0.28	0.17 J	0.11 J	0.041 J	0.050 J	0.027 J	0.060 J	0.34 U	0.24 U	0.37 U
Fluorene	30	500	mg/kg	0.22 J	0.067 J	3.6 U	0.28 J	0.064 J	0.18 U	0.19 U	0.22 U	0.025 J	0.28 U	0.024 J	0.34 U	0.24 U	0.37 U
Hexachlorobenzene	0.33	6	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Hexachlorobutadiene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Hexachloroethane	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.33 J	0.076 J	3.6 U	0.34 J	0.10 J	0.049 J	0.033 J	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Isophorone	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Naphthalene	12	500	mg/kg	1.9 U	0.43 U	3.6 U	0.088 J	0.029 J	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Nitrobenzene	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.28 U	0.28 U	0.29 U	0.34 U	0.24 U	0.37 U
Pentachlorophenol	0.8	6.7	mg/kg	3.6 U	0.83 U	7.0 U	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.55 U	0.55 U	0.56 U	0.66 U	0.47 U	0.71 U
Phenanthrene	100	500	mg/kg	1.2 J	0.25 J	0.74 J	1.1	0.27	0.090 J	0.041 J	0.22 U	0.079 J	0.034 J	0.077 J	0.34 U	0.24 U	0.37 U
Phenol	0.33	500	mg/kg	1.9 U	0.43 U	3.6 U	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.13 J	0.28 U	0.29 U	**0.49**	0.24 U	0.37 U
Pyrene	100	500	mg/kg	1.1 J	0.26 J	0.83 J	1.0	0.24	0.16 J	0.088 J	0.035 J	0.032 J	0.28 U	0.038 J	0.34 U	0.24 U	0.37 U
Total SVOCs	- -	- -	mg/kg	8.0 J	1.9 J	4.7 J	8.9 J	2.8 J	1.5 J	0.67 J	0.29 J	0.66 J	0.061 J	0.23 J	2.7	0.21 J	ND
Inorganics																	
Aluminum	- -	- -	mg/kg	4,360 J	5,980 J	3,660 J	3,620 J	8,470 J	4,490 J	3,290 J	4,510 J	12,300 J	14,000 J	13,600 J	15,900 J	6,040 J	18,600 J
Antimony	- -	- -	mg/kg	16.5 U	19.1 U	16.4 U	17.1 U	20.9 U	16.4 U	16.8 U	19.3 U	24.6 U	25.1 U	25.3 U	30.4 U	21.5 U	32.0 U
Arsenic	13	16	mg/kg	10.2	**24.4**	**16.2**	**20.1**	10.6	3.10 J	2.00 J	4.10 J	**13.2 J**	**16.1 J**	**13.7 J**	12.8 J	9.40 J	**15.3 J**
Barium	350	400	mg/kg	34.3	78.8	32.5	44.4	44.6	26.0	28.5	13.2	29.3	32.8	32.5	39.5	16.9	43.6
Beryllium	7.2	590	mg/kg	0.251	0.283	0.174 J	0.185 J	0.448	0.200 J	0.142 J	0.195 J	0.580	0.669	0.609	0.710	0.276 J	0.862
Cadmium	2.5	9.3	mg/kg	1.88	1.36	0.199 J	0.356	0.468	0.463 J	0.224 UBJ	0.258 UBJ	0.407 J	0.549 J	0.491 J	0.466 J	0.335 J	0.675 J

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-5 4 - 6 11/18/10	AMW-5 6 - 8 11/18/10	AMW-6 2 - 4 11/18/10	AMW-6 4 - 6 11/18/10	AMW-6 6 - 8 11/18/10	AMW-7 4 - 6 11/29/10	AMW-7 8 - 10 11/29/10	AMW-7 10 - 12 11/29/10	AMW-8 10 - 11 11/30/10	AMW-8 12 - 14 11/30/10	AMW-8 14 - 15 11/30/10	AMW-9 9 - 10 11/30/10	AMW-9 10 - 12 11/30/10	AMW-9 14 - 15 11/30/10
Inorganics (Cont.)																	
Calcium	- -	- -	mg/kg	8,860	2,420	5,420	1,520	2,140	875	743	1,450	1,810	2,070	1,710	2,780	1,980	2,200
Chromium	- -	- -	mg/kg	8.50	9.32	7.77	6.12	22.7	7.94	7.96	12.1	35.9	41.1	38.4	43.9	19.8	51.5
Cobalt	- -	- -	mg/kg	2.15	3.57	2.04	2.12	4.84	2.72	2.27	3.05	7.12	8.30	7.95	8.47	3.69	10.4
Copper	50	270	mg/kg	14.3	17.9	11.5	11.5	14.7	8.40	7.20	5.60	11.9	13.9	13.0	13.9	5.80	17.4
Ferrous Iron	- -	- -	mg/kg	11.2 J	R	R	R	R	R	R	R	R	R	R	R	R	R
Iron	- -	- -	mg/kg	6,550 J	8,740 J	6,630 J	5,890 J	18,200 J	10,600	5,780	9,990	31,200	35,600	34,200	36,600	17,700	44,400
Lead	63	1,000	mg/kg	24.2 J	21.1 J	50.8 J	**80.2 J**	43.8 J	22.4 J	18.5 J	6.60 J	14.3 J	13.3 J	12.7 J	14.0 J	6.30 J	16.9 J
Magnesium	- -	- -	mg/kg	2,400	1,010	2,300	577	2,900	878	766	1,950	6,330	7,220	6,870	7,130	3,160	9,380
Manganese	1,600	10,000	mg/kg	280	120	63.1	52.6	180	119 J	55.2 J	82.8 J	214 J	267 J	268 J	268 J	132 J	378 J
Mercury	0.18	2.8	mg/kg	0.0309	**11.1**	0.0785	**0.199**	0.122	0.0492	**0.189**	0.0219 J	0.0332 U	0.0168 J	0.0379	0.0284 J	0.0270 U	0.0441 U
Nickel	30	310	mg/kg	4.24 J	6.55 J	4.81 J	4.56 J	13.0 J	5.49	4.87 J	7.91	21.3	25.0	23.3	25.9	10.7	**31.4**
Potassium	- -	- -	mg/kg	547 J	444 J	432 J	332 J	1,630 J	541	420	1,010	3,560	4,050	3,730	4,350	1,800	5,240
Selenium	3.9	1,500	mg/kg	4.40 U	5.10 U	4.40 U	4.60 U	5.60 U	0.600 J	0.600 J	0.700 J	1.50 J	1.80 J	1.60 J	1.60 J	5.70 U	2.30 J
Silver	2	1,500	mg/kg	0.550 U	0.635 U	0.546 U	0.571 U	0.698 U	0.548 U	0.559 U	0.644 U	0.820 U	0.837 U	0.844 U	1.01 U	0.716 U	1.07 U
Sodium	- -	- -	mg/kg	125 J	143 J	524	153 J	392	70.5 J	131 J	742	4,550	5,570	5,460	1,790	2,210	8,060
Thallium	- -	- -	mg/kg	6.60 U	7.60 U	6.60 U	6.90 U	8.40 U	6.60 U	6.70 U	7.70 U	9.80 U	10.0 U	10.1 U	12.2 U	8.60 U	12.8 U
Vanadium	- -	- -	mg/kg	11.1	12.3	9.48	7.67	24.8	9.26	7.66	13.7	39.4	45.0	44.3	48.7	22.8	57.9
Zinc	109	10,000	mg/kg	52.8	44.6	51.6	96.9	75.0	**120 J**	29.0 J	23.4 J	53.2 J	60.6 J	57.2 J	65.3 J	34.0 J	82.6 J
Miscellaneous																	
Sulfate	- -	- -	mg/kg	518	101 J	89.4 J	115 U	132 J	346	291	149	1,070	1,570	1,280	1,210	105 J	2,940
Total Organic Carbon	- -	- -	mg/kg	11,500	2,220	4,960	3,250	15,800	5,020	2,900	22,300	24,200	22,000	20,500	25,200	9,750	22,500
TPH																	
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-10 8.5 - 9.5 12/01/10	AMW-10 12 - 14 12/01/10	AMW-10 14 - 15 12/01/10	AMW-11 2 - 4 12/01/10	AMW-11 4 - 6 12/01/10	AMW-11 6 - 8 12/01/10	DUP-1 09/22/04	DUP-2 09/22/04	G2-D1 3 - 3.5 11/16/04	G2-S1 1.5 - 2 11/16/04	G3-D1 3 - 3.5 11/16/04	G3-S1 1.5 - 2 11/16/04	G4-D1 3 - 3.5 11/16/04	G4-D2 3 - 3.5 11/18/04	G4-S1 1.5 - 2 11/16/04
Volatile Organics																		
1,1,1-Trichloroethane	0.68	500	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	ND	ND	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1.6	**310**	3.1	ND	1.5	1.0 J	**8.2**
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	1.8	**94**	1.3 J	1.6	0.73 J	1.5 J	6.1
1,3-Dichlorobenzene	2.4	280	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	0.98 U	0.63 U	1.0 U	0.66 U	0.029 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	0.98 U	0.63 U	1.0 U	0.66 U	0.029 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	0.98 U	0.63 U	1.0 U	0.66 U	0.029 U	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	0.98 U	0.63 U	1.0 U	0.66 U	0.019 J	0.83 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**0.48**	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	ND	ND	**4.1**	**13**	**8.3**	**5.7**	**4.7**	**4.2**	**3.5**
Bromodichloromethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	0.20 UJ	0.13 UJ	0.20 UJ	0.13 UJ	0.0058 U	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	0.20 UJ	0.13 UJ	0.20 UJ	0.13 UJ	0.0058 U	0.17 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	**110 D**	0.13 U	**4.4**	0.13 U	0.0058 U	0.17 U	0.063	**69**	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	0.83	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	ND	ND	**7.3**	**140**	**40**	**28**	**20**	**41**	**40**
Isopropylbenzene	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0019 J	0.17 U	NA	NA	3.7	22	9.4	7.6	6.2	7.6	5.7
Methyl acetate	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	**6.7 D**	0.88	**1.8**	0.13 U	0.0058 U	0.17 U	0.012	ND	0.22	ND	ND	ND	0.64	ND	ND
Methylcyclohexane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0019 J	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	**1.1 DJ**	**1.0 J**	**0.68 J**	0.13 UJ	0.0094 UB	0.17 UJ	**19**	**430**	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	**23**	**100**	**40**	**36**	**33**	**43**	**20**
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	7.3	**34**	**14**	**13**	**12**	**13**	9.3
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	**10**	**57**	**24**	**20**	**16**	**20**	**15**

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		AMW-10	AMW-10	AMW-10	AMW-11	AMW-11	AMW-11	DUP-1	DUP-2	G2-D1	G2-S1	G3-D1	G3-S1	G4-D1	G4-D2	G4-S1
Sample Depth(feet):	Use SCRs	Commercial		8.5 - 9.5	12 - 14	14 - 15	2 - 4	4 - 6	6 - 8			3 - 3.5	1.5 - 2	3 - 3.5	1.5 - 2	3 - 3.5	3 - 3.5	1.5 - 2
Date Collected:	(bold)	(shade)	Units	12/01/10	12/01/10	12/01/10	12/01/10	12/01/10	12/01/10	09/22/04	09/22/04	11/16/04	11/16/04	11/16/04	11/16/04	11/16/04	11/18/04	11/16/04
Volatile Organics (Cont.)																		
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.56 J	9.5 J	2.3 J	0.55 J	0.97 J	0.75 J	0.69 J
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	2.2	**11**	4.8	4.0	4.1	4.1	2.9
Styrene	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	0.21 J	ND	0.46 J	0.35 J	0.37 J	0.37 J	0.24 J
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	1.6	ND	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	ND	ND	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	**2.7 D**	0.13 U	0.18 J	0.13 U	0.0058 U	0.17 U	ND	ND	0.16 J	ND	ND	0.33	0.27	0.38	0.39
Total VOCs	- -	- -	mg/kg	130 J	2.0 J	7.4 J	ND	0.023 J	ND	20	1,700	64 J	1,000 J	150 J	120 J	100 J	140 J	130 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	**3.3 D**	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	ND	ND	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	0.13 J	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	0.050	**1,200**	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	- -	- -	mg/kg	0.20 U	0.13 U	0.20 U	0.13 U	0.0058 U	0.17 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	**2.3 D**	**0.095 J**	**0.12 J**	0.13 U	0.0058 U	0.17 U	ND	ND	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	0.26	500	mg/kg	**6.4 D**	0.25 U	0.17 J	0.26 U	0.012 U	0.33 U	ND	ND	**2.3**	**250**	**1.8**	**1.9**	**2.0**	**3.1**	**13**
Semivolatile Organics																		
1,1'-Biphenyl	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.070 J	0.033 J	0.50 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.40	0.13 J	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	**0.90**	0.026 J	0.23 J	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	0.34 U	0.22 U	0.34 U	0.90	0.36	4.2	NA	NA	0.33	1.5	0.88	0.85	0.60	1.4	0.87
Acenaphthylene	100	500	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	0.34 U	0.22 U	0.34 U	0.16 J	0.081 J	1.4	NA	NA	0.10	0.56	0.34	0.33	ND	0.72	0.32 J

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		AMW-10	AMW-10	AMW-10	AMW-11	AMW-11	AMW-11	DUP-1	DUP-2	G2-D1	G2-S1	G3-D1	G3-S1	G4-D1	G4-D2	G4-S1
Sample Depth(feet):	Use SCRs	Commercial		8.5 - 9.5	12 - 14	14 - 15	2 - 4	4 - 6	6 - 8			3 - 3.5	1.5 - 2	3 - 3.5	1.5 - 2	3 - 3.5	3 - 3.5	1.5 - 2
Date Collected:	(bold)	(shade)	Units	12/01/10	12/01/10	12/01/10	12/01/10	12/01/10	12/01/10	09/22/04	09/22/04	11/16/04	11/16/04	11/16/04	11/16/04	11/16/04	11/18/04	11/16/04
Semivolatile Organics (Cont.)																		
Atrazine	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	0.34 U	0.22 U	0.34 U	0.079 J	0.048 J	0.54 J	NA	NA	0.031 J	0.26 J	0.087	0.11	0.042 J	0.17	0.39
Benzo(a)pyrene	1	1	mg/kg	0.34 U	0.22 U	0.34 U	0.037 J	0.027 J	0.20 J	NA	NA	ND	ND	0.049 J	0.046 J	ND	0.072 J	0.27 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.34 U	0.22 U	0.34 U	0.067 JY	0.040 J	0.28 J	NA	NA	ND	ND	0.067 J	0.060 J	ND	0.10 J	0.35
Benzo(g,h,i)perylene	100	500	mg/kg	0.34 U	0.22 U	0.34 U	0.016 J	0.024 J	0.094 J	NA	NA	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	0.34 U	0.22 U	0.34 U	0.069 JY	0.20 U	0.086 J	NA	NA	ND	ND	0.058	0.056 J	ND	0.10 J	0.46
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.34 UB	0.22 UB	0.39 UB	0.23 UB	0.29 UB	0.56 UB	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.32	0.075 J	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	0.34 U	0.22 U	0.34 U	0.065 J	0.041 J	0.46 J	NA	NA	0.040 J	0.34 J	0.12	0.12	0.051 J	0.18 J	0.46
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7	350	mg/kg	0.34 U	0.22 U	0.34 U	0.56	0.20	3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	0.34 U	0.22 U	0.34 U	0.48	0.25	4.0	NA	NA	0.13	0.88	0.36	0.52	0.19	0.88	0.85
Fluorene	30	500	mg/kg	0.34 U	0.22 U	0.34 U	0.53	0.20	3.4	NA	NA	0.85	3.4	2.2	1.7	1.7	2.1	1.8
Hexachlorobenzene	0.33	6	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.074 J	NA	NA	ND	ND	0.049 J	0.046 J	ND	ND	ND
Isophorone	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	0.34 U	0.22 U	0.34 U	0.85	0.30	4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.34 U	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	0.66 U	0.42 U	0.67 U	0.44 U	0.38 U	1.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	0.34 U	0.22 U	0.34 U	1.3	0.58	11	NA	NA	1.9	7.2	5.6	3.9	3.5	5.2	3.8
Phenol	0.33	500	mg/kg	0.21 J	0.22 U	0.34 U	0.23 U	0.20 U	0.56 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	0.34 U	0.22 U	0.34 U	0.32	0.19 J	2.6	NA	NA	0.17	1.4	0.63	0.65	0.34	0.59	1.2
Total SVOCs	- -	- -	mg/kg	1.1 J	0.026 J	0.23 J	6.2 J	2.6 J	40 J	NA	NA	3.5 J	16 J	10 J	8.4 J	6.4 J	12 J	11 J
Inorganics																		
Aluminum	- -	- -	mg/kg	12,300 J	8,940 J	10,800 J	5,460 J	4,040 J	3,750 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	30.4 U	18.8 U	30.3 U	20.0 U	17.6 U	25.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	8.60	11.0	**13.4**	4.70	4.50	8.40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	32.1	21.4	27.1	26.3	18.6	32.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	0.580	0.430	0.465	0.264 J	0.173 J	0.254 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	0.418 J	0.306 J	0.326 J	0.267 UB	0.235 UBJ	0.334 UBJ	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	AMW-10 8.5 - 9.5 12/01/10	AMW-10 12 - 14 12/01/10	AMW-10 14 - 15 12/01/10	AMW-11 2 - 4 12/01/10	AMW-11 4 - 6 12/01/10	AMW-11 6 - 8 12/01/10	DUP-1 09/22/04	DUP-2 09/22/04	G2-D1 3 - 3.5 11/16/04	G2-S1 1.5 - 2 11/16/04	G3-D1 3 - 3.5 11/16/04	G3-S1 1.5 - 2 11/16/04	G4-D1 3 - 3.5 11/16/04	G4-D2 3 - 3.5 11/18/04	G4-S1 1.5 - 2 11/16/04
Inorganics (Cont.)																		
Calcium	- -	- -	mg/kg	2,330	2,490	2,050	1,770	1,560 B	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	35.3	25.6	29.1	12.9	9.82	17.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	6.38	4.99	5.86	3.47	2.76	2.81	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	10.8 J	8.30 J	10.1 J	9.70 J	11.4 J	35.1 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	2.00 J	1.40 J	2.90 J	R	R	R	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	27,700 J	24,100 J	28,200 J	12,000 J	9,160 J	15,500 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	12.4 J	8.80 J	12.9 J	15.1 J	14.0 J	10.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	5,730	4,580	5,300	2,210	1,800	1,330	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	204 J	176 J	217 J	111 J	92.4 J	54.2 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	**0.181**	0.0354	0.0378 U	0.0285	0.0187 J	0.0389	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	20.8	15.8	18.3	9.80	7.78	5.83 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	3,410	2,660	2,890	1,210	825	801	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	8.10 U	0.900 J	1.40 J	5.30 U	4.70 U	1.30 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	1.01 U	0.627 U	1.01 U	0.667 U	0.587 U	0.835 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	1,790	3,340	4,840	289	231	406	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	12.2 U	7.50 U	12.1 U	8.00 U	7.00 U	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	41.9	32.2	40.1	17.9	12.9	27.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	51.6 J	39.0 J	44.8 J	30.2 J	28.1 J	19.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Sulfate	- -	- -	mg/kg	2,240	2,020	3,350	1,510	1,510	2,630	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	30,900	10,100	18,100	7,270	9,840	4,430	17,900	25,600	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	G4-S2 1.5 - 2 11/18/04	G5-D1 3 - 3.5 11/16/04	G5-D2 3 - 3.5 11/18/04	G5-S1 1.5 - 2 11/16/04	G5-S2 1.5 - 2 11/18/04	G6-D1 3 - 3.5 11/16/04	G6-D2 3 - 3.5 11/18/04	G6-S1 1.5 - 2 11/16/04	G6-S2 1.5 - 2 11/18/04	G8-D1 3 - 3.5 11/16/04	G8-D2 3 - 3.5 11/18/04	G8-S1 1.5 - 2 11/16/04	G8-S2 1.5 - 2 11/18/04	G9-D1 3 - 3.5 11/18/04	G9-D2 3 - 3.5 11/18/04
Volatile Organics																		
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	**4.8**	1.9	0.37	1.1 J	0.48 J	0.28 J	1.1 J	**7.4**	0.54 J	**4.7**	**4.2**	1.7 J	0.19 J	**12**	0.19 J
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	6.1	2.4	1.6	4.6	4.1	0.96 J	6.1	3.7	2.4	2.6	2.8	0.85 J	0.38 J	7.0	0.53 J
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**3.2**	**5.7**	**3.3**	**6.4**	**9.1**	**10**	**6.2**	**4.2**	**10**	**0.98**	**2.1**	**14**	**3.8**	**5.7**	**0.71**
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	**41**	**9.1**	**4.4**	**46**	**58**	**3.3**	**3.4**	**13**	**5.7**	**1.3**	**1.1**	**2.2**	**7.0**	**25**	**4.6**
Isopropylbenzene	- -	- -	mg/kg	6.1	5.2	3.0	7.0	9.1	4.6	4.7	5.0	4.1	7.0	8.5	17	2.8	8.5	2.9
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	**32**	4.9	9.6	**16**	**13**	1.3	**19**	4.5	4.2	**12**	**21**	**15**	3.0	**21**	11
n-Butylbenzene	12	500	mg/kg	9.0	7.5	5.0	10	**13**	6.6	6.6	9.4	6.4	**13**	**15**	**30**	4.9	**12**	5.5
n-Propylbenzene	3.9	500	mg/kg	**16**	**14**	**8.0**	**19**	**24**	**12**	**12**	**14**	**10**	**17**	**20**	**40**	**7.3**	**23**	**7.7**

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	G4-S2 1.5 - 2 11/18/04	G5-D1 3 - 3.5 11/16/04	G5-D2 3 - 3.5 11/18/04	G5-S1 1.5 - 2 11/16/04	G5-S2 1.5 - 2 11/18/04	G6-D1 3 - 3.5 11/16/04	G6-D2 3 - 3.5 11/18/04	G6-S1 1.5 - 2 11/16/04	G6-S2 1.5 - 2 11/18/04	G8-D1 3 - 3.5 11/16/04	G8-D2 3 - 3.5 11/18/04	G8-S1 1.5 - 2 11/16/04	G8-S2 1.5 - 2 11/18/04	G9-D1 3 - 3.5 11/18/04	G9-D2 3 - 3.5 11/18/04
Volatile Organics (Cont.)																		
p-Isopropyltoluene	- -	- -	mg/kg	0.81 J	0.87 J	0.73 J	1.2	1.3 J	1.3 J	1.6 J	0.87 J	1.1 J	0.49 J	0.48 J	0.53 J	0.36 J	1.8 J	0.64 J
sec-Butylbenzene	11	500	mg/kg	2.7	2.4	1.6	3.2	3.9	2.2	2.5	2.7	2.1	4.0	4.5	9.0	1.5	3.9	1.8
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	0.29 J	0.22 J	0.19 J	0.28 J	0.38 J	0.40 J	0.28 J	0.28 J	0.26 J	0.44 J	0.52 J	1.0 J	0.16 J	0.40 J	0.18 J
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	ND	0.44	0.21	0.57	0.69	0.52	ND	0.57	0.54	0.36	0.41	**0.80**	0.22	ND	ND
Total VOCs	- -	- -	mg/kg	130 J	57 J	39 J	120 J	140 J	45 J	64 J	74 J	50 J	70 J	87 J	140 J	32 J	190 J	37 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	0.26	500	mg/kg	**13**	**2.5**	**0.60**	**4.1**	**3.1**	**1.4**	**0.82**	**8.7**	**1.6**	**5.8**	**6.2**	**4.3**	**0.84**	**66**	**0.39**
Semivolatile Organics																		
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	2.3	1.2	0.80	ND	1.8	1.1	0.43	0.71	1.1	0.74	1.6	1.3	1.6	0.71	0.85
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	1.1	0.42	ND	0.34 J	ND	0.56	ND	0.25	ND	0.33	ND	0.65	ND	0.41	0.43

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	G4-S2 1.5 - 2 11/18/04	G5-D1 3 - 3.5 11/16/04	G5-D2 3 - 3.5 11/18/04	G5-S1 1.5 - 2 11/16/04	G5-S2 1.5 - 2 11/18/04	G6-D1 3 - 3.5 11/16/04	G6-D2 3 - 3.5 11/18/04	G6-S1 1.5 - 2 11/16/04	G6-S2 1.5 - 2 11/18/04	G8-D1 3 - 3.5 11/16/04	G8-D2 3 - 3.5 11/18/04	G8-S1 1.5 - 2 11/16/04	G8-S2 1.5 - 2 11/18/04	G9-D1 3 - 3.5 11/18/04	G9-D2 3 - 3.5 11/18/04
Semivolatile Organics (Cont.)																		
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	0.34	0.16 J	ND	0.14 J	0.13 J	0.21	ND	0.17	0.20 J	0.25	0.35	0.55	0.47	0.37	0.095
Benzo(a)pyrene	1	1	mg/kg	0.22	ND	ND	ND	0.78 J	0.13	ND	0.19	0.14 J	0.24	0.26	0.39	0.31	0.25	0.043 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.45	ND	ND	0.28 J	0.079 J	0.19	ND	0.23	0.23 J	0.26	0.39	0.47	0.41	0.27	0.054 J
Benzo(g,h,i)perylene	100	500	mg/kg	ND	ND	ND	ND	ND	0.21	ND	0.20	0.13 J	0.21	0.15 J	0.51	0.35	0.15	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	0.21 J	ND	ND	ND	0.096 J	0.19	ND	0.19	0.11 J	0.20	0.17 J	0.42	0.37	0.25	0.068 J
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	0.48	0.15 J	0.11 J	0.29 J	0.11 J	0.28	ND	0.26	0.36	0.29	0.44	0.55	0.65	0.43	0.12
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	ND	ND	ND	0.21 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	1.6	0.51	0.21 J	0.62	ND	0.60	0.085 J	0.44	0.64	0.48	0.74	0.89	1.3	0.96	0.39
Fluorene	30	500	mg/kg	3.2	2.7	1.4	2.6	0.53	2.4	0.71	2.0	18	2.1	2.6	5.8	2.3	1.7	1.4
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	ND	ND	ND	ND	**3.1**	0.14	ND	0.17	ND	0.17	0.15 J	**0.51**	0.28 J	0.15	ND
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	8.2	5.9	3.4	5.3	8.3	7.7	1.7	6.5	6.4	5.7	6.8	12	6.4	4.2	3.2
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	1.2	0.60	0.30	0.65	0.50	1.0	ND	0.86	0.78	0.89	0.70	2.1	1.4	1.1	0.32
Total SVOCs	- -	- -	mg/kg	19 J	12 J	6.3 J	10 J	16 J	15	2.9 J	12	28 J	12	14 J	26	16 J	11	7.0 J
Inorganics																		
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	G4-S2 1.5 - 2 11/18/04	G5-D1 3 - 3.5 11/16/04	G5-D2 3 - 3.5 11/18/04	G5-S1 1.5 - 2 11/16/04	G5-S2 1.5 - 2 11/18/04	G6-D1 3 - 3.5 11/16/04	G6-D2 3 - 3.5 11/18/04	G6-S1 1.5 - 2 11/16/04	G6-S2 1.5 - 2 11/18/04	G8-D1 3 - 3.5 11/16/04	G8-D2 3 - 3.5 11/18/04	G8-S1 1.5 - 2 11/16/04	G8-S2 1.5 - 2 11/18/04	G9-D1 3 - 3.5 11/18/04	G9-D2 3 - 3.5 11/18/04
Inorganics (Cont.)																		
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	G9-S1 1.5 - 2 11/16/04	G9-S2 1.5 - 2 11/18/04	G10-D1 3 - 3.5 11/16/04	G10-D2 3 - 3.5 11/18/04	G10-S1 1.5 - 2 11/17/04	G10-S2 1.5 - 2 11/18/04	G11-D1 3 - 3.5 11/16/04	GP-1(1995) 6 12/15/95	GP-1(2002) 6 05/02/02	GP-2(1995) 6 12/15/95	GP-2(2002) 6 05/02/02	GP-3(1995) 2 12/15/95	GP-3(2002) 2 05/02/02
Volatile Organics																
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	0.86 J	**7.7**	ND	ND	0.27	**11**	2.0	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	8.2	6.9	1.1 J	0.15 J	0.67	4.8	1.3 J	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**1.7**	**1.6**	**3.0**	ND	**0.16**	**0.25**	**1.6**	NA	ND	NA	ND	NA	0.017
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	**31**	**31**	**1.1**	0.27	0.24	**7.8**	**1.3**	NA	0.052	NA	**8.8**	NA	ND
Isopropylbenzene	- -	- -	mg/kg	4.5	4.7	9.7	1.5	0.23 J	2.3	4.2	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	**15**	**17**	4.5	1.2	0.58	**17**	4.3	NA	0.44	NA	6.2	NA	ND
n-Butylbenzene	12	500	mg/kg	7.2	7.2	**16**	3.7	0.45	6.4	9.0	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	**13**	**14**	**25**	**4.5**	0.52	**6.7**	**11**	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		G9-S1	G9-S2	G10-D1	G10-D2	G10-S1	G10-S2	G11-D1	GP-1(1995)	GP-1(2002)	GP-2(1995)	GP-2(2002)	GP-3(1995)	GP-3(2002)
Sample Depth(feet):	Use SCRs	Commercial		1.5 - 2	1.5 - 2	3 - 3.5	3 - 3.5	1.5 - 2	1.5 - 2	3 - 3.5	6	6	6	6	2	2
Date Collected:	(bold)	(shade)	Units	11/16/04	11/18/04	11/16/04	11/18/04	11/17/04	11/18/04	11/16/04	12/15/95	05/02/02	12/15/95	05/02/02	12/15/95	05/02/02
Volatile Organics (Cont.)																
p-Isopropyltoluene	- -	- -	mg/kg	1.2 J	1.1 J	0.34 J	0.26 J	0.092	1.2	0.34 J	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	2.2	2.1	5.3	1.3	0.15 J	2.0	2.7	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	0.18 J	0.18 J	0.49 J	0.18 J	0.035 J	0.16 J	0.29 J	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	0.26	0.37	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA	ND
Total VOCs	- -	- -	mg/kg	89 J	100 J	67 J	13 J	3.6 J	66 J	40 J	NA	0.49	NA	26	NA	0.025
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND
Xylenes (total)	0.26	500	mg/kg	**3.5**	**11**	**0.97**	0.091	0.25	**6.3**	**2.1**	NA	ND	NA	**11**	NA	0.0082
Semivolatile Organics																
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	ND	0.60	0.47	0.21	ND	1.9	0.52	ND	NA	ND	NA	ND	NA
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	0.25 J	0.43	ND	ND	ND	0.80	0.16	ND	NA	ND	NA	ND	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs	Restricted Use SCRs Commercial		G9-S1	G9-S2	G10-D1	G10-D2	G10-S1	G10-S2	G11-D1	GP-1(1995)	GP-1(2002)	GP-2(1995)	GP-2(2002)	GP-3(1995)	GP-3(2002)
Sample Depth(feet):				1.5 - 2	1.5 - 2	3 - 3.5	3 - 3.5	1.5 - 2	1.5 - 2	3 - 3.5	6	6	6	6	2	2
Date Collected:	(bold)	(shade)	Units	11/16/04	11/18/04	11/16/04	11/18/04	11/17/04	11/18/04	11/16/04	12/15/95	05/02/02	12/15/95	05/02/02	12/15/95	05/02/02
Semivolatile Organics (Cont.)																
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	0.23 J	0.13	0.054 J	0.036 J	0.040 J	0.44	0.084	ND	NA	ND	NA	0.37	NA
Benzo(a)pyrene	1	1	mg/kg	0.34 J	0.079	0.035 J	0.047 J	0.035 J	0.43	0.074	ND	NA	ND	NA	0.40	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	0.47	0.11	0.050 J	0.032 J	0.046 J	0.80	0.16	ND	NA	ND	NA	0.46	NA
Benzo(g,h,i)perylene	100	500	mg/kg	0.34 J	0.032 J	ND	ND	0.046 J	0.15	ND	ND	NA	ND	NA	ND	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	0.32 J	0.096	ND	0.047 J	0.039 J	0.37	0.043 J	ND	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	0.35 J	0.16	0.074 J	0.058 J	0.062 J	0.68	0.085	0.81	NA	0.99	NA	0.40	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	0.99	0.44	0.20	0.14	0.088	1.3	0.20	ND	NA	ND	NA	0.74	NA
Fluorene	30	500	mg/kg	1.9	0.79	1.3	0.42	0.18	1.8	1.3	ND	NA	ND	NA	ND	NA
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.33 J	ND	ND	ND	ND	0.14	0.056 J	ND	NA	ND	NA	ND	NA
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	3.3	3.0	2.9	1.0	0.37	8.0	2.9	ND	NA	2.3	NA	0.42	NA
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	1.3	0.40	0.29	0.12	0.21	1.2	0.39	ND	NA	ND	NA	0.62	NA
Total SVOCs	- -	- -	mg/kg	10 J	6.3 J	5.4 J	2.1 J	1.1 J	18	6.0 J	0.81	NA	3.3	NA	3.4	NA
Inorganics																
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	G9-S1 1.5 - 2 11/16/04	G9-S2 1.5 - 2 11/18/04	G10-D1 3 - 3.5 11/16/04	G10-D2 3 - 3.5 11/18/04	G10-S1 1.5 - 2 11/17/04	G10-S2 1.5 - 2 11/18/04	G11-D1 3 - 3.5 11/16/04	GP-1(1995) 6 12/15/95	GP-1(2002) 6 05/02/02	GP-2(1995) 6 12/15/95	GP-2(2002) 6 05/02/02	GP-3(1995) 2 12/15/95	GP-3(2002) 2 05/02/02
Inorganics (Cont.)																
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	GP-4(1995) 2 12/15/95	GP-4(2002) 2 05/02/02	GP-4D(1995) 2 12/15/95	GP-5(2002) 2 - 4 05/02/02	GP-6(1995) 2 12/15/95	GP-6(2002) 2 05/02/02	GP-7(2002) 3 - 4 05/02/02	GP-8(2002) 1 - 2 05/02/08	GP-9(2002) 2 - 3 05/02/02	GP-10(2002) 2 - 3 05/02/02	HA-01 0.5 02/29/96	HA-02 0.5 02/29/96
Volatile Organics															
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	NA	ND	NA	ND	NA	**14**	**2.8**	ND	**0.20**	ND	NA	NA
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	NA	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	NA	ND	NA	ND	NA	**160**	**76**	0.0020	0.18	**7.2**	NA	NA
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	ND	NA	ND	NA	**140**	**44**	ND	1.8	0.64	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	GP-4(1995) 2 12/15/95	GP-4(2002) 2 05/02/02	GP-4D(1995) 2 12/15/95	GP-5(2002) 2 - 4 05/02/02	GP-6(1995) 2 12/15/95	GP-6(2002) 2 05/02/02	GP-7(2002) 3 - 4 05/02/02	GP-8(2002) 1 - 2 05/02/08	GP-9(2002) 2 - 3 05/02/02	GP-10(2002) 2 - 3 05/02/02	HA-01 0.5 02/29/96	HA-02 0.5 02/29/96
Volatile Organics (Cont.)															
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	NA	ND	NA	ND	NA	**32**	ND	ND	0.18	0.12	NA	NA
Total VOCs	- -	- -	mg/kg	NA	0.10	NA	0.0076	NA	1,400	130	0.0064	2.9	8.6	NA	NA
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	NA	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	NA	0.10	NA	0.0076	NA	ND	ND	ND	ND	ND	NA	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND	NA	NA
Xylenes (total)	0.26	500	mg/kg	NA	ND	NA	ND	NA	**1,000**	**3.0**	0.0044	**0.53**	**0.64**	NA	NA
Semivolatile Organics															
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	0.38	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	GP-4(1995) 2 12/15/95	GP-4(2002) 2 05/02/02	GP-4D(1995) 2 12/15/95	GP-5(2002) 2 - 4 05/02/02	GP-6(1995) 2 12/15/95	GP-6(2002) 2 05/02/02	GP-7(2002) 3 - 4 05/02/02	GP-8(2002) 1 - 2 05/02/08	GP-9(2002) 2 - 3 05/02/02	GP-10(2002) 2 - 3 05/02/02	HA-01 0.5 02/29/96	HA-02 0.5 02/29/96
Semivolatile Organics (Cont.)															
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	0.89	NA	0.57	NA	ND	NA	NA	NA	NA	NA	ND	ND
Benzo(a)pyrene	1	1	mg/kg	**1.1**	NA	0.82	NA	ND	NA	NA	NA	NA	NA	ND	ND
Benzo(b)fluoranthene	1	5.6	mg/kg	**2.2**	NA	**1.7**	NA	ND	NA	NA	NA	NA	NA	ND	ND
Benzo(g,h,i)perylene	100	500	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	0.68	NA	0.55	NA	ND	NA	NA	NA	NA	NA	ND	ND
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Fluorene	30	500	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	0.95	NA	0.75	NA	4.2	NA	NA	NA	NA	NA	ND	ND
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	ND	NA	0.84	NA	ND	NA	NA	NA	NA	NA	ND	ND
Total SVOCs	- -	- -	mg/kg	6.2	NA	5.2	NA	4.2	NA	NA	NA	NA	NA	ND	ND
Inorganics															
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	GP-4(1995) 2 12/15/95	GP-4(2002) 2 05/02/02	GP-4D(1995) 2 12/15/95	GP-5(2002) 2 - 4 05/02/02	GP-6(1995) 2 12/15/95	GP-6(2002) 2 05/02/02	GP-7(2002) 3 - 4 05/02/02	GP-8(2002) 1 - 2 05/02/08	GP-9(2002) 2 - 3 05/02/02	GP-10(2002) 2 - 3 05/02/02	HA-01 0.5 02/29/96	HA-02 0.5 02/29/96
Inorganics (Cont.)															
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous															
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH															
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	LB-1 9 - 9.5 03/10/04	LB-1 17.5 - 18 03/10/04	LB-2 4 - 4.5 03/10/04	LB-2 16.5 - 17 03/10/04	LB-3 2.5 - 3 03/10/04	LB-3 13.5 - 14 03/10/04	LB-3 18.5 - 19 03/10/04	LB-4 4 - 4.5 03/10/04	LB-4 17.5 - 18 03/10/04	LB-5 3.5 - 4 03/10/04	LB-5 16.5 - 17 03/10/04	LB-6 7.5 - 8 03/11/04	LB-6 18 - 18.5 03/11/04	LB-7 1.5 - 2 03/15/04	LB-7 14 - 14.5 03/15/04
Volatile Organics																		
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	0.040	0.00060 J	ND	0.0010 J	ND	ND	ND	ND	0.00085 J	ND	ND	ND	0.0029 J	ND	ND
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**0.22**	0.0013	0.033	0.00071	ND	ND	ND	ND	ND	0.0021	ND	ND	0.012	ND	0.0041
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	**32**	**0.26 J**	0.040 J	0.098	ND	ND	0.043	ND	0.24 J	0.0013 J	0.0011 J	ND	**0.57**	ND	ND
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	0.64	0.0011	**7.5**	0.00087 J	0.32 J	ND	ND	ND	ND	0.017	ND	ND	0.011	ND	ND
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	**1.1**	0.077	ND	0.017	ND	0.0031	0.22	ND	0.060	0.0012	0.043	0.0012	0.18	ND	0.0060
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	**28**	0.045	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.024	ND	ND
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		LB-1	LB-1	LB-2	LB-2	LB-3	LB-3	LB-3	LB-4	LB-4	LB-5	LB-5	LB-6	LB-6	LB-7	LB-7
Sample Depth(feet):	Use SCRs	Commercial		9 - 9.5	17.5 - 18	4 - 4.5	16.5 - 17	2.5 - 3	13.5 - 14	18.5 - 19	4 - 4.5	17.5 - 18	3.5 - 4	16.5 - 17	7.5 - 8	18 - 18.5	1.5 - 2	14 - 14.5
Date Collected:	(bold)	(shade)	Units	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/11/04	03/11/04	03/15/04	03/15/04
Volatile Organics (Cont.)																		
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	ND	0.38	ND	0.11	ND	3.2 J	0.21	ND	0.16	ND	0.15	ND	1.0 J	ND	0.23
Tetrachloroethene	1.3	150	mg/kg	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	500	mg/kg	**1.1**	0.0020	0.098	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.028	ND	ND
Total VOCs	- -	- -	mg/kg	990 J	2.0 J	22 J	0.33 J	0.32 J	3.2 J	0.48 J	ND	0.47 J	0.024 J	0.20 J	0.0018 J	4.9 J	0.0025	0.24
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.050 J	0.0050 J	ND	0.0039 J	ND	ND	ND	ND	0.011	ND	ND	ND	0.032	ND	ND
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	**920**	**1.3**	ND	0.091	ND	ND	0.0075 J	ND	0.0027 J	0.0017 J	0.0026 J	ND	**2.9**	ND	ND
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	**0.079 J**	0.010	ND	0.0085	ND	ND	ND	ND	0.0021 J	ND	ND	ND	0.0068	ND	ND
Xylenes (total)	0.26	500	mg/kg	**3.9**	0.00072 J	**14**	0.0016	ND	ND	ND	ND	ND	0.00078 J	ND	0.00060 J	0.035	0.0025	ND
Semivolatile Organics																		
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		LB-1	LB-1	LB-2	LB-2	LB-3	LB-3	LB-3	LB-4	LB-4	LB-5	LB-5	LB-6	LB-6	LB-7	LB-7
Sample Depth(feet):	Use SCRs	Commercial		9 - 9.5	17.5 - 18	4 - 4.5	16.5 - 17	2.5 - 3	13.5 - 14	18.5 - 19	4 - 4.5	17.5 - 18	3.5 - 4	16.5 - 17	7.5 - 8	18 - 18.5	1.5 - 2	14 - 14.5
Date Collected:	(bold)	(shade)	Units	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/11/04	03/11/04	03/15/04	03/15/04
Semivolatile Organics (Cont.)																		
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																		
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	LB-1	LB-1	LB-2	LB-2	LB-3	LB-3	LB-3	LB-4	LB-4	LB-5	LB-5	LB-6	LB-6	LB-7	LB-7
Sample Depth(feet):				9 - 9.5	17.5 - 18	4 - 4.5	16.5 - 17	2.5 - 3	13.5 - 14	18.5 - 19	4 - 4.5	17.5 - 18	3.5 - 4	16.5 - 17	7.5 - 8	18 - 18.5	1.5 - 2	14 - 14.5
Date Collected:				03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/11/04	03/11/04	03/15/04	03/15/04
Inorganics (Cont.)																		
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	LB-8 4 - 4.5 03/11/04	LB-8 22 - 22.5 03/11/04	LB-9 2.5 - 3 03/11/04	LB-9 19.5 - 20 03/11/04	LB-10 4 - 4.5 03/12/04	LB-10 24 - 24.5 03/12/04	LB-11 3.5 - 4 03/12/04	LB-11 24 - 24.5 03/12/04	LB-12 3.5 - 4 03/12/04	LB-12 11.5 - 12 03/12/04	LB-12 21 - 21.5 03/12/04	LB-13 3.5 - 4 03/11/04	LB-13 17.5 - 18 03/11/04	MW-16 9 12/12/95
Volatile Organics																	
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**3.3**	ND [ND]	**0.18**	ND	ND	ND	0.033	ND	ND	0.0013 J	ND	**0.16**	0.014	NA
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	**38**	ND [ND]	0.078	ND	ND	ND	0.0025	ND	0.23	ND	ND	ND	ND	NA
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	ND	0.014 [0.0063]	ND	0.0065	ND	0.00065 J	0.017	0.0042	ND	ND	0.0052	**0.99**	0.26	NA
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	ND	ND [ND]	**0.078**	ND	ND	ND	0.0025	ND	ND	ND	ND	ND	ND	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		LB-8	LB-8	LB-9	LB-9	LB-10	LB-10	LB-11	LB-11	LB-12	LB-12	LB-12	LB-13	LB-13	MW-16
Sample Depth(feet):	Use SCRs (bold)	Commercial (shade)	Units	4 - 4.5	22 - 22.5	2.5 - 3	19.5 - 20	4 - 4.5	24 - 24.5	3.5 - 4	24 - 24.5	3.5 - 4	11.5 - 12	21 - 21.5	3.5 - 4	17.5 - 18	9
Date Collected:				03/11/04	03/11/04	03/11/04	03/11/04	03/12/04	03/12/04	03/12/04	03/12/04	03/12/04	03/12/04	03/12/04	03/11/04	03/11/04	12/12/95
Volatile Organics (Cont.)																	
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	ND	0.089 [0.089]	ND	0.11	ND	0.035 J	ND	0.062	ND	ND	0.030 J	ND	0.030	NA
Tetrachloroethene	1.3	150	mg/kg	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Toluene	0.7	500	mg/kg	0.30	ND [ND]	ND	ND	ND	ND	0.055	ND	ND	ND	ND	ND	ND	NA
Total VOCs	- -	- -	mg/kg	54	0.10 [0.096]	0.42 J	0.12	ND	0.035 J	0.12	0.066	0.56	0.0013 J	0.035 J	1.1	0.30 J	NA
trans-1,2-Dichloroethene	0.19	500	mg/kg	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Xylenes (total)	0.26	500	mg/kg	**13**	ND [ND]	0.086 J	ND	ND	ND	0.0087	ND	**0.33**	ND	ND	ND	0.0016 J	NA
Semivolatile Organics																	
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		LB-8	LB-8	LB-9	LB-9	LB-10	LB-10	LB-11	LB-11	LB-12	LB-12	LB-12	LB-13	LB-13	MW-16
Sample Depth(feet):	Use SCRs	Commercial		4 - 4.5	22 - 22.5	2.5 - 3	19.5 - 20	4 - 4.5	24 - 24.5	3.5 - 4	24 - 24.5	3.5 - 4	11.5 - 12	21 - 21.5	3.5 - 4	17.5 - 18	9
Date Collected:	(bold)	(shade)	Units	03/11/04	03/11/04	03/11/04	03/11/04	03/12/04	03/12/04	03/12/04	03/12/04	03/12/04	03/12/04	03/12/04	03/11/04	03/11/04	12/12/95
Semivolatile Organics (Cont.)																	
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Benzo(a)pyrene	1	1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Benzo(b)fluoranthene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Benzo(g,h,i)perylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Fluorene	30	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Total SVOCs	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Inorganics																	
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	LB-8 4 - 4.5 03/11/04	LB-8 22 - 22.5 03/11/04	LB-9 2.5 - 3 03/11/04	LB-9 19.5 - 20 03/11/04	LB-10 4 - 4.5 03/12/04	LB-10 24 - 24.5 03/12/04	LB-11 3.5 - 4 03/12/04	LB-11 24 - 24.5 03/12/04	LB-12 3.5 - 4 03/12/04	LB-12 11.5 - 12 03/12/04	LB-12 21 - 21.5 03/12/04	LB-13 3.5 - 4 03/11/04	LB-13 17.5 - 18 03/11/04	MW-16 9 12/12/95
Inorganics (Cont.)																	
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-17 4 12/12/95	MW-18 4 12/12/95	MW-19 10 12/12/95	MW-20 11 12/13/95	MW-23-D2R 18 - 20 12/07/10	MW-24-VD 19 - 19.5 12/20/06	MW-24-VD 68 - 68.5 12/21/06	MW-24-VD 73 - 73.5 12/21/06	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-25-VD 2 - 2.5 12/06/06
Volatile Organics																
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 UJ	0.12 U	0.12 U	0.0059 U	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	0.030 UJ	NA	NA	NA	0.028 U	0.58 U	0.60 U	0.029 U	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	0.030 UJ	NA	NA	NA	0.028 U	0.58 U	0.60 U	0.029 U	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	0.030 UJ	NA	NA	NA	0.028 U	0.58 U	0.60 U	0.029 U	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	0.017 J	0.031	0.017 [ND]	0.028	0.028 U	0.58 U	0.60 U	0.020 J	NA
Benzene	0.06	44	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	0.0073	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.010	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.010	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 UJ	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Ethylbenzene	1	390	mg/kg	NA	NA	NA	NA	0.0060 UJ	ND	ND [ND]	ND	0.0055 U	0.97	**1.4**	0.0059 U	NA
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.29	0.32	0.0059 U	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Methyl tert-butyl ether	0.93	500	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.014	NA
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	2.4	1.8	0.0059 U	NA
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	0.019	0.019	ND [ND]	ND	0.019	0.12 U	**0.21**	**0.12 B**	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-17 4 12/12/95	MW-18 4 12/12/95	MW-19 10 12/12/95	MW-20 11 12/13/95	MW-23-D2R 18 - 20 12/07/10	MW-24-VD 19 - 19.5 12/20/06	MW-24-VD 68 - 68.5 12/21/06	MW-24-VD 73 - 73.5 12/21/06	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-25-VD 2 - 2.5 12/06/06
Volatile Organics (Cont.)																
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	ND	ND [ND]	ND	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Toluene	0.7	500	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	**0.75**	0.21	0.0059 U	NA
Total VOCs	- -	- -	mg/kg	NA	NA	NA	NA	0.036 J	0.060 J	0.017 [ND]	0.028	0.019	25	15	0.18 J	NA
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Trichloroethene	0.47	200	mg/kg	NA	NA	NA	NA	0.0060 U	0.0030 J	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0031 J	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	0.0060 U	NA	NA	NA	0.0055 U	0.12 U	0.12 U	0.0059 U	NA
Vinyl Chloride	0.02	13	mg/kg	NA	NA	NA	NA	0.0060 U	ND	ND [ND]	ND	0.0055 U	0.12 U	0.12 U	0.0020 J	NA
Xylenes (total)	0.26	500	mg/kg	NA	NA	NA	NA	0.012 U	ND	ND [ND]	ND	0.011 U	**21**	**11**	0.012 U	NA
Semivolatile Organics																
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	0.92 J	0.25 J	0.20 U	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	ND	ND [ND]	ND	0.94 U	6.2	1.7	0.20 U	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	0.39 UJ	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
Acenaphthene	20	500	mg/kg	0.66	ND	ND	ND	0.084 J	ND	ND [ND]	ND	0.94 U	5.7	1.7	0.20 U	NA
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	0.20 U	ND	ND [ND]	ND	0.94 U	0.12 J	1.0 U	0.20 U	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Anthracene	100	500	mg/kg	1.8	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	2.9	0.99 J	0.20 U	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-17 4 12/12/95	MW-18 4 12/12/95	MW-19 10 12/12/95	MW-20 11 12/13/95	MW-23-D2R 18 - 20 12/07/10	MW-24-VD 19 - 19.5 12/20/06	MW-24-VD 68 - 68.5 12/21/06	MW-24-VD 73 - 73.5 12/21/06	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-25-VD 2 - 2.5 12/06/06
Semivolatile Organics (Cont.)																
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Benzo(a)anthracene	1	5.6	mg/kg	**4.4**	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	**1.8**	0.70 J	0.20 U	NA
Benzo(a)pyrene	1	1	mg/kg	**4.0**	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	0.83 J	0.38 J	0.20 U	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	**4.9**	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	**1.1**	0.41 J	0.20 U	NA
Benzo(g,h,i)perylene	100	500	mg/kg	0.76	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.075 J	0.37 J	0.15 J	0.20 U	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	**2.2**	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	0.24 J	0.16 J	0.20 U	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	0.25 UB	ND	0.058 J [0.051 J]	ND	0.94 U	1.0 UB	1.0 UB	0.49	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	0.078 J	NA	NA	NA	0.94 U	1.8	0.47 J	0.20 U	NA
Chrysene	1	56	mg/kg	**4.2**	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	**1.3**	0.55 J	0.20 U	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	ND	ND	ND	0.20 UJ	ND	ND [ND]	ND	0.94 U	1.0 U	1.0 U	0.20 U	NA
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	0.071 J	NA	NA	NA	0.94 U	3.6	1.1	0.20 U	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Fluoranthene	100	500	mg/kg	13	ND	ND	ND	0.029 J	ND	ND [ND]	ND	0.94 U	8.7	2.8	0.20 U	NA
Fluorene	30	500	mg/kg	0.71	4.8	ND	ND	0.067 J	ND	ND [ND]	ND	0.94 U	4.5	1.4	0.20 U	NA
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	**0.37 J**	1.0 U	0.20 U	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	**0.85**	ND	ND	ND	0.20 U	ND	ND [ND]	ND	0.94 U	0.30 J	0.14 J	0.20 U	NA
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	7.4	1.4	0.20 U	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	0.39 U	NA	NA	NA	1.8 U	1.9 U	2.0 U	0.39 U	NA
Phenanthrene	100	500	mg/kg	6.5	9.1	ND	ND	0.24	0.024 J	ND [ND]	ND	0.94 U	15	4.6	0.20 U	NA
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	0.20 U	NA	NA	NA	0.94 U	1.0 U	1.0 U	0.20 U	NA
Pyrene	100	500	mg/kg	10	ND	ND	ND	0.016 J	ND	ND [ND]	ND	0.94 U	7.2	2.6	0.20 U	NA
Total SVOCs	- -	- -	mg/kg	54	14	ND	ND	0.59 J	0.024 J	0.058 J [0.051 J]	ND	0.075 J	70 J	22 J	0.49	NA
Inorganics																
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	2,270	NA	NA	NA	2,650 J	3,370 J	2,610 J	2,410	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	17.4 U	NA	NA	NA	16.3 UJ	17.7 UJ	17.8 UJ	18.1 U	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	1.00 J	NA	NA	NA	2.20 J	2.10 J	2.10 J	2.30 J	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	7.26	NA	NA	NA	11.5	14.8	11.6	10.5	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	0.157 J	NA	NA	NA	0.178 J	0.176 J	0.136 J	0.225 J	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	0.232 U	NA	NA	NA	0.200 J	0.222 J	0.172 J	0.0660 J	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-17 4 12/12/95	MW-18 4 12/12/95	MW-19 10 12/12/95	MW-20 11 12/13/95	MW-23-D2R 18 - 20 12/07/10	MW-24-VD 19 - 19.5 12/20/06	MW-24-VD 68 - 68.5 12/21/06	MW-24-VD 73 - 73.5 12/21/06	MW-25-D3 0 - 2 12/02/10	MW-25-D3 2 - 4 12/02/10	MW-25-D3 4 - 6 12/02/10	MW-25-D3 21 - 23 12/09/10	MW-25-VD 2 - 2.5 12/06/06
Inorganics (Cont.)																
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	526	NA	NA	NA	6,530 J	8,410 J	8,240 J	553	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	6.70	NA	NA	NA	5.13	5.55	4.42	8.06	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	1.01	NA	NA	NA	1.49	2.27	1.41	1.99	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	4.10	NA	NA	NA	9.10	9.50	5.90	3.40	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	0.900 J	NA	NA	NA	1.80 J	0.600 J	1.10 J	2.40 UJ	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	3,640	NA	NA	NA	4,820 J	4,550 J	3,880 J	5,350	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	1.80 J	NA	NA	NA	23.6	39.6	20.6	2.30	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	641	NA	NA	NA	4,010 J	5,240 J	4,510 J	928	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	31.6	NA	NA	NA	42.1 J	46.8 J	39.6 J	37.5	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	0.0235 U	NA	NA	NA	0.0223	0.0158 J	0.0177 J	0.0229 J	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	3.31 J	NA	NA	NA	4.35 J	5.66 J	3.83 J	4.37 J	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	387	NA	NA	NA	339	402	334	607	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	4.60 U	NA	NA	NA	4.30 U	4.70 U	4.70 U	4.80 U	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	0.581 U	NA	NA	NA	0.544 U	0.589 U	0.593 U	0.604 U	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	205	NA	NA	NA	37.5 J	49.3 J	40.3 J	752	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	7.00 U	NA	NA	NA	6.50 U	7.10 U	7.10 U	7.20 U	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	5.91	NA	NA	NA	7.04	8.63	7.14	10.7	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	5.00	NA	NA	NA	15.1	18.6	13.6	8.40	NA
Miscellaneous																
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	318	NA	NA	NA	111 U	306	122 U	403	NA
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	1,210 U	2,190	ND [ND]	8,120	4,480	10,500	4,420	1,220 U	6,600
TPH																
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-25-VD 12.5 - 13 12/06/06	MW-25-VD 18 - 18.5 12/14/06	MW-25-VD 68 - 68.5 12/15/06	MW-26-VD 19 - 21 12/28/06	MW-26-VD 58 - 60 12/29/06	MW-29-VD 15 - 17 12/28/06	MW-29-VD 19 - 21 12/26/06	MW-29-VD 58 - 60 12/26/06	MW-30-VD 28 - 30 12/27/06	MW-30-VD 68 - 70 12/27/06	MW-31-D1R 0 - 2 11/17/10	MW-31-D1R 2 - 4 11/17/10
Volatile Organics															
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,1-Dichloroethene	0.33	500	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.026 U	0.031 U
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.026 U	0.031 U
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.026 U	0.031 U
Acetone	0.05	500	mg/kg	NA	0.021	ND	ND	ND	ND	ND	ND	ND	ND	0.0049 J	0.013 J
Benzene	0.06	44	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.0046	0.0052 U	0.0062 U
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Carbon Disulfide	- -	- -	mg/kg	NA	0.0097	ND	0.0016 J	0.0014	ND	ND	ND	0.0024 J	0.0022 J	0.0052 U	0.0062 U
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	0.015	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Ethylbenzene	1	390	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0036 J
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Methyl tert-butyl ether	0.93	500	mg/kg	NA	0.0087	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.011
Methylene Chloride	0.05	500	mg/kg	NA	0.031	ND	0.044	ND	**0.064 J**	**0.11**	ND	0.0083	**0.12**	0.0080 J	0.031 UBJ
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-25-VD 12.5 - 13 12/06/06	MW-25-VD 18 - 18.5 12/14/06	MW-25-VD 68 - 68.5 12/15/06	MW-26-VD 19 - 21 12/28/06	MW-26-VD 58 - 60 12/29/06	MW-29-VD 15 - 17 12/28/06	MW-29-VD 19 - 21 12/26/06	MW-29-VD 58 - 60 12/26/06	MW-30-VD 28 - 30 12/27/06	MW-30-VD 68 - 70 12/27/06	MW-31-D1R 0 - 2 11/17/10	MW-31-D1R 2 - 4 11/17/10
Volatile Organics (Cont.)															
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	0.028	0.0089 J	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
Toluene	0.7	500	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
Total VOCs	- -	- -	mg/kg	NA	0.097	ND	0.045 J	0.0014	0.064 J	0.11	ND	0.039 J	0.13 J	0.013 J	0.032 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Trichloroethene	0.47	200	mg/kg	NA	0.011	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 U	0.0062 U
Vinyl Chloride	0.02	13	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0052 U	0.0062 U
Xylenes (total)	0.26	500	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.010 U	0.0048 J
Semivolatile Organics															
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2-Methylnaphthalene	- -	- -	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.057 J
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
Acenaphthene	20	500	mg/kg	NA	0.020 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.066 J
Acenaphthylene	100	500	mg/kg	NA	0.018 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.21 U
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 UJ	0.21 UJ
Anthracene	100	500	mg/kg	NA	0.017 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.10 J

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs	Restricted Use SCRs Commercial		MW-25-VD	MW-25-VD	MW-25-VD	MW-26-VD	MW-26-VD	MW-29-VD	MW-29-VD	MW-29-VD	MW-30-VD	MW-30-VD	MW-31-D1R	MW-31-D1R
Sample Depth(feet):	(bold)	(shade)	Units	12.5 - 13	18 - 18.5	68 - 68.5	19 - 21	58 - 60	15 - 17	19 - 21	58 - 60	28 - 30	68 - 70	0 - 2	2 - 4
Date Collected:				12/06/06	12/14/06	12/15/06	12/28/06	12/29/06	12/28/06	12/26/06	12/26/06	12/27/06	12/27/06	11/17/10	11/17/10
Semivolatile Organics (Cont.)															
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Benzo(a)anthracene	1	5.6	mg/kg	NA	0.073 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.13 J
Benzo(a)pyrene	1	1	mg/kg	NA	0.078 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.095 J
Benzo(b)fluoranthene	1	5.6	mg/kg	NA	0.064 J	ND	ND	ND	ND	ND	ND	ND	ND	0.014 J	0.10 J
Benzo(g,h,i)perylene	100	500	mg/kg	NA	0.035	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.040 J
Benzo(k)fluoranthene	0.8	56	mg/kg	NA	0.066 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.038 J
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	ND	0.082 B	0.11	0.074	0.13	0.14	0.072	0.12	0.15	0.18 U	0.21 U
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.017 J
Chrysene	1	56	mg/kg	NA	0.068 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.094 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.21 U
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.044 J
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Fluoranthene	100	500	mg/kg	NA	0.15	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.41
Fluorene	30	500	mg/kg	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.084 J
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	NA	0.034 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.037 J
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.34 U	0.41 U
Phenanthrene	100	500	mg/kg	NA	0.054 J	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.45
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18 U	0.21 U
Pyrene	100	500	mg/kg	NA	0.15	ND	ND	ND	ND	ND	ND	ND	ND	0.18 U	0.34
Total SVOCs	- -	- -	mg/kg	NA	0.82 J	0.082	0.11	0.074	0.13	0.14	0.072	0.12	0.15	0.014 J	2.1 J
Inorganics															
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,400 J	1,180 J
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.9 U	18.6 U
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.90 J	0.700 J
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.0 J	4.91 J
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.179 J	0.0530 J
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.100 J	0.0550 J

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-25-VD 12.5 - 13 12/06/06	MW-25-VD 18 - 18.5 12/14/06	MW-25-VD 68 - 68.5 12/15/06	MW-26-VD 19 - 21 12/28/06	MW-26-VD 58 - 60 12/29/06	MW-29-VD 15 - 17 12/28/06	MW-29-VD 19 - 21 12/26/06	MW-29-VD 58 - 60 12/26/06	MW-30-VD 28 - 30 12/27/06	MW-30-VD 68 - 70 12/27/06	MW-31-D1R 0 - 2 11/17/10	MW-31-D1R 2 - 4 11/17/10
Inorganics (Cont.)															
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	369 J	368 J
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.92	2.08
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.61	0.641
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.10	1.50
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	R
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,520 J	1,950 J
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.8	2.80
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	777 J	334 J
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	154 J	26.2 J
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0202	0.0237 U
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.71 J	1.59 J
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	382 J	220 J
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.20 U	5.00 U
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.530 U	0.620 U
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	29.6 J	31.3 J
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.40 U	7.40 U
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.37	2.91
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.2	4.70
Miscellaneous															
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	83.8 J	98.3 J
Total Organic Carbon	- -	- -	mg/kg	18,700	ND	ND	ND	1,450	ND	ND	ND	ND	ND	2,780	2,090
TPH															
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-31-D1R 4 - 6 11/17/10	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	MW-32D 27 - 27.5 12/13/06	MW-32D 31 - 31.5 12/13/06	MW-33D 19 - 19.5 12/12/06	MW-33D 23 - 23.5 12/12/06	MW-34D 25 - 25.5 12/12/06	MW-34D 29 - 29.5 12/12/06	MW-35D 15 - 15.5 12/11/06
Volatile Organics															
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	0.030 U	0.027 U	0.031 U [0.030 U]	0.027 U	0.030 U	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	0.030 U	0.027 U	0.031 U [0.030 U]	0.027 U	0.030 U	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	0.030 U	0.027 U	0.031 U [0.030 U]	0.027 U	0.030 U	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	0.017 J	0.027 U	0.017 J [0.019 J]	0.014 J	0.020 J	ND	ND	ND	ND	ND	ND	0.0094 J
Benzene	0.06	44	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0028 J]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	0.0014 J	0.0029 J	0.0054	0.0018 J	0.0074	0.011	0.0026 J
Carbon Tetrachloride	0.76	22	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0031 J]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	- -	- -	mg/kg	0.0057 J	0.0054 U	0.012 J [0.044 DJ]	0.0045 J	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	- -	- -	mg/kg	0.015	0.0042 J	0.054 J [0.18 DJ]	0.014	0.0019 J	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	0.030 UBJ	0.025 UBJ	0.033 UBJ [0.031 UBJ]	0.022 UBJ	0.021	ND	ND	ND	ND	0.0029	0.023	0.0049
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-31-D1R 4 - 6 11/17/10	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	MW-32D 27 - 27.5 12/13/06	MW-32D 31 - 31.5 12/13/06	MW-33D 19 - 19.5 12/12/06	MW-33D 23 - 23.5 12/12/06	MW-34D 25 - 25.5 12/12/06	MW-34D 29 - 29.5 12/12/06	MW-35D 15 - 15.5 12/11/06
Volatile Organics (Cont.)															
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	150	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	mg/kg	0.049 J	0.0042 J	0.088 J [0.26 J]	0.035 J	0.043 J	0.0014 J	0.0029 J	0.0054	0.0018 J	0.010	0.033	0.017 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	- -	- -	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	0.0059 U	0.0054 U	0.0061 U [0.0061 U]	0.0055 U	0.0060 U	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	500	mg/kg	0.011 J	0.011 U	0.0046 J [0.0068 J]	0.0026 J	0.012 U	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organics															
1,1'-Biphenyl	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	0.049 J	0.13 J	0.29 [0.31]	1.9 U	0.21 U	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	0.33	500	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	0.085 J	0.29 J	0.41 [0.53]	0.19 J	0.046 J	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100	500	mg/kg	0.20 U	0.029 J	0.21 U [0.20 U]	1.9 U	0.21 U	ND	ND	ND	ND	ND	ND	ND
Acetophenone	- -	- -	mg/kg	0.20 UJ	0.37 U	0.21 U [0.20 U]	1.9 UJ	0.21 U	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	0.12 J	0.60	0.40 [0.53]	0.89 J	0.12 J	ND	ND	ND	ND	ND	ND	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-31-D1R 4 - 6 11/17/10	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	MW-32D 27 - 27.5 12/13/06	MW-32D 31 - 31.5 12/13/06	MW-33D 19 - 19.5 12/12/06	MW-33D 23 - 23.5 12/12/06	MW-34D 25 - 25.5 12/12/06	MW-34D 29 - 29.5 12/12/06	MW-35D 15 - 15.5 12/11/06
Semivolatile Organics (Cont.)															
Atrazine	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	0.14 J	**3.3**	0.64 [0.78]	**8.9**	0.25	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1	1	mg/kg	0.094 J	**3.0**	0.61 [0.63]	**11**	0.19 J	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	5.6	mg/kg	0.11 J	**3.9**	0.74 [0.75]	**11**	0.21	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	500	mg/kg	0.037 J	1.2	0.22 [0.27]	6.3	0.13 J	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	0.035 J	**1.2**	0.26 [0.28]	**4.5**	0.061 J	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.20 U	0.60	0.10 J [0.11 J]	1.2 J	0.38 UB	0.070	0.091	0.13	0.063	0.11	ND	0.078
Butylbenzylphthalate	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	0.045 J	0.050 J	0.044 J [0.053 J]	1.9 U	0.072 J	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	0.096 J	**2.5**	0.50 [0.61]	**8.5**	0.19 J	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.20 U	0.27 J	0.053 J [0.057 J]	**1.7 J**	0.029 J	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7	350	mg/kg	0.060 J	0.16 J	0.24 [0.31]	1.9 U	0.034 J	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 UB	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	0.43	5.6	1.5 [2.0]	11	0.59	ND	ND	ND	ND	ND	ND	ND
Fluorene	30	500	mg/kg	0.11 J	0.32 J	0.43 [0.55]	0.22 J	0.066 J	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	0.33	6	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.035 J	**0.87**	0.16 J [0.19 J]	**5.8**	0.091 J	ND	ND	ND	ND	ND	ND	ND
Isophorone	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	0.036 J	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.20 U	0.37 U	0.21 U [0.16 J]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	0.40 U	0.73 U	0.41 U [0.40 U]	3.7 U	0.40 U	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	0.56	1.5	1.7 [2.2]	1.4 J	0.39	ND	ND	ND	ND	ND	ND	ND
Phenol	0.33	500	mg/kg	0.20 U	0.37 U	0.21 U [0.20 U]	1.9 U	0.21 U	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	0.36	4.6	1.2 [1.5]	12	0.53	ND	ND	ND	ND	ND	ND	ND
Total SVOCs	- -	- -	mg/kg	2.4 J	30 J	9.5 J [12 J]	85 J	3.0 J	0.070	0.091	0.13	0.063	0.11	ND	0.078
Inorganics															
Aluminum	- -	- -	mg/kg	901 J	4,020 J	1,340 J [1,430 J]	2,720 J	2,330	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	17.8 U	16.7 U	18.4 U [18.3 U]	17.0 U	17.2 U	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	0.500 J	2.20	1.00 J [0.900 J]	1.60 J	1.80 J	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	4.69 J	15.1 J	4.83 J [4.63 J]	14.1 J	7.98	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	0.0420 J	0.158 J	0.0420 J [0.0680 J]	0.130 J	0.181 J	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	0.0490 J	0.120 J	0.0750 J [0.0990 J]	0.171 J	0.229 U	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-31-D1R 4 - 6 11/17/10	MW-31-D2R 2 - 4 11/17/10	MW-31-D2R 4 - 6 11/17/10	MW-31-D2R 6 - 8 11/17/10	MW-31-D2R 17 - 19 12/07/10	MW-32D 27 - 27.5 12/13/06	MW-32D 31 - 31.5 12/13/06	MW-33D 19 - 19.5 12/12/06	MW-33D 23 - 23.5 12/12/06	MW-34D 25 - 25.5 12/12/06	MW-34D 29 - 29.5 12/12/06	MW-35D 15 - 15.5 12/11/06
Inorganics (Cont.)															
Calcium	- -	- -	mg/kg	232 J	2,220 J	304 J [245 J]	9,650 J	237	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	2.19	5.73	2.88 [2.21]	5.37	6.07	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	0.388 J	2.33	0.667 [0.786]	1.49	0.797	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	1.10 J	6.10	1.60 [2.00]	4.90	1.60	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	R	R	R [R]	R	1.40 J	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	1,370 J	5,650 J	2,130 J [2,120 J]	4,420 J	5,180	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	1.80	17.7	2.50 [3.60]	15.6	1.50 J	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	281 J	920 J	370 J [331 J]	2,450 J	691	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	12.4 J	84.4 J	21.1 J [22.0 J]	55.7 J	36.9	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	0.0217 U	0.0377	0.0228 U [0.0221 U]	0.0119 J	0.0186 J	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	1.17 J	4.44 J	1.90 J [1.88 J]	3.88 J	1.97 J	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	226 J	510 J	247 J [249 J]	324 J	392	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	4.80 U	4.50 U	4.90 U [4.90 U]	4.50 U	4.60 U	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	0.594 U	0.557 U	0.614 U [0.611 U]	0.565 U	0.573 U	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	48.2 J	128 J	53.7 J [49.8 J]	52.4 J	662	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	7.10 U	6.70 U	7.40 U [7.30 U]	6.80 U	6.90 U	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	2.69	7.66	3.78 [2.89]	6.16	7.85	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	4.00	20.6	6.60 [6.50]	21.0	5.20	NA	NA	NA	NA	NA	NA	NA
Miscellaneous															
Sulfate	- -	- -	mg/kg	99.7 J	112 U	131 [136]	114 U	400	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	2,320	1,780	3,760 [1,300]	5,630	1,260 U	ND	ND	ND	ND	ND	ND	1,500
TPH															
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		MW-35D	MW-36D	MW-36D	P-18R	P-18R	P-18R	PX-A1	PX-A2	PX-A3	PX-A4	PX-A5	PX-A6	PX-A7	PX-A8
Sample Depth(feet):	Use SCRs	Commercial		20 - 20.5	23 - 23.5	31 - 31.5	0 - 2	4 - 6	6 - 8	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Date Collected:	(bold)	(shade)	Units	12/11/06	12/19/06	12/19/06	12/02/10	12/02/10	12/02/10	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Volatile Organics																	
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	0.028 U	0.031 U	0.031 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	0.028 U	0.031 U	0.031 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	0.028 U	0.031 U	0.031 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	0.0057 J	ND	0.018	0.028 U	0.038	0.030 J	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	ND	ND	ND	0.0056 U	0.0056 J	0.011	**0.72**	**1.9**	**0.15 [0.18]**	ND	**0.15**	**0.57**	**5.4**	**0.082**
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	0.0027 J	0.0022 J	0.0015	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	**32**	**80**	**46 [38]**	ND	**26**	**9.6**	**98**	**16**
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0058 J	0.0072	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	ND	ND	ND [ND]	0.037	ND	ND	ND	ND
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0065	0.0071	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	0.0051	0.012	ND	0.0077 UB	0.013 UB	0.022	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		MW-35D	MW-36D	MW-36D	P-18R	P-18R	P-18R	PX-A1	PX-A2	PX-A3	PX-A4	PX-A5	PX-A6	PX-A7	PX-A8
Sample Depth(feet):	Use SCRs	Commercial		20 - 20.5	23 - 23.5	31 - 31.5	0 - 2	4 - 6	6 - 8	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Date Collected:	(bold)	(shade)	Units	12/11/06	12/19/06	12/19/06	12/02/10	12/02/10	12/02/10	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Volatile Organics (Cont.)																	
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	ND	ND	ND	NA	NA	NA	ND	ND	ND [ND]	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	150	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	0.19	0.42	0.099 [0.068]	ND	0.23	0.17	**1.9**	0.38
Total VOCs	- -	- -	mg/kg	0.014 J	0.014 J	0.019	ND	0.058 J	0.080 J	37	120	48 [39]	0.037	33	31	260	100
trans-1,2-Dichloroethene	0.19	500	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	ND	ND	ND	0.0056 U	0.0062 U	0.0062 U	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	0.26	500	mg/kg	ND	ND	ND	0.011 U	0.0022 J	0.0025 J	**4.2**	**37**	**1.3 [0.87]**	ND	**6.9**	**21**	**160**	**87**
Semivolatile Organics																	
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	R	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	ND	ND	ND	0.96 U	0.031 J	0.033 J	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	ND	ND	ND	7.1 J	0.092 J	0.15 J	3.6	1.2	0.74 [1.8]	ND	0.61 J	0.49	0.55	ND
Acenaphthylene	100	500	mg/kg	ND	ND	ND	0.20 J	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	ND	ND	ND	0.76 J	0.022 J	0.038 J	1.4	0.87	0.45 J [1.2]	0.028 J	ND	0.039 J	0.41 J	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		MW-35D	MW-36D	MW-36D	P-18R	P-18R	P-18R	PX-A1	PX-A2	PX-A3	PX-A4	PX-A5	PX-A6	PX-A7	PX-A8
Sample Depth(feet):	Use SCRs	Commercial		20 - 20.5	23 - 23.5	31 - 31.5	0 - 2	4 - 6	6 - 8	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Date Collected:	(bold)	(shade)	Units	12/11/06	12/19/06	12/19/06	12/02/10	12/02/10	12/02/10	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Semivolatile Organics (Cont.)																	
Atrazine	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	ND	ND	ND	**2.0**	0.038 J	0.063 J	0.43 J	ND	ND [0.45]	ND	ND	0.040 J	ND	ND
Benzo(a)pyrene	1	1	mg/kg	ND	ND	ND	0.58 J	0.027 J	0.039 J	ND	ND	ND [0.23]	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	5.6	mg/kg	ND	ND	ND	0.90 J	0.034 J	0.050 J	ND	ND	ND [0.24]	ND	ND	0.045 J	ND	ND
Benzo(g,h,i)perylene	100	500	mg/kg	ND	ND	ND	0.17 J	0.022 J	0.024 J	ND	ND	ND [0.093]	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	ND	ND	ND	0.34 J	0.21 U	0.21 U	ND	ND	ND [0.20]	ND	ND	0.033 J	ND	ND
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.056	0.088	0.10	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	0.082 J	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	ND	ND	ND	**1.8**	0.040 J	0.065 J	0.46 J	0.31 J	ND [0.44]	ND	ND	0.061 J	ND	ND
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	ND	ND	0.96 U	0.21 U	0.21 U	ND	ND	ND [ND]	ND	ND	ND	ND	ND
Dibenzofuran	7	350	mg/kg	NA	NA	NA	0.53 J	0.031 J	0.039 J	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	ND	ND	ND	16	0.14 J	0.30	1.9	1.2	0.66 J [2.0]	0.032 J	ND	0.15	0.40 J	ND
Fluorene	30	500	mg/kg	ND	ND	ND	1.6 J	0.081 J	0.099 J	5.5	2.4	1.2 [2.1]	ND	0.73 J	0.34	1.5	0.78
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	ND	ND	ND	0.17 J	0.21 U	0.21 U	ND	ND	ND [0.096]	ND	ND	ND	ND	ND
Isophorone	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	1.9 U	0.40 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	ND	ND	ND	3.8 J	0.15 J	0.26	61	41	16 [41]	0.054 J	14	0.30	3.3	1.3
Phenol	0.33	500	mg/kg	NA	NA	NA	0.96 U	0.21 U	0.21 U	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	ND	ND	ND	13	0.13 J	0.28	1.6	1.0	0.54 J [1.8]	0.034 J	0.29 J	0.14	0.44	ND
Total SVOCs	- -	- -	mg/kg	0.056	0.088	0.10	49 J	0.84 J	1.4 J	76 J	48 J	20 J [52]	0.15 J	16 J	1.6 J	6.6 J	2.1
Inorganics																	
Aluminum	- -	- -	mg/kg	NA	NA	NA	7,410 J	505 J	1,770 J	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	16.9 UJ	17.9 UJ	17.6 UJ	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	3.80 J	2.40 UJ	0.900 J	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	21.7	2.37	8.06	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	0.299 J	0.238 UJ	0.0890 J	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	0.123 J	0.238 U	0.0450 J	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	MW-35D	MW-36D	MW-36D	P-18R	P-18R	P-18R	PX-A1	PX-A2	PX-A3	PX-A4	PX-A5	PX-A6	PX-A7	PX-A8
Sample Depth(feet):				20 - 20.5	23 - 23.5	31 - 31.5	0 - 2	4 - 6	6 - 8	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Date Collected:				12/11/06	12/19/06	12/19/06	12/02/10	12/02/10	12/02/10	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Inorganics (Cont.)																	
Calcium	- -	- -	mg/kg	NA	NA	NA	2,080 J	91.1 J	455 J	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	8.36	0.961	3.62	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	3.45	0.329 J	0.671	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	7.30	0.600 J	2.30	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	2.60 J	1.80 J	2.50 J	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	9,100 J	805 J	3,130 J	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	28.5	1.30	8.90	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	2,060 J	132 J	567 J	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	138 J	7.50 J	27.1 J	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	0.0269	0.0250 U	0.0239 U	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	6.33	0.616 J	1.86 J	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	347	94.4	258	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	4.50 U	4.80 U	4.70 U	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	0.563 U	0.596 U	0.586 U	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	49.9 J	16.8 J	35.0 J	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	6.80 U	7.10 U	7.00 U	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	12.7	1.16	4.58	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	22.1	1.60 J	8.10	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Sulfate	- -	- -	mg/kg	NA	NA	NA	87.2 J	66.9 J	139	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	ND	1,720	ND	3,800	2,420	5,560	17,700	6,680	4,480 [5,020]	2,520	5,760	5.03	6.76	2.38
TPH																	
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	7,300	3,500	76 [8,600]	1,500	ND	670	6,400	1,200

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-A9 4 - 4.5 10/30/02	PX-B1 2 - 3 10/30/02	PX-B2 2 - 3 10/30/02	PX-B3 2 - 3 10/30/02	PX-B4 2 - 3 10/30/02	PX-B5 2 - 3 10/30/02	PX-B6 2 - 3 10/30/02	PX-B7 4 - 4.5 10/30/02	PX-C1 2 - 3 10/30/02	PX-C2 2 - 3 10/30/02	PX-C3 2 - 3 10/30/02	PX-C4 2 - 3 10/30/02	PX-C5 2 - 3 10/30/02	PX-C6 2 - 3 10/30/02	PX-C7 4 - 4.5 10/30/02
Volatile Organics																		
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	ND	**1.2**	ND	0.043	**0.12**	ND	**3.5**	**3.0**	0.050	0.042	ND	0.039	**0.23**	**0.066**	ND
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	ND	**2.5**	ND	ND	**1.2**	ND	**73**	**22**	**1.4**	**3.3**	0.70	**20**	**6.6**	**4.8**	ND
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	0.051	0.063	0.022	0.026	0.026	ND	0.096	ND	0.026	0.031	0.031	0.029	ND	ND	0.035
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-A9	PX-B1	PX-B2	PX-B3	PX-B4	PX-B5	PX-B6	PX-B7	PX-C1	PX-C2	PX-C3	PX-C4	PX-C5	PX-C6	PX-C7
Sample Depth(feet):				4 - 4.5	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	4 - 4.5	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	4 - 4.5
Date Collected:				10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Volatile Organics (Cont.)																		
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	ND	0.074	ND	0.10	ND	ND	0.22	0.11	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	mg/kg	0.15	4.8	0.022	0.37	3.2	ND	84	29	1.8	4.2	0.73	21	7.9	5.1	0.035
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	0.26	500	mg/kg	0.10	**1.1**	ND	0.20	**1.9**	ND	**6.9**	**3.6**	**0.35**	**0.83**	ND	**0.38**	**1.1**	**0.27**	ND
Semivolatile Organics																		
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	ND	ND	0.077	ND	0.53	1.0	0.74	ND	2.8	1.2	1.5	ND	0.58	0.61	ND
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	ND	0.48	ND	ND	0.35	1.0	0.87	ND	1.4	0.59	ND	ND	ND	ND	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs	Restricted Use SCRs Commercial		PX-A9	PX-B1	PX-B2	PX-B3	PX-B4	PX-B5	PX-B6	PX-B7	PX-C1	PX-C2	PX-C3	PX-C4	PX-C5	PX-C6	PX-C7
Sample Depth(feet):	(bold)	(shade)	Units	4 - 4.5	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	4 - 4.5	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	4 - 4.5
Date Collected:				10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Semivolatile Organics (Cont.)																		
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	ND	0.37	0.043 J	ND	0.60	0.45	0.91	ND	0.46	0.22	0.14	0.12	0.051 J	0.047 J	ND
Benzo(a)pyrene	1	1	mg/kg	ND	0.26	ND	ND	0.71	0.30	0.60	ND	0.20	0.10	0.086	0.077	ND	ND	ND
Benzo(b)fluoranthene	1	5.6	mg/kg	ND	0.21	0.038 J	ND	0.79	0.30	0.55	ND	0.22	0.10	0.10	0.11	0.040 J	ND	ND
Benzo(g,h,i)perylene	100	500	mg/kg	ND	0.16	ND	ND	0.27	0.12	0.15	ND	0.095 J	0.055 J	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	56	mg/kg	ND	0.19	ND	ND	0.56	0.23	0.52	ND	0.18	0.080	0.071	0.068 J	0.033 J	0.027 J	ND
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	ND	0.33	0.041 J	ND	0.76	0.42	0.89	ND	0.47	0.023	0.17	0.14	0.063 J	0.061 J	ND
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	ND	ND	ND	ND	0.062 J	0.061 J	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	ND	1.2	0.11	ND	1.7	1.3	3.1	ND	2.5	1.3	0.80	0.53	0.27	0.25	ND
Fluorene	30	500	mg/kg	ND	1.9	0.15	ND	0.61	2.5	1.7	ND	4.3	2.2	2.0	3.5	0.90	1.2	ND
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	ND	0.15	ND	ND	0.27	0.12	0.18	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	0.055	4.5	0.38	ND	1.8	5.9	6.4	ND	8.5	5.8	7.6	5.7	4.0	3.1	ND
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	ND	1.0	0.10	ND	1.6	1.4	2.1	ND	1.9	0.95	0.64	0.50	0.24	0.23	ND
Total SVOCs	- -	- -	mg/kg	0.055	11	0.94 J	ND	11	15 J	19 J	ND	23 J	12 J	13	11 J	6.1 J	5.5 J	ND
Inorganics																		
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-A9 4 - 4.5 10/30/02	PX-B1 2 - 3 10/30/02	PX-B2 2 - 3 10/30/02	PX-B3 2 - 3 10/30/02	PX-B4 2 - 3 10/30/02	PX-B5 2 - 3 10/30/02	PX-B6 2 - 3 10/30/02	PX-B7 4 - 4.5 10/30/02	PX-C1 2 - 3 10/30/02	PX-C2 2 - 3 10/30/02	PX-C3 2 - 3 10/30/02	PX-C4 2 - 3 10/30/02	PX-C5 2 - 3 10/30/02	PX-C6 2 - 3 10/30/02	PX-C7 4 - 4.5 10/30/02
Inorganics (Cont.)																		
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	ND	7,870	2,180	2,500	15,200	15,200	8,330	3,670	5,990	4,630	10,100	10,800	5,350	3,380	6,980
TPH																		
Total Petroleum Hydrocarbons	- -	- -	mg/kg	ND	4.8	400	41	5,400	10,000	6,400	ND	4,200	6,100	7,400	9,400	8,800	5,000	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-D1 2 - 3 10/30/02	PX-D2 2 - 3 10/30/02	PX-D3 2 - 3 10/30/02	PX-D4 2 - 3 10/30/02	PX-D5 4 - 4.5 10/30/02	PX-EAST 2 - 3 11/18/04	PX-NORTH 2 - 3 11/18/04	PX-SOUTH 2 - 3 11/18/04	T12-D1 3 - 3.5 11/17/04	T12-D2 3 - 3.5 11/18/04	T12-S1 1.5 - 2 11/16/04	T12-S2 1.5 - 2 11/18/04	T-110 (NE) 1 - 2 01/31/03	T-110 (NW) 1 - 2 01/31/03
Volatile Organics																	
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	1.9	**260**	0.23 J	0.70 J	0.67 J	0.36 J	2.3	ND	ND
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	2.9	**120**	0.38 J	0.90	1.1 J	0.55 J	2.9	ND	ND
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**6.0**	**14**	**0.52**	**7.9**	ND	**3.1**	**21**	**1.7**	**11**	**23**	**8.2**	**17**	ND	ND
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	**53**	**230**	**3.1**	**63**	ND	**17**	**180**	**3.3**	**6.7**	**13**	**3.6**	**13**	ND	ND
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	4.7	28	1.8	2.4	3.1	1.7	2.1	ND	ND
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	ND	ND	0.034	ND	0.030	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	**16**	**120**	1.0	3.3	3.5	2.4	6.5	ND	ND
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	7.1	**44**	3.0	8.5	6.3	4.2	3.9	ND	ND
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	**13**	**74**	**4.6**	**5.1**	**6.7**	3.4	**4.6**	ND	ND

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-D1 2 - 3 10/30/02	PX-D2 2 - 3 10/30/02	PX-D3 2 - 3 10/30/02	PX-D4 2 - 3 10/30/02	PX-D5 4 - 4.5 10/30/02	PX-EAST 2 - 3 11/18/04	PX-NORTH 2 - 3 11/18/04	PX-SOUTH 2 - 3 11/18/04	T12-D1 3 - 3.5 11/17/04	T12-D2 3 - 3.5 11/18/04	T12-S1 1.5 - 2 11/16/04	T12-S2 1.5 - 2 11/18/04	T-110 (NE) 1 - 2 01/31/03	T-110 (NW) 1 - 2 01/31/03
Volatile Organics (Cont.)																	
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	0.96 J	12 J	0.17 J	0.67 J	0.90	0.54 J	0.87 J	ND	ND
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	2.1	**15**	0.99	1.9	2.0	1.2 J	1.2 J	ND	ND
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.010	ND
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	0.28 J	ND	0.097 J	0.36 J	0.41 J	0.28 J	0.26 J	ND	ND
Tertiary butyl alcohol	- -	- -	mg/kg	NA	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	0.7	500	mg/kg	0.48	**2.1**	0.11	**0.72**	ND	0.33	**2.7**	ND	0.36	0.52	ND	0.54	ND	ND
Total VOCs	- -	- -	mg/kg	63	650	5.2	79	0.030	73 J	1,100 J	18 J	44 J	63 J	28 J	59 J	0.052	0.024
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	0.26	500	mg/kg	**3.6**	**400**	**1.5**	**7.6**	ND	**3.1**	**240**	**0.60**	**2.1**	**2.8**	**1.4**	**3.6**	0.042	0.024
Semivolatile Organics																	
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	0.66	3.2	NA	4.1	NA	0.78	2.7	0.98	3.0	2.3	1.4	1.9	NA	NA
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	ND	ND	NA	ND	NA	0.75	1.2	ND	1.1	1.2	0.47	0.92	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-D1 2 - 3 10/30/02	PX-D2 2 - 3 10/30/02	PX-D3 2 - 3 10/30/02	PX-D4 2 - 3 10/30/02	PX-D5 4 - 4.5 10/30/02	PX-EAST 2 - 3 11/18/04	PX-NORTH 2 - 3 11/18/04	PX-SOUTH 2 - 3 11/18/04	T12-D1 3 - 3.5 11/17/04	T12-D2 3 - 3.5 11/18/04	T12-S1 1.5 - 2 11/16/04	T12-S2 1.5 - 2 11/18/04	T-110 (NE) 1 - 2 01/31/03	T-110 (NW) 1 - 2 01/31/03
Semivolatile Organics (Cont.)																	
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	0.096	ND	NA	ND	NA	0.25	0.44	0.46	0.82	0.50	0.34	0.62	NA	NA
Benzo(a)pyrene	1	1	mg/kg	0.082	ND	NA	ND	NA	0.15	0.28	0.60	0.56	0.39	0.23	0.45	NA	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	0.12	ND	NA	ND	NA	0.17	0.33	0.95	0.87	0.42	0.27	0.56	NA	NA
Benzo(g,h,i)perylene	100	500	mg/kg	0.050	ND	NA	ND	NA	0.038 J	0.12 J	0.13 J	0.51	0.29	0.20 J	0.16 J	NA	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	0.10	ND	NA	ND	NA	0.21	0.24	0.68	0.48	0.30	0.25	0.39	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	0.15	ND	NA	0.37 J	NA	0.27	0.44	0.84	0.91	0.64	0.35	0.74	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	NA	NA
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	0.37	0.60	NA	1.1	NA	0.83	1.3	1.2	2.7	1.8	1.1	2.1	NA	NA
Fluorene	30	500	mg/kg	1.3	5.4	NA	7.5	NA	1.3	4.3	1.6	4.3	2.9	1.9	2.9	ND	ND
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	ND	ND	NA	ND	NA	ND	ND	0.16 J	0.45	0.30	0.15 J	0.16 J	NA	NA
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	3.0	12	NA	15	NA	6.3	14	5.2	11	8.2	4.7	7.9	ND	ND
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	0.35	1.1	NA	1.3	NA	0.66	1.3	1.5	3.1	1.7	1.3	1.5	NA	NA
Total SVOCs	- -	- -	mg/kg	6.3	22	NA	29 J	NA	12 J	27 J	14 J	30	21	13 J	20 J	ND	ND
Inorganics																	
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	PX-D1 2 - 3 10/30/02	PX-D2 2 - 3 10/30/02	PX-D3 2 - 3 10/30/02	PX-D4 2 - 3 10/30/02	PX-D5 4 - 4.5 10/30/02	PX-EAST 2 - 3 11/18/04	PX-NORTH 2 - 3 11/18/04	PX-SOUTH 2 - 3 11/18/04	T12-D1 3 - 3.5 11/17/04	T12-D2 3 - 3.5 11/18/04	T12-S1 1.5 - 2 11/16/04	T12-S2 1.5 - 2 11/18/04	T-110 (NE) 1 - 2 01/31/03	T-110 (NW) 1 - 2 01/31/03
Inorganics (Cont.)																	
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	13,800	11,400	3,880	14,700	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	- -	mg/kg	720	18,000	7,400	13,000	12,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	T-110 (SE) 1 - 2 01/31/03	T-110 (SW) 1 - 2 01/31/03	T-111 (NE) 1 - 2 01/31/03	T-111 (NW) 1 - 2 01/31/03	T-111 (SE) 1 - 2 01/31/03	T-111 (SW) 1 - 2 01/31/03	T-112 (NE) 1 - 2 01/28/03	T-112 (NW) 1 - 2 01/28/03	T-112 (SE) 1 - 2 01/28/03	T-112 (SW) 1 - 2 01/28/03	TP-1-1 4 11/29/10	TP-1-2 3 11/30/10
Volatile Organics															
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,2,4-Trimethylbenzene	3.6	190	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.27	0.51	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,3,5-Trimethylbenzene	8.4	190	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	4.2	4.5	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.030 U	0.027 U
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.030 U	0.027 U
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.030 U	0.027 U
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.018 J	0.020 J
Benzene	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0059 U	0.0054 U
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 UJ	0.0054 UJ
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 UJ	0.0054 UJ
Ethylbenzene	1	390	mg/kg	ND	0.0090	ND	ND	ND	ND	ND	ND	ND	ND	0.0059 U	0.0054 U
Isopropylbenzene	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0059 U	0.0054 U
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Methyl tert-butyl ether	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0059 U	0.0054 U
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Methylene Chloride	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0085	0.0097
Naphthalene	12	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.079	0.38	NA	NA
n-Butylbenzene	12	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	1.4	1.4	NA	NA
n-Propylbenzene	3.9	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.051	0.091	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	T-110 (SE) 1 - 2 01/31/03	T-110 (SW) 1 - 2 01/31/03	T-111 (NE) 1 - 2 01/31/03	T-111 (NW) 1 - 2 01/31/03	T-111 (SE) 1 - 2 01/31/03	T-111 (SW) 1 - 2 01/31/03	T-112 (NE) 1 - 2 01/28/03	T-112 (NW) 1 - 2 01/28/03	T-112 (SE) 1 - 2 01/28/03	T-112 (SW) 1 - 2 01/28/03	TP-1-1 4 11/29/10	TP-1-2 3 11/30/10
Volatile Organics (Cont.)															
p-Isopropyltoluene	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.056	0.11	NA	NA
sec-Butylbenzene	11	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.024	0.028	NA	NA
Styrene	- -	- -	mg/kg	ND	0.0070	0.012	0.0050	0.0090	0.014	ND	ND	ND	ND	0.0059 U	0.0054 U
tert-Butylbenzene	5.9	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	0.037	0.029	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Toluene	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0014 J	0.0054 U
Total VOCs	- -	- -	mg/kg	0.022	0.11	0.012	0.0050	0.015	0.014	ND	ND	6.7	7.5	0.039 J	0.030 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Trichloroethene	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Vinyl Chloride	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0059 U	0.0054 U
Xylenes (total)	0.26	500	mg/kg	0.022	0.098	ND	ND	0.0060	ND	ND	ND	**0.56**	**0.43**	0.011 J	0.011 U
Semivolatile Organics															
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2-Methylnaphthalene	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	2.8	4.4	0.031 J	0.19 U
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
Acenaphthene	20	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.018 J	0.19 U
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Anthracene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.060 J	0.19 U

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	T-110 (SE) 1 - 2 01/31/03	T-110 (SW) 1 - 2 01/31/03	T-111 (NE) 1 - 2 01/31/03	T-111 (NW) 1 - 2 01/31/03	T-111 (SE) 1 - 2 01/31/03	T-111 (SW) 1 - 2 01/31/03	T-112 (NE) 1 - 2 01/28/03	T-112 (NW) 1 - 2 01/28/03	T-112 (SE) 1 - 2 01/28/03	T-112 (SW) 1 - 2 01/28/03	TP-1-1 4 11/29/10	TP-1-2 3 11/30/10
Semivolatile Organics (Cont.)															
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Benzo(a)anthracene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20	0.19 U
Benzo(a)pyrene	1	1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 J	0.19 U
Benzo(b)fluoranthene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22	0.19 U
Benzo(g,h,i)perylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 J	0.19 U
Benzo(k)fluoranthene	0.8	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.085 J	0.19 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.032 J	0.19 U
Chrysene	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 J	0.19 U
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.029 J	0.19 U
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Fluoranthene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.48	0.19 U
Fluorene	30	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.026 J	0.19 U
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12 J	0.19 U
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.40 U	0.36 U
Phenanthrene	100	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.29	0.19 U
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.20 U	0.19 U
Pyrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.36	0.19 U
Total SVOCs	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	2.8	4.4	2.5 J	ND
Inorganics															
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,830 J	2,370 J
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.5 U	16.4 U
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.40 J	1.50 J
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.4	9.88
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0580 J	0.104 J
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.250 J	0.218 UBJ

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	T-110 (SE) 1 - 2 01/31/03	T-110 (SW) 1 - 2 01/31/03	T-111 (NE) 1 - 2 01/31/03	T-111 (NW) 1 - 2 01/31/03	T-111 (SE) 1 - 2 01/31/03	T-111 (SW) 1 - 2 01/31/03	T-112 (NE) 1 - 2 01/28/03	T-112 (NW) 1 - 2 01/28/03	T-112 (SE) 1 - 2 01/28/03	T-112 (SW) 1 - 2 01/28/03	TP-1-1 4 11/29/10	TP-1-2 3 11/30/10
Inorganics (Cont.)															
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,090	1,440 B
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.59	6.17
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.927	1.32
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.50	3.30
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	R	R
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,540	4,430
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0 J	3.80 J
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	709	752
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40.4 J	26.0 J
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0234 U	0.0218 U
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.56 J	3.77 J
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	504	516
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.70 U	4.40 U
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.585 U	0.546 U
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87.6 J	58.2 J
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.00 U	6.60 U
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.77	7.31
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.6 J	10.5 J
Miscellaneous															
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	846	477
Total Organic Carbon	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,800	1,320 U
TPH															
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	TP-1-3 3.5 11/30/10	TP-2-1 5.5 11/30/10	TP-2-2 5.5 11/30/10	TP-3-1 5 12/01/10	TP-3-2 6.8 12/01/10	TP-3-3 6.5 12/01/10	TP-4-B-1 1.5 12/02/10	TP-4-D-1 7 12/02/10	TP-4-F-1 4 12/02/10	TP-5-1 5 12/02/10	TP-5-2 5.5 12/02/10	TP-5-3 6 12/02/10	TP-6-1 5 12/03/10	TP-6-2 5.5 12/03/10
Volatile Organics																	
1,1,1-Trichloroethane	0.68	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,1,2-Trichloroethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,1-Dichloroethane	0.27	240	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,1-Dichloroethene	0.33	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 UJ	0.0053 UJ	0.0059 UJ	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,2-Dibromoethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,2-Dichlorobenzene	1.1	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,2-Dichloroethane	0.02	30	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,2-Dichloropropane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
1,4-Dichlorobenzene	1.8	130	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
2-Butanone	0.12	500	mg/kg	0.029 U	0.0049 J	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U	0.77 U	0.16 U	0.52 U	0.0079 J	0.028 U
2-Hexanone	- -	- -	mg/kg	0.029 U	0.031 U	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U	0.77 U	0.16 U	0.52 U	0.026 U	0.028 U
4-Methyl-2-pentanone	- -	- -	mg/kg	0.029 U	0.031 U	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U	0.77 U	0.16 U	0.52 U	0.026 U	0.028 U
Acetone	0.05	500	mg/kg	0.015 J	0.035	0.015 J	0.032 J	0.026 J	0.017 J	0.0062 J	0.0067 J	0.022 J	0.77 U	0.16 U	0.52 U	**0.080**	0.018 J
Benzene	0.06	44	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Bromodichloromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Bromoform	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Bromomethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Carbon Disulfide	- -	- -	mg/kg	0.0057 U	0.0048 J	0.0064 U	0.0073 U	0.0057 J	0.0073 U	0.0055 U	0.0053 U	0.0034 J	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Carbon Tetrachloride	0.76	22	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Chlorobenzene	1.1	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Chloroethane	- -	- -	mg/kg	0.0057 UJ	0.0062 UJ	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Chloroform	0.37	350	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Chloromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Cyclohexane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.17	0.032 U	0.10 U	0.0053 U	0.0056 U
Dibromochloromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Dichlorodifluoromethane	- -	- -	mg/kg	0.0057 UJ	0.0062 UJ	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Ethylbenzene	1	390	mg/kg	0.0057 U	0.0016 J	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Isopropylbenzene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.17	0.032 U	0.057 J	0.0053 U	0.0056 U
Methyl acetate	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.28	0.032 U	0.10 U	0.0053 U	0.0056 U
Methyl tert-butyl ether	0.93	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Methylcyclohexane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0013 J	0.87	0.014 J	0.071 J	0.0053 U	0.0056 U
Methylene Chloride	0.05	500	mg/kg	0.011	0.012	0.013	0.0094	0.012	0.0082	0.013	0.0097	0.017	0.15 U	**0.11**	0.10 U	0.038 J	0.041 J
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		TP-1-3	TP-2-1	TP-2-2	TP-3-1	TP-3-2	TP-3-3	TP-4-B-1	TP-4-D-1	TP-4-F-1	TP-5-1	TP-5-2	TP-5-3	TP-6-1	TP-6-2
Sample Depth(feet):	Use SCRs	Commercial		3.5	5.5	5.5	5	6.8	6.5	1.5	7	4	5	5.5	6	5	5.5
Date Collected:	(bold)	(shade)	Units	11/30/10	11/30/10	11/30/10	12/01/10	12/01/10	12/01/10	12/02/10	12/02/10	12/02/10	12/02/10	12/02/10	12/02/10	12/03/10	12/03/10
Volatile Organics (Cont.)																	
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	150	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Toluene	0.7	500	mg/kg	0.0057 U	0.0019 J	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Total VOCs	- -	- -	mg/kg	0.026 J	0.070 J	0.029 J	0.041 J	0.044 J	0.025 J	0.019 J	0.016 J	0.044 J	1.7 J	0.12 J	0.13 J	0.13 J	0.059 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Trichloroethene	0.47	200	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Trichlorofluoromethane	- -	- -	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Vinyl Chloride	0.02	13	mg/kg	0.0057 U	0.0062 U	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U
Xylenes (total)	0.26	500	mg/kg	0.011 U	0.0095 J	0.0014 J	0.015 U	0.014 U	0.015 U	0.011 U	0.011 U	0.012 U	0.21 J	0.064 U	0.21 U	0.011 U	0.011 U
Semivolatile Organics																	
1,1'-Biphenyl	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,4,5-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,4,6-Trichlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,4-Dichlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,4-Dimethylphenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,4-Dinitrophenol	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 UJ	0.36 UJ
2,4-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2,6-Dinitrotoluene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2-Chloronaphthalene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2-Chlorophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2-Methylnaphthalene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.092 J	0.14 J	1.8 U	1.8 U	0.19 U
2-Methylphenol	0.33	500	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
2-Nitroaniline	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
2-Nitrophenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
3-Nitroaniline	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
4-Bromophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
4-Chloroaniline	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
4-Methylphenol	0.33	500	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
4-Nitroaniline	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
4-Nitrophenol	- -	- -	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
Acenaphthene	20	500	mg/kg	0.20 U	0.21 U	0.22 U	0.11 J	0.24 U	0.25 U	0.057 J	0.18 U	0.20 U	0.27 U	0.11 J	0.22 J	1.8 U	0.19 U
Acenaphthylene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.022 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Acetophenone	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Anthracene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.040 J	0.24 U	0.25 U	0.10 J	0.18 U	0.20 U	0.27 U	0.086 J	1.8 U	0.17 J	0.19 U

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	TP-1-3 3.5 11/30/10	TP-2-1 5.5 11/30/10	TP-2-2 5.5 11/30/10	TP-3-1 5 12/01/10	TP-3-2 6.8 12/01/10	TP-3-3 6.5 12/01/10	TP-4-B-1 1.5 12/02/10	TP-4-D-1 7 12/02/10	TP-4-F-1 4 12/02/10	TP-5-1 5 12/02/10	TP-5-2 5.5 12/02/10	TP-5-3 6 12/02/10	TP-6-1 5 12/03/10	TP-6-2 5.5 12/03/10
Semivolatile Organics (Cont.)																	
Atrazine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Benzaldehyde	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Benzo(a)anthracene	1	5.6	mg/kg	0.20 U	0.21 U	0.22 U	0.16 J	0.24 U	0.25 U	0.34	0.18 U	0.20 U	0.27 U	0.27	1.8 U	0.50 J	0.019 J
Benzo(a)pyrene	1	1	mg/kg	0.20 U	0.21 U	0.22 U	0.16 J	0.24 U	0.25 U	0.41	0.18 U	0.20 U	0.27 U	0.27	1.8 U	0.48 J	0.019 J
Benzo(b)fluoranthene	1	5.6	mg/kg	0.20 U	0.21 U	0.22 U	0.17 J	0.24 U	0.25 U	0.50	0.18 U	0.20 U	0.27 U	0.34	1.8 U	0.50 J	0.023 J
Benzo(g,h,i)perylene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.11 J	0.24 U	0.25 U	0.24	0.18 U	0.20 U	0.27 U	0.13 J	1.8 U	0.44 J	0.017 J
Benzo(k)fluoranthene	0.8	56	mg/kg	0.20 U	0.21 U	0.22 U	0.055 J	0.24 U	0.25 U	0.17 J	0.18 U	0.20 U	0.27 U	0.11 J	1.8 U	1.8 U	0.19 U
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 UB	0.24 UB	0.25 UB	0.21 UB	0.18 UB	0.20 UB	0.27 UB	0.20 UB	1.8 UB	1.8 UB	0.19 UB
Butylbenzylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Caprolactam	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Carbazole	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.042 J	0.18 U	0.20 U	0.27 U	0.046 J	1.8 U	1.8 U	0.19 U
Chrysene	1	56	mg/kg	0.20 U	0.21 U	0.22 U	0.15 J	0.24 U	0.25 U	0.35	0.18 U	0.20 U	0.27 U	0.27	1.8 U	0.52 J	0.024 J
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Dibenzofuran	7	350	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.081 J	1.8 U	1.8 U	0.19 U
Diethylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 UB
Dimethylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Di-n-Butylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Di-n-Octylphthalate	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Fluoranthene	100	500	mg/kg	0.20 U	0.019 J	0.22 U	0.21 J	0.24 U	0.25 U	0.71	0.18 U	0.20 U	0.27 U	0.66	0.20 J	1.2 J	0.046 J
Fluorene	30	500	mg/kg	0.20 U	0.21 U	0.22 U	0.15 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U	0.27 U	0.13 J	0.21 J	1.8 U	0.19 U
Hexachlorobenzene	0.33	6	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Hexachlorobutadiene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Hexachloroethane	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.20 U	0.21 U	0.22 U	0.083 J	0.24 U	0.25 U	0.21	0.18 U	0.20 U	0.27 U	0.12 J	1.8 U	0.31 J	0.19 U
Isophorone	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Naphthalene	12	500	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.19 J	0.20 U	1.8 U	1.8 U	0.19 U
Nitrobenzene	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	mg/kg	0.20 U	0.21 U	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Pentachlorophenol	0.8	6.7	mg/kg	0.39 U	0.41 U	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U
Phenanthrene	100	500	mg/kg	0.20 U	0.024 J	0.22 U	0.049 J	0.24 U	0.25 U	0.29	0.037 J	0.019 J	0.039 J	0.63	0.40 J	1.2 J	0.042 J
Phenol	0.33	500	mg/kg	0.20 U	0.11 J	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U
Pyrene	100	500	mg/kg	0.20 U	0.21 U	0.22 U	0.23 J	0.24 U	0.25 U	0.70	0.18 U	0.20 U	0.27 U	0.69	0.23 J	1.1 J	0.039 J
Total SVOCs	- -	- -	mg/kg	ND	0.15 J	ND	1.7 J	ND	ND	4.2 J	0.037 J	0.019 J	0.32 J	4.1 J	1.3 J	6.4 J	0.23 J
Inorganics																	
Aluminum	- -	- -	mg/kg	1,250 J	1,320 J	927 J	2,710 J	11,000 J	1,600 J	3,710 J	404 J	745 J	9,740 J	3,430 J	4,230 J	4,640	637
Antimony	- -	- -	mg/kg	17.6 U	18.5 U	18.9 U	21.7 U	20.6 U	22.5 U	15.9 UJ	14.7 UJ	17.2 UJ	23.0 UJ	17.0 UJ	15.5 UJ	15.7 U	16.7 U
Arsenic	13	16	mg/kg	2.30 UJ	1.30 J	2.50 UJ	1.50 J	10.1	1.00 J	4.10 J	0.400 J	2.30 UJ	11.0 J	2.70 J	1.50 J	**28.1**	0.500 J
Barium	350	400	mg/kg	6.17	10.1	8.32	15.9	25.2	8.27	17.6	1.28	2.18	34.4	113	16.8	43.2	6.25
Beryllium	7.2	590	mg/kg	0.234 U	0.246 U	0.252 U	0.124 J	0.513	0.0510 J	0.278 J	0.195 U	0.229 UJ	0.595 J	0.228 J	0.225 J	0.241	0.223 U
Cadmium	2.5	9.3	mg/kg	0.234 UBJ	0.246 UBJ	0.252 UBJ	0.289 UBJ	0.314 J	0.300 UBJ	0.284	0.0300 J	0.229 U	0.366	0.218 J	0.115 J	0.660	0.223 U

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	TP-1-3	TP-2-1	TP-2-2	TP-3-1	TP-3-2	TP-3-3	TP-4-B-1	TP-4-D-1	TP-4-F-1	TP-5-1	TP-5-2	TP-5-3	TP-6-1	TP-6-2
Sample Depth(feet):				3.5	5.5	5.5	5	6.8	6.5	1.5	7	4	5	5.5	6	5	5.5
Date Collected:				11/30/10	11/30/10	11/30/10	12/01/10	12/01/10	12/01/10	12/02/10	12/02/10	12/02/10	12/02/10	12/02/10	12/02/10	12/03/10	12/03/10
Inorganics (Cont.)																	
Calcium	- -	- -	mg/kg	687	306	464	983	1,630	426	4,140 J	65.8 J	165 J	3,570 J	5,800 J	140 J	10,800	490
Chromium	- -	- -	mg/kg	3.51	3.69	2.14	6.76	28.5	3.59	7.72	0.701	1.26	26.4	7.41	6.06	9.72	1.57
Cobalt	- -	- -	mg/kg	0.491 J	0.825	0.331 J	1.54	5.86	1.14	2.42	0.142 J	0.468 J	6.33	2.08	3.48	2.68	0.285 J
Copper	50	270	mg/kg	1.40	5.90	0.700 J	3.60 J	12.5 J	2.60 J	14.2	0.600 J	1.10	11.3	6.10	4.50	11.9	0.700 J
Ferrous Iron	- -	- -	mg/kg	R	R	R	R	R	R	1.90 J	1.40 J	R	1.70 J	1.30 J	4.40 J	22.1 J	R
Iron	- -	- -	mg/kg	2,380	3,240	1,170	5,200 J	22,200 J	2,770 J	6,560 J	764 J	1,070 J	25,100 J	6,100 J	6,640 J	8,290	917
Lead	63	1,000	mg/kg	1.60 J	2.10 J	1.10 J	3.00 J	11.4 J	1.80 J	28.7	0.600 J	1.90	13.1	28.3	3.60	57.9	0.600 J
Magnesium	- -	- -	mg/kg	422	441	269	1,040	4,380	632	2,230 J	56.2 J	122 J	3,850 J	1,870 J	694 J	2,270	230
Manganese	1,600	10,000	mg/kg	15.2 J	27.5 J	11.1 J	44.4 J	192 J	25.6 J	77.9 J	3.80 J	7.60 J	240 J	76.0 J	49.2 J	110	8.30
Mercury	0.18	2.8	mg/kg	0.0227 U	0.0119 J	0.0250 U	0.0270 U	0.0166 J	0.0273 U	**0.606**	0.0198 U	0.0226 U	0.0306 U	0.0155 J	0.0209 U	0.0732	0.0220 U
Nickel	30	310	mg/kg	1.63 J	2.00 J	1.20 J	4.38 J	18.0	3.04 J	5.97	0.531 J	1.20 J	15.7	4.59 J	4.67 J	5.61	0.810 J
Potassium	- -	- -	mg/kg	352	355	225	751	2,290	479	456	59.5	115	2,170	521	299	436	259
Selenium	3.9	1,500	mg/kg	4.70 U	4.90 U	5.00 U	5.80 U	0.800 J	6.00 U	4.20 U	3.90 U	4.60 U	6.10 U	4.50 U	4.10 U	4.20 U	4.50 U
Silver	2	1,500	mg/kg	0.586 U	0.616 U	0.629 U	0.722 U	0.688 U	0.751 U	**3.32**	0.489 U	0.574 U	0.767 U	0.568 U	0.518 U	0.524 U	0.556 U
Sodium	- -	- -	mg/kg	38.8 J	65.0 J	39.2 J	117 J	1,150	161 J	121 J	15.6 J	19.2 J	171 J	107 J	60.9 J	303	44.3 J
Thallium	- -	- -	mg/kg	7.00 U	7.40 U	7.60 U	8.70 U	8.30 U	9.00 U	6.40 U	5.90 U	6.90 U	9.20 U	6.80 U	6.20 U	6.30 U	6.70 U
Vanadium	- -	- -	mg/kg	4.28	3.92	2.15	9.50	35.7	4.39	11.1	0.704	1.33	31.4	9.55	8.11	12.1	1.75
Zinc	109	10,000	mg/kg	4.90 J	6.10 J	3.70 J	12.5 J	43.6 J	7.20 J	62.8	1.40 J	2.10 J	48.6	68.6	10.5	67.6	2.00 J
Miscellaneous																	
Sulfate	- -	- -	mg/kg	271	307	261	814	2,270	520	221	106 U	136	620	64.7 J	369	375	112 U
Total Organic Carbon	- -	- -	mg/kg	1,200 U	1,250 U	1,200 U	1,900	7,750	1,410	2,740	1,100 U	1,160 U	19,100	26,100	6,310	12,800	1,210 U
TPH																	
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	TP-6-3 5.5 12/03/10	TP-7-1 5 12/06/10	TP-7-2 5 12/06/10	TP-8-1 4.5 12/06/10	TP-8-2 4 12/06/10	TP-9-1 6.5 12/07/10	TP-9-2 6 12/07/10	TP-9-3 6.5 12/07/10	TP-10-1 6 12/07/10	TP-10-2 6 12/07/10	TP-10-3 6.5 12/07/10	TP-11-1 5 12/07/10	TP-12-1 4.7 12/07/10	VRU-1 8 - 8.5 09/22/04
Volatile Organics																	
1,1,1-Trichloroethane	0.68	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 UJ	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,1-Dichloroethane	0.27	240	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,1-Dichloroethene	0.33	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
1,2,4-Trichlorobenzene	- -	- -	mg/kg	0.57 U	0.0055 U	0.33 J	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
1,2-Dibromoethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,2-Dichloroethane	0.02	30	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,2-Dichloropropane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
2-Butanone	0.12	500	mg/kg	2.9 U	0.027 U	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U [2.1 U]	0.011 J	0.028 U	0.028 U	0.031 U	0.20 U	0.58 U	NA
2-Hexanone	- -	- -	mg/kg	2.9 U	0.027 U	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U [2.1 U]	0.040 U	0.028 U	0.028 U	0.031 U	0.20 U	0.58 U	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	2.9 U	0.027 U	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U [2.1 U]	0.040 U	0.028 U	0.028 U	0.031 U	0.20 U	0.58 U	NA
Acetone	0.05	500	mg/kg	2.9 U	0.026 J	2.7 U	0.51 U	0.010 J	1.1 U	1.1 U [2.1 U]	**0.055**	0.025 J	0.028 U	0.018 J	**0.058 J**	0.58 U	NA
Benzene	0.06	44	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
Bromodichloromethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Bromoform	- -	- -	mg/kg	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
Bromomethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Carbon Disulfide	- -	- -	mg/kg	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
Carbon Tetrachloride	0.76	22	mg/kg	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
Chlorobenzene	1.1	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Chloroethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Chloroform	0.37	350	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Chloromethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	**2.5**
cis-1,3-Dichloropropene	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Cyclohexane	- -	- -	mg/kg	4.0	0.0055 U	1.9	0.10 U	0.0054 U	0.22 U	0.12 J [0.61 J]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
Dibromochloromethane	- -	- -	mg/kg	0.57 UJ	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
Dichlorodifluoromethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ [0.41 UJ]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 UJ	NA
Ethylbenzene	1	390	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
Isopropylbenzene	- -	- -	mg/kg	1.8	0.0055 U	0.35 J	0.87	0.0054 U	0.22 U	0.37 [1.1]	0.0079 U	0.0056 U	0.0056 U	0.0013 J	0.026 J	0.97	NA
Methyl acetate	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Methyl tert-butyl ether	0.93	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	0.71
Methylcyclohexane	- -	- -	mg/kg	25 J	0.0020 J	17	2.8 J	0.0054 U	0.17 J	0.60 [2.9 J]	0.0018 J	0.0056 U	0.0056 U	0.0045 J	0.10	0.97 J	NA
Methylene Chloride	0.05	500	mg/kg	0.57 U	0.017	0.54 U	**0.082 J**	0.016	0.22 U	0.23 U [0.41 U]	0.020	0.017	0.018	0.015	**0.086**	0.12 U	**4.7**
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		TP-6-3	TP-7-1	TP-7-2	TP-8-1	TP-8-2	TP-9-1	TP-9-2	TP-9-3	TP-10-1	TP-10-2	TP-10-3	TP-11-1	TP-12-1	VRU-1
Sample Depth(feet):	Use SCRs	Commercial		5.5	5	5	4.5	4	6.5	6	6.5	6	6	6.5	5	4.7	8 - 8.5
Date Collected:	(bold)	(shade)	Units	12/03/10	12/06/10	12/06/10	12/06/10	12/06/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	09/22/04
Volatile Organics (Cont.)																	
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Tetrachloroethene	1.3	150	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
Toluene	0.7	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
Total VOCs	- -	- -	mg/kg	31 J	0.048 J	20 J	3.8 J	0.026 J	0.17 J	1.1 J [4.6 J]	0.088 J	0.042 J	0.018	0.039 J	0.29 J	1.9 J	34
trans-1,2-Dichloroethene	0.19	500	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
trans-1,3-Dichloropropene	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Trichloroethene	0.47	200	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	**26**
Trichlorofluoromethane	- -	- -	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	NA
Vinyl Chloride	0.02	13	mg/kg	0.57 U	0.0055 U	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U [0.41 U]	0.0079 U	0.0056 U	0.0056 U	0.0062 U	0.040 U	0.12 U	ND
Xylenes (total)	0.26	500	mg/kg	1.1 U	0.0031 J	1.1 U	0.21 U	0.011 U	0.44 U	0.45 U [0.82 U]	0.016 U	0.011 U	0.011 U	0.012 U	0.020 J	0.23 U	**0.50**
Semivolatile Organics																	
1,1'-Biphenyl	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.020 J	0.78 U	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2,4-Dichlorophenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2,4-Dimethylphenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2,4-Dinitrophenol	- -	- -	mg/kg	9.4 UJ	0.36 UJ	9.1 UJ	1.8 UJ	0.36 UJ	1.9 UJ	1.8 UJ [3.5 UJ]	0.51 UJ	1.9 UJ	1.8 UJ	0.41 U	0.45 U	1.5 U	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2-Chloronaphthalene	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2-Chlorophenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2-Methylnaphthalene	- -	- -	mg/kg	4.8 U	0.025 J	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.034 J	0.44	13	NA
2-Methylphenol	0.33	500	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
2-Nitroaniline	- -	- -	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
2-Nitrophenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
3-Nitroaniline	- -	- -	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
4-Chloroaniline	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
4-Methylphenol	0.33	500	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
4-Nitroaniline	- -	- -	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
4-Nitrophenol	- -	- -	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
Acenaphthene	20	500	mg/kg	0.94 J	0.020 J	1.7 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.31	0.10 J	0.69 J	NA
Acenaphthylene	100	500	mg/kg	4.8 U	0.021 J	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Acetophenone	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Anthracene	100	500	mg/kg	0.82 J	0.035 J	1.5 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.068 J	0.11 J	0.099 J	0.78 U	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	TP-6-3	TP-7-1	TP-7-2	TP-8-1	TP-8-2	TP-9-1	TP-9-2	TP-9-3	TP-10-1	TP-10-2	TP-10-3	TP-11-1	TP-12-1	VRU-1
Sample Depth(feet):				5.5	5	5	4.5	4	6.5	6	6.5	6	6	6.5	5	4.7	8 - 8.5
Date Collected:				12/03/10	12/06/10	12/06/10	12/06/10	12/06/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	12/07/10	09/22/04
Semivolatile Organics (Cont.)																	
Atrazine	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Benzaldehyde	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Benzo(a)anthracene	1	5.6	mg/kg	**2.7 J**	0.099 J	**3.7 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.18 J	0.24 J	0.026 J	0.039 J	0.26 J	NA
Benzo(a)pyrene	1	1	mg/kg	**2.7 J**	0.10 J	**3.7 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.17 J	0.26 J	0.21 U	0.024 J	0.23 J	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	**2.8 J**	0.12 J	**4.1 J**	0.072 J	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.15 J	0.25 J	0.017 J	0.029 J	0.39 JY	NA
Benzo(g,h,i)perylene	100	500	mg/kg	1.5 J	0.081 J	2.1 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.13 J	0.14 J	0.21 U	0.23 U	0.19 J	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	**1.2 J**	0.034 J	**1.1 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.48 JY	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	4.8 U	0.19 UB	4.7 UB	0.95 UB	0.18 UB	0.99 UB	0.94 U [1.8 UB]	0.26 UB	1.0 UB	0.94 UB	0.21 UB	0.23 UB	0.34 J	NA
Butylbenzylphthalate	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Caprolactam	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Carbazole	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.020 J	0.033 J	0.78 U	NA
Chrysene	1	56	mg/kg	**2.3 J**	0.11 J	**3.5 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.13 J	0.23 J	0.024 J	0.030 J	0.22 J	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Dibenzofuran	7	350	mg/kg	4.8 U	0.021 J	1.1 J	0.95 U	0.18 U	0.99 U	0.88 J [1.4 J]	0.26 U	1.0 U	0.94 U	0.19 J	0.093 J	0.78 U	NA
Diethylphthalate	- -	- -	mg/kg	4.8 U	0.19 UB	4.7 U	0.95 U	0.18 UB	0.99 U	0.94 U [1.8 U]	0.26 UB	1.0 U	0.94 U	0.21 U	0.23 UB	0.78 U	NA
Dimethylphthalate	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Di-n-Butylphthalate	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Di-n-Octylphthalate	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Fluoranthene	100	500	mg/kg	4.8	0.19	7.0	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.23 J	0.42 J	0.21 U	0.13 J	0.58 J	NA
Fluorene	30	500	mg/kg	1.1 J	0.025 J	1.9 J	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.23	0.15 J	1.6	NA
Hexachlorobenzene	0.33	6	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Hexachlorobutadiene	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Hexachloroethane	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	**1.1 J**	0.059 J	**1.8 J**	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	0.094 J	0.11 J	0.21 U	0.23 U	0.16 J	NA
Isophorone	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Naphthalene	12	500	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.27 J	NA
Nitrobenzene	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	4.8 U	0.19 U	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Pentachlorophenol	0.8	6.7	mg/kg	9.4 U	0.36 U	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U [3.5 U]	0.51 U	1.9 U	1.8 U	0.41 U	0.45 U	1.5 U	NA
Phenanthrene	100	500	mg/kg	1.7 J	0.14 J	4.2 J	0.95 U	0.18 U	0.99 U	1.5 [2.5]	0.26 U	0.11 J	0.94 U	0.21	0.27	3.3	NA
Phenol	0.33	500	mg/kg	4.8 U	0.035 J	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U [1.8 U]	0.26 U	1.0 U	0.94 U	0.21 U	0.23 U	0.78 U	NA
Pyrene	100	500	mg/kg	4.8	0.19	7.7	0.11 J	0.18 U	0.077 J	0.94 U [1.8 U]	0.26 U	0.30 J	0.41 J	0.15 J	0.11 J	0.75 J	NA
Total SVOCs	- -	- -	mg/kg	28 J	1.3 J	45 J	0.18 J	ND	0.077 J	2.4 J [3.9 J]	ND	1.5 J	2.1 J	1.3 J	1.6 J	22 J	NA
Inorganics																	
Aluminum	- -	- -	mg/kg	3,000	3,500	2,280	728	545	4,520	564 [512]	11,200	1,730	2,440	5,570	3,760	3,550	NA
Antimony	- -	- -	mg/kg	16.4 U	16.2 U	16.1 U	17.7 U	16.5 U	17.5 U	16.0 U [14.8 U]	23.2 U	16.8 U	15.7 U	17.7 U	20.4 U	17.6 U	NA
Arsenic	13	16	mg/kg	1.90 J	6.50	3.60	2.40 U	2.20 U	2.40	2.10 U [2.00 U]	10.3	7.90	**20.7**	1.00 J	3.00	1.70 J	NA
Barium	350	400	mg/kg	14.0	22.7	21.4	3.31	2.64	19.5	2.12 [1.37]	32.4	37.4	44.9	16.8	14.6	13.0	NA
Beryllium	7.2	590	mg/kg	0.157 J	0.278	0.218	0.0470 J	0.0430 J	0.283	0.0440 J [0.0490 J]	0.822	0.155 J	0.182 J	0.369	0.304	0.277	NA
Cadmium	2.5	9.3	mg/kg	0.0790 J	0.0760 J	0.258	0.235 U	0.220 U	0.234 U	0.213 U [0.197 U]	0.362	0.109 J	0.222	0.0400 J	0.382	0.0870 J	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	TP-6-3 5.5 12/03/10	TP-7-1 5 12/06/10	TP-7-2 5 12/06/10	TP-8-1 4.5 12/06/10	TP-8-2 4 12/06/10	TP-9-1 6.5 12/07/10	TP-9-2 6 12/07/10	TP-9-3 6.5 12/07/10	TP-10-1 6 12/07/10	TP-10-2 6 12/07/10	TP-10-3 6.5 12/07/10	TP-11-1 5 12/07/10	TP-12-1 4.7 12/07/10	VRU-1 8 - 8.5 09/22/04
Inorganics (Cont.)																	
Calcium	- -	- -	mg/kg	1,040	3,010	9,740	229	150	800	106 [91.2]	2,480	1,890	8,390	387	1,190	4,180	NA
Chromium	- -	- -	mg/kg	6.88	4.99	5.83	1.82	1.27	13.4	1.35 [1.14]	31.9	3.01	4.57	6.72	10.4	9.55	NA
Cobalt	- -	- -	mg/kg	2.26	2.62	1.36	0.406 J	0.247 J	1.95	0.411 J [0.347 J]	5.96	1.38	1.61	1.70	2.72	1.69	NA
Copper	50	270	mg/kg	4.00	5.70	13.4	1.00 J	0.700 J	22.3	0.700 J [0.600 J]	11.4	6.00	9.40	5.00	8.10	5.60	NA
Ferrous Iron	- -	- -	mg/kg	0.700 J	R	8.30 J	0.900 J	R	1.10 J	0.400 J [0.600 J]	2.20 J	0.700 J	2.70 J	2.10 J	1.00 J	1.20 J	NA
Iron	- -	- -	mg/kg	4,740	6,380	3,860	973	628	6,920	778 [753]	27,900	5,430	4,600	6,830	7,510	6,210	NA
Lead	63	1,000	mg/kg	9.70	17.8 J	35.0 J	2.80 J	0.700 J	4.70 J	0.700 J [0.500 J]	7.70 J	**200 J**	41.8 J	8.30 J	13.4 J	7.70 J	NA
Magnesium	- -	- -	mg/kg	1,170	714	2,320	214	165	1,610	108 [95.0]	4,700	570	2,420	823	1,480	2,050	NA
Manganese	1,600	10,000	mg/kg	36.9	91.7	49.7	9.50	6.60	61.6	6.70 [6.40]	361	50.4	74.6	50.0	73.7	46.6	NA
Mercury	0.18	2.8	mg/kg	0.0224 U	0.0256	0.104	0.0220 U	0.0216 U	0.0213 U	0.0230 U [0.0165 J]	0.0313 U	0.0325	0.0675	0.0251 U	0.0279 U	**1.35**	NA
Nickel	30	310	mg/kg	5.40 J	3.98 J	5.85	1.08 J	0.792 J	5.55 J	0.964 J [0.846 J]	18.5	2.78 J	3.98 J	5.02 J	6.14 J	6.08	NA
Potassium	- -	- -	mg/kg	705	436	359	196	148	1,170	110 [99.7]	2,680	243	268	365	910	853	NA
Selenium	3.9	1,500	mg/kg	4.40 U	4.30 U	4.30 U	4.70 U	4.40 U	4.70 U	4.30 U [3.90 U]	6.20 U	4.50 U	4.20 U	4.70 U	5.40 U	4.70 U	NA
Silver	2	1,500	mg/kg	0.546 U	0.541 U	0.537 U	0.589 U	0.549 U	0.584 U	0.533 U [0.493 U]	0.774 U	0.561 U	0.523 U	0.589 U	0.679 U	0.587 U	NA
Sodium	- -	- -	mg/kg	107 J	132 J	115 J	41.6 J	48.9 J	148 J	32.3 J [45.2 J]	351	840	83.2 J	116 J	57.9 J	78.5 J	NA
Thallium	- -	- -	mg/kg	6.60 U	6.50 U	6.40 U	7.10 U	6.60 U	7.00 U	6.40 U [5.90 U]	9.30 U	6.70 U	6.30 U	7.10 U	8.20 U	7.00 U	NA
Vanadium	- -	- -	mg/kg	7.97	7.37	7.57	2.72	1.40	14.4	1.42 [1.29]	38.4	4.74	6.75	9.88	12.5	11.6	NA
Zinc	109	10,000	mg/kg	15.9	31.4	75.1	2.40	1.80 J	24.0	1.50 J [1.50 J]	47.1	60.6	80.7	14.0	24.2	17.1	NA
Miscellaneous																	
Sulfate	- -	- -	mg/kg	69.6 J	112 U	110 U	94.2 J	109 U	116 U	113 U [107 U]	805	441	231	394	138 U	221	NA
Total Organic Carbon	- -	- -	mg/kg	14,000	1,700	8,210	1,160 U	1,100 U	1,120 U	1,090 U [1,130 U]	21,200	2,730	3,350	1,730	1,250 U	1,470	2,850
TPH																	
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-1 9.5 - 10 09/22/04	VRU-1 14 - 14.5 09/22/04	VRU-2 8.5 - 9 09/22/04	VRU-2 10 - 10.5 09/22/04	VRU-2 15 - 15.5 09/22/04	VRU-3 9 - 9.5 09/22/04	VRU-3 10.5 - 11 09/22/04	VRU-3 14 - 14.5 09/22/04	VRU-4 9.5 - 10 09/22/04	VRU-4 10.5 - 11 09/22/04	VRU-4 17.5 - 18 09/22/04	VRU-5 8.5 - 9 09/22/04	VRU-5 10.5 - 11 09/22/04	VRU-5 15.5 - 16 09/22/04	VRU-6 8.5 - 9 09/22/04
Volatile Organics																		
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**1.6 J**	ND	**0.11**	**2.7 J**	ND	ND	**0.63**	ND	0.042	**0.76**	ND	0.029	**0.065**	ND	**0.11**
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	**87**	**1.1 J**	**27**	**560**	ND	**4.2**	**90**	0.034	**2.2**	0.052	0.0054 J	0.22 J	0.019	ND	**42**
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	ND	ND	0.42	**6.1**	ND	ND	0.75	ND	0.20	0.21	ND	0.065	0.013	ND	ND
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	**2.8 J**	ND	0.82	**28**	ND	0.33	**16**	0.0077	**2.2**	**18**	ND	0.34	**5.2**	ND	**1.8**
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	**380**	**120**	**0.052 J**	**660**	**33**	**4.9**	**190**	**18**	0.029	0.0099	**0.24**	ND	**0.18**	ND	**8.1**
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted	Restricted Use SCRs		VRU-1	VRU-1	VRU-2	VRU-2	VRU-2	VRU-3	VRU-3	VRU-3	VRU-4	VRU-4	VRU-4	VRU-5	VRU-5	VRU-5	VRU-6
Sample Depth(feet):	Use SCRs	Commercial		9.5 - 10	14 - 14.5	8.5 - 9	10 - 10.5	15 - 15.5	9 - 9.5	10.5 - 11	14 - 14.5	9.5 - 10	10.5 - 11	17.5 - 18	8.5 - 9	10.5 - 11	15.5 - 16	8.5 - 9
Date Collected:	(bold)	(shade)	Units	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04
Volatile Organics (Cont.)																		
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND	1.9	2.8	22	5.5	ND	11	1.3	ND
Tetrachloroethene	1.3	150	mg/kg	**2.5 J**	ND	ND	**3.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	500	mg/kg	ND	ND	0.56	**16**	ND	0.14	**2.4**	ND	0.19	0.32	ND	0.056	0.015	ND	ND
Total VOCs	- -	- -	mg/kg	1,600 J	130 J	31 J	1,900 J	33	36	470 J	20	8.5 J	43	5.7 J	1.1 J	17 J	1.3	98 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	**2.4 J**	ND	0.049 J	ND	ND	ND	ND	ND	0.055	0.029	ND	ND	0.016 J	ND	ND
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	**1,200**	**4.2**	ND	**570**	ND	**26**	**160**	0.071	0.0020 J	ND	ND	ND	0.0031 J	ND	**46**
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	ND	ND	ND	**8.5 J**	ND	ND	**0.89 J**	ND	**0.052**	**0.20**	ND	**0.16**	**0.20**	ND	**0.63 J**
Xylenes (total)	0.26	500	mg/kg	**4.9 J**	ND	**2.0**	**37**	ND	0.13	**4.4**	ND	**0.68**	**0.61**	ND	0.21	0.042	ND	ND
Semivolatile Organics																		
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-1	VRU-1	VRU-2	VRU-2	VRU-2	VRU-3	VRU-3	VRU-3	VRU-4	VRU-4	VRU-4	VRU-5	VRU-5	VRU-5	VRU-6
Sample Depth(feet):				9.5 - 10	14 - 14.5	8.5 - 9	10 - 10.5	15 - 15.5	9 - 9.5	10.5 - 11	14 - 14.5	9.5 - 10	10.5 - 11	17.5 - 18	8.5 - 9	10.5 - 11	15.5 - 16	8.5 - 9
Date Collected:				09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04
Semivolatile Organics (Cont.)																		
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																		
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-1 9.5 - 10 09/22/04	VRU-1 14 - 14.5 09/22/04	VRU-2 8.5 - 9 09/22/04	VRU-2 10 - 10.5 09/22/04	VRU-2 15 - 15.5 09/22/04	VRU-3 9 - 9.5 09/22/04	VRU-3 10.5 - 11 09/22/04	VRU-3 14 - 14.5 09/22/04	VRU-4 9.5 - 10 09/22/04	VRU-4 10.5 - 11 09/22/04	VRU-4 17.5 - 18 09/22/04	VRU-5 8.5 - 9 09/22/04	VRU-5 10.5 - 11 09/22/04	VRU-5 15.5 - 16 09/22/04	VRU-6 8.5 - 9 09/22/04
Inorganics (Cont.)																		
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	31,900	18,100	ND	40,000	20,500	ND	18.2	19.4	4.64	33	22.2	6.89	21.2	23.3	5.13
TPH																		
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-6 9.5 - 10 09/22/04	VRU-6 14 - 14.5 09/22/04	VRU-7 7.5 - 8 09/22/04	VRU-7 12 - 12.5 09/22/04	VRU-7 14 - 14.5 09/22/04	VRU-8 8 - 8.5 09/22/04	VRU-8 10.5 09/22/04	VRU-8 14 - 14.5 09/22/04	VRU-9 7.5 - 8 09/22/04	VRU-9 9.5 - 10 09/22/04	VRU-9 12.5 - 13 09/22/04
Volatile Organics														
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	500	mg/kg	ND	0.0042 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.06	44	mg/kg	**1.7**	0.0086	ND	0.0093	ND	ND	**0.083**	ND	0.012	0.040	**0.083**
Bromodichloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	1.1	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.37	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	500	mg/kg	**530**	**1.4**	0.13	**0.44**	ND	**0.40**	ND	0.051	0.12	0.13	**0.27**
cis-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1	390	mg/kg	ND	ND	0.032	0.38	ND	ND	0.012	ND	ND	ND	ND
Isopropylbenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.93	500	mg/kg	**17**	0.68	0.0088	0.48	0.0078	0.18	0.14	0.035	0.0060	0.32	0.56
Methylcyclohexane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	500	mg/kg	**31**	**29**	**0.086**	**0.14**	0.030	**0.056**	0.039	**0.19**	0.016	**0.051**	**0.12**
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-6	VRU-6	VRU-7	VRU-7	VRU-7	VRU-8	VRU-8	VRU-8	VRU-9	VRU-9	VRU-9
Sample Depth(feet):				9.5 - 10	14 - 14.5	7.5 - 8	12 - 12.5	14 - 14.5	8 - 8.5	10.5	14 - 14.5	7.5 - 8	9.5 - 10	12.5 - 13
Date Collected:				09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04
Volatile Organics (Cont.)														
p-Isopropyltoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	mg/kg	ND	7.5	ND	1.5	0.41	0.26	3.9	1.7	ND	3.0	3.3
Tetrachloroethene	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	500	mg/kg	ND	0.0046	ND	0.0050	ND	ND	0.029	ND	0.0034	ND	ND
Total VOCs	- -	- -	mg/kg	760 J	39 J	0.33	5.0 J	0.44	0.89	4.2 J	1.9	0.18 J	3.9 J	4.6 J
trans-1,2-Dichloroethene	0.19	500	mg/kg	ND	0.017	ND	0.0049 J	ND	ND	ND	ND	0.0016 J	ND	0.016 J
trans-1,3-Dichloropropene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	200	mg/kg	**150**	0.33 J	ND	ND	ND	ND	ND	ND	0.0031 J	0.0059 J	0.036
Trichlorofluoromethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	13	mg/kg	**22**	**0.27**	ND	**1.4 E**	ND	ND	**0.026 J**	ND	0.016	**0.42**	**0.21**
Xylenes (total)	0.26	500	mg/kg	**6.0 J**	0.0068	0.071	**0.70**	ND	ND	0.044	ND	0.0049	ND	ND
Semivolatile Organics														
1,1'-Biphenyl	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(feet): / Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-6 9.5 - 10 09/22/04	VRU-6 14 - 14.5 09/22/04	VRU-7 7.5 - 8 09/22/04	VRU-7 12 - 12.5 09/22/04	VRU-7 14 - 14.5 09/22/04	VRU-8 8 - 8.5 09/22/04	VRU-8 10.5 09/22/04	VRU-8 14 - 14.5 09/22/04	VRU-9 7.5 - 8 09/22/04	VRU-9 9.5 - 10 09/22/04	VRU-9 12.5 - 13 09/22/04
Semivolatile Organics (Cont.)														
Atrazine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	7	350	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.33	6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics														
Aluminum	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	13	16	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(feet): Date Collected:	Unrestricted Use SCRs (bold)	Restricted Use SCRs Commercial (shade)	Units	VRU-6 9.5 - 10 09/22/04	VRU-6 14 - 14.5 09/22/04	VRU-7 7.5 - 8 09/22/04	VRU-7 12 - 12.5 09/22/04	VRU-7 14 - 14.5 09/22/04	VRU-8 8 - 8.5 09/22/04	VRU-8 10.5 09/22/04	VRU-8 14 - 14.5 09/22/04	VRU-9 7.5 - 8 09/22/04	VRU-9 9.5 - 10 09/22/04	VRU-9 12.5 - 13 09/22/04
Inorganics (Cont.)														
Calcium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous														
Sulfate	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	- -	- -	mg/kg	23.7	22.7	ND	10,800	18,100	1,320	20,100	17,200	ND	27,100	16,500
TPH														
Total Petroleum Hydrocarbons	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 77.

Table 1. Summary of Soil Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Notes:

1. Bold values exceed the Unrestricted Use SCOs presented in Table 375-6.8(a) of 6 NYCRR Part 375 (NYSDEC 2006).
2. Shaded values exceed the Restricted Use - Commercial SCOs presented in Table 375-6.8(b) of 6 NYCRR Part 375 (NYSDEC 2006).
3. Duplicate results are shown in brackets.

Abbreviations and Acronyms:

VOCs = Volatile organics.
SVOCs = Semivolatile organics.
mg/kg = Milligram per kilogram.
NYCRR = New York Codes, Rules and Regulations.
NYSDEC = New York State Department of Environmental Conservation.

Analytical Qualifiers:

U = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
B = The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
D = Concentration is based on a diluted sample analysis.
E = The compound was quantitated above the calibration range.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
JY = The compound was reported due to the lack of chromatographic resolution between benzo(b)fluoranthene and benzo(k)fluoranthene concentrations.
ND = None detected.
R = The sample results are rejected.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	AMW-DR 01/26/11	GP-1(2002) 05/02/02	GP-2(2002) 05/02/02	GP-3(2002) 05/02/02
Volatile Organics																
1,1,1-Trichloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,1-Dichloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	**25**	5.0 U	5.0 U	NA	NA	NA
1,1-Dichloroethene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	**300**	5.0 U	5.0 U	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,2-Dichloropropane	1	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
2-Butanone	50	ug/L	40 U	200 U	80 U	50 U	50 U	50 U	2,000 U	2,000 U	250 U	50 U	50 U	NA	NA	NA
2-Hexanone	50	ug/L	20 U	100 U	40 U	25 U	25 U	25 U	1,000 U	1,000 U	130 U	25 U	25 U	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	20 U	100 U	40 U	25 U	25 U	25 U	1,000 U	1,000 U	130 U	25 U	25 U	NA	NA	NA
Acetone	50	ug/L	40 U	200 U	34 J	50 U	46 J	20 J	2,000 U	2,000 U	250 U	50 U	50 U	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	ug/L	4.0 U	20 U	**510**	**22**	**7.0**	**6.4**	200 U	200 U	**260**	**68**	**9.5**	ND	ND	**17**
Bromodichloromethane	50	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Bromoform	50	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Bromomethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Carbon Disulfide	60	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	27	5.0 U	5.0 U	NA	NA	NA
Carbon Tetrachloride	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Chlorobenzene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Chloroethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Chloroform	7	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Chloromethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	**22**	**62**	8.0 U	5.0 U	5.0 U	5.0 U	**29,000 D**	**98,000 D**	**240,000 D**	5.0 U	5.0 U	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Cyclohexane	- -	ug/L	49	210	130	38	6.8	3.5 J	200 U	120 J	85	49	6.9	NA	NA	NA
Dibromochloromethane	50	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Ethylbenzene	5	ug/L	**25**	**1,300**	**140**	5.0 U	5.0 U	5.0 U	200 U	200 U	**250**	**5.7**	5.0 U	**52**	**8,800**	ND
Isopropylbenzene	5	ug/L	**6.3**	**130**	**110**	**11**	5.0 U	5.0 U	200 U	200 U	**24 J**	**15**	5.0 U	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Methyl acetate	- -	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	6.7	20 U	**26**	5.0 U	5.0 U	3.5 J	**790**	**890**	**1,900**	5.0 U	7.6	NA	NA	NA
Methylcyclohexane	- -	ug/L	31	130	50	33	3.2 J	5.0 U	200 U	130 J	80	11	5.0 U	NA	NA	NA
Methylene Chloride	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	**1,700**	**830**	**810**	5.0 U	5.0 U	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**440**	**6,200**	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	AMW-DR 01/26/11	GP-1(2002) 05/02/02	GP-2(2002) 05/02/02	GP-3(2002) 05/02/02
Volatile Organics (Cont.)																
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	ND
Toluene	5	ug/L	**8.6**	**69**	**36**	3.0 J	5.0 U	5.0 U	**110 J**	**190 J**	**590**	4.8 J	5.0 U	ND	ND	ND
Total VOCs	- -	ug/L	230 J	9,100	1,100 J	120 J	67 J	38 J	42,000 J	110,000 J	320,000 J	170 J	24	490	26,000	25
trans-1,2-Dichloroethene	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Trichloroethene	5	ug/L	2.6 J	20 U	8.0 U	5.0 U	5.0 U	5.0 U	**110 J**	**1,900**	**58,000 D**	5.0 U	5.0 U	ND	ND	ND
Trichlorofluoromethane	5	ug/L	4.0 U	20 U	8.0 U	5.0 U	5.0 U	5.0 U	200 U	200 U	25 U	5.0 U	5.0 U	NA	NA	NA
Vinyl Chloride	2	ug/L	**13**	**26**	8.0 U	5.0 U	5.0 U	5.0 U	**10,000**	**12,000**	**20,000 D**	5.0 U	5.0 U	ND	ND	ND
Xylenes (total)	5	ug/L	**70**	**7,200 D**	**100**	**13**	4.0 J	4.1 J	400 U	**170 J**	**560**	**18**	10 U	ND	**11,000**	**8.2**
Semivolatile Organics																
1,1'-Biphenyl	5	ug/L	4.9 U	19 U	4.7 U	0.71 J	1.5 J	4.7 U	4.7 U	2.0 J	1.5 J	**11**	4.7 U	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	4.9 U	2.9 J	4.7 U	4.8 U	4.7 U	3.0 J	4.7 U	4.7 U	5.2 U	7.2	4.7 U	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2-Chloronaphthalene	10	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2-Chlorophenol	1	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	11	96	99	15	19	4.1 J	4.7 U	19	26	90	4.7 U	NA	NA	NA
2-Methylphenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	1.2 J	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
2-Nitroaniline	5	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
2-Nitrophenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
3-Nitroaniline	5	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
4-Chloroaniline	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
4-Methylphenol	- -	ug/L	9.9 U	10 J	12	3.2 J	7.1 J	6.4 J	5.7 J	27	49	1.3 J	9.4 U	NA	NA	NA
4-Nitroaniline	5	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
4-Nitrophenol	- -	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
Acenaphthene	20	ug/L	4.9 U	3.6 J	2.4 J	2.5 J	2.6 J	2.7 J	3.6 J	11	5.3	**160**	4.7 U	NA	NA	NA
Acenaphthylene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	0.52 J	4.7 U	4.7 U	0.36 J	5.2 U	5.0 U	4.7 U	NA	NA	NA
Acetophenone	- -	ug/L	4.9 U	NA	4.7 U	4.8 U	2.6 J	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Anthracene	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	16	4.7 U	NA	NA	NA
Atrazine	7.5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Benzaldehyde	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**2.9 J**	4.7 U	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	0.91 J	4.7 U	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**1.1 J**	4.7 U	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	AMW-DR 01/26/11	GP-1(2002) 05/02/02	GP-2(2002) 05/02/02	GP-3(2002) 05/02/02
Semivolatile Organics (Cont.)																
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 UB	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 UB	4.7 UB	5.2 UB	5.0 U	4.7 U	NA	NA	NA
Butylbenzylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Caprolactam	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Carbazole	- -	ug/L	4.9 U	1.8 J	1.0 J	1.2 J	3.5 J	1.3 J	0.40 J	3.3 J	3.0 J	45	4.7 U	NA	NA	NA
Chrysene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	**2.7 J**	4.7 U	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Dibenzofuran	- -	ug/L	9.9 U	38 U	9.4 U	1.3 J	2.3 J	0.81 J	9.4 U	2.2 J	1.5 J	110	9.4 U	NA	NA	NA
Diethylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	0.60 J	5.0 U	4.7 U	NA	NA	NA
Dimethylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	0.56 J	19 U	4.7 U	4.8 U	4.7 U	0.33 J	0.39 J	0.51 J	0.75 J	5.0 U	4.7 U	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	2.4 J	4.7 U	NA	NA	NA
Fluoranthene	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	0.39 J	4.7 U	5.2 U	28	4.7 U	NA	NA	NA
Fluorene	50	ug/L	4.9 U	2.4 J	3.0 J	11	1.7 J	2.5 J	4.7 U	2.1 J	1.7 J	**110**	4.7 U	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Hexachloroethane	5	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Isophorone	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	1.4 J	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Naphthalene	10	ug/L	10	**220**	**120**	**18**	**45**	**50**	4.7 U	**84**	**81**	**400**	4.7 U	NA	NA	NA
Nitrobenzene	0.4	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	4.7 U	4.7 U	5.2 U	5.0 U	4.7 U	NA	NA	NA
Pentachlorophenol	- -	ug/L	9.9 U	38 U	9.4 U	9.6 U	9.5 U	9.5 U	9.4 U	9.4 U	10 U	10 U	9.4 U	NA	NA	NA
Phenanthrene	50	ug/L	4.9 U	2.2 J	2.1 J	0.82 J	1.5 J	4.7 U	4.7 U	4.7 U	0.83 J	**140**	4.7 U	NA	NA	NA
Phenol	1	ug/L	4.9 U	19 U	**15**	**42**	**110**	**84**	**3.9 J**	**5.3**	**12**	5.0 U	4.7 U	NA	NA	NA
Pyrene	50	ug/L	4.9 U	19 U	4.7 U	4.8 U	4.7 U	4.7 U	0.36 J	4.7 U	5.2 U	18	4.7 U	NA	NA	NA
Total SVOCs	- -	ug/L	24 J	340 J	250 J	96 J	200 J	160 J	18 J	160 J	190 J	1,100 J	ND	NA	NA	NA
Inorganics																
Aluminum	- -	ug/L	69.0 J	200 U	370	200	3,800	180 J	480	180 J	75.0 J	4,300	1,700	NA	NA	NA
Antimony	3	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	NA
Arsenic	25	ug/L	10.0 U	10.0 U	5.60 J	10.0 U	10.0 U	10.0 U	9.70 J	10.0 U	10.0 U	6.20 J	**39.0**	NA	NA	NA
Barium	1,000	ug/L	38.0	69.0	27.0	9.70	13.0	14.0	150	28.0	63.0	48.0	31.0	NA	NA	NA
Beryllium	3	ug/L	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA
Cadmium	5	ug/L	1.00 U	1.00 U	1.00 U	0.520 J	0.450 J	0.560 J	0.330 J	1.00 U	1.00 U	0.630 J	1.10	NA	NA	NA
Calcium	- -	ug/L	123,000	93,300	104,000	81,500	142,000	47,200	34,600	58,000	71,800	87,400	46,000 J	NA	NA	NA
Chromium	50	ug/L	4.00 U	4.00 U	25.0	4.00 U	1.10 J	1.00 J	1.70 J	2.00 J	1.40 J	7.80	5.80	NA	NA	NA
Cobalt	- -	ug/L	1.20 J	4.00 U	0.690 J	4.00 U	0.760 J	4.00 U	0.920 J	4.00 U	4.00 U	1.70 J	0.990 J	NA	NA	NA
Copper	200	ug/L	6.40 J	10.0 U	10.0 U	10.0 U	5.30 J	10.0 U	10.0 U	10.0 U	10.0 U	3.30 J	9.30 J	NA	NA	NA
Iron	300	ug/L	**1,700**	**10,800**	**6,300**	**3,600**	160	120	**2,900**	**6,100**	**4,700**	**13,800**	**3,200**	NA	NA	NA
Lead	25	ug/L	5.00 U	5.00 U	10.0	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	8.20	9.40	NA	NA	NA
Magnesium	35,000	ug/L	11,000	16,100	13,400 J	12,700	470	33,500	17,300	21,500	**36,800**	**38,700**	20,400	NA	NA	NA
Manganese	300	ug/L	**910**	**450**	300	**440**	4.20	35.0	140	240	300	**560**	66.0	NA	NA	NA
Mercury	0.7	ug/L	0.200 U	0.200 U	0.130 J	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	AMW-1 01/20/11	AMW-2 01/20/11	AMW-3 01/20/11	AMW-4 01/26/11	AMW-5 01/26/11	AMW-7 01/26/11	AMW-8 01/20/11	AMW-9 01/20/11	AMW-10 01/20/11	AMW-11 01/26/11	AMW-DR 01/26/11	GP-1(2002) 05/02/02	GP-2(2002) 05/02/02	GP-3(2002) 05/02/02
Inorganics (Cont.)																
Nickel	100	ug/L	2.00 J	1.70 J	16.0	5.30 J	19.0	6.30 J	3.50 J	2.20 J	2.30 J	5.20 J	3.70 J	NA	NA	NA
Potassium	- -	ug/L	14,000	18,400	18,300	25,100	42,300	46,000	19,700	22,900	31,300	13,500	16,500	NA	NA	NA
Selenium	10	ug/L	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	15.0 U	NA	NA	NA
Silver	50	ug/L	3.00 U	3.00 U	3.00 U	1.70 J	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	**53,000**	**43,000**	**90,800**	**277,000**	**259,000**	**491,000**	**248,000**	**165,000**	**289,000**	**164,000**	**186,000**	NA	NA	NA
Thallium	0.5	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	5.90	3.80 J	6.10	6.10	6.40	6.30	4.80 J	5.10	5.70	14.0	7.00	NA	NA	NA
Zinc	2,000	ug/L	4.30 J	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	3.00 J	1.90 J	2.30 J	35.0	32.0	NA	NA	NA
Inorganics-Filtered																
Aluminum	- -	ug/L	200 UB	200 U	200 UB	220	3,800	200 U	200 UB	200 UB	200 UB	260	200 U	NA	NA	NA
Antimony	3	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	NA
Arsenic	25	ug/L	10.0 U	7.60 J	8.30 J	10.0 U	6.50 J	10.0 U	11.0	5.70 J	10.0 U	10.0 U	20.0	NA	NA	NA
Barium	1,000	ug/L	39.0	69.0	26.0	9.70	11.0	14.0	140	26.0	63.0	36.0	30.0	NA	NA	NA
Beryllium	3	ug/L	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	2.00 U	NA	NA	NA
Cadmium	5	ug/L	1.00 U	1.00 U	1.00 U	0.510 J	0.450 J	0.640 J	1.00 U	0.380 J	1.00 U	0.530 J	0.550 J	NA	NA	NA
Calcium	- -	ug/L	114,000	87,200	101,000	83,600	142,000	46,700	30,900	55,800	69,000	89,900	54,000 J	NA	NA	NA
Chromium	50	ug/L	1.40 J	1.30 J	1.90 J	4.00 U	4.00 U	1.20 J	1.50 J	1.90 J	2.60 J	0.940 J	1.20 J	NA	NA	NA
Cobalt	- -	ug/L	0.800 J	4.00 U	4.00 U	4.00 U	0.660 J	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	4.00 U	NA	NA	NA
Copper	200	ug/L	10.0 U	1.60 J	10.0 U	10.0 U	2.80 J	2.10 J	10.0 U	10.0 U	10.0 U	1.70 J	1.70 J	NA	NA	NA
Iron	300	ug/L	**1,500**	**10,600**	**5,900**	**2,700**	61.0	42.0 J	**2,400**	**5,900**	**4,200**	**8,700**	**1,700**	NA	NA	NA
Lead	25	ug/L	5.00 U	5.00 U	6.90	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	5.00 U	NA	NA	NA
Magnesium	35,000	ug/L	11,100	16,200	14,900 J	12,900	490	33,300	16,300	21,200	**39,000**	**41,600**	25,800	NA	NA	NA
Manganese	300	ug/L	**920**	**450**	290	**460**	1.90 J	33.0	110	250	280	**560**	85.0	NA	NA	NA
Mercury	0.7	ug/L	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	0.200 U	NA	NA	NA
Nickel	100	ug/L	10.0 U	10.0 U	3.40 J	4.90 J	20.0	6.30 J	1.90 J	10.0 U	1.30 J	10.0 U	1.70 J	NA	NA	NA
Potassium	- -	ug/L	13,300	17,500	18,200	25,400	43,900	46,400	18,200	21,500	31,000	13,700	18,500	NA	NA	NA
Selenium	10	ug/L	15.0 UJ	15.0 UJ	15.0 UJ	15.0 U	15.0 U	15.0 U	15.0 UJ	15.0 UJ	15.0 UJ	15.0 U	15.0 U	NA	NA	NA
Silver	50	ug/L	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	**53,200**	**42,100**	**96,400**	**280,000**	**266,000**	**479,000**	**242,000**	**163,000**	**306,000**	**167,000**	**206,000**	NA	NA	NA
Thallium	0.5	ug/L	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	2.60 J	2.50 J	4.00 J	6.30	5.20	5.40	3.80 J	3.80 J	3.50 J	5.80	3.20 J	NA	NA	NA
Zinc	2,000	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	10.0 U	1.90 J	1.80 J	10.0 U	4.20 J	4.40 J	10.0 U	NA	NA	NA
Miscellaneous																
Alkalinity	- -	ug/L	259,000	216,000	425,000	292,000	338,000	309,000	250,000	159,000	150,000	414,000	228,000	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	259,000	216,000	425,000	292,000	338,000	309,000	250,000	159,000	150,000	414,000	228,000	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	3,200	3,000	11,000	13,900	18,700	17,000	3,800	7,400	7,100	3,900	1,100	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	300 U	750 U	750 U	1,500 UJ	1,500 UJ	1,500 UJ	300 U	300 U	300 U	1,500 UJ	150 UJ	NA	NA	NA
Ethene	- -	ug/L	300 U	750 U	750 U	1,500 UJ	1,500 UJ	1,500 UJ	390 J	210 J	630 J	1,500 UJ	150 UJ	NA	NA	NA
Methane	- -	ug/L	3,300 J	5,100 J	12,000 D	14,000 J	9,600 J	16,000 J	1,600	2,900 J	NA	11,000 J	1,400 J	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	50 U	50 U	50 U	50 U	160	50 U	50 U	50 U	50 U	50 U	50 U	NA	NA	NA
Orthophosphate	- -	ug/L	260	350	400	540 J	280 J	1,500 J	430	750	790	840 J	330 J	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	16,700	29,400	37,400	36,800	41,500	37,200	14,800	15,900	16,900	28,200	14,700	NA	NA	NA
Sulfate	250,000	ug/L	195,000	143,000	5,000 UB	5,000 UB	11,000 UB	5,000 UB	5,000 UB	5,000 UB	5,000 UB	6,500 UB	31,400	NA	NA	NA
Sulfide	- -	ug/L	100 U	100 U	100 U	100 U	100 U	310	100 U	100 U	620	100 U	100 U	NA	NA	NA
Total Dissolved Solids	- -	ug/L	624,000	540,000	628,000	1,010,000	1,170,000	1,600,000	839,000	803,000	1,210,000	829,000	730,000	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GP-4(2002) 05/02/02	GP-5(2002) 05/02/02	GP-6(1995) 12/15/95	GP-6(2002) 05/02/02	GP-7(2002) 05/02/02	GP-8(2002) 05/02/02	GP-9(2002) 05/02/02	GP-10(2002) 05/02/02	GW-01 04/15/97	GW-02 04/15/97	GW-03 04/15/97	GW-04 04/15/97	GW-05 04/15/97	GW-06 04/15/97
Volatile Organics																
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	52,000	NA	NA	NA	NA	NA	ND	7.8	ND	5.4	ND	120
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	ug/L	ND	ND	**430**	**14,000**	**2,800**	ND	**200**	ND	**540**	**29**	**2,700**	**110**	ND	**100**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	ND	ND	**19,000**	**160,000**	**76,000**	2.0	**180**	**7,200**	**570**	**9.0**	**510**	**5.2**	ND	ND
Isopropylbenzene	5	ug/L	NA	NA	**4,400**	NA	NA	NA	NA	NA	**64**	**13**	**180**	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	160,000	ND	ND	ND	NA	NA	ND	31	120	10	ND	110
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	**2,400**	**52**	**450**	**130**	ND	**1,600**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	ND	ND	**23,000**	ND	ND	ND	ND	NA	**430**	**27**	**900**	4.1	ND	**470**
n-Butylbenzene	- -	ug/L	NA	NA	56,000	NA	NA	NA	NA	NA	27	ND	87	4.4	ND	230
n-Propylbenzene	- -	ug/L	NA	NA	9,500	NA	NA	NA	NA	NA	130	21	380	1.1	ND	80
o-Xylene	- -	ug/L	ND	ND	73,000	ND	ND	ND	NA	NA	ND	12	ND	6.2	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	2,400	NA	NA	NA	NA	NA	ND	6.5	ND	ND	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GP-4(2002) 05/02/02	GP-5(2002) 05/02/02	GP-6(1995) 12/15/95	GP-6(2002) 05/02/02	GP-7(2002) 05/02/02	GP-8(2002) 05/02/02	GP-9(2002) 05/02/02	GP-10(2002) 05/02/02	GW-01 04/15/97	GW-02 04/15/97	GW-03 04/15/97	GW-04 04/15/97	GW-05 04/15/97	GW-06 04/15/97
Volatile Organics (Cont.)																
sec-Butylbenzene	- -	ug/L	ND	NA	3,900	NA	NA	NA	NA	NA	20	15	50	2.1	ND	ND
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	2,300	NA	NA	NA	NA	NA	ND	15	ND	4.2	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	5	ug/L	ND	ND	**8,000**	ND	ND	ND	**180**	**120**	**16**	**5.3**	**44**	**12**	ND	ND
Total VOCs	- -	ug/L	100	7.6	650,000	180,000	79,000	6.4	1,100	8,000	4,200	290	5,500	310	0	2,800
trans-1,2-Dichloroethene	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	**100**	**7.6**	NA	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Xylenes (total)	5	ug/L	ND	ND	**230,000**	ND	ND	4.4	**530**	**640**	ND	**43**	**120**	**16**	ND	**110**
Semivolatile Organics																
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GP-4(2002) 05/02/02	GP-5(2002) 05/02/02	GP-6(1995) 12/15/95	GP-6(2002) 05/02/02	GP-7(2002) 05/02/02	GP-8(2002) 05/02/02	GP-9(2002) 05/02/02	GP-10(2002) 05/02/02	GW-01 04/15/97	GW-02 04/15/97	GW-03 04/15/97	GW-04 04/15/97	GW-05 04/15/97	GW-06 04/15/97
Semivolatile Organics (Cont.)																
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GP-4(2002) 05/02/02	GP-5(2002) 05/02/02	GP-6(1995) 12/15/95	GP-6(2002) 05/02/02	GP-7(2002) 05/02/02	GP-8(2002) 05/02/02	GP-9(2002) 05/02/02	GP-10(2002) 05/02/02	GW-01 04/15/97	GW-02 04/15/97	GW-03 04/15/97	GW-04 04/15/97	GW-05 04/15/97	GW-06 04/15/97
Inorganics (Cont.)																
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GW-07 04/15/97	GW-08 04/15/97	GW-09 04/15/97	GW-10 04/15/97	GW-12 04/15/97	HA-01 12/15/95	HA-01 02/29/96	HA-02 12/15/95	HA-02 02/29/96	MW-01 12/19/95	MW-01 02/29/96	MW-01 01/27/98	MW-01 04/08/98	MW-01 11/02/01	MW-01 04/03/02	MW-01 08/20/02
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	ND	ND	400	ND	ND	ND	ND	NA	ND	NA	0.50 J	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Benzene	1	ug/L	ND	**1.8**	ND	**170**	ND	**24**	ND	ND	ND	NA	**1.8**	NA	**2.0**	**2.7**	**3.8**	1.0
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	ND	1.0	ND	**30**	ND	ND	ND	ND	ND	NA	ND	NA	0.90 J	ND	ND	ND
Isopropylbenzene	5	ug/L	1.4	2.4	ND	**94**	ND	ND	ND	ND	ND	NA	4.1	NA	**7.9**	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	4.0	ND	ND	240	ND	ND	ND	ND	NA	ND	NA	1.5 J	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	ND	**19**	**13**	**84**	**300**	ND	1.1	ND	2.6	NA	**80**	NA	**54**	**20**	NA	**15**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
Naphthalene	10	ug/L	**16**	3.0	ND	**120**	**170**	ND	ND	ND	ND	NA	4.4	NA	**12**	9.3	NA	NA
n-Butylbenzene	- -	ug/L	1.1	ND	ND	34	210	ND	ND	ND	ND	NA	3.8	NA	3.8	NA	NA	NA
n-Propylbenzene	- -	ug/L	2.3	3.5	ND	180	ND	ND	ND	ND	ND	NA	2.1	NA	3.1	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	0.40 J	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	2.1	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GW-07 04/15/97	GW-08 04/15/97	GW-09 04/15/97	GW-10 04/15/97	GW-12 04/15/97	HA-01 12/15/95	HA-01 02/29/96	HA-02 12/15/95	HA-02 02/29/96	MW-01 12/19/95	MW-01 02/29/96	MW-01 01/27/98	MW-01 04/08/98	MW-01 11/02/01	MW-01 04/03/02	MW-01 08/20/02
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	1.8	1.6	ND	19	ND	ND	ND	ND	ND	NA	ND	NA	4.0	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	2.3	NA	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
Toluene	5	ug/L	ND	**6.1**	ND	ND	ND	**61**	ND	ND	ND	NA	ND	NA	0.30 J	ND	ND	ND
Total VOCs	- -	ug/L	23	42	13	730	1,600	85	1.1	ND	2.6	NA	96	NA	97	32	3.8	16
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Xylenes (total)	5	ug/L	ND	NA	ND	ND	**240**	ND	ND	ND	ND	NA	ND	NA	1.9	ND	ND	ND
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	2.0 J	NA	NA	NA	1.2
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	1.0 J	NA	NA	NA	0.66
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GW-07 04/15/97	GW-08 04/15/97	GW-09 04/15/97	GW-10 04/15/97	GW-12 04/15/97	HA-01 12/15/95	HA-01 02/29/96	HA-02 12/15/95	HA-02 02/29/96	MW-01 12/19/95	MW-01 02/29/96	MW-01 01/27/98	MW-01 04/08/98	MW-01 11/02/01	MW-01 04/03/02	MW-01 08/20/02
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	2.0 J	NA	NA	NA	0.68
Fluorene	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	4.0 J	NA	NA	NA	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	7.0 J	NA	NA	NA	ND
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Phenanthrene	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	4.0 J	NA	NA	NA	ND
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Pyrene	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	2.0 J	NA	NA	NA	ND
Total SVOCs	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	22	NA	NA	NA	2.5
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	GW-07 04/15/97	GW-08 04/15/97	GW-09 04/15/97	GW-10 04/15/97	GW-12 04/15/97	HA-01 12/15/95	HA-01 02/29/96	HA-02 12/15/95	HA-02 02/29/96	MW-01 12/19/95	MW-01 02/29/96	MW-01 01/27/98	MW-01 04/08/98	MW-01 11/02/01	MW-01 04/03/02	MW-01 08/20/02
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	3,000	NA	5,300	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-03 12/19/95	MW-03 02/29/96	MW-03 08/20/02	MW-03A 01/27/98	MW-03A 04/08/98	MW-03A 11/02/01	MW-03A 04/30/02	MW-03A 08/20/02	MW-04A 08/20/02	MW-05 12/19/95	MW-05 02/29/96	MW-05 08/20/02	MW-07 08/20/02	MW-07A 08/20/02	MW-08 12/19/95	MW-08 02/29/96
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	33	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	26
1,3-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
Benzene	1	ug/L	NA	**1,300**	**200**	NA	ND	ND	ND	ND	ND	NA	NA	ND	**150**	**4.1**	NA	**160**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	3.6	NA	1.4	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	NA	**96**	2.4	NA	ND	ND	ND	ND	ND	NA	ND	ND	**220**	0.50	NA	**100**
Isopropylbenzene	5	ug/L	NA	**5.9**	NA	NA	0.90 J	NA	NA	NA	NA	NA	2.8	NA	NA	NA	NA	**6.1**
m&p-Xylene	- -	ug/L	NA	480	ND	NA	0.50 J	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	250
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	**13**	3.0	NA	9.8	8.5	NA	8.3	**31**	NA	1.7	ND	7.4	0.90	NA	4.6
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Naphthalene	10	ug/L	NA	**42**	NA	NA	1.2	ND	ND	NA	NA	NA	ND	NA	NA	NA	NA	**18**
n-Butylbenzene	- -	ug/L	NA	20	NA	NA	0.80 J	NA	NA	NA	NA	NA	1.0	NA	NA	NA	NA	22
n-Propylbenzene	- -	ug/L	NA	7.0	NA	NA	0.80 J	NA	NA	NA	NA	NA	3.9	NA	NA	NA	NA	11
o-Xylene	- -	ug/L	NA	160	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	100
p-Isopropyltoluene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-03 12/19/95	MW-03 02/29/96	MW-03 08/20/02	MW-03A 01/27/98	MW-03A 04/08/98	MW-03A 11/02/01	MW-03A 04/30/02	MW-03A 08/20/02	MW-04A 08/20/02	MW-05 12/19/95	MW-05 02/29/96	MW-05 08/20/02	MW-07 08/20/02	MW-07A 08/20/02	MW-08 12/19/95	MW-08 02/29/96
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	ND	NA	NA	0.50 J	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	11	ND	NA	NA	ND	ND	ND	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA
Toluene	5	ug/L	NA	**33**	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	**11**	0.60	NA	**18**
Total VOCs	- -	ug/L	NA	2,800	200	NA	15	8.5	ND	20	35	NA	11	ND	430	6.5	NA	1,100
trans-1,2-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Trichloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA
Xylenes (total)	5	ug/L	NA	**640**	2.1	NA	0.50	ND	ND	ND	ND	NA	ND	ND	**48**	0.40	NA	**350**
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	8.2	ND	NA	NA	NA	ND	1.2	ND	NA	5.5	**150**	ND	ND	NA
Acenaphthylene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA	ND	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	36	NA	ND	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**25**	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	8.7	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**11**	NA	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-03 12/19/95	MW-03 02/29/96	MW-03 08/20/02	MW-03A 01/27/98	MW-03A 04/08/98	MW-03A 11/02/01	MW-03A 04/30/02	MW-03A 08/20/02	MW-04A 08/20/02	MW-05 12/19/95	MW-05 02/29/96	MW-05 08/20/02	MW-07 08/20/02	MW-07A 08/20/02	MW-08 12/19/95	MW-08 02/29/96
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	1.1	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**8.5**	NA	ND	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	2.1	NA	NA	ND	**30**	**23**	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**17**	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	0.53	NA	ND	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	0.77	ND	NA	ND	**150**	ND	ND	NA
Fluorene	50	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	0.59	ND	NA	ND	**140**	4.8	ND	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**1.4**	NA	ND	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	**54**	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**580**	ND	**23**	NA
Nitrobenzene	0.4	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA
Phenanthrene	50	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	3.7	**250**	ND	ND	NA
Phenol	1	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA
Pyrene	50	ug/L	ND	NA	ND	ND	NA	NA	NA	ND	0.63	ND	NA	0.67	**95**	NA	ND	NA
Total SVOCs	- -	ug/L	54	NA	8.2	ND	NA	NA	NA	ND	5.3	ND	NA	10	1,500	28	23	NA
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-03 12/19/95	MW-03 02/29/96	MW-03 08/20/02	MW-03A 01/27/98	MW-03A 04/08/98	MW-03A 11/02/01	MW-03A 04/30/02	MW-03A 08/20/02	MW-04A 08/20/02	MW-05 12/19/95	MW-05 02/29/96	MW-05 08/20/02	MW-07 08/20/02	MW-07A 08/20/02	MW-08 12/19/95	MW-08 02/29/96
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	5,400	NA	NA	720	NA	NA	NA	NA	NA	2,700	NA	NA	NA	NA	3,800	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-08 01/27/98	MW-08 04/08/98	MW-08 11/02/01	MW-08 04/30/02	MW-08 08/20/02	MW-08 06/03/03	MW-08 02/11/04	MW-08 05/20/04	MW-08 10/26/04	MW-08 03/10/05	MW-08 08/11/05	MW-09 06/05/95	MW-09 12/18/95	MW-09 04/08/96	MW-09 06/05/96	MW-09 09/13/96
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	1.6	ND	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	140	NA	NA	NA	NA	NA	NA	NA	ND	ND	220	NA	120	NA	180
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Benzene	1	ug/L	NA	**51**	**500**	**68**	**400**	0.60	**20**	**47**	**44**	**30**	**36**	**110**	NA	**57**	NA	**270**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	2.5	ND	NA	ND	NA	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3	1.3	ND	NA	ND	NA	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	NA	**130**	**150**	**32**	**48**	**24**	**260**	**290**	**92**	**190**	**58**	**520**	NA	**260**	NA	**620**
Isopropylbenzene	5	ug/L	NA	**15**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**30**	NA	**21**	NA	**29**
m&p-Xylene	- -	ug/L	NA	660	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,500	NA	1,300	NA	2,300
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	ND	**35**	NA	**33**	ND	2.7	2.1	3.5	1.6	2.5	**33**	NA	ND	NA	**340**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	**33**	**89**	**21**	NA	NA	NA	NA	NA	ND	ND	**200**	NA	**95**	NA	**190**
n-Butylbenzene	- -	ug/L	NA	74	NA	NA	NA	NA	NA	NA	NA	ND	ND	91	NA	46	NA	80
n-Propylbenzene	- -	ug/L	NA	23	NA	NA	NA	NA	NA	NA	NA	ND	ND	65	NA	41	NA	65
o-Xylene	- -	ug/L	NA	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	490	NA	120	NA	230
p-Isopropyltoluene	- -	ug/L	NA	4.8 J	NA	NA	NA	NA	NA	NA	NA	ND	ND	80	NA	4.7 J	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-08 01/27/98	MW-08 04/08/98	MW-08 11/02/01	MW-08 04/30/02	MW-08 08/20/02	MW-08 06/03/03	MW-08 02/11/04	MW-08 05/20/04	MW-08 10/26/04	MW-08 03/10/05	MW-08 08/11/05	MW-09 06/05/95	MW-09 12/18/95	MW-09 04/08/96	MW-09 06/05/96	MW-09 09/13/96
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	ND	NA	ND
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	3.5 J	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	ND	NA	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	ND	87	7.6	ND	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Toluene	5	ug/L	NA	**12**	ND	1.9	**7.9**	ND	**13**	**13**	**16**	**19**	**13**	**180**	NA	**48**	NA	**89**
Total VOCs	- -	ug/L	NA	2,300	840	140	530	65	390	460	290	310	150	7,500	NA	3,500	NA	6,900
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA
Xylenes (total)	5	ug/L	NA	**900**	**77**	**17**	**38**	**41**	**91**	**110**	**48**	**60**	**33**	**3,000**	NA	**1,400**	NA	**2,500**
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	ND	NA	NA	NA	ND	ND	D	3.7	D	D	D	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	1.0 J	NA	NA	NA	ND	ND	0.70	1.3	1.2 J	1.4	1.2	NA	D	NA	D	ND
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	D	NA	D	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	NA	NA	NA	NA	D	NA	D	D	D	NA	D	NA	D	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	NA	NA	NA	D	NA	D	D	D	NA	D	NA	D	ND
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	D	D	D	NA	D	NA	D	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	NA	NA	NA	D	NA	D	D	D	NA	D	NA	D	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-08 01/27/98	MW-08 04/08/98	MW-08 11/02/01	MW-08 04/30/02	MW-08 08/20/02	MW-08 06/03/03	MW-08 02/11/04	MW-08 05/20/04	MW-08 10/26/04	MW-08 03/10/05	MW-08 08/11/05	MW-09 06/05/95	MW-09 12/18/95	MW-09 04/08/96	MW-09 06/05/96	MW-09 09/13/96
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	D	NA	D	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	NA	NA	NA	D	NA	D	D	D	NA	D	NA	D	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	4.9	NA	D	NA	D	D	D	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	NA	NA	NA	D	NA	D	D	D	NA	D	NA	D	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	D	NA	D	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	D	D	D	D	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	ND	NA	D	NA	D	D	D	NA	D	NA	D	ND
Fluorene	50	ug/L	ND	NA	NA	NA	0.79	ND	D	1.2	D	D	0.64	NA	D	NA	D	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	D	NA	D	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	6.0 J	NA	NA	NA	**100**	0.57	**94**	1.6	**110**	**100**	**39**	NA	**190**	NA	**93**	**150**
Nitrobenzene	0.4	ug/L	ND	NA	NA	NA	ND	ND	D	D	D	D	D	NA	D	NA	D	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	D	D	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	ND	NA	NA	NA	0.71	ND	D	1.3	D	D	0.63	NA	D	NA	D	ND
Phenol	1	ug/L	NA	NA	NA	NA	ND	ND	D	D	D	D	D	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	NA	NA	NA	NA	D	NA	D	D	D	NA	D	NA	D	ND
Total SVOCs	- -	ug/L	7.0	NA	NA	NA	110	0.57	94	9.1	110	100	42	NA	190	NA	93	150
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-08 01/27/98	MW-08 04/08/98	MW-08 11/02/01	MW-08 04/30/02	MW-08 08/20/02	MW-08 06/03/03	MW-08 02/11/04	MW-08 05/20/04	MW-08 10/26/04	MW-08 03/10/05	MW-08 08/11/05	MW-09 06/05/95	MW-09 12/18/95	MW-09 04/08/96	MW-09 06/05/96	MW-09 09/13/96
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,100	NA	3,500	3,300

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-09 04/15/97	MW-09 07/15/97	MW-09 01/27/98	MW-09 11/02/01	MW-09 04/30/02	MW-09 08/20/02	MW-10 12/15/95	MW-10 08/20/02	MW-10 07/10/03	MW-10D 08/20/02	MW-11 12/18/95	MW-11 12/19/95	MW-11 01/27/98	MW-11 04/08/98	MW-11 11/02/01	MW-11 04/30/02
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	99	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	ug/L	**170**	**200**	NA	**860**	**620**	**520**	NA	**120**	NA	NA	NA	NA	NA	**620**	**75**	**83**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	**300**	**210**	NA	**34**	**120**	**79**	NA	**410**	NA	NA	NA	NA	NA	**1,100**	**410**	**1,000**
Isopropylbenzene	5	ug/L	**20**	**13**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**40**	NA	NA
m&p-Xylene	- -	ug/L	1,000	300	NA	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	2,500	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**50**	**28**	NA	**47**	NA	**33**	NA	**16**	NA	NA	NA	NA	NA	ND	ND	NA
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	**95**	**59**	NA	**640**	**160**	NA	NA	NA	NA	NA	NA	NA	NA	**220**	**160**	**190**
n-Butylbenzene	- -	ug/L	50	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46	NA	NA
n-Propylbenzene	- -	ug/L	40	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	61	NA	NA
o-Xylene	- -	ug/L	5.0	21	NA	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	16 J	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7 J	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-09 04/15/97	MW-09 07/15/97	MW-09 01/27/98	MW-09 11/02/01	MW-09 04/30/02	MW-09 08/20/02	MW-10 12/15/95	MW-10 08/20/02	MW-10 07/10/03	MW-10D 08/20/02	MW-11 12/18/95	MW-11 12/19/95	MW-11 01/27/98	MW-11 04/08/98	MW-11 11/02/01	MW-11 04/30/02
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	ND	NA	45	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	5	ug/L	**26**	**15**	NA	ND	3.4	ND	NA	**11**	NA	NA	NA	NA	NA	**27**	**13**	**17**
Total VOCs	- -	ug/L	2,900	1,300	NA	1,600	1,100	710	NA	590	ND	NA	NA	NA	NA	7,300	840	1,600
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	5	ug/L	**1,000**	**320**	NA	**37**	**150**	**33**	NA	**45**	NA	NA	NA	NA	NA	**2,500**	**180**	**320**
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	3.5	NA	ND	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	1.0 J	NA	NA	NA	ND	6.8	NA	2.1	ND	ND	1.0 J	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-09 04/15/97	MW-09 07/15/97	MW-09 01/27/98	MW-09 11/02/01	MW-09 04/30/02	MW-09 08/20/02	MW-10 12/15/95	MW-10 08/20/02	MW-10 07/10/03	MW-10D 08/20/02	MW-11 12/18/95	MW-11 12/19/95	MW-11 01/27/98	MW-11 04/08/98	MW-11 11/02/01	MW-11 04/30/02
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	1.9	NA	ND	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	N	NA	ND	ND	ND	ND	NA	NA	NA
Fluorene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	3.9	NA	1.7	ND	ND	1.0 J	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	5.0 J	NA	NA	NA	**300**	**230**	NA	**150**	**320**	**380**	**220**	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	NA	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	1.5	NA	ND	ND	11	ND	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	**44**	NA	ND	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Total SVOCs	- -	ug/L	NA	NA	6.0	NA	NA	NA	300	290	NA	150	320	390	220	NA	NA	NA
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-09 04/15/97	MW-09 07/15/97	MW-09 01/27/98	MW-09 11/02/01	MW-09 04/30/02	MW-09 08/20/02	MW-10 12/15/95	MW-10 08/20/02	MW-10 07/10/03	MW-10D 08/20/02	MW-11 12/18/95	MW-11 12/19/95	MW-11 01/27/98	MW-11 04/08/98	MW-11 11/02/01	MW-11 04/30/02
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	2,400	NA	NA	NA	3,900	NA	NA	NA	3,700	16,000	3,000	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11 08/20/02	MW-11 06/03/03	MW-11 02/11/04	MW-11 05/20/04	MW-11 10/24/04	MW-11 10/26/04	MW-11 03/10/05	MW-11 08/11/05	MW-11AR 08/20/02	MW-11AR 03/19/03	MW-11AR 06/03/03	MW-11AR 02/11/04	MW-11AR 05/20/04	MW-11AR 10/26/04	MW-11AR 03/09/05
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1-Dichloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichloropropane	1	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA
Benzene	1	ug/L	**56**	**8.1**	**12**	**3.3**	**13**	NA	**5.7**	**9.3**	**910**	**90**	**44**	**11**	**74**	**86**	**18**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**29,000**	**80**	**56**	1.8	**860**	**410**	**49**
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	**650**	**560**	**480**	**180**	**260**	NA	**240**	**140**	**930**	**120**	**5.6**	ND	**9.2**	**6.8**	**20**
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	**300**	**17**	9.2	1.8	**11**	**20**	1.9
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11 08/20/02	MW-11 06/03/03	MW-11 02/11/04	MW-11 05/20/04	MW-11 10/24/04	MW-11 10/26/04	MW-11 03/10/05	MW-11 08/11/05	MW-11AR 08/20/02	MW-11AR 03/19/03	MW-11AR 06/03/03	MW-11AR 02/11/04	MW-11AR 05/20/04	MW-11AR 10/26/04	MW-11AR 03/09/05
Volatile Organics (Cont.)																	
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Toluene	5	ug/L	**15**	**5.8**	**6.4**	1.9	**5.9**	NA	3.8	4.0	**250**	**11**	3.8	0.60	**30**	**15**	4.2
Total VOCs	- -	ug/L	1,100	960	690	270	330	NA	290	170	44,000	860	210	50	1,400	810	180
trans-1,2-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**99**	NA	NA	NA	5.0	3.2	0.50
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Trichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**2,100**	**14**	**15**	0.40	ND	**13**	0.80
Trichlorofluoromethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	**210**	**27**	**27**	ND	NA	**27**
Vinyl Chloride	2	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**7,800**	**13**	**12**	NA	**270**	**240**	**36**
Xylenes (total)	5	ug/L	**400**	**390**	**190**	**84**	**57**	NA	**45**	**15**	**2,700**	**300**	**40**	**7.5**	**110**	**23**	**22**
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	6.6	ND	ND	ND	NA	ND	ND	ND	15	ND	ND	ND	ND	ND	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	1.7	0.77	2.8	1.1	NA	2.4	1.8	2.4	4.7	ND	0.50	ND	ND	ND	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	ND	NA	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11 08/20/02	MW-11 06/03/03	MW-11 02/11/04	MW-11 05/20/04	MW-11 10/24/04	MW-11 10/26/04	MW-11 03/10/05	MW-11 08/11/05	MW-11AR 08/20/02	MW-11AR 03/19/03	MW-11AR 06/03/03	MW-11AR 02/11/04	MW-11AR 05/20/04	MW-11AR 10/26/04	MW-11AR 03/09/05
Semivolatile Organics (Cont.)																	
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	NA	4.5	NA	NA	ND	1.2	ND	**7.2**	ND	NA	ND	NA	ND	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	1.1	NA	ND	ND	ND	NA	ND	NA	NA	ND	ND	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	ND	NA	NA	ND	ND	ND	1.7	ND	NA	ND	NA	ND	NA
Fluorene	50	ug/L	1.7	0.85	2.5	1.2	NA	2.3	1.5	2.1	5.5	ND	0.85	ND	ND	ND	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	**160**	**72**	**130**	**95**	NA	**89**	**78**	**56**	**500**	**16**	**24**	0.79	**32**	ND	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	0.59	0.53	1.1	ND	NA	0.88 J	0.55	0.95	ND	ND	ND	ND	ND	ND	NA
Phenol	1	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	**2.4 J**	NA
Pyrene	50	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	ND	NA	ND	NA	ND	NA
Total SVOCs	- -	ug/L	170	74	140	99	NA	95	84	62	530	16	25	0.79	32	2.4	NA
Inorganics																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11 08/20/02	MW-11 06/03/03	MW-11 02/11/04	MW-11 05/20/04	MW-11 10/24/04	MW-11 10/26/04	MW-11 03/10/05	MW-11 08/11/05	MW-11AR 08/20/02	MW-11AR 03/19/03	MW-11AR 06/03/03	MW-11AR 02/11/04	MW-11AR 05/20/04	MW-11AR 10/26/04	MW-11AR 03/09/05
Inorganics (Cont.)																	
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11AR 03/10/05	MW-12 02/11/04	MW-12 10/26/04	MW-12 03/10/05	MW-12A 12/19/95	MW-12A 04/08/96	MW-12A 12/27/98	MW-12A 11/02/01	MW-12A 04/30/02	MW-12A 08/20/02	MW-13 12/18/95	MW-13 08/20/02	MW-14R 03/05/03	MW-14R 06/03/03	MW-14R 02/11/04	MW-14R 05/20/04
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	3.7	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Benzene	1	ug/L	NA	**1,500**	**990**	**890**	NA	**34**	NA	**26**	**3.4**	**12**	NA	**5.4**	**42**	**12**	**1.4**	**7.1**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	NA	**920**	**450**	**400**	NA	**85**	NA	2.9	**9.9**	**26**	NA	0.60	**22**	**11**	0.40	1.9
Isopropylbenzene	5	ug/L	NA	NA	NA	ND	NA	**33**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	ND	ND	ND	NA	20	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	ND	ND	ND	NA	**41**	NA	**25**	NA	4.1	NA	2.5	8.4	1.3	ND	0.80
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Naphthalene	10	ug/L	NA	NA	NA	ND	NA	**27**	NA	ND	**22**	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	ND	NA	58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	ND	ND	ND	NA	3.9 J	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	ND	NA	1.7 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11AR 03/10/05	MW-12 02/11/04	MW-12 10/26/04	MW-12 03/10/05	MW-12A 12/19/95	MW-12A 04/08/96	MW-12A 12/27/98	MW-12A 11/02/01	MW-12A 04/30/02	MW-12A 08/20/02	MW-13 12/18/95	MW-13 08/20/02	MW-14R 03/05/03	MW-14R 06/03/03	MW-14R 02/11/04	MW-14R 05/20/04
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	9.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	3.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Toluene	5	ug/L	NA	**25**	**14**	**13**	NA	2.9 J	NA	1.2	ND	2.5	NA	1.5	1.3	ND	ND	ND
Total VOCs	- -	ug/L	NA	4,200	1,800	1,600	NA	400	NA	59	41	53	NA	13	85	28	1.8	10
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Xylenes (total)	5	ug/L	NA	**1,800**	**350**	**280**	NA	**24**	NA	4.5	**5.7**	**9.1**	NA	2.8	**12**	4.3	ND	0.20
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	ND	9.4	ND	ND	NA	NA	NA	NA	NA	1.2	NA	ND	ND	ND	ND	ND
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	4.2	14	20	**23**	NA	6.0 J	NA	NA	**25**	ND	3.3	1.1	0.58	ND	ND
Acenaphthylene	- -	ug/L	ND	NA	NA	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	0.74	4.3	9.9	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	ND	**1.9 J**	**2.7**	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	0.91 J	0.83 J	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	**1.2 J**	**4.2**	ND	NA	ND	NA	NA	**0.76**	ND	ND	NA	NA	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11AR 03/10/05	MW-12 02/11/04	MW-12 10/26/04	MW-12 03/10/05	MW-12A 12/19/95	MW-12A 04/08/96	MW-12A 12/27/98	MW-12A 11/02/01	MW-12A 04/30/02	MW-12A 08/20/02	MW-13 12/18/95	MW-13 08/20/02	MW-14R 03/05/03	MW-14R 06/03/03	MW-14R 02/11/04	MW-14R 05/20/04
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	**0.78 J**	**0.69 J**	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	**6.0**	**70**	**88**	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	1.5	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	**1.5 J**	**0.84 J**	ND	NA	ND	NA	NA	**0.74**	ND	ND	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	NA	8.1	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	1.2	33	16	ND	NA	1.0 J	NA	NA	ND	ND	1.0	ND	NA	ND	NA
Fluorene	50	ug/L	ND	6.3	ND	49	ND	NA	6.0 J	NA	NA	ND	ND	2.5	1.8	0.98	ND	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA
Hexachloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	5.8	**160**	**310**	**230**	**130**	NA	**58**	NA	NA	**31**	ND	ND	**12**	6.0	ND	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	ND	6.7	**57**	**77**	ND	NA	2.0 J	NA	NA	6.1	ND	1.0	0.97	ND	ND	ND
Phenol	1	ug/L	**2.4 J**	**3.5**	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.89	ND	ND
Pyrene	50	ug/L	ND	1.1	14	ND	ND	NA	ND	NA	NA	ND	ND	0.99	ND	NA	ND	NA
Total SVOCs	- -	ug/L	8.2	200	510	500	150	NA	73	NA	NA	65	ND	8.8	16	8.5	1.5	ND
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-11AR 03/10/05	MW-12 02/11/04	MW-12 10/26/04	MW-12 03/10/05	MW-12A 12/19/95	MW-12A 04/08/96	MW-12A 12/27/98	MW-12A 11/02/01	MW-12A 04/30/02	MW-12A 08/20/02	MW-13 12/18/95	MW-13 08/20/02	MW-14R 03/05/03	MW-14R 06/03/03	MW-14R 02/11/04	MW-14R 05/20/04
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	1,000	NA	1,100	NA	NA	NA	1,100	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-14R 10/26/04	MW-14R 03/10/05	MW-15 08/20/02	MW-16 12/15/95	MW-16 06/05/96	MW-16 09/13/96	MW-16 04/15/97	MW-16 07/15/97	MW-16 01/27/98	MW-16 04/08/98	MW-16 11/02/01	MW-16 04/30/02	MW-16 08/20/02	MW-17 12/12/95	MW-17 12/18/95
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,2-Dichloropropane	1	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	0.60 J	NA	ND	ND	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Benzene	1	ug/L	**1.3**	ND	ND	**20**	**23**	**22**	**83**	**64**	NA	**150 [120]**	**13**	**31**	**55**	ND	**120**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND [ND]	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND [ND]	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	**21 J [11 J]**	ND	ND	ND	ND	ND
Isopropylbenzene	5	ug/L	NA	ND	NA	1.3	1.9	1.4	2.2	ND	NA	ND [ND]	NA	NA	NA	ND	**13**
m&p-Xylene	- -	ug/L	ND	ND	ND	2.0	2.8	2.2	2.8	ND	NA	ND [ND]	ND	ND	ND	ND	7.5
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	1.6	ND	4.7	**3,000**	**1,500**	**1,200**	**8,000**	**5,900**	NA	**6,100 [5,400]**	**660**	NA	**1,500**	ND	**240**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Naphthalene	10	ug/L	NA	ND	NA	ND	2.4	4.6	ND	ND	NA	**72 J [40 J]**	ND	5.1	NA	ND	**45**
n-Butylbenzene	- -	ug/L	NA	ND	NA	1.4	ND	ND	ND	ND	NA	ND [13 J]	NA	NA	NA	ND	NA
n-Propylbenzene	- -	ug/L	NA	ND	NA	2.3	3.4	2.3	3.6	ND	NA	ND [ND]	NA	NA	NA	ND	18
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	95	ND	NA	ND [ND]	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	NA	1.4	1.3	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	6.6

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-14R 10/26/04	MW-14R 03/10/05	MW-15 08/20/02	MW-16 12/15/95	MW-16 06/05/96	MW-16 09/13/96	MW-16 04/15/97	MW-16 07/15/97	MW-16 01/27/98	MW-16 04/08/98	MW-16 11/02/01	MW-16 04/30/02	MW-16 08/20/02	MW-17 12/12/95	MW-17 12/18/95
Volatile Organics (Cont.)																	
sec-Butylbenzene	- -	ug/L	NA	ND	NA	ND	ND	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	3.2
Styrene	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	ND	1.3	ND	ND	12	NA	ND [ND]	NA	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	1,900	NA	5,200	NA	NA
Tetrachloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Toluene	5	ug/L	ND	ND	ND	ND	ND	ND	1.4	ND	NA	ND [ND]	ND	ND	ND	ND	3.5
Total VOCs	- -	ug/L	2.9	0.60	4.7	3,000	1,500	1,200	8,200	6,000	NA	6,300 [5,600]	2,600	39	57	ND	460
trans-1,2-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Trichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Vinyl Chloride	2	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Xylenes (total)	5	ug/L	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND	3.1	2.1	NA	**7.5**
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	0.34	ND	3.2	ND	ND	ND	NA	NA	3.0 J [3.0 J]	NA	NA	NA	5.4	NA	16
Acenaphthylene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-14R 10/26/04	MW-14R 03/10/05	MW-15 08/20/02	MW-16 12/15/95	MW-16 06/05/96	MW-16 09/13/96	MW-16 04/15/97	MW-16 07/15/97	MW-16 01/27/98	MW-16 04/08/98	MW-16 11/02/01	MW-16 04/30/02	MW-16 08/20/02	MW-17 12/12/95	MW-17 12/18/95
Semivolatile Organics (Cont.)																	
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Fluorene	50	ug/L	ND	ND	1.4	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	0.88	NA	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Hexachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	**28 [26]**	NA	NA	NA	1.1	NA	**37**
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Phenol	1	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Total SVOCs	- -	ug/L	0.34	ND	4.6	ND	ND	ND	NA	NA	31 [29]	NA	NA	NA	7.4	NA	53
Inorganics																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-14R 10/26/04	MW-14R 03/10/05	MW-15 08/20/02	MW-16 12/15/95	MW-16 06/05/96	MW-16 09/13/96	MW-16 04/15/97	MW-16 07/15/97	MW-16 01/27/98	MW-16 04/08/98	MW-16 11/02/01	MW-16 04/30/02	MW-16 08/20/02	MW-17 12/12/95	MW-17 12/18/95
Inorganics (Cont.)																	
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	480 J [490 J]	NA	NA	NA	NA	NA	1,200

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-17 06/05/96	MW-17 09/13/96	MW-17 04/15/97	MW-17 07/15/97	MW-17 01/27/98	MW-17 04/09/98	MW-17 11/02/01	MW-17 04/30/02	MW-17 08/20/02	MW-18 12/12/95	MW-18 04/30/02	MW-18 08/20/02	MW-19 12/12/95	MW-19 12/18/95	MW-19 06/05/96
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	ND	ND [ND]	NA	1.3 J	NA	NA	NA	25,000	NA	NA	ND	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Benzene	1	ug/L	**68**	**80**	**120**	**84 [90]**	NA	**72**	**16**	**6.3**	**3.0**	**1,700**	**350**	**370**	**27**	**23**	**72**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	2.8	ND	ND	ND [ND]	NA	3.4 J	1.3	ND	ND	**39,000**	**380**	**69**	ND	ND	ND
Isopropylbenzene	5	ug/L	**10**	**12**	**14**	ND [ND]	NA	**12**	NA	NA	NA	**7,600**	NA	NA	ND	ND	**18**
m&p-Xylene	- -	ug/L	5.6	5.9	ND	ND [ND]	NA	5.7 J	ND	ND	ND	62,000	ND	ND	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**120**	**190**	**230**	**180 [180]**	NA	**190**	**71**	NA	**60**	ND	NA	**490**	ND	**240**	**120**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA
Naphthalene	10	ug/L	**100**	**25**	**88**	**28 [28]**	NA	**160**	2.7	**17**	NA	**33,000**	**78**	NA	ND	ND	**100**
n-Butylbenzene	- -	ug/L	4.7	6.4	ND	ND [ND]	NA	8.1	NA	NA	NA	56,000	NA	NA	94	1.9	ND
n-Propylbenzene	- -	ug/L	14	17	18	ND [ND]	NA	14	NA	NA	NA	21,000	NA	NA	ND	3.0	2.2
o-Xylene	- -	ug/L	2.4	ND	ND	ND [ND]	NA	2.5 J	ND	ND	ND	3,900	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	ND [ND]	NA	ND	NA	NA	NA	6,200	NA	NA	ND	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-17 06/05/96	MW-17 09/13/96	MW-17 04/15/97	MW-17 07/15/97	MW-17 01/27/98	MW-17 04/09/98	MW-17 11/02/01	MW-17 04/30/02	MW-17 08/20/02	MW-18 12/12/95	MW-18 04/30/02	MW-18 08/20/02	MW-19 12/12/95	MW-19 12/18/95	MW-19 06/05/96
Volatile Organics (Cont.)																	
sec-Butylbenzene	- -	ug/L	2.5	3.2	ND	ND [ND]	NA	5.1	NA	NA	NA	8,200	NA	NA	ND	ND	ND
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	1.1	ND	ND	ND [ND]	NA	2.4 J	NA	NA	NA	4,600	NA	NA	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	32	NA	NA	410	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA
Toluene	5	ug/L	2.5	2.4	ND	ND [ND]	NA	2.3 J	1.4	ND	ND	**1,400**	**12**	**7.2**	ND	ND	ND
Total VOCs	- -	ug/L	340	350	470	290 [300]	NA	490	96	26	95	340,000	860	1,400	120	270	310
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA
Xylenes (total)	5	ug/L	**8.0**	**5.9**	ND	ND [ND]	NA	**8.2**	4.5	3.2	0.40	**66,000**	**33**	**17**	ND	ND	ND
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	2.7	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	16 [17]	17 [15]	NA	NA	19	NA	NA	NA	17	NA	NA	1.9	NA	ND	ND
Acenaphthylene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-17 06/05/96	MW-17 09/13/96	MW-17 04/15/97	MW-17 07/15/97	MW-17 01/27/98	MW-17 04/09/98	MW-17 11/02/01	MW-17 04/30/02	MW-17 08/20/02	MW-18 12/12/95	MW-18 04/30/02	MW-18 08/20/02	MW-19 12/12/95	MW-19 12/18/95	MW-19 06/05/96
Semivolatile Organics (Cont.)																	
Benzo(g,h,i)perylene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	**10 [10]**	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	4.1	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND [ND]	ND [ND]	NA	NA	2.0 J	NA	NA	NA	0.81	NA	NA	ND	NA	ND	ND
Fluorene	50	ug/L	ND [ND]	7.9 [7.3]	NA	NA	9.0 J	NA	NA	NA	5.3	NA	NA	2.8	NA	ND	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**12**	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	**64 [59]**	**20 [17]**	NA	NA	**66**	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	ND [ND]	5.9 [ND]	NA	NA	6.0 J	NA	NA	NA	ND	NA	NA	2.9	NA	ND	ND
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND [ND]	ND [ND]	NA	NA	1.0 J	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND
Total SVOCs	- -	ug/L	90 [86]	51 [39]	NA	NA	100	NA	NA	NA	23	NA	NA	26	NA	ND	ND
Inorganics																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-17 06/05/96	MW-17 09/13/96	MW-17 04/15/97	MW-17 07/15/97	MW-17 01/27/98	MW-17 04/09/98	MW-17 11/02/01	MW-17 04/30/02	MW-17 08/20/02	MW-18 12/12/95	MW-18 04/30/02	MW-18 08/20/02	MW-19 12/12/95	MW-19 12/18/95	MW-19 06/05/96
Inorganics (Cont.)																	
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	610	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	340
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	1,100 [2,400]	ND [ND]	NA	NA	720	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-19 04/15/97	MW-19 07/15/97	MW-19 01/27/98	MW-19 04/09/98	MW-19 11/02/01	MW-19 04/30/02	MW-19 08/20/02	MW-20 12/12/95	MW-20 12/13/95	MW-20 12/18/95	MW-20 06/05/96	MW-20 09/13/96	MW-20 04/15/97	MW-20 07/15/97	MW-20 01/27/98
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	NA	ND	NA	NA	NA	6.2	ND	NA	ND	ND	ND [ND]	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	ug/L	**14**	**11**	NA	ND	ND	**5.1**	0.90	**19**	ND	NA	**1.5**	**170**	**25 [26]**	**70**	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	ND	ND	NA	ND	ND	ND	ND	**30**	ND	NA	ND	**16**	1.4 [1.9]	ND	NA
Isopropylbenzene	5	ug/L	1.2	ND	NA	0.40 J	NA	NA	NA	**16**	ND	NA	ND	**18**	1.2 [ND]	ND	NA
m&p-Xylene	- -	ug/L	ND	ND	NA	ND	ND	ND	ND	6.7	ND	NA	ND	9.2	ND [ND]	ND	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**65**	**57**	NA	5.7	ND	NA	ND	**9,100**	ND	NA	**1,700**	**54,000**	**9,300 [9,900]**	**19,000**	NA
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	ND	ND	NA	ND	ND	7.5	NA	**20**	**140**	NA	ND	**14**	ND [ND]	ND	NA
n-Butylbenzene	- -	ug/L	ND	ND	NA	0.30 J	NA	NA	NA	2.3	ND	NA	ND	4.9	ND [ND]	ND	NA
n-Propylbenzene	- -	ug/L	ND	ND	NA	0.40 J	NA	NA	NA	39	ND	NA	ND	40	ND [ND]	ND	NA
o-Xylene	- -	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND [ND]	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-19 04/15/97	MW-19 07/15/97	MW-19 01/27/98	MW-19 04/09/98	MW-19 11/02/01	MW-19 04/30/02	MW-19 08/20/02	MW-20 12/12/95	MW-20 12/13/95	MW-20 12/18/95	MW-20 06/05/96	MW-20 09/13/96	MW-20 04/15/97	MW-20 07/15/97	MW-20 01/27/98
Volatile Organics (Cont.)																	
sec-Butylbenzene	- -	ug/L	ND	ND	NA	0.20 J	NA	NA	NA	2.4	ND	NA	ND	3.9	ND [ND]	ND	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND [ND]	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	ND	NA
Toluene	5	ug/L	ND	ND	NA	ND	ND	ND	0.60	2.1	ND	NA	ND	**40**	ND [ND]	ND	NA
Total VOCs	- -	ug/L	80	68	NA	7.0	ND	13	1.4	9,300	140	NA	1,700	54,000	9,300 [9,900]	19,000	NA
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	5	ug/L	ND	ND	NA	ND	ND	ND	ND	**6.7**	ND	NA	ND	**9.2**	ND [ND]	ND	NA
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-19 04/15/97	MW-19 07/15/97	MW-19 01/27/98	MW-19 04/09/98	MW-19 11/02/01	MW-19 04/30/02	MW-19 08/20/02	MW-20 12/12/95	MW-20 12/13/95	MW-20 12/18/95	MW-20 06/05/96	MW-20 09/13/96	MW-20 04/15/97	MW-20 07/15/97	MW-20 01/27/98
Semivolatile Organics (Cont.)																	
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND
Fluorene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	7.0 J
Nitrobenzene	0.4	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND
Total SVOCs	- -	ug/L	NA	NA	ND	NA	NA	NA	1.6	NA	NA	ND	ND	ND	NA	NA	7.0
Inorganics																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-19 04/15/97	MW-19 07/15/97	MW-19 01/27/98	MW-19 04/09/98	MW-19 11/02/01	MW-19 04/30/02	MW-19 08/20/02	MW-20 12/12/95	MW-20 12/13/95	MW-20 12/18/95	MW-20 06/05/96	MW-20 09/13/96	MW-20 04/15/97	MW-20 07/15/97	MW-20 01/27/98
Inorganics (Cont.)																	
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																	
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	180	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	550	ND	820	NA	NA	360 J

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-20 04/09/98	MW-20 11/02/01	MW-20 04/30/02	MW-20 08/20/02	MW-21 01/27/98	MW-21 04/09/98	MW-21 11/02/01	MW-21 04/30/02	MW-21 08/20/02	MW-21 03/05/03	MW-21 06/03/03	MW-21 02/11/04	MW-21 05/20/04	MW-21 10/26/04	MW-21 03/10/05	MW-22 08/20/02
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	1.9	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	26 J	NA	NA	NA	NA	26 J	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Benzene	1	ug/L	**76 J**	**130**	**10**	**140**	NA	**800**	**340**	ND	**73**	**410**	**640**	**230**	**100**	**87**	**190**	**200**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	ND	**770**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	ND	ND	NA	3.0	NA	**650**	**51**	ND	ND	**92**	**74**	**34**	**12**	**5.8**	**77**	**14**
Isopropylbenzene	5	ug/L	ND	NA	NA	NA	NA	**42**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	NA	320	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**2,200**	**120**	NA	**680**	NA	**2,200**	**730**	NA	**440**	**660**	**970**	**280**	**160**	**140**	**97**	**530**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Naphthalene	10	ug/L	**110**	ND	ND	NA	NA	**330**	**37**	NA	NA	NA	NA	NA	NA	NA	ND	NA
n-Butylbenzene	- -	ug/L	36 J	NA	NA	NA	NA	54	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
n-Propylbenzene	- -	ug/L	ND	NA	NA	NA	NA	65	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
o-Xylene	- -	ug/L	ND	ND	ND	ND	NA	16 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-20 04/09/98	MW-20 11/02/01	MW-20 04/30/02	MW-20 08/20/02	MW-21 01/27/98	MW-21 04/09/98	MW-21 11/02/01	MW-21 04/30/02	MW-21 08/20/02	MW-21 03/05/03	MW-21 06/03/03	MW-21 02/11/04	MW-21 05/20/04	MW-21 10/26/04	MW-21 03/10/05	MW-22 08/20/02
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	NA	490	NA	NA	ND	NA	490	ND	ND	41	23	7.9	15	80
Tetrachloroethene	5	ug/L	ND	NA	ND	ND	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Toluene	5	ug/L	ND	2.8	ND	**28**	NA	**16**	ND	ND	ND	**6.2**	**6.1**	2.7	1.3	1.1	3.0	ND
Total VOCs	- -	ug/L	2,400	260	10	2,100	NA	4,900	1,200	ND	1,000	1,200	1,700	600	310	240	420	830
trans-1,2-Dichloroethene	5	ug/L	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Trichloroethene	5	ug/L	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Vinyl Chloride	2	ug/L	NA	NA	ND	**1,400**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND
Xylenes (total)	5	ug/L	ND	**6.5**	ND	**19**	NA	**340**	ND	ND	4.5	**14**	**17**	**7.7**	**8.1**	4.6	**37**	2.8
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	29	9.3	15	17	1.4	1.7 J	4.9	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	ND	3.0 J	NA	NA	NA	6.7	4.2	3.7	4.6	6.0	7.4	3.5	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.89**	NA	ND	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.90**	NA	ND	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-20 04/09/98	MW-20 11/02/01	MW-20 04/30/02	MW-20 08/20/02	MW-21 01/27/98	MW-21 04/09/98	MW-21 11/02/01	MW-21 04/30/02	MW-21 08/20/02	MW-21 03/05/03	MW-21 06/03/03	MW-21 02/11/04	MW-21 05/20/04	MW-21 10/26/04	MW-21 03/10/05	MW-22 08/20/02
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.62**	NA	ND	ND	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	4.1	2.0	NA	**7.7**	NA	ND	ND	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	**0.57**	NA	ND	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	ND	ND	NA	NA	NA	2.8	1.2	NA	ND	NA	ND	ND	NA
Fluorene	50	ug/L	NA	NA	NA	ND	3.0 J	NA	NA	NA	4.9	1.9	1.7	2.4	1.6	2.1	1.6	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	NA	ND	**150**	NA	NA	NA	1.9	3.5	8.5	**13**	2.0	1.3	**18**	NA
Nitrobenzene	0.4	ug/L	NA	NA	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
Phenanthrene	50	ug/L	NA	NA	NA	ND	3.0 J	NA	NA	NA	1.6	0.74	0.76	ND	ND	0.47	ND	NA
Phenol	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	**14**	**2.3**	**1.9**	**3.6**	ND	ND	ND	NA
Pyrene	50	ug/L	NA	NA	NA	ND	ND	NA	NA	NA	2.7	2.1	NA	4.3	NA	ND	1.5	NA
Total SVOCs	- -	ug/L	NA	NA	NA	ND	160	NA	NA	NA	67	27	31	56	11	13	ND	NA
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-20 04/09/98	MW-20 11/02/01	MW-20 04/30/02	MW-20 08/20/02	MW-21 01/27/98	MW-21 04/09/98	MW-21 11/02/01	MW-21 04/30/02	MW-21 08/20/02	MW-21 03/05/03	MW-21 06/03/03	MW-21 02/11/04	MW-21 05/20/04	MW-21 10/26/04	MW-21 03/10/05	MW-22 08/20/02
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	4,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-22 03/05/03	MW-22 06/03/03	MW-22 02/11/04	MW-22 05/20/04	MW-22 10/26/04	MW-22 03/10/05	MW-23-D1 10/27/04	MW-23-D1 03/09/05	MW-23-D1 08/10/05	MW-23-D1 03/15/06	MW-23-D1R 01/19/11	MW-23-D2 10/27/04	MW-23-D2 03/09/05	MW-23-D2 08/10/05
Volatile Organics																
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND	ND
Benzene	1	ug/L	**150**	**200**	**26**	**190**	**240**	**8.1**	**1.4**	**2.3**	**12**	**13**	**21**	**1.2**	0.73 J	0.69
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	ND	1.5	2.8	**160**	**55**	1.0 U	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Ethylbenzene	5	ug/L	**90**	**170**	0.50	**53**	2.6	2.4	0.32 J	1.2	4.0	4.3 J	2.4	ND	ND	ND
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	**18**	NA	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**34**	**44**	4.0	**21**	**41**	1.7	**180**	**620**	**470**	**680**	**100 D**	**65**	**200**	**220**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	NA	ND	4.1	ND	ND	ND	1.0 U	ND	ND	ND
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-22 03/05/03	MW-22 06/03/03	MW-22 02/11/04	MW-22 05/20/04	MW-22 10/26/04	MW-22 03/10/05	MW-23-D1 10/27/04	MW-23-D1 03/09/05	MW-23-D1 08/10/05	MW-23-D1 03/15/06	MW-23-D1R 01/19/11	MW-23-D2 10/27/04	MW-23-D2 03/09/05	MW-23-D2 08/10/05
Volatile Organics (Cont.)																
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	35	ND	ND	ND	ND	ND	1,800	820	1,100	1,500	NA	2,100	2,400	2,000
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	0.32
Toluene	5	ug/L	3.5	2.9	0.50	1.9	4.8	ND	0.40	ND	**9.6**	**9.0 J**	1.0 U	0.30 J	ND	0.20
Total VOCs	- -	ug/L	310	470	37	280	290	13	190	1,500	1,900	2,500	150 J	67	2,600	2,200
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	3.3	3.8 J	1.0 U	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
Trichloroethene	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	0.31	ND	2.6	ND	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	1.0 U	ND	ND	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	ND	NA	ND	ND	1.2	**140**	**250**	1.0 U	ND	ND	ND
Xylenes (total)	5	ug/L	ND	**61**	**5.2**	**17**	**7.2**	0.50	0.90 J	0.20	**12**	**11 J**	1.3 J	ND	ND	ND
Semivolatile Organics																
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2 U	ND	ND	ND
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.94 J	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Acenaphthene	20	ug/L	2.3	2.2	0.71	1.1	0.84	ND	1.9 J	ND	1.9	8.4 J	1.3 J	0.41 J	ND	ND
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	5.2 U	ND	ND	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-22 03/05/03	MW-22 06/03/03	MW-22 02/11/04	MW-22 05/20/04	MW-22 10/26/04	MW-22 03/10/05	MW-23-D1 10/27/04	MW-23-D1 03/09/05	MW-23-D1 08/10/05	MW-23-D1 03/15/06	MW-23-D1R 01/19/11	MW-23-D2 10/27/04	MW-23-D2 03/09/05	MW-23-D2 08/10/05
Semivolatile Organics (Cont.)																
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	NA	1.1	NA	ND	3.2	**5.2**	1.4 J	1.2	1.4 J	5.2 U	3.4	2.3	ND
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	ND	NA	ND	ND	NA	ND	ND	0.90 J	5.2 U	NA	ND	ND
Fluorene	50	ug/L	3.3	2.8	1.2	1.6	1.1	1.1	ND	ND	ND	ND	5.2 U	ND	ND	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Naphthalene	10	ug/L	**76**	**69**	4.5	**30**	5.6	1.5	1.7 J	ND	**17**	**73**	1.3 J	1.8 J	ND	0.57
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2 U	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.2 U	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	10 U	NA	ND	ND
Phenanthrene	50	ug/L	2.9	1.7	0.75	0.79	ND	ND	0.36 J	ND	ND	0.40 J	5.2 U	ND	ND	ND
Phenol	1	ug/L	ND	**3.6**	ND	**9.7**	**5.7**	ND	ND	ND	ND	ND	5.2 U	ND	ND	**2.4**
Pyrene	50	ug/L	ND	NA	ND	NA	ND	ND	NA	ND	ND	ND	5.2 U	NA	ND	ND
Total SVOCs	- -	ug/L	85	80	8.3	43	13	5.8	9.2	1.4	20	84	3.5 J	5.6	2.3	3.0
Inorganics																
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	380	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.0	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.410 J	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	145,000	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.640 J	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.20 J	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4,000**	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**49,300**	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3,300**	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-22 03/05/03	MW-22 06/03/03	MW-22 02/11/04	MW-22 05/20/04	MW-22 10/26/04	MW-22 03/10/05	MW-23-D1 10/27/04	MW-23-D1 03/09/05	MW-23-D1 08/10/05	MW-23-D1 03/15/06	MW-23-D1R 01/19/11	MW-23-D2 10/27/04	MW-23-D2 03/09/05	MW-23-D2 08/10/05
Inorganics (Cont.)																
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.70 J	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23,600	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**349,000**	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.0	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.20 J	NA	NA	NA
Inorganics-Filtered																
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200 U	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	66.0	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.440 J	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	145,000	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3,000**	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**44,700**	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,500**	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 J	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23,700	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**286,000**	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.80	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 J	NA	NA	NA
Miscellaneous																
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	308,000	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	308,000	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,700	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5 U	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5 U	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,800 DJ	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,700	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**260,000**	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,740,000	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2 03/15/06	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D1 10/27/04	MW-24-D1 03/09/05	MW-24-D1 08/10/05	MW-24-D1 03/15/06	MW-24-D2 10/27/04	MW-24-D2 03/09/05	MW-24-D2 08/10/05	MW-24-D2 03/15/06	MW-24-D2 01/19/11
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,1,2-Trichloroethane	1	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
1,1-Dichloroethane	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
1,1-Dichloroethene	5	ug/L	ND	1.0 U [1.0 U]	**23**	ND	ND	ND	2.3 J	ND	ND	ND	ND	3.8
1,2,4-Trichlorobenzene	5	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,2-Dibromoethane	0.0006	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	1.0 U [1.0 U]	1.0 U	ND	ND	ND	NA	ND	ND	ND	NA	1.0 U
1,2-Dichloroethane	0.6	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	**32**	ND	1.0 U
1,2-Dichloropropane	1	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	1.0 U [1.0 U]	1.0 U	ND	ND	ND	NA	ND	ND	ND	NA	1.0 U
1,4-Dichlorobenzene	3	ug/L	NA	1.0 U [1.0 U]	1.0 U	ND	ND	ND	NA	ND	ND	ND	NA	1.0 U
2-Butanone	50	ug/L	NA	10 U [10 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U
2-Hexanone	50	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Methyl-2-pentanone	- -	ug/L	NA	5.0 U [5.0 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Acetone	50	ug/L	NA	10 U [10 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	10 U
Acrolein	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	ND	ND	0.40	NA	NA
Benzene	1	ug/L	ND	1.0 U [1.0 U]	**22**	**4.7**	**3.7 J**	**1.7**	**4.8**	ND	0.50 J	ND	ND	**3.5**
Bromodichloromethane	50	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Bromoform	50	ug/L	NA	1.0 U [1.0 U]	1.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	1.0 UJ
Bromomethane	5	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Carbon Disulfide	60	ug/L	NA	1.3 [1.2]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Carbon Tetrachloride	5	ug/L	NA	1.0 U [1.0 U]	1.0 UJ	NA	NA	NA	NA	NA	NA	NA	NA	1.0 UJ
Chlorobenzene	5	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Chloroethane	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
Chloroform	7	ug/L	ND	1.0 U [1.0 U]	1.0 U	NA	NA	NA	ND	NA	NA	ND	ND	1.0 U
Chloromethane	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
cis-1,2-Dichloroethene	5	ug/L	ND	1.0 U [1.0 U]	**7,400 D**	**280**	**240**	**240**	**670**	**5.9**	**33**	ND	**62**	**1,200 D**
cis-1,3-Dichloropropene	0.4	ug/L	ND	1.0 U [1.0 U]	1.0 UJ	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
Cyclohexane	- -	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Dibromochloromethane	50	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Ethylbenzene	5	ug/L	ND	1.0 U [1.0 U]	**11**	ND	ND	ND	1.8 J	ND	ND	ND	ND	1.9
Isopropylbenzene	5	ug/L	ND	1.0 U [1.0 U]	1.1	NA	ND	ND	ND	NA	ND	ND	ND	1.0 U
m&p-Xylene	- -	ug/L	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA
Methyl acetate	- -	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Methyl tert-butyl ether	10	ug/L	**470**	**200 D [190 D]**	**1,100 D**	**1,100 J**	**820**	**590**	**1,200**	**120**	**270**	**220**	**290**	**280 D**
Methylcyclohexane	- -	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
Methylene Chloride	5	ug/L	ND	1.0 U [1.0 U]	0.76 J	**6.6**	ND	ND	ND	1.2 J	3.0	ND	ND	1.0 U
Naphthalene	10	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA
n-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA
n-Propylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA
o-Xylene	- -	ug/L	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2 03/15/06	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D1 10/27/04	MW-24-D1 03/09/05	MW-24-D1 08/10/05	MW-24-D1 03/15/06	MW-24-D2 10/27/04	MW-24-D2 03/09/05	MW-24-D2 08/10/05	MW-24-D2 03/15/06	MW-24-D2 01/19/11
Volatile Organics (Cont.)														
sec-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA
Styrene	5	ug/L	NA	1.0 U [1.0 U]	1.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U
tert-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA
Tertiary butyl alcohol	- -	ug/L	ND	NA	NA	3,000	1,600	980	1,900	640	1,300	710	860	NA
Tetrachloroethene	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
Toluene	5	ug/L	ND	1.0 U [1.0 U]	**19**	2.3	ND	0.90	2.5 J	0.30 J	0.30 J	0.20	ND	3.0
Total VOCs	- -	ug/L	470	210 [200]	11,000 J	5,200	4,100	2,300	5,200	790	1,800	380	1,200	1,800
trans-1,2-Dichloroethene	5	ug/L	ND	1.0 U [1.0 U]	**44**	ND	**5.8 J**	**5.8**	**8.3 J**	ND	0.70 J	0.50	NA	**6.7**
trans-1,3-Dichloropropene	0.4	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 UJ
Trichloroethene	5	ug/L	ND	1.0 U [1.0 U]	**65**	**860**	**1,400**	**530**	**1,400**	**20**	**160**	**130**	**20**	2.5
Trichlorofluoromethane	5	ug/L	ND	1.0 U [1.0 U]	1.0 U	ND	ND	ND	ND	ND	ND	ND	ND	1.0 U
Vinyl Chloride	2	ug/L	ND	**7.8 [6.5]**	**1,800 D**	**18**	**21**	**6.5**	**26**	ND	**5.2**	ND	ND	**300 D**
Xylenes (total)	5	ug/L	ND	2.0 U [2.0 U]	**31**	ND	ND	ND	3.8 J	0.90 J	0.30 J	ND	ND	4.8
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	NA	4.9 U [4.9 U]	2.5 J	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4,5-Trichlorophenol	1	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4,6-Trichlorophenol	1	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dichlorophenol	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,4-Dimethylphenol	50	ug/L	ND	4.9 U [4.9 U]	5.0 U	ND	ND	ND	ND	ND	ND	ND	ND	5.0 U
2,4-Dinitrophenol	10	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
2,4-Dinitrotoluene	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2,6-Dinitrotoluene	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Chloronaphthalene	10	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Chlorophenol	1	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Methylnaphthalene	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Methylphenol	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
2-Nitroaniline	5	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
2-Nitrophenol	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
3,3'-Dichlorobenzidine	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
3-Nitroaniline	5	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
4-Bromophenyl-phenylether	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chloro-3-Methylphenol	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chloroaniline	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Chlorophenyl-phenylether	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
4-Methylphenol	- -	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
4-Nitroaniline	5	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
4-Nitrophenol	- -	ug/L	NA	9.7 U [9.8 U]	10 U	NA	NA	NA	NA	NA	NA	NA	NA	9.9 U
Acenaphthene	20	ug/L	ND	1.3 J [1.2 J]	**53**	4.0	6.9	3.0	ND	ND	1.6 J	0.98	0.50 J	7.8
Acenaphthylene	- -	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Acetophenone	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Anthracene	50	ug/L	ND	4.9 U [4.9 U]	0.50 J	ND	ND	ND	ND	ND	ND	ND	ND	5.0 U
Atrazine	7.5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzaldehyde	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Benzo(a)anthracene	0.002	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Benzo(a)pyrene	- -	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Benzo(b)fluoranthene	0.002	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2 03/15/06	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D1 10/27/04	MW-24-D1 03/09/05	MW-24-D1 08/10/05	MW-24-D1 03/15/06	MW-24-D2 10/27/04	MW-24-D2 03/09/05	MW-24-D2 08/10/05	MW-24-D2 03/15/06	MW-24-D2 01/19/11
Semivolatile Organics (Cont.)														
Benzo(g,h,i)perylene	- -	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Benzo(k)fluoranthene	0.002	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
bis(2-Chloroethoxy)methane	5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
bis(2-Chloroethyl)ether	1	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	4.9 UB [4.9 UB]	5.0 U	2.1	ND	ND	ND	2.8	ND	1.1	ND	5.0 U
Butylbenzylphthalate	50	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Caprolactam	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Carbazole	- -	ug/L	NA	0.50 J [0.52 J]	22	NA	NA	NA	NA	NA	NA	NA	NA	3.2 J
Chrysene	0.002	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Dibenzo(a,h)anthracene	- -	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Dibenzofuran	- -	ug/L	NA	0.53 J [0.54 J]	19	NA	NA	NA	NA	NA	NA	NA	NA	0.56 J
Diethylphthalate	50	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Dimethylphthalate	50	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Di-n-Butylphthalate	50	ug/L	ND	0.41 J [0.53 J]	0.51 J	NA	ND	ND	ND	NA	ND	ND	ND	0.33 J
Di-n-Octylphthalate	50	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Fluoranthene	50	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Fluorene	50	ug/L	ND	0.54 J [0.58 J]	6.9	ND	ND	ND	0.40 J	ND	ND	ND	ND	5.0 U
Hexachlorobenzene	0.04	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorobutadiene	0.5	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Hexachlorocyclopentadiene	5	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Hexachloroethane	5	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	ND	ND	ND	NA	ND	ND	ND	5.0 U
Isophorone	50	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Naphthalene	10	ug/L	ND	4.9 U [4.9 U]	**21**	1.1 J	1.8 J	ND	2.0 J	ND	ND	ND	ND	2.9 J
Nitrobenzene	0.4	ug/L	ND	4.9 U [4.9 U]	5.0 U	ND	ND	ND	ND	ND	ND	ND	ND	5.0 U
N-Nitroso-di-n-propylamine	- -	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
N-Nitrosodiphenylamine	50	ug/L	NA	4.9 U [4.9 U]	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U
Pentachlorophenol	- -	ug/L	ND	9.7 U [9.8 U]	10 U	NA	ND	ND	ND	NA	ND	ND	ND	9.9 U
Phenanthrene	50	ug/L	ND	4.9 U [4.9 U]	6.7	0.54 J	1.2 J	ND	1.7 J	ND	ND	ND	ND	0.87 J
Phenol	1	ug/L	ND	4.9 U [4.9 U]	5.0 U	ND	ND	ND	ND	ND	ND	ND	ND	5.0 U
Pyrene	50	ug/L	ND	4.9 U [4.9 U]	5.0 U	NA	8.0	ND	ND	NA	ND	ND	ND	5.0 U
Total SVOCs	- -	ug/L	ND	5.7 J [5.8 J]	130 J	7.7	18	3.0	4.0	2.8	1.6	2.1	0.50 J	16 J
Inorganics														
Aluminum	- -	ug/L	NA	200 U [200 U]	200 U	NA	NA	NA	NA	NA	NA	NA	NA	200 U
Antimony	3	ug/L	NA	20.0 U [20.0 U]	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Arsenic	25	ug/L	NA	10.0 U [10.0 U]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Barium	1,000	ug/L	NA	110 [110]	20.0	NA	NA	NA	NA	NA	NA	NA	NA	20.0
Beryllium	3	ug/L	NA	2.00 U [2.00 U]	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
Cadmium	5	ug/L	NA	0.580 J [0.640 J]	0.860 J	NA	NA	NA	NA	NA	NA	NA	NA	0.860 J
Calcium	- -	ug/L	NA	166,000 J [163,000 J]	109,000	NA	NA	NA	NA	NA	NA	NA	NA	106,000
Chromium	50	ug/L	NA	2.00 J [1.90 J]	2.40 J	NA	NA	NA	NA	NA	NA	NA	NA	2.50 J
Cobalt	- -	ug/L	NA	4.00 U [4.00 U]	0.760 J	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
Copper	200	ug/L	NA	10.0 U [10.0 U]	2.00 J	NA	NA	NA	NA	NA	NA	NA	NA	1.70 J
Iron	300	ug/L	NA	65.0 [60.0]	50.0 U	NA	NA	NA	NA	NA	NA	NA	NA	65.0
Lead	25	ug/L	NA	5.00 U [5.00 U]	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Magnesium	35,000	ug/L	NA	**286,000 J [284,000 J]**	**365,000**	NA	NA	NA	NA	NA	NA	NA	NA	**297,000**
Manganese	300	ug/L	NA	**890 [850]**	43.0	NA	NA	NA	NA	NA	NA	NA	NA	63.0
Mercury	0.7	ug/L	NA	0.200 U [0.200 U]	0.200 U	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2 03/15/06	MW-23-D2R 01/20/11	MW-24-D1 01/19/11	MW-24-D1 10/27/04	MW-24-D1 03/09/05	MW-24-D1 08/10/05	MW-24-D1 03/15/06	MW-24-D2 10/27/04	MW-24-D2 03/09/05	MW-24-D2 08/10/05	MW-24-D2 03/15/06	MW-24-D2 01/19/11
Inorganics (Cont.)														
Nickel	100	ug/L	NA	10.0 U [10.0 U]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Potassium	- -	ug/L	NA	95,100 J [95,400 J]	101,000	NA	NA	NA	NA	NA	NA	NA	NA	98,700
Selenium	10	ug/L	NA	15.0 U [15.0 U]	15.0 U	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U
Silver	50	ug/L	NA	3.00 U [3.00 U]	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
Sodium	20,000	ug/L	NA	**2,570,000 J [2,550,000 J]**	**2,530,000**	NA	NA	NA	NA	NA	NA	NA	NA	**2,330,000**
Thallium	0.5	ug/L	NA	20.0 U [20.0 U]	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Vanadium	- -	ug/L	NA	11.0 [10.0]	5.90	NA	NA	NA	NA	NA	NA	NA	NA	7.10
Zinc	2,000	ug/L	NA	10.0 U [10.0 U]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	1.70 J
Inorganics-Filtered														
Aluminum	- -	ug/L	NA	200 UB [200 UB]	200 U	NA	NA	NA	NA	NA	NA	NA	NA	200 U
Antimony	3	ug/L	NA	20.0 U [20.0 U]	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Arsenic	25	ug/L	NA	9.50 J [7.20 J]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Barium	1,000	ug/L	NA	120 [120]	20.0	NA	NA	NA	NA	NA	NA	NA	NA	20.0
Beryllium	3	ug/L	NA	2.00 U [2.00 U]	2.00 U	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U
Cadmium	5	ug/L	NA	0.620 J [0.650 J]	0.800 J	NA	NA	NA	NA	NA	NA	NA	NA	0.640 J
Calcium	- -	ug/L	NA	185,000 J [186,000 J]	108,000	NA	NA	NA	NA	NA	NA	NA	NA	102,000
Chromium	50	ug/L	NA	3.80 J [4.00]	2.40 J	NA	NA	NA	NA	NA	NA	NA	NA	2.10 J
Cobalt	- -	ug/L	NA	1.10 J [0.770 J]	4.00 U	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U
Copper	200	ug/L	NA	10.0 U [10.0 U]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Iron	300	ug/L	NA	75.0 [87.0]	50.0 U	NA	NA	NA	NA	NA	NA	NA	NA	50.0 U
Lead	25	ug/L	NA	5.00 U [5.00 U]	5.00 U	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U
Magnesium	35,000	ug/L	NA	**319,000 J [326,000 J]**	**365,000**	NA	NA	NA	NA	NA	NA	NA	NA	**289,000**
Manganese	300	ug/L	NA	**880 [910]**	43.0	NA	NA	NA	NA	NA	NA	NA	NA	62.0
Mercury	0.7	ug/L	NA	0.200 U [0.200 U]	0.200 U	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U
Nickel	100	ug/L	NA	10.0 U [10.0 U]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Potassium	- -	ug/L	NA	107,000 J [108,000 J]	101,000	NA	NA	NA	NA	NA	NA	NA	NA	97,000
Selenium	10	ug/L	NA	15.0 UJ [15.0 UJ]	15.0 U	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U
Silver	50	ug/L	NA	3.00 U [3.00 U]	3.00 U	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U
Sodium	20,000	ug/L	NA	**2,990,000 J [3,030,000 J]**	**2,460,000**	NA	NA	NA	NA	NA	NA	NA	NA	**2,150,000**
Thallium	0.5	ug/L	NA	20.0 U [20.0 U]	20.0 U	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U
Vanadium	- -	ug/L	NA	6.80 [6.70]	5.50	NA	NA	NA	NA	NA	NA	NA	NA	5.60
Zinc	2,000	ug/L	NA	10.0 U [10.0 U]	10.0 U	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U
Miscellaneous														
Alkalinity	- -	ug/L	NA	717,000 [725,000]	1,400,000	NA	NA	NA	NA	NA	NA	NA	NA	931,000
Alkalinity, Bicarbonate	- -	ug/L	NA	717,000 [725,000]	1,400,000	NA	NA	NA	NA	NA	NA	NA	NA	931,000
Ammonia Nitrogen	- -	ug/L	NA	3,300 [3,700]	5,500	NA	NA	NA	NA	NA	NA	NA	NA	4,900
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	300 U [300 U]	21	NA	NA	NA	NA	NA	NA	NA	NA	4.1
Ethene	- -	ug/L	NA	300 U [300 U]	110 D	NA	NA	NA	NA	NA	NA	NA	NA	23
Methane	- -	ug/L	NA	420 J [1,400 J]	1,900 DJ	NA	NA	NA	NA	NA	NA	NA	NA	1,100 DJ
Nitrate Nitrogen	- -	ug/L	NA	50 U [50 U]	50 U	NA	NA	NA	NA	NA	NA	NA	NA	120
Nitrite Nitrogen	- -	ug/L	NA	50 U [50 U]	50 U	NA	NA	NA	NA	NA	NA	NA	NA	50 U
Orthophosphate	- -	ug/L	NA	520 [430]	890	NA	NA	NA	NA	NA	NA	NA	NA	580
Soluble Organic Carbon	- -	ug/L	NA	11,200 [11,000]	18,100	NA	NA	NA	NA	NA	NA	NA	NA	12,500
Sulfate	250,000	ug/L	NA	**436,000 [438,000]**	128,000	NA	NA	NA	NA	NA	NA	NA	NA	**359,000**
Sulfide	- -	ug/L	NA	18,800 [19,200]	78 J	NA	NA	NA	NA	NA	NA	NA	NA	300
Total Dissolved Solids	- -	ug/L	NA	9,010,000 [8,600,000]	8,300,000	NA	NA	NA	NA	NA	NA	NA	NA	8,080,000
TPH														
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-24-VD 01/09/07	MW-24-VD 01/19/11	MW-25-D1 10/27/04	MW-25-D1 03/09/05	MW-25-D1 03/15/05	MW-25-D1 08/10/05	MW-25-D1 03/15/06	MW-25-D1 01/19/11	MW-25-D2 10/27/04	MW-25-D2 03/09/05	MW-25-D2 08/10/05	MW-25-D2 03/15/06	MW-25-D2 01/19/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
1,1,2-Trichloroethane	1	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	0.57 J
1,1-Dichloroethane	5	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	2.3	ND	ND	ND	ND	2.0
1,1-Dichloroethene	5	ug/L	ND	1.0 U	ND	ND	**34**	**9.1**	NA	**23**	ND	ND	ND	ND	**5.7**
1,2,4-Trichlorobenzene	5	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
1,2-Dibromoethane	0.0006	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	1.0 U	ND	ND	NA	ND	NA	1.0 U	ND	ND	ND	NA	1.0 U
1,2-Dichloroethane	0.6	ug/L	ND	**0.61 J**	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
1,2-Dichloropropane	1	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	1.0 U	ND	ND	NA	ND	NA	1.0 U	ND	ND	ND	NA	1.0 U
1,4-Dichlorobenzene	3	ug/L	NA	1.0 U	ND	ND	NA	ND	NA	1.0 U	ND	ND	ND	NA	1.0 U
2-Butanone	50	ug/L	ND	10 U	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U
2-Hexanone	50	ug/L	ND	5.0 U	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	5.0 U
4-Methyl-2-pentanone	- -	ug/L	ND	5.0 U	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	5.0 U
Acetone	50	ug/L	**110**	10 U	NA	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U
Acrolein	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	ND	ND	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	ND	ND	ND	NA	NA
Benzene	1	ug/L	ND	1.0 U	ND	ND	**15**	**8.6**	NA	**25**	**7.5**	ND	**220**	ND	**9.5**
Bromodichloromethane	50	ug/L	ND	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
Bromoform	50	ug/L	ND	1.0 U	NA	NA	NA	NA	NA	1.0 UJ	NA	NA	NA	NA	1.0 UJ
Bromomethane	5	ug/L	ND	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
Carbon Disulfide	60	ug/L	6.8 J	1.0 U	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	1.2
Carbon Tetrachloride	5	ug/L	ND	1.0 U	NA	NA	NA	NA	NA	1.0 UJ	NA	NA	NA	NA	1.0 UJ
Chlorobenzene	5	ug/L	ND	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
Chloroethane	5	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
Chloroform	7	ug/L	ND	1.0 U	NA	NA	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
Chloromethane	5	ug/L	**6.1**	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**7.8**	1.0 U	**6,500**	**5,500**	**10,000**	**5,000**	NA	**5,100 D**	**820**	**21,000**	**26,000**	**26,000**	**3,500 D**
cis-1,3-Dichloropropene	0.4	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 UJ
Cyclohexane	- -	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.8
Dibromochloromethane	50	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
Ethylbenzene	5	ug/L	ND	1.0 U	ND	ND	**9.5 J**	ND	NA	**12**	**10**	ND	ND	ND	3.9
Isopropylbenzene	5	ug/L	NA	1.0 U	ND	ND	ND	ND	NA	1.5	NA	ND	ND	ND	0.86 J
m&p-Xylene	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	ND	ND	ND	ND	NA
Methyl acetate	- -	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
Methyl tert-butyl ether	10	ug/L	5.6	1.0 U	**1,100**	**1,100**	**1,300**	**1,100**	NA	**960 D**	**280**	**2,600**	**3,500**	**3,200 J**	**130 E**
Methylcyclohexane	- -	ug/L	NA	1.0 U	NA	NA	NA	NA	NA	5.0	NA	NA	NA	NA	0.94 J
Methylene Chloride	5	ug/L	ND	1.0 U	**25,000**	**1,100**	**1,000**	**1,200**	NA	**340 D**	**6,500**	**140,000**	**230,000**	**320,000**	**3,700 D**
Naphthalene	10	ug/L	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA
n-Butylbenzene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA
n-Propylbenzene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA
o-Xylene	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	ND	ND	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-24-VD 01/09/07	MW-24-VD 01/19/11	MW-25-D1 10/27/04	MW-25-D1 03/09/05	MW-25-D1 03/15/05	MW-25-D1 08/10/05	MW-25-D1 03/15/06	MW-25-D1 01/19/11	MW-25-D2 10/27/04	MW-25-D2 03/09/05	MW-25-D2 08/10/05	MW-25-D2 03/15/06	MW-25-D2 01/19/11
Volatile Organics (Cont.)															
sec-Butylbenzene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA
Styrene	5	ug/L	ND	1.0 U	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U
tert-Butylbenzene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA
Tertiary butyl alcohol	- -	ug/L	ND	NA	ND	1,900	1,900	2,000	NA	NA	ND	ND	ND	9,600 J	NA
Tetrachloroethene	5	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	4.5
Toluene	5	ug/L	1.3 J	1.0 U	**120**	**16 J**	**23 J**	**12**	NA	**31**	**19**	ND	**290**	ND	**24**
Total VOCs	- -	ug/L	160	0.61 J	110,000	13,000	17,000	10,000	NA	13,000	19,000	660,000	760,000	1,200,000	25,000 J
trans-1,2-Dichloroethene	5	ug/L	ND	1.0 U	ND	**51**	**64**	**30**	NA	**58**	ND	ND	ND	ND	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	ND	1.0 U	ND	ND	ND	ND	NA	1.0 UJ	ND	ND	ND	ND	1.0 U
Trichloroethene	5	ug/L	**18**	1.0 U	**72,000**	**1,500**	**900**	**410**	NA	**110 D**	**11,000**	**500,000**	**500,000**	**880,000**	**17,000 D**
Trichlorofluoromethane	5	ug/L	NA	1.0 U	ND	ND	ND	ND	NA	1.0 U	ND	ND	ND	ND	1.0 U
Vinyl Chloride	2	ug/L	ND	1.0 U	ND	**2,300**	**3,100**	**620**	NA	**5,900 D**	ND	ND	ND	ND	**140 EJ**
Xylenes (total)	5	ug/L	ND	2.0 U	ND	**21**	**28 J**	**21**	NA	**40**	**30**	ND	ND	ND	**16**
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	3.4 J	NA	NA	NA	NA	24 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2,4,5-Trichlorophenol	1	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2,4,6-Trichlorophenol	1	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2,4-Dichlorophenol	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2,4-Dimethylphenol	50	ug/L	NA	4.8 U	1.6 J	ND	NA	2.3	2.8 J	1.1 J	ND	4.9 J	3.6	4.0 J	24 U
2,4-Dinitrophenol	10	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
2,4-Dinitrotoluene	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2,6-Dinitrotoluene	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2-Chloronaphthalene	10	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2-Chlorophenol	1	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2-Methylnaphthalene	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2-Methylphenol	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
2-Nitroaniline	5	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
2-Nitrophenol	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
3,3'-Dichlorobenzidine	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
3-Nitroaniline	5	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
4-Bromophenyl-phenylether	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
4-Chloro-3-Methylphenol	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
4-Chloroaniline	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
4-Chlorophenyl-phenylether	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
4-Methylphenol	- -	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
4-Nitroaniline	5	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
4-Nitrophenol	- -	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	9.5 U	NA	NA	NA	NA	48 U
Acenaphthene	20	ug/L	NA	4.8 U	5.3	**37**	NA	**31**	**42**	**76**	4.5	2.1	2.1	2.3 J	7.7 J
Acenaphthylene	- -	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Acetophenone	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Anthracene	50	ug/L	NA	4.8 U	ND	1.1 J	NA	1.1	1.2 J	1.6 J	0.38 J	ND	ND	0.30 J	24 U
Atrazine	7.5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Benzaldehyde	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Benzo(a)anthracene	0.002	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Benzo(a)pyrene	- -	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Benzo(b)fluoranthene	0.002	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-24-VD 01/09/07	MW-24-VD 01/19/11	MW-25-D1 10/27/04	MW-25-D1 03/09/05	MW-25-D1 03/15/05	MW-25-D1 08/10/05	MW-25-D1 03/15/06	MW-25-D1 01/19/11	MW-25-D2 10/27/04	MW-25-D2 03/09/05	MW-25-D2 08/10/05	MW-25-D2 03/15/06	MW-25-D2 01/19/11
Semivolatile Organics (Cont.)															
Benzo(g,h,i)perylene	- -	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Benzo(k)fluoranthene	0.002	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
bis(2-Chloroethoxy)methane	5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
bis(2-Chloroethyl)ether	1	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	4.8 U	ND	ND	NA	1.8	ND	4.7 U	4.7	1.4 J	1.2	ND	24 U
Butylbenzylphthalate	50	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Caprolactam	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Carbazole	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	42	NA	NA	NA	NA	24 U
Chrysene	0.002	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Dibenzo(a,h)anthracene	- -	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Dibenzofuran	- -	ug/L	NA	9.6 U	NA	NA	NA	NA	NA	40	NA	NA	NA	NA	48 U
Diethylphthalate	50	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Dimethylphthalate	50	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Di-n-Butylphthalate	50	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	0.50 J	NA	ND	ND	ND	24 U
Di-n-Octylphthalate	50	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Fluoranthene	50	ug/L	NA	4.8 U	NA	ND	NA	ND	5.2 J	0.52 J	NA	ND	ND	ND	24 U
Fluorene	50	ug/L	NA	4.8 U	1.5 J	9.6	NA	7.4	ND	20	1.9 J	0.97 J	ND	0.80 J	24 U
Hexachlorobenzene	0.04	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Hexachlorobutadiene	0.5	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Hexachlorocyclopentadiene	5	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Hexachloroethane	5	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Isophorone	50	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Naphthalene	10	ug/L	NA	4.8 U	3.9	**57**	NA	**33**	**63**	**23**	ND	ND	**10**	**49**	24 U
Nitrobenzene	0.4	ug/L	NA	4.8 U	ND	ND	NA	ND	ND	4.7 U	ND	ND	ND	ND	24 U
N-Nitroso-di-n-propylamine	- -	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
N-Nitrosodiphenylamine	50	ug/L	NA	4.8 U	NA	NA	NA	NA	NA	4.7 U	NA	NA	NA	NA	24 U
Pentachlorophenol	- -	ug/L	NA	9.6 U	NA	ND	NA	ND	ND	9.5 U	NA	ND	ND	ND	48 U
Phenanthrene	50	ug/L	NA	4.8 U	1.7 J	13	NA	12	12	26	2.3	0.85 J	ND	0.60 J	24 U
Phenol	1	ug/L	NA	4.8 U	**2.8**	ND	NA	ND	ND	4.7 U	ND	**7.4**	**5.8**	ND	24 U
Pyrene	50	ug/L	NA	4.8 U	NA	ND	NA	ND	ND	4.7 U	NA	ND	ND	ND	24 U
Total SVOCs	- -	ug/L	NA	ND	17	120	NA	88	130	230 J	14	18	23	57	7.7 J
Inorganics															
Aluminum	- -	ug/L	NA	200 U	NA	NA	NA	NA	NA	200 U	NA	NA	NA	NA	76.0 J
Antimony	3	ug/L	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U
Arsenic	25	ug/L	NA	10.0 U	NA	NA	NA	NA	NA	6.00 J	NA	NA	NA	NA	10.0 U
Barium	1,000	ug/L	NA	67.0	NA	NA	NA	NA	NA	18.0	NA	NA	NA	NA	23.0
Beryllium	3	ug/L	NA	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	2.00 U
Cadmium	5	ug/L	NA	0.990 J	NA	NA	NA	NA	NA	0.770 J	NA	NA	NA	NA	0.850 J
Calcium	- -	ug/L	NA	342,000	NA	NA	NA	NA	NA	102,000	NA	NA	NA	NA	137,000
Chromium	50	ug/L	NA	4.00 U	NA	NA	NA	NA	NA	2.90 J	NA	NA	NA	NA	2.50 J
Cobalt	- -	ug/L	NA	4.00 U	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA	NA	0.770 J
Copper	200	ug/L	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U
Iron	300	ug/L	NA	**29,300**	NA	NA	NA	NA	NA	50.0 U	NA	NA	NA	NA	140
Lead	25	ug/L	NA	5.00 U	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	5.00 U
Magnesium	35,000	ug/L	NA	**1,210,000**	NA	NA	NA	NA	NA	**362,000**	NA	NA	NA	NA	**331,000**
Manganese	300	ug/L	NA	**670**	NA	NA	NA	NA	NA	58.0	NA	NA	NA	NA	120
Mercury	0.7	ug/L	NA	0.200 U	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	0.200 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-24-VD 01/09/07	MW-24-VD 01/19/11	MW-25-D1 10/27/04	MW-25-D1 03/09/05	MW-25-D1 03/15/05	MW-25-D1 08/10/05	MW-25-D1 03/15/06	MW-25-D1 01/19/11	MW-25-D2 10/27/04	MW-25-D2 03/09/05	MW-25-D2 08/10/05	MW-25-D2 03/15/06	MW-25-D2 01/19/11
Inorganics (Cont.)															
Nickel	100	ug/L	NA	1.50 J	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U
Potassium	- -	ug/L	NA	306,000	NA	NA	NA	NA	NA	105,000	NA	NA	NA	NA	112,000
Selenium	10	ug/L	NA	15.0 U	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	15.0 U
Silver	50	ug/L	NA	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	3.00 U
Sodium	20,000	ug/L	NA	**8,710,000**	NA	NA	NA	NA	NA	**2,530,000**	NA	NA	NA	NA	**2,670,000**
Thallium	0.5	ug/L	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U
Vanadium	- -	ug/L	NA	6.70	NA	NA	NA	NA	NA	6.20	NA	NA	NA	NA	8.00
Zinc	2,000	ug/L	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	3.00 J
Inorganics-Filtered															
Aluminum	- -	ug/L	NA	200 U	NA	NA	NA	NA	NA	200 U	NA	NA	NA	NA	200 U
Antimony	3	ug/L	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U
Arsenic	25	ug/L	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U
Barium	1,000	ug/L	NA	65.0	NA	NA	NA	NA	NA	18.0	NA	NA	NA	NA	24.0
Beryllium	3	ug/L	NA	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	2.00 U
Cadmium	5	ug/L	NA	0.770 J	NA	NA	NA	NA	NA	0.790 J	NA	NA	NA	NA	0.700 J
Calcium	- -	ug/L	NA	333,000	NA	NA	NA	NA	NA	102,000	NA	NA	NA	NA	139,000
Chromium	50	ug/L	NA	4.00 U	NA	NA	NA	NA	NA	3.00 J	NA	NA	NA	NA	2.20 J
Cobalt	- -	ug/L	NA	0.930 J	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA	NA	4.00 U
Copper	200	ug/L	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U
Iron	300	ug/L	NA	**27,400**	NA	NA	NA	NA	NA	50.0 U	NA	NA	NA	NA	50.0 U
Lead	25	ug/L	NA	5.00 U	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	5.00 U
Magnesium	35,000	ug/L	NA	**1,180,000**	NA	NA	NA	NA	NA	**370,000**	NA	NA	NA	NA	**339,000**
Manganese	300	ug/L	NA	**600**	NA	NA	NA	NA	NA	59.0	NA	NA	NA	NA	120
Mercury	0.7	ug/L	NA	0.200 U	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	0.200 U
Nickel	100	ug/L	NA	2.20 J	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U
Potassium	- -	ug/L	NA	317,000	NA	NA	NA	NA	NA	109,000	NA	NA	NA	NA	117,000
Selenium	10	ug/L	NA	15.0 U	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	15.0 U
Silver	50	ug/L	NA	3.00 U	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	3.00 U
Sodium	20,000	ug/L	NA	**8,550,000**	NA	NA	NA	NA	NA	**2,720,000**	NA	NA	NA	NA	**2,780,000**
Thallium	0.5	ug/L	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U
Vanadium	- -	ug/L	NA	5.10	NA	NA	NA	NA	NA	5.80	NA	NA	NA	NA	7.30
Zinc	2,000	ug/L	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U
Miscellaneous															
Alkalinity	- -	ug/L	NA	408,000	NA	NA	NA	NA	NA	1,160,000	NA	NA	NA	NA	866,000
Alkalinity, Bicarbonate	- -	ug/L	NA	408,000	NA	NA	NA	NA	NA	1,160,000	NA	NA	NA	NA	866,000
Ammonia Nitrogen	- -	ug/L	NA	3,700	NA	NA	NA	NA	NA	6,100	NA	NA	NA	NA	6,400
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	4.6	NA	NA	NA	NA	NA	29	NA	NA	NA	NA	6.4
Ethene	- -	ug/L	NA	1.5 U	NA	NA	NA	NA	NA	97	NA	NA	NA	NA	21
Methane	- -	ug/L	NA	170 DJ	NA	NA	NA	NA	NA	4,200 DJ	NA	NA	NA	NA	2,700 DJ
Nitrate Nitrogen	- -	ug/L	NA	50 U	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	50 U
Nitrite Nitrogen	- -	ug/L	NA	50 U	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	50 U
Orthophosphate	- -	ug/L	NA	110	NA	NA	NA	NA	NA	440	NA	NA	NA	NA	590
Soluble Organic Carbon	- -	ug/L	NA	5,000	NA	NA	NA	NA	NA	15,600	NA	NA	NA	NA	12,700
Sulfate	250,000	ug/L	NA	**1,800,000**	NA	NA	NA	NA	NA	**434,000**	NA	NA	NA	NA	**404,000**
Sulfide	- -	ug/L	NA	100 U	NA	NA	NA	NA	NA	53 J	NA	NA	NA	NA	300
Total Dissolved Solids	- -	ug/L	NA	30,100,000	NA	NA	NA	NA	NA	8,670,000	NA	NA	NA	NA	9,670,000
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-25-D3 01/21/11	MW-25-VD 01/09/07	MW-25-VD 01/19/11	MW-26-D1 10/26/04	MW-26-D1 03/09/05	MW-26-D1 08/10/05	MW-26-D1 01/25/11	MW-26-D2 10/26/04	MW-26-D2 03/09/05	MW-26-D2 08/10/05	MW-26-D2 01/25/11	MW-26-VD 01/09/07	MW-26-VD 01/18/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	1.7	1.9	2.1	0.51 J	ND	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	NA	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	NA	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	**1.3 [0.88 J]**	1.0 U	ND	**11**	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	1.0 U	NA	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	NA	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	NA	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	NA	1.0 U
2-Butanone	50	ug/L	10 U	ND [ND]	10 U	NA	NA	NA	31 J	NA	NA	NA	10 U	ND	**53**
2-Hexanone	50	ug/L	5.0 U	ND [ND]	5.0 U	NA	NA	NA	25 U	NA	NA	NA	5.0 U	ND	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	ND [ND]	5.0 U	NA	NA	NA	25 U	NA	NA	NA	5.0 U	ND	5.0 U
Acetone	50	ug/L	5.3 J	ND [ND]	10 U	NA	NA	NA	**74 J**	NA	NA	NA	10 U	ND	**84**
Acrolein	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA	NA	NA
Benzene	1	ug/L	1.0 U	ND [ND]	1.0 U	**2.9**	**7.8**	**7.5**	5.0 U	ND	ND	ND	1.0 U	0.60 J	1.0 U
Bromodichloromethane	50	ug/L	1.0 U	ND [ND]	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
Bromoform	50	ug/L	1.0 U	ND [ND]	1.0 UJ	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
Bromomethane	5	ug/L	1.0 U	ND [ND]	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
Carbon Disulfide	60	ug/L	2.0	1.8 J [1.3 J]	13	NA	NA	NA	37	NA	NA	NA	1.0 U	ND	59
Carbon Tetrachloride	5	ug/L	1.0 U	ND [ND]	1.0 UJ	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
Chlorobenzene	5	ug/L	1.0 U	ND [ND]	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
Chloroethane	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 UJ	ND	1.0 U
Chloroform	7	ug/L	1.0 U	ND [ND]	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
Chloromethane	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.3	**5.1 [4.4]**	**11**	**6.2**	ND	**12**	5.0 U	2.7	0.60 J	ND	1.0 U	ND	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
Cyclohexane	- -	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
Dibromochloromethane	50	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
Ethylbenzene	5	ug/L	1.0 U	ND [ND]	1.0 U	0.90	4.5	2.8	5.0 U	ND	ND	ND	1.0 U	0.52 J	1.0 U
Isopropylbenzene	5	ug/L	1.0 U	NA	1.0 U	NA	ND	ND	5.0 U	NA	ND	ND	1.0 U	NA	1.0 U
m&p-Xylene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA
Methyl acetate	- -	ug/L	1.3	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	5.5
Methyl tert-butyl ether	10	ug/L	1.0 U	0.43 J [ND]	1.0 U	**110**	**520**	**640**	5.0 U	**130**	**140**	**120**	1.0 U	ND	1.5
Methylcyclohexane	- -	ug/L	1.0 U	NA	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	NA	1.0 U
Methylene Chloride	5	ug/L	**43**	**12 [11]**	3.4	**8.4**	ND	ND	5.0 U	3.5	0.70 J	ND	1.0 U	ND	1.0 U
Naphthalene	10	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-25-D3 01/21/11	MW-25-VD 01/09/07	MW-25-VD 01/19/11	MW-26-D1 10/26/04	MW-26-D1 03/09/05	MW-26-D1 08/10/05	MW-26-D1 01/25/11	MW-26-D2 10/26/04	MW-26-D2 03/09/05	MW-26-D2 08/10/05	MW-26-D2 01/25/11	MW-26-VD 01/09/07	MW-26-VD 01/18/11
Volatile Organics (Cont.)															
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
Styrene	5	ug/L	1.0 U	ND [ND]	1.0 U	NA	NA	NA	5.0 U	NA	NA	NA	1.0 U	ND	1.0 U
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND [ND]	NA	980	1,500	2,100	NA	660	790	680	NA	ND	NA
Tetrachloroethene	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
Toluene	5	ug/L	1.0 U	0.29 J [0.22 J]	1.0 U	0.50	0.50 J	0.60	5.0 U	ND	ND	ND	1.0 U	2.1	0.93 J
Total VOCs	- -	ug/L	57 J	45 [38]	210	220	2,100	2,800	140 J	880	940	800	0.51 J	5.3	200 J
trans-1,2-Dichloroethene	5	ug/L	1.0 U	ND [ND]	1.0 U	ND	ND	1.2	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	ND [ND]	1.0 UJ	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
Trichloroethene	5	ug/L	4.5	**24 [20]**	**180 D**	**88**	0.50 J	2.8	5.0 U	**80**	**15**	**6.1**	1.0 U	0.59 J	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	NA	1.0 U	ND	ND	ND	5.0 U	ND	ND	ND	1.0 U	NA	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	ND [ND]	1.0 U	ND	**23**	**75**	5.0 U	ND	ND	ND	1.0 U	ND	1.0 U
Xylenes (total)	5	ug/L	2.0 U	0.35 [ND]	2.0 U	0.80	1.1	1.1	10 U	0.40	ND	ND	2.0 U	1.5	2.0 U
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2,4,5-Trichlorophenol	1	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2,4,6-Trichlorophenol	1	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2,4-Dichlorophenol	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2,4-Dimethylphenol	50	ug/L	5.0 U	NA	4.7 U	ND	ND	ND	5.0 U	ND	ND	ND	4.9 U	NA	4.8 U
2,4-Dinitrophenol	10	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
2,4-Dinitrotoluene	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2,6-Dinitrotoluene	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2-Chloronaphthalene	10	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2-Chlorophenol	1	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2-Methylnaphthalene	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2-Methylphenol	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
2-Nitroaniline	5	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
2-Nitrophenol	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
3-Nitroaniline	5	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
4,6-Dinitro-2-methylphenol	- -	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
4-Bromophenyl-phenylether	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
4-Chloroaniline	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
4-Chlorophenyl-phenylether	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
4-Methylphenol	- -	ug/L	0.53 J	NA	9.5 U	NA	NA	NA	45	NA	NA	NA	9.8 U	NA	47
4-Nitroaniline	5	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
4-Nitrophenol	- -	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
Acenaphthene	20	ug/L	5.0 U	NA	4.7 U	ND	**37**	0.62	5.0 U	ND	ND	ND	4.9 U	NA	4.8 U
Acenaphthylene	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Acetophenone	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	1.1 J
Anthracene	50	ug/L	5.0 U	NA	4.7 U	NA	ND	ND	5.0 U	NA	ND	ND	4.9 U	NA	4.8 U
Atrazine	7.5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Benzaldehyde	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Benzo(a)anthracene	0.002	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Benzo(a)pyrene	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Benzo(b)fluoranthene	0.002	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-25-D3 01/21/11	MW-25-VD 01/09/07	MW-25-VD 01/19/11	MW-26-D1 10/26/04	MW-26-D1 03/09/05	MW-26-D1 08/10/05	MW-26-D1 01/25/11	MW-26-D2 10/26/04	MW-26-D2 03/09/05	MW-26-D2 08/10/05	MW-26-D2 01/25/11	MW-26-VD 01/09/07	MW-26-VD 01/18/11
Semivolatile Organics (Cont.)															
Benzo(g,h,i)perylene	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	5.0 UJ	NA	4.7 U	1.8 J	1.7 J	ND	5.0 U	3.0	3.2	3.2	4.9 U	NA	4.8 U
Butylbenzylphthalate	50	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Caprolactam	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Carbazole	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Chrysene	0.002	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Dibenzo(a,h)anthracene	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Dibenzofuran	- -	ug/L	10 U	NA	9.5 U	NA	NA	NA	10 U	NA	NA	NA	9.8 U	NA	9.5 U
Diethylphthalate	50	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Dimethylphthalate	50	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Di-n-Butylphthalate	50	ug/L	0.36 J	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	0.48 J
Di-n-Octylphthalate	50	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Fluoranthene	50	ug/L	5.0 U	NA	4.7 U	NA	ND	ND	5.0 U	NA	ND	ND	4.9 U	NA	4.8 U
Fluorene	50	ug/L	5.0 U	NA	4.7 U	NA	ND	ND	5.0 U	NA	ND	ND	4.9 U	NA	4.8 U
Hexachlorobenzene	0.04	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Hexachlorobutadiene	0.5	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Hexachlorocyclopentadiene	5	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Hexachloroethane	5	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Isophorone	50	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Naphthalene	10	ug/L	5.0 U	NA	4.7 U	1.5 J	3.0	ND	0.80 J	ND	ND	ND	4.9 U	NA	1.7 J
Nitrobenzene	0.4	ug/L	5.0 U	NA	4.7 U	ND	ND	ND	5.0 U	ND	ND	ND	4.9 U	NA	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
N-Nitrosodiphenylamine	50	ug/L	5.0 U	NA	4.7 U	NA	NA	NA	5.0 U	NA	NA	NA	4.9 U	NA	4.8 U
Pentachlorophenol	- -	ug/L	10 U	NA	9.5 U	NA	NA	ND	10 U	NA	NA	ND	9.8 U	NA	9.5 U
Phenanthrene	50	ug/L	5.0 U	NA	4.7 U	NA	ND	1.7	5.0 U	NA	ND	ND	4.9 U	NA	4.8 U
Phenol	1	ug/L	**6.5**	NA	4.7 U	NA	**6.2**	ND	**14**	NA	ND	ND	4.9 U	NA	**8.4**
Pyrene	50	ug/L	5.0 U	NA	4.7 U	NA	NA	ND	5.0 U	NA	NA	ND	4.9 U	NA	4.8 U
Total SVOCs	- -	ug/L	7.4 J	NA	ND	3.3	48	2.3	60 J	3.0	3.2	3.2	ND	NA	59 J
Inorganics															
Aluminum	- -	ug/L	200 U	NA	55.0 J	NA	NA	NA	4,000	NA	NA	NA	1,100	NA	200 U
Antimony	3	ug/L	20.0 U	NA	20.0 U	NA	NA	NA	20.0 U	NA	NA	NA	20.0 U	NA	20.0 UJ
Arsenic	25	ug/L	10.0 U	NA	6.00 J	NA	NA	NA	9.20 J	NA	NA	NA	10.0 U	NA	10.0 U
Barium	1,000	ug/L	140	NA	110	NA	NA	NA	270	NA	NA	NA	48.0	NA	390
Beryllium	3	ug/L	2.00 U	NA	2.00 U	NA	NA	NA	2.00 U	NA	NA	NA	2.00 U	NA	2.00 U
Cadmium	5	ug/L	0.800 J	NA	0.840 J	NA	NA	NA	0.940 J	NA	NA	NA	1.60	NA	1.00 UB
Calcium	- -	ug/L	334,000	NA	359,000	NA	NA	NA	662,000	NA	NA	NA	299,000	NA	996,000
Chromium	50	ug/L	8.40	NA	4.00 U	NA	NA	NA	9.10	NA	NA	NA	8.30	NA	4.80
Cobalt	- -	ug/L	1.50 J	NA	4.00 U	NA	NA	NA	3.00 J	NA	NA	NA	1.50 J	NA	4.70
Copper	200	ug/L	10.0 U	NA	10.0 U	NA	NA	NA	4.40 J	NA	NA	NA	13.0	NA	7.00 J
Iron	300	ug/L	**880**	NA	**14,500**	NA	NA	NA	**2,400**	NA	NA	NA	**1,300**	NA	90.0
Lead	25	ug/L	5.00 U	NA	5.00 U	NA	NA	NA	5.90	NA	NA	NA	5.00 U	NA	5.00 U
Magnesium	35,000	ug/L	**797,000 J**	NA	**1,090,000**	NA	NA	NA	**234,000**	NA	NA	NA	**681,000**	NA	13,300
Manganese	300	ug/L	**740**	NA	**810**	NA	NA	NA	**390**	NA	NA	NA	140	NA	3.90 UB
Mercury	0.7	ug/L	0.200 U	NA	0.200 U	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U	NA	0.200 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-25-D3 01/21/11	MW-25-VD 01/09/07	MW-25-VD 01/19/11	MW-26-D1 10/26/04	MW-26-D1 03/09/05	MW-26-D1 08/10/05	MW-26-D1 01/25/11	MW-26-D2 10/26/04	MW-26-D2 03/09/05	MW-26-D2 08/10/05	MW-26-D2 01/25/11	MW-26-VD 01/09/07	MW-26-VD 01/18/11
Inorganics (Cont.)															
Nickel	100	ug/L	3.80 J	NA	2.10 J	NA	NA	NA	20.0	NA	NA	NA	1.50 J	NA	43.0
Potassium	- -	ug/L	270,000	NA	283,000	NA	NA	NA	184,000	NA	NA	NA	235,000	NA	216,000
Selenium	10	ug/L	15.0 U	NA	15.0 U	NA	NA	NA	15.0 U	NA	NA	NA	15.0 U	NA	15.0 U
Silver	50	ug/L	3.00 U	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	3.00 U
Sodium	20,000	ug/L	**6,280,000 J**	NA	**7,760,000**	NA	NA	NA	**3,700,000**	NA	NA	NA	**5,620,000**	NA	**4,670,000**
Thallium	0.5	ug/L	20.0 U	NA	20.0 U	NA	NA	NA	20.0 U	NA	NA	NA	20.0 U	NA	20.0 U
Vanadium	- -	ug/L	5.80	NA	5.20	NA	NA	NA	6.20	NA	NA	NA	9.70	NA	5.00 U
Zinc	2,000	ug/L	10.0 U	NA	10.0 U	NA	NA	NA	15.0	NA	NA	NA	33.0	NA	4.40 J
Inorganics-Filtered															
Aluminum	- -	ug/L	200 U	NA	200 U	NA	NA	NA	200 UB	NA	NA	NA	200 UB	NA	200 U
Antimony	3	ug/L	20.0 U	NA	20.0 U	NA	NA	NA	20.0 U	NA	NA	NA	20.0 U	NA	20.0 U
Arsenic	25	ug/L	10.0 U	NA	10.0 U	NA	NA	NA	10.0 U	NA	NA	NA	10.0 U	NA	10.0 U
Barium	1,000	ug/L	140	NA	96.0	NA	NA	NA	250	NA	NA	NA	48.0	NA	370
Beryllium	3	ug/L	2.00 U	NA	2.00 U	NA	NA	NA	2.00 U	NA	NA	NA	2.00 U	NA	2.00 U
Cadmium	5	ug/L	0.820 J	NA	0.890 J	NA	NA	NA	0.880 J	NA	NA	NA	1.10	NA	1.00 U
Calcium	- -	ug/L	317,000	NA	324,000	NA	NA	NA	614,000	NA	NA	NA	286,000	NA	987,000
Chromium	50	ug/L	4.10	NA	4.00 U	NA	NA	NA	3.60 J	NA	NA	NA	4.90	NA	2.40 J
Cobalt	- -	ug/L	1.00 J	NA	4.00 U	NA	NA	NA	1.50 J	NA	NA	NA	1.40 J	NA	4.20
Copper	200	ug/L	10.0 UB	NA	10.0 U	NA	NA	NA	10.0 U	NA	NA	NA	2.10 J	NA	2.90 J
Iron	300	ug/L	**640**	NA	**1,700**	NA	NA	NA	50.0 U	NA	NA	NA	250	NA	50.0 U
Lead	25	ug/L	5.00 U	NA	5.00 U	NA	NA	NA	5.00 U	NA	NA	NA	5.00 U	NA	5.00 U
Magnesium	35,000	ug/L	**859,000**	NA	**865,000**	NA	NA	NA	**252,000**	NA	NA	NA	**729,000**	NA	12,400
Manganese	300	ug/L	**720**	NA	**880**	NA	NA	NA	**400**	NA	NA	NA	130	NA	3.00 UB
Mercury	0.7	ug/L	0.200 U	NA	0.200 U	NA	NA	NA	0.160 J	NA	NA	NA	0.200 U	NA	0.200 U
Nickel	100	ug/L	2.50 J	NA	10.0 U	NA	NA	NA	12.0	NA	NA	NA	10.0 U	NA	41.0
Potassium	- -	ug/L	244,000	NA	234,000	NA	NA	NA	185,000	NA	NA	NA	235,000	NA	210,000
Selenium	10	ug/L	15.0 U	NA	15.0 U	NA	NA	NA	15.0 U	NA	NA	NA	15.0 U	NA	15.0 U
Silver	50	ug/L	3.00 U	NA	3.00 U	NA	NA	NA	3.00 U	NA	NA	NA	3.00 U	NA	3.00 U
Sodium	20,000	ug/L	**6,940,000**	NA	**6,250,000**	NA	NA	NA	**3,530,000**	NA	NA	NA	**5,920,000**	NA	**4,710,000**
Thallium	0.5	ug/L	20.0 U	NA	20.0 U	NA	NA	NA	20.0 U	NA	NA	NA	20.0 U	NA	20.0 U
Vanadium	- -	ug/L	8.00	NA	4.60 J	NA	NA	NA	5.00 U	NA	NA	NA	6.60	NA	5.00 U
Zinc	2,000	ug/L	10.0 U	NA	1.70 J	NA	NA	NA	110	NA	NA	NA	10.0 U	NA	10.0 U
Miscellaneous															
Alkalinity	- -	ug/L	1,100,000	NA	564,000	NA	NA	NA	455,000	NA	NA	NA	487,000	NA	219,000
Alkalinity, Bicarbonate	- -	ug/L	1,100,000	NA	564,000	NA	NA	NA	455,000	NA	NA	NA	487,000	NA	219,000
Ammonia Nitrogen	- -	ug/L	1,200	NA	3,900	NA	NA	NA	1,300	NA	NA	NA	3,500	NA	4,700
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	300 U	NA	1.5 U	NA	NA	NA	1.5 U	NA	NA	NA	150 U	NA	1.5 U
Ethene	- -	ug/L	300 U	NA	1.5 U	NA	NA	NA	1.5 U	NA	NA	NA	150 U	NA	13
Methane	- -	ug/L	270	NA	330 DJ	NA	NA	NA	1.6 J	NA	NA	NA	270 J	NA	260 D
Nitrate Nitrogen	- -	ug/L	50 U	NA	50 U	NA	NA	NA	50 U	NA	NA	NA	50 U	NA	50 U
Nitrite Nitrogen	- -	ug/L	50 U	NA	50 U	NA	NA	NA	50 U	NA	NA	NA	50 U	NA	50 U
Orthophosphate	- -	ug/L	270	NA	390	NA	NA	NA	230	NA	NA	NA	440	NA	59
Soluble Organic Carbon	- -	ug/L	29,200 J	NA	4,900	NA	NA	NA	46,700	NA	NA	NA	6,700	NA	193,000
Sulfate	250,000	ug/L	**1,850,000**	NA	**1,310,000**	NA	NA	NA	**466,000**	NA	NA	NA	**1,420,000**	NA	**708,000**
Sulfide	- -	ug/L	7,100	NA	210	NA	NA	NA	850	NA	NA	NA	1,300	NA	8,000
Total Dissolved Solids	- -	ug/L	23,300,000	NA	25,200,000	NA	NA	NA	12,500,000	NA	NA	NA	19,000,000	NA	17,700,000
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-27-D1 10/27/04	MW-27-D1 03/09/05	MW-27-D1 08/10/05	MW-27-D1 03/15/06	MW-27-D1 01/18/11	MW-27-D2 10/27/04	MW-27-D2 03/09/05	MW-27-D2 08/10/05	MW-27-D2 03/15/06	MW-27-D2 01/18/11	MW-28-D1 10/27/04	MW-28-D1 03/10/05	MW-28-D1 08/10/05
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND	ND	ND	1.0 U	1.9	1.6	1.1	ND	0.44 J	0.40 J	0.50 J	0.50
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U	ND	ND	ND	NA	1.0 U	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U	ND	ND	ND	NA	1.0 U	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U	ND	ND	ND	NA	1.0 U	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND
Benzene	1	ug/L	**5.2**	**6.2 J**	**5.2**	**5.4**	1.0 U	1.0	**1.9**	**1.7**	ND	1.0 U	**11**	**8.5**	**15**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	ND	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**520**	**1,700**	**1,100**	**1,200**	**29**	**12**	**30**	**45**	**43**	1.0 U	**12**	0.90 J	2.6
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Ethylbenzene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	**13**	**9.3**	**6.6 J**	1.0 U	2.6	4.0	3.2
Isopropylbenzene	5	ug/L	NA	ND	ND	ND	1.0 U	NA	ND	ND	ND	1.0 U	NA	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**150**	**280**	**240**	**340**	**26**	**64**	**85**	**100**	**110**	1.0 U	**150**	**380**	**360**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
Methylene Chloride	5	ug/L	ND	ND	**9.0**	ND	1.0 U	ND	ND	2.5	**16**	1.0 U	0.60 J	ND	ND
Naphthalene	10	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
n-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
n-Propylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-27-D1 10/27/04	MW-27-D1 03/09/05	MW-27-D1 08/10/05	MW-27-D1 03/15/06	MW-27-D1 01/18/11	MW-27-D2 10/27/04	MW-27-D2 03/09/05	MW-27-D2 08/10/05	MW-27-D2 03/15/06	MW-27-D2 01/18/11	MW-28-D1 10/27/04	MW-28-D1 03/10/05	MW-28-D1 08/10/05
Volatile Organics (Cont.)															
sec-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
Styrene	5	ug/L	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	1,800	4,600	3,100	2,900	NA	310	500	630	1,000	NA	490	1,400	1,100
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
Toluene	5	ug/L	ND	ND	ND	ND	1.0 U	2.8	1.7	2.0	ND	1.0 U	4.8	**8.2**	1.4
Total VOCs	- -	ug/L	2,500	6,600	4,600	4,500	55	660	690	860	1,200	0.44 J	700	1,800	1,500
trans-1,2-Dichloroethene	5	ug/L	ND	**8.3 J**	**7.3**	**8.1 J**	1.0 U	ND	2.3	1.7	ND	1.0 U	ND	**12**	**8.3**
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
Trichloroethene	5	ug/L	**9.4**	**77**	**60**	**8.6 J**	1.0 U	4.0	2.5	**18**	**8.6**	1.0 U	**14**	2.0	0.60
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	ND	**15**	**18**	1.0 U	ND	**2.3**	ND	**18**	1.0 U	ND	**6.7**	**7.5**
Xylenes (total)	5	ug/L	3.7	ND	ND	ND	2.0 U	**270**	**41**	**43**	**6.6 J**	2.0 U	**5.5**	**8.9**	**6.9**
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	5.3 U	ND	ND	ND	ND	5.2 U	2.8	2.5 J	2.0
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
Acenaphthene	20	ug/L	ND	1.8	ND	ND	5.3 U	ND	ND	ND	ND	5.2 U	1.7 J	**43**	**40**
Acenaphthylene	- -	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	0.73
Acetophenone	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Anthracene	50	ug/L	NA	ND	ND	ND	5.3 U	NA	ND	ND	ND	5.2 U	NA	0.87 J	0.79
Atrazine	7.5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-27-D1 10/27/04	MW-27-D1 03/09/05	MW-27-D1 08/10/05	MW-27-D1 03/15/06	MW-27-D1 01/18/11	MW-27-D2 10/27/04	MW-27-D2 03/09/05	MW-27-D2 08/10/05	MW-27-D2 03/15/06	MW-27-D2 01/18/11	MW-28-D1 10/27/04	MW-28-D1 03/10/05	MW-28-D1 08/10/05
Semivolatile Organics (Cont.)															
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	2.2	ND	ND	ND	5.3 U	1.6	ND	1.3	ND	5.2 U	**23**	3.9	1.7
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	14	NA	NA	NA	NA	5.2 U	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	11 U	NA	NA	NA	NA	10 U	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	ND	ND	0.44 J	NA	NA	ND	ND	5.2 U	NA	NA	ND
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Fluoranthene	50	ug/L	NA	ND	ND	ND	5.3 U	NA	ND	ND	ND	5.2 U	NA	0.93 J	1.1
Fluorene	50	ug/L	NA	ND	ND	ND	5.3 U	NA	ND	ND	ND	5.2 U	NA	4.7	2.6
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Hexachloroethane	5	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Isophorone	50	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Naphthalene	10	ug/L	7.4	ND	ND	ND	5.3 U	**14**	1.7 J	ND	ND	5.2 U	ND	**15**	4.8
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	5.3 U	ND	ND	ND	ND	5.2 U	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	5.2 U	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	ND	ND	11 U	NA	NA	ND	ND	10 U	NA	NA	ND
Phenanthrene	50	ug/L	NA	ND	ND	ND	5.3 U	NA	ND	ND	ND	5.2 U	NA	11	7.1
Phenol	1	ug/L	NA	ND	ND	ND	5.3 U	NA	**9.9**	ND	ND	5.2 U	NA	ND	ND
Pyrene	50	ug/L	NA	NA	ND	ND	5.3 U	NA	NA	ND	ND	5.2 U	NA	NA	ND
Total SVOCs	- -	ug/L	9.6	1.8	ND	ND	14 J	16	12	1.3	ND	ND	28	82	60
Inorganics															
Aluminum	- -	ug/L	NA	NA	NA	NA	97.0 J	NA	NA	NA	NA	120 J	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	20.0 UJ	NA	NA	NA	NA	20.0 UJ	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	34.0	NA	NA	NA	NA	49.0	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	2.00 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	0.450 J	NA	NA	NA	NA	0.790 J	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	97,800	NA	NA	NA	NA	293,000	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	4.50	NA	NA	NA	NA	5.40	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	0.650 J	NA	NA	NA	NA	1.10 J	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	3.80 J	NA	NA	NA	NA	2.10 J	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	110	NA	NA	NA	NA	170	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	5.00 U	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	**294,000**	NA	NA	NA	NA	**731,000**	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	77.0	NA	NA	NA	NA	**600**	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	0.200 U	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-27-D1 10/27/04	MW-27-D1 03/09/05	MW-27-D1 08/10/05	MW-27-D1 03/15/06	MW-27-D1 01/18/11	MW-27-D2 10/27/04	MW-27-D2 03/09/05	MW-27-D2 08/10/05	MW-27-D2 03/15/06	MW-27-D2 01/18/11	MW-28-D1 10/27/04	MW-28-D1 03/10/05	MW-28-D1 08/10/05
Inorganics (Cont.)															
Nickel	100	ug/L	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	2.00 J	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	103,000	NA	NA	NA	NA	226,000	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	15.0 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	**2,230,000**	NA	NA	NA	NA	**5,750,000**	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	4.70 J	NA	NA	NA	NA	7.10	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	2.20 J	NA	NA	NA	NA	10.0 U	NA	NA	NA
Inorganics-Filtered															
Aluminum	- -	ug/L	NA	NA	NA	NA	200 U	NA	NA	NA	NA	200 U	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	33.0	NA	NA	NA	NA	47.0	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	2.00 UB	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	0.530 J	NA	NA	NA	NA	0.420 J	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	102,000	NA	NA	NA	NA	290,000	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	3.80 J	NA	NA	NA	NA	4.60	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	0.680 J	NA	NA	NA	NA	1.30 J	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	50.0 U	NA	NA	NA	NA	50.0 U	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	5.00 U	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	**291,000**	NA	NA	NA	NA	**693,000**	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	72.0	NA	NA	NA	NA	**570**	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	0.200 U	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	105,000	NA	NA	NA	NA	221,000	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	15.0 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	**2,220,000**	NA	NA	NA	NA	**5,620,000**	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	4.50 J	NA	NA	NA	NA	5.80	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA
Miscellaneous															
Alkalinity	- -	ug/L	NA	NA	NA	NA	897,000	NA	NA	NA	NA	451,000	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	897,000	NA	NA	NA	NA	451,000	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	6,700	NA	NA	NA	NA	2,900	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	1.5 U	NA	NA	NA	NA	1.5 U	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	1.5 U	NA	NA	NA	NA	1.5 U	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	9,300 D	NA	NA	NA	NA	210 D	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	50 U	NA	NA	NA	NA	50 U	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	50 U	NA	NA	NA	NA	50 U	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	440	NA	NA	NA	NA	330	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	13,800	NA	NA	NA	NA	6,700	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	**311,000**	NA	NA	NA	NA	**1,350,000**	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	250 J	NA	NA	NA	NA	140	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	6,870,000	NA	NA	NA	NA	19,000,000	NA	NA	NA
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-28-D1 03/15/06	MW-28-D1 01/25/11	MW-28-D2 10/27/04	MW-28-D2 03/10/05	MW-28-D2 08/10/05	MW-28-D2 03/15/06	MW-28-D2 01/25/11	MW-29-D1 10/27/04	MW-29-D1 03/10/05	MW-29-D1 08/10/05	MW-29-D1 08/11/05	MW-29-D1 03/15/06	MW-29-D1 01/25/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	NA	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
1,1,2-Trichloroethane	1	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
1,1-Dichloroethane	5	ug/L	NA	1.1	1.6	3.0	2.3	ND	0.87 J	ND	ND	ND	NA	ND	1.0 U
1,1-Dichloroethene	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
1,2-Dibromoethane	0.0006	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
1,2-Dichlorobenzene	3	ug/L	NA	1.0 U	ND	ND	ND	NA	1.0 U	ND	ND	ND	NA	NA	1.0 U
1,2-Dichloroethane	0.6	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
1,2-Dichloropropane	1	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	1.0 U	ND	ND	ND	NA	1.0 U	ND	ND	ND	NA	NA	1.0 U
1,4-Dichlorobenzene	3	ug/L	NA	1.0 U	ND	ND	ND	NA	1.0 U	ND	ND	ND	NA	NA	1.0 U
2-Butanone	50	ug/L	NA	10 U	NA	NA	NA	NA	10 U	NA	NA	NA	NA	NA	10 U
2-Hexanone	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	ND	5.0 U
4-Methyl-2-pentanone	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	5.0 U
Acetone	50	ug/L	NA	4.2 J	NA	NA	NA	NA	4.2 J	NA	NA	NA	NA	NA	8.9 J
Acrolein	- -	ug/L	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	NA
Benzene	1	ug/L	NA	**12**	0.60 J	0.60 J	0.40	ND	1.0 U	**85**	**42**	**74**	NA	**39**	**130 D**
Bromodichloromethane	50	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Bromoform	50	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Bromomethane	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Carbon Disulfide	60	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Carbon Tetrachloride	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Chlorobenzene	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Chloroethane	5	ug/L	NA	1.0 UJ	ND	ND	ND	ND	1.0 UJ	ND	ND	ND	NA	ND	1.0 UJ
Chloroform	7	ug/L	NA	1.0 U	NA	0.40 J	2.2	ND	1.0 U	NA	NA	NA	NA	NA	1.0 U
Chloromethane	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
cis-1,2-Dichloroethene	5	ug/L	NA	1.1	1.3	0.90 J	0.30	ND	**6.6**	ND	ND	ND	NA	ND	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Cyclohexane	- -	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	26
Dibromochloromethane	50	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	NA	1.0 U
Dichlorodifluoromethane	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
Ethylbenzene	5	ug/L	NA	4.2	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Isopropylbenzene	5	ug/L	NA	1.0 U	NA	ND	ND	ND	1.0 U	NA	ND	ND	NA	NA	**16**
m&p-Xylene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA
Methyl acetate	- -	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	27 J
Methyl tert-butyl ether	10	ug/L	NA	**38**	**15**	9.7	6.2	6.5	2.7	**650**	**550**	**560**	NA	**390**	**550 D**
Methylcyclohexane	- -	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	13
Methylene Chloride	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Naphthalene	10	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-28-D1 03/15/06	MW-28-D1 01/25/11	MW-28-D2 10/27/04	MW-28-D2 03/10/05	MW-28-D2 08/10/05	MW-28-D2 03/15/06	MW-28-D2 01/25/11	MW-29-D1 10/27/04	MW-29-D1 03/10/05	MW-29-D1 08/10/05	MW-29-D1 08/11/05	MW-29-D1 03/15/06	MW-29-D1 01/25/11
Volatile Organics (Cont.)															
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA
Styrene	5	ug/L	NA	1.0 U	NA	NA	NA	NA	1.0 U	NA	NA	NA	NA	NA	1.0 U
tert-Butylbenzene	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	96	80	61	ND	NA	400	210	170	NA	120 J	NA
Tetrachloroethene	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Toluene	5	ug/L	NA	1.0 U	0.50 J	0.30 J	0.20	ND	1.0 U	1.1 J	0.50	1.0	NA	ND	3.7
Total VOCs	- -	ug/L	NA	63 J	120	95	72	6.5	15 J	490	810	800	NA	550	790 J
trans-1,2-Dichloroethene	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	3.8 J	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Trichloroethene	5	ug/L	NA	1.0 U	2.0	0.80 J	ND	ND	0.51 J	1.8	ND	1.1	NA	ND	1.0 U
Trichlorofluoromethane	5	ug/L	NA	1.0 U	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Vinyl Chloride	2	ug/L	NA	1.4	ND	ND	ND	ND	1.0 U	ND	ND	ND	NA	ND	1.0 U
Xylenes (total)	5	ug/L	NA	0.91 J	0.70 J	0.30 J	ND	ND	2.0 U	2.2	1.6	2.0	NA	ND	**16**
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2,4,5-Trichlorophenol	1	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2,4,6-Trichlorophenol	1	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2,4-Dichlorophenol	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2,4-Dimethylphenol	50	ug/L	1.6 J	5.0 U	ND	ND	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
2,4-Dinitrophenol	10	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
2,4-Dinitrotoluene	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2,6-Dinitrotoluene	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2-Chloronaphthalene	10	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2-Chlorophenol	1	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2-Methylnaphthalene	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	1.9 J
2-Methylphenol	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
2-Nitroaniline	5	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
2-Nitrophenol	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
3,3'-Dichlorobenzidine	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
3-Nitroaniline	5	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
4-Bromophenyl-phenylether	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
4-Chloro-3-Methylphenol	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
4-Chloroaniline	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
4-Chlorophenyl-phenylether	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
4-Methylphenol	- -	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
4-Nitroaniline	5	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
4-Nitrophenol	- -	ug/L	NA	10 U	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
Acenaphthene	20	ug/L	3.9 J	13	0.37 J	ND	ND	ND	5.0 U	0.69 J	ND	NA	ND	ND	0.89 J
Acenaphthylene	- -	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
Acetophenone	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Anthracene	50	ug/L	0.30 J	1.4 J	NA	ND	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
Atrazine	7.5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Benzaldehyde	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Benzo(a)anthracene	0.002	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Benzo(a)pyrene	- -	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Benzo(b)fluoranthene	0.002	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-28-D1 03/15/06	MW-28-D1 01/25/11	MW-28-D2 10/27/04	MW-28-D2 03/10/05	MW-28-D2 08/10/05	MW-28-D2 03/15/06	MW-28-D2 01/25/11	MW-29-D1 10/27/04	MW-29-D1 03/10/05	MW-29-D1 08/10/05	MW-29-D1 08/11/05	MW-29-D1 03/15/06	MW-29-D1 01/25/11
Semivolatile Organics (Cont.)															
Benzo(g,h,i)perylene	- -	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Benzo(k)fluoranthene	0.002	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
bis(2-Chloroethoxy)methane	5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
bis(2-Chloroethyl)ether	1	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	5.0 U	4.6	2.7	3.0	ND	5.0 U	**23**	1.7 J	NA	1.1	ND	4.9 U
Butylbenzylphthalate	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Caprolactam	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Carbazole	- -	ug/L	NA	4.4 J	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Chrysene	0.002	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Dibenzo(a,h)anthracene	- -	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Dibenzofuran	- -	ug/L	NA	0.85 J	NA	NA	NA	NA	9.9 U	NA	NA	NA	NA	NA	9.8 U
Diethylphthalate	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Dimethylphthalate	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Di-n-Butylphthalate	50	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Di-n-Octylphthalate	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Fluoranthene	50	ug/L	1.0 J	3.6 J	NA	ND	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Fluorene	50	ug/L	0.20 J	5.0 U	NA	ND	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
Hexachlorobenzene	0.04	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Hexachlorobutadiene	0.5	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Hexachlorocyclopentadiene	5	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Hexachloroethane	5	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	5.0 U	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Isophorone	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Naphthalene	10	ug/L	1.0 J	2.0 J	ND	ND	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
Nitrobenzene	0.4	ug/L	ND	5.0 U	ND	ND	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
N-Nitroso-di-n-propylamine	- -	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
N-Nitrosodiphenylamine	50	ug/L	NA	5.0 U	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	4.9 U
Pentachlorophenol	- -	ug/L	ND	10 U	NA	NA	ND	ND	9.9 U	NA	ND	NA	ND	ND	9.8 U
Phenanthrene	50	ug/L	0.40 J	9.6	NA	ND	ND	ND	5.0 U	0.31 J	ND	NA	ND	ND	4.9 U
Phenol	1	ug/L	ND	5.0 U	NA	ND	ND	ND	5.0 U	ND	ND	NA	ND	ND	4.9 U
Pyrene	50	ug/L	ND	1.8 J	NA	NA	ND	ND	5.0 U	NA	ND	NA	ND	ND	4.9 U
Total SVOCs	- -	ug/L	8.4	37 J	4.6	2.7	3.0	ND	ND	24	1.7	NA	1.1	ND	2.8 J
Inorganics															
Aluminum	- -	ug/L	NA	280 UB	NA	NA	NA	NA	370	NA	NA	NA	NA	NA	200 UB
Antimony	3	ug/L	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U
Arsenic	25	ug/L	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U
Barium	1,000	ug/L	NA	37.0	NA	NA	NA	NA	46.0	NA	NA	NA	NA	NA	15.0
Beryllium	3	ug/L	NA	2.00 U	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA	2.00 U
Cadmium	5	ug/L	NA	0.700 J	NA	NA	NA	NA	0.780 J	NA	NA	NA	NA	NA	0.530 J
Calcium	- -	ug/L	NA	96,800	NA	NA	NA	NA	276,000	NA	NA	NA	NA	NA	52,500
Chromium	50	ug/L	NA	3.80 J	NA	NA	NA	NA	5.20	NA	NA	NA	NA	NA	3.30 J
Cobalt	- -	ug/L	NA	0.940 J	NA	NA	NA	NA	1.20 J	NA	NA	NA	NA	NA	4.00 U
Copper	200	ug/L	NA	2.70 J	NA	NA	NA	NA	2.20 J	NA	NA	NA	NA	NA	2.20 J
Iron	300	ug/L	NA	220	NA	NA	NA	NA	**530**	NA	NA	NA	NA	NA	290
Lead	25	ug/L	NA	5.00 U	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	NA	5.00 U
Magnesium	35,000	ug/L	NA	**275,000**	NA	NA	NA	NA	**609,000**	NA	NA	NA	NA	NA	**112,000**
Manganese	300	ug/L	NA	110	NA	NA	NA	NA	190	NA	NA	NA	NA	NA	220
Mercury	0.7	ug/L	NA	0.200 U	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	NA	0.200 U

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-28-D1 03/15/06	MW-28-D1 01/25/11	MW-28-D2 10/27/04	MW-28-D2 03/10/05	MW-28-D2 08/10/05	MW-28-D2 03/15/06	MW-28-D2 01/25/11	MW-29-D1 10/27/04	MW-29-D1 03/10/05	MW-29-D1 08/10/05	MW-29-D1 08/11/05	MW-29-D1 03/15/06	MW-29-D1 01/25/11
Inorganics (Cont.)															
Nickel	100	ug/L	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U
Potassium	- -	ug/L	NA	108,000	NA	NA	NA	NA	215,000	NA	NA	NA	NA	NA	58,800
Selenium	10	ug/L	NA	15.0 U	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	NA	15.0 U
Silver	50	ug/L	NA	3.00 U	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	3.00 U
Sodium	20,000	ug/L	NA	**2,310,000**	NA	NA	NA	NA	**5,020,000**	NA	NA	NA	NA	NA	**903,000**
Thallium	0.5	ug/L	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U
Vanadium	- -	ug/L	NA	5.10	NA	NA	NA	NA	6.60	NA	NA	NA	NA	NA	3.20 J
Zinc	2,000	ug/L	NA	10.0 U	NA	NA	NA	NA	1.80 J	NA	NA	NA	NA	NA	5.70 J
Inorganics-Filtered															
Aluminum	- -	ug/L	NA	200 UB	NA	NA	NA	NA	200 U	NA	NA	NA	NA	NA	200 U
Antimony	3	ug/L	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U
Arsenic	25	ug/L	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U
Barium	1,000	ug/L	NA	37.0	NA	NA	NA	NA	44.0	NA	NA	NA	NA	NA	15.0
Beryllium	3	ug/L	NA	2.00 U	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA	2.00 U
Cadmium	5	ug/L	NA	0.880 J	NA	NA	NA	NA	0.970 J	NA	NA	NA	NA	NA	0.500 J
Calcium	- -	ug/L	NA	98,100	NA	NA	NA	NA	265,000	NA	NA	NA	NA	NA	51,300
Chromium	50	ug/L	NA	3.50 J	NA	NA	NA	NA	4.20	NA	NA	NA	NA	NA	3.50 J
Cobalt	- -	ug/L	NA	0.840 J	NA	NA	NA	NA	0.840 J	NA	NA	NA	NA	NA	4.00 U
Copper	200	ug/L	NA	2.60 J	NA	NA	NA	NA	2.00 J	NA	NA	NA	NA	NA	2.50 J
Iron	300	ug/L	NA	40.0 J	NA	NA	NA	NA	290	NA	NA	NA	NA	NA	200
Lead	25	ug/L	NA	5.00 U	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	NA	5.00 U
Magnesium	35,000	ug/L	NA	**283,000**	NA	NA	NA	NA	**563,000**	NA	NA	NA	NA	NA	**113,000**
Manganese	300	ug/L	NA	110	NA	NA	NA	NA	190	NA	NA	NA	NA	NA	210
Mercury	0.7	ug/L	NA	0.200 U	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	NA	0.200 U
Nickel	100	ug/L	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	10.0 U
Potassium	- -	ug/L	NA	115,000	NA	NA	NA	NA	217,000	NA	NA	NA	NA	NA	61,200
Selenium	10	ug/L	NA	15.0 U	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	NA	15.0 U
Silver	50	ug/L	NA	3.00 U	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	3.00 U
Sodium	20,000	ug/L	NA	**2,280,000**	NA	NA	NA	NA	**4,650,000**	NA	NA	NA	NA	NA	**907,000**
Thallium	0.5	ug/L	NA	20.0 U	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	20.0 U
Vanadium	- -	ug/L	NA	4.50 J	NA	NA	NA	NA	6.20	NA	NA	NA	NA	NA	3.60 J
Zinc	2,000	ug/L	NA	10.0 U	NA	NA	NA	NA	10.0 U	NA	NA	NA	NA	NA	3.70 J
Miscellaneous															
Alkalinity	- -	ug/L	NA	882,000	NA	NA	NA	NA	503,000	NA	NA	NA	NA	NA	519,000
Alkalinity, Bicarbonate	- -	ug/L	NA	882,000	NA	NA	NA	NA	503,000	NA	NA	NA	NA	NA	519,000
Ammonia Nitrogen	- -	ug/L	NA	6,300	NA	NA	NA	NA	3,800	NA	NA	NA	NA	NA	7,300
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	0.15 U	NA	NA	NA	NA	0.15 U	NA	NA	NA	NA	NA	0.15 U
Ethene	- -	ug/L	NA	0.15 U	NA	NA	NA	NA	0.15 U	NA	NA	NA	NA	NA	0.15 U
Methane	- -	ug/L	NA	1.2 J	NA	NA	NA	NA	0.26 J	NA	NA	NA	NA	NA	16,000 D
Nitrate Nitrogen	- -	ug/L	NA	50 U	NA	NA	NA	NA	50 U	NA	NA	NA	NA	NA	50 U
Nitrite Nitrogen	- -	ug/L	NA	50 UJ	NA	NA	NA	NA	50 UJ	NA	NA	NA	NA	NA	50 UJ
Orthophosphate	- -	ug/L	NA	370	NA	NA	NA	NA	490	NA	NA	NA	NA	NA	140
Soluble Organic Carbon	- -	ug/L	NA	12,200	NA	NA	NA	NA	7,200	NA	NA	NA	NA	NA	15,000
Sulfate	250,000	ug/L	NA	134,000	NA	NA	NA	NA	**1,290,000**	NA	NA	NA	NA	NA	5,000 U
Sulfide	- -	ug/L	NA	140	NA	NA	NA	NA	850	NA	NA	NA	NA	NA	78 J
Total Dissolved Solids	- -	ug/L	NA	7,380,000	NA	NA	NA	NA	18,700,000	NA	NA	NA	NA	NA	2,840,000
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-29-D2 10/27/04	MW-29-D2 03/10/05	MW-29-D2 08/11/05	MW-29-D2 03/15/06	MW-29-D2 01/25/11	MW-29-VD 01/09/07	MW-29-VD 01/25/11	MW-30-D1 10/27/04	MW-30-D1 03/10/05	MW-30-D1 08/11/05	MW-30-D1 03/15/06	MW-30-D1 01/24/11
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
1,1-Dichloroethane	5	ug/L	ND	0.60 J	0.70	2.2 J	1.0 U	ND	2.6	ND	ND	ND	ND	2.0 [2.0]
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	1.0 U	NA	1.0 U	ND	ND	ND	NA	1.0 U [1.0 U]
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
1,3,5-Trimethylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U	NA	1.0 U	ND	ND	ND	NA	1.0 U [1.0 U]
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U	NA	1.0 U	ND	ND	ND	NA	1.0 U [1.0 U]
2-Butanone	50	ug/L	NA	NA	NA	NA	10 U	ND	10 U	NA	NA	NA	NA	10 U [10 U]
2-Hexanone	50	ug/L	NA	NA	NA	NA	5.0 U	ND	5.0 U	NA	NA	NA	NA	5.0 U [5.0 U]
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	5.0 U	ND	5.0 U	NA	NA	NA	NA	5.0 U [5.0 U]
Acetone	50	ug/L	NA	NA	NA	NA	4.8 J	14	10 U	NA	NA	NA	NA	10 U [10 U]
Acrolein	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA	NA
Acrylonitrile	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA	NA
Benzene	1	ug/L	**5.6**	0.50 J	**1.2**	ND	1.0 U	ND	1.0 U	**1,600**	**2,100**	**1,500**	**1,800**	**81 [87]**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Bromoform	50	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Bromomethane	5	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	2.4	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Chloroethane	5	ug/L	ND	ND	ND	ND	1.0 UJ	ND	1.0 UJ	ND	ND	ND	ND	1.0 UJ [1.0 UJ]
Chloroform	7	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	ND	1.0 U [1.0 U]
Chloromethane	5	ug/L	NA	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	2.2 J	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Cyclohexane	- -	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.4 [1.6]
Dibromochloromethane	50	ug/L	ND	ND	ND	NA	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Ethylbenzene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	**12**	**16 J**	**13**	**13 J**	1.8 [1.8]
Isopropylbenzene	5	ug/L	NA	ND	ND	ND	1.0 U	NA	1.0 U	NA	ND	ND	ND	0.97 J [1.1]
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Methyl tert-butyl ether	10	ug/L	**770**	**530**	**480**	**1,500**	1.0 U	1.3	**15**	**9,100**	**11,000**	**11,000**	**13,000**	**680 D [680 D]**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	1.0 U	NA	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
Methylene Chloride	5	ug/L	**6.0**	ND	ND	2.5 J	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Naphthalene	10	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA
n-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA
n-Propylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA
o-Xylene	- -	ug/L	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-29-D2 10/27/04	MW-29-D2 03/10/05	MW-29-D2 08/11/05	MW-29-D2 03/15/06	MW-29-D2 01/25/11	MW-29-VD 01/09/07	MW-29-VD 01/25/11	MW-30-D1 10/27/04	MW-30-D1 03/10/05	MW-30-D1 08/11/05	MW-30-D1 03/15/06	MW-30-D1 01/24/11
Volatile Organics (Cont.)														
sec-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA
Styrene	5	ug/L	NA	NA	NA	NA	1.0 U	ND	1.0 U	NA	NA	NA	NA	1.0 U [1.0 U]
tert-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA
Tertiary butyl alcohol	- -	ug/L	420	620	610	720	NA	ND	NA	ND	190 J	ND	470 J	NA
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Toluene	5	ug/L	ND	ND	0.40	ND	1.0 U	0.43 J	1.0 U	**7.9**	**10 J**	**9.6**	ND	0.55 J [0.56 J]
Total VOCs	- -	ug/L	1,200	1,100	1,100	2,300	8.1 J	16	18	11,000	14,000	13,000	15,000	770 J [770 J]
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Trichloroethene	5	ug/L	1.5 J	1.1	0.70	**49**	0.86 J	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	1.0 U	NA	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Vinyl Chloride	2	ug/L	ND	ND	ND	ND	1.0 U	ND	1.0 U	ND	ND	ND	ND	1.0 U [1.0 U]
Xylenes (total)	5	ug/L	ND	ND	ND	ND	2.0 U	ND	2.0 U	**16**	**30**	**21**	ND	2.0 U [2.0 U]
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2,4-Dimethylphenol	50	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	2.6 J	ND	ND	4.8 U [4.9 U]
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	9.6 U [9.7 U]
Acenaphthene	20	ug/L	0.44 J	ND	ND	NA	4.7 U	NA	4.9 U	**44**	**86**	**80**	**77**	15 [15]
Acenaphthylene	- -	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	ND	ND	ND	ND	4.8 U [4.9 U]
Acetophenone	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Anthracene	50	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	ND	ND	ND	ND	0.74 J [0.63 J]
Atrazine	7.5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Benzo(a)anthracene	0.002	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Benzo(a)pyrene	- -	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-29-D2 10/27/04	MW-29-D2 03/10/05	MW-29-D2 08/11/05	MW-29-D2 03/15/06	MW-29-D2 01/25/11	MW-29-VD 01/09/07	MW-29-VD 01/25/11	MW-30-D1 10/27/04	MW-30-D1 03/10/05	MW-30-D1 08/11/05	MW-30-D1 03/15/06	MW-30-D1 01/24/11
Semivolatile Organics (Cont.)														
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
bis(2-Ethylhexyl)phthalate	5	ug/L	4.1	2.4	4.1	NA	4.7 U	NA	4.9 U	2.4	1.5 J	3.6	ND	4.8 U [4.9 U]
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Caprolactam	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Carbazole	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	7.5 [7.7]
Chrysene	0.002	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	9.4 U	NA	9.7 U	NA	NA	NA	NA	2.1 J [2.3 J]
Diethylphthalate	50	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Di-n-Butylphthalate	50	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	0.39 J [0.33 J]
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Fluoranthene	50	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Fluorene	50	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	6.5	15	16	19 J	4.8 U [4.9 U]
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Hexachloroethane	5	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	ND	ND	ND	ND	4.8 U [4.9 U]
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Isophorone	50	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Naphthalene	10	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	**650**	**890**	**900**	ND	0.92 J [1.0 J]
Nitrobenzene	0.4	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	ND	ND	ND	**5.2**	4.8 U [4.9 U]
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	4.7 U	NA	4.9 U	NA	NA	NA	NA	4.8 U [4.9 U]
Pentachlorophenol	- -	ug/L	NA	ND	ND	NA	9.4 U	NA	9.7 U	NA	ND	ND	ND	9.6 U [9.7 U]
Phenanthrene	50	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	3.3	6.4	4.8	**880**	6.5 [6.6]
Phenol	1	ug/L	ND	ND	ND	NA	4.7 U	NA	4.9 U	**6.1**	ND	**1.3**	ND	4.8 U [4.9 U]
Pyrene	50	ug/L	NA	ND	ND	NA	4.7 U	NA	4.9 U	NA	ND	ND	ND	4.8 U [4.9 U]
Total SVOCs	- -	ug/L	4.1	2.4	4.1	NA	ND	NA	ND	720	1,000	1,000	980	33 J [34 J]
Inorganics														
Aluminum	- -	ug/L	NA	NA	NA	NA	200 UB	NA	200 UB	NA	NA	NA	NA	200 UB [200 UB]
Antimony	3	ug/L	NA	NA	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	20.0 U [20.0 U]
Arsenic	25	ug/L	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	10.0 U [10.0 U]
Barium	1,000	ug/L	NA	NA	NA	NA	110	NA	50.0	NA	NA	NA	NA	44.0 [44.0]
Beryllium	3	ug/L	NA	NA	NA	NA	2.00 U	NA	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]
Cadmium	5	ug/L	NA	NA	NA	NA	0.840 J	NA	0.910 J	NA	NA	NA	NA	0.600 J [0.790 J]
Calcium	- -	ug/L	NA	NA	NA	NA	1,190,000	NA	265,000	NA	NA	NA	NA	107,000 [107,000]
Chromium	50	ug/L	NA	NA	NA	NA	2.00 J	NA	4.00	NA	NA	NA	NA	3.90 J [3.70 J]
Cobalt	- -	ug/L	NA	NA	NA	NA	1.20 J	NA	1.30 J	NA	NA	NA	NA	1.10 J [0.930 J]
Copper	200	ug/L	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	3.00 J [2.50 J]
Iron	300	ug/L	NA	NA	NA	NA	22.0 J	NA	63.0	NA	NA	NA	NA	100 [130]
Lead	25	ug/L	NA	NA	NA	NA	5.00 U	NA	5.00 U	NA	NA	NA	NA	5.00 U [5.00 U]
Magnesium	35,000	ug/L	NA	NA	NA	NA	**288,000 J**	NA	**639,000**	NA	NA	NA	NA	**283,000 [279,000]**
Manganese	300	ug/L	NA	NA	NA	NA	8.60	NA	200	NA	NA	NA	NA	94.0 [93.0]
Mercury	0.7	ug/L	NA	NA	NA	NA	0.200 U	NA	0.200 U	NA	NA	NA	NA	0.200 U [0.200 U]

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-29-D2 10/27/04	MW-29-D2 03/10/05	MW-29-D2 08/11/05	MW-29-D2 03/15/06	MW-29-D2 01/25/11	MW-29-VD 01/09/07	MW-29-VD 01/25/11	MW-30-D1 10/27/04	MW-30-D1 03/10/05	MW-30-D1 08/11/05	MW-30-D1 03/15/06	MW-30-D1 01/24/11
Inorganics (Cont.)														
Nickel	100	ug/L	NA	NA	NA	NA	5.70 J	NA	10.0 U	NA	NA	NA	NA	10.0 U [10.0 U]
Potassium	- -	ug/L	NA	NA	NA	NA	339,000	NA	213,000	NA	NA	NA	NA	113,000 [114,000]
Selenium	10	ug/L	NA	NA	NA	NA	15.0 U	NA	15.0 U	NA	NA	NA	NA	15.0 U [15.0 U]
Silver	50	ug/L	NA	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA	NA	NA	3.00 U [3.00 U]
Sodium	20,000	ug/L	NA	NA	NA	NA	**7,780,000**	NA	**5,430,000**	NA	NA	NA	NA	**2,400,000 [2,400,000]**
Thallium	0.5	ug/L	NA	NA	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	20.0 U [20.0 U]
Vanadium	- -	ug/L	NA	NA	NA	NA	5.00 U	NA	4.70 J	NA	NA	NA	NA	5.20 [5.40]
Zinc	2,000	ug/L	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	3.70 J [1.80 J]
Inorganics-Filtered														
Aluminum	- -	ug/L	NA	NA	NA	NA	200 U	NA	200 UB	NA	NA	NA	NA	200 UB [200 UB]
Antimony	3	ug/L	NA	NA	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	20.0 U [20.0 U]
Arsenic	25	ug/L	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	10.0 U [10.0 U]
Barium	1,000	ug/L	NA	NA	NA	NA	110	NA	50.0	NA	NA	NA	NA	44.0 [44.0]
Beryllium	3	ug/L	NA	NA	NA	NA	2.00 U	NA	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]
Cadmium	5	ug/L	NA	NA	NA	NA	0.680 J	NA	0.860 J	NA	NA	NA	NA	0.730 J [0.600 J]
Calcium	- -	ug/L	NA	NA	NA	NA	1,080,000	NA	257,000	NA	NA	NA	NA	107,000 [107,000]
Chromium	50	ug/L	NA	NA	NA	NA	1.30 J	NA	3.70 J	NA	NA	NA	NA	3.20 J [3.60 J]
Cobalt	- -	ug/L	NA	NA	NA	NA	1.20 J	NA	1.40 J	NA	NA	NA	NA	0.840 J [4.00 U]
Copper	200	ug/L	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	1.50 J [2.10 J]
Iron	300	ug/L	NA	NA	NA	NA	19.0 J	NA	23.0 J	NA	NA	NA	NA	50.0 U [50.0 U]
Lead	25	ug/L	NA	NA	NA	NA	5.00 U	NA	5.00 U	NA	NA	NA	NA	5.00 U [5.00 U]
Magnesium	35,000	ug/L	NA	NA	NA	NA	**392,000 J**	NA	**617,000**	NA	NA	NA	NA	**277,000 [281,000]**
Manganese	300	ug/L	NA	NA	NA	NA	21.0	NA	200	NA	NA	NA	NA	86.0 [86.0]
Mercury	0.7	ug/L	NA	NA	NA	NA	0.120 J	NA	0.140 J	NA	NA	NA	NA	0.200 U [0.200 U]
Nickel	100	ug/L	NA	NA	NA	NA	3.80 J	NA	10.0 U	NA	NA	NA	NA	10.0 U [10.0 U]
Potassium	- -	ug/L	NA	NA	NA	NA	349,000	NA	215,000	NA	NA	NA	NA	114,000 [114,000]
Selenium	10	ug/L	NA	NA	NA	NA	15.0 U	NA	15.0 U	NA	NA	NA	NA	15.0 U [15.0 U]
Silver	50	ug/L	NA	NA	NA	NA	3.00 U	NA	3.00 U	NA	NA	NA	NA	3.00 U [3.00 U]
Sodium	20,000	ug/L	NA	NA	NA	NA	**7,510,000**	NA	**5,050,000**	NA	NA	NA	NA	**2,230,000 [2,450,000]**
Thallium	0.5	ug/L	NA	NA	NA	NA	20.0 U	NA	20.0 U	NA	NA	NA	NA	20.0 U [20.0 U]
Vanadium	- -	ug/L	NA	NA	NA	NA	5.00 U	NA	4.50 J	NA	NA	NA	NA	5.50 [4.50 J]
Zinc	2,000	ug/L	NA	NA	NA	NA	10.0 U	NA	10.0 U	NA	NA	NA	NA	10.0 U [10.0 U]
Miscellaneous														
Alkalinity	- -	ug/L	NA	NA	NA	NA	12,600 UB	NA	637,000	NA	NA	NA	NA	939,000 [898,000]
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	12,600 UB	NA	637,000	NA	NA	NA	NA	939,000 [898,000]
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	4,900	NA	5,100	NA	NA	NA	NA	8,000 [7,700]
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	15 U	NA	150 UJ	NA	NA	NA	NA	150 U [1,500 U]
Ethene	- -	ug/L	NA	NA	NA	NA	15 U	NA	150 UJ	NA	NA	NA	NA	150 U [1,500 U]
Methane	- -	ug/L	NA	NA	NA	NA	19 J	NA	420 J	NA	NA	NA	NA	1,700 J [1,200 J]
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	50 U	NA	50 U	NA	NA	NA	NA	50 U [50 U]
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	50 U	NA	50 U	NA	NA	NA	NA	50 U [50 U]
Orthophosphate	- -	ug/L	NA	NA	NA	NA	60	NA	430	NA	NA	NA	NA	290 J [270 J]
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	1,700	NA	7,900	NA	NA	NA	NA	12,300 [12,800]
Sulfate	250,000	ug/L	NA	NA	NA	NA	**1,850,000**	NA	**1,170,000**	NA	NA	NA	NA	25,000 U [25,000 UB]
Sulfide	- -	ug/L	NA	NA	NA	NA	100 U	NA	17,200	NA	NA	NA	NA	190 J [520 J]
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	30,100,000	NA	16,900,000	NA	NA	NA	NA	7,950,000 [7,550,000]
TPH														
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 10/27/04	MW-30-D2 03/10/05	MW-30-D2 08/11/05	MW-30-D2 03/15/06	MW-30-D2 04/07/11	MW-30-VD 01/08/07	MW-30-VD 01/25/11	MW-31-D1 10/27/04	MW-31-D1 03/10/05	MW-31-D1 08/10/05	MW-31-D1R 01/21/11	MW-31-D2 10/27/04
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
1,1-Dichloroethane	5	ug/L	1.5	1.4	1.3	ND	1.0 U [1.0 U]	0.93 J	1.0 U	3.0	3.5	ND	1.1	1.3
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U [1.0 U]	NA	**5.0**	ND	ND	ND	1.0 U	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	**1.5 J**	ND	ND	ND	1.0 U	ND
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U [1.0 U]	NA	1.0 U	ND	ND	ND	1.0 U	ND
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	1.0 U [1.0 U]	NA	1.0 U	ND	ND	ND	1.0 U	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	10 U [10 U]	ND	10 U	NA	NA	NA	10 U	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	5.0 U [5.0 U]	ND	5.0 U	NA	NA	NA	5.0 U	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	5.0 U [5.0 U]	ND	5.0 U	NA	NA	NA	5.0 U	NA
Acetone	50	ug/L	NA	NA	NA	NA	10 U [10 U]	14	10 U	NA	NA	NA	10 U	NA
Acrolein	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA	ND
Acrylonitrile	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	ND	ND	ND	NA	ND
Benzene	1	ug/L	**18**	**3.0**	**1.1**	**1.1**	1.0 U [1.0 U]	0.52 J	1.0 U	**75**	**130**	**130**	**5.6**	**8.4**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	NA	NA	1.0 U	NA
Bromoform	50	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	NA	NA	1.0 U	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	NA	NA	1.0 U	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	9.3	7.1	NA	NA	NA	0.83 J	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	NA	NA	1.0 U	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	NA	NA	1.0 U	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 UJ	ND	ND	ND	1.0 U	ND
Chloroform	7	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	ND	ND	1.0 U	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
cis-1,2-Dichloroethene	5	ug/L	0.30 J	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	**6.4**	**14 J**	**14**	2.1	0.40
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
Ethylbenzene	5	ug/L	0.70 J	ND	ND	ND	1.0 U [1.0 U]	0.58 J	1.0 U	**15**	**33**	**33**	**5.3**	0.60
Isopropylbenzene	5	ug/L	NA	ND	ND	ND	1.0 U [1.0 U]	NA	1.0 U	NA	ND	ND	1.0 U	NA
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND
Methyl acetate	- -	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
Methyl tert-butyl ether	10	ug/L	**150**	**69**	**37**	**42**	1.0 U [0.42 J]	9.1	**90**	**160**	**180**	**180**	**20**	**18**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	NA	1.0 U	NA	NA	NA	1.0 U	NA
Methylene Chloride	5	ug/L	ND	ND	ND	2.5 J	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
Naphthalene	10	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
n-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
n-Propylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
o-Xylene	- -	ug/L	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 10/27/04	MW-30-D2 03/10/05	MW-30-D2 08/11/05	MW-30-D2 03/15/06	MW-30-D2 04/07/11	MW-30-VD 01/08/07	MW-30-VD 01/25/11	MW-31-D1 10/27/04	MW-31-D1 03/10/05	MW-31-D1 08/10/05	MW-31-D1R 01/21/11	MW-31-D2 10/27/04
Volatile Organics (Cont.)														
sec-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	1.0 U [1.0 U]	ND	1.0 U	NA	NA	NA	1.0 U	NA
tert-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	NA	ND	ND	NA	NA
Tertiary butyl alcohol	- -	ug/L	210	330	ND	450	NA	120	NA	420	470	470	NA	73
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
Toluene	5	ug/L	0.80	0.20 J	0.20	ND	1.0 U [1.0 U]	1.0	1.0 U	**11**	**24**	**24**	2.4	0.40
Total VOCs	- -	ug/L	390	410	40	550	ND [0.42 J]	23	110 J	710	900	900	49 J	100
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	0.60	0.56 J	1.0 U	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	ND	ND	1.0 U	ND
Trichloroethene	5	ug/L	**7.0**	0.80 J	ND	**54**	1.0 U [1.0 U]	ND	4.1	0.50	ND	ND	1.0 U	0.90
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	NA	1.0 U	ND	ND	ND	1.0 U	ND
Vinyl Chloride	2	ug/L	ND	ND	ND	ND	1.0 U [1.0 U]	ND	1.0 U	ND	**6.3**	**6.3**	1.0 U	ND
Xylenes (total)	5	ug/L	3.3	0.30 J	ND	ND	2.0 U [2.0 U]	1.3	2.0 U	**20**	**49**	**49**	**12**	1.0
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	**9.4**	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2,4-Dimethylphenol	50	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	2.8 J	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	9.5 U	NA
Acenaphthene	20	ug/L	1.1 J	ND	ND	ND	NA	NA	4.8 U	**160**	**410 a**	NA	**90**	1.1
Acenaphthylene	- -	ug/L	ND	ND	ND	ND	NA	NA	4.8 U	1.0	4.6	NA	1.8 J	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Anthracene	50	ug/L	ND	ND	ND	ND	NA	NA	4.8 U	2.0	2.5	NA	1.3 J	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Benzo(a)anthracene	0.002	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Benzo(a)pyrene	- -	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 10/27/04	MW-30-D2 03/10/05	MW-30-D2 08/11/05	MW-30-D2 03/15/06	MW-30-D2 04/07/11	MW-30-VD 01/08/07	MW-30-VD 01/25/11	MW-31-D1 10/27/04	MW-31-D1 03/10/05	MW-31-D1 08/10/05	MW-31-D1R 01/21/11	MW-31-D2 10/27/04
Semivolatile Organics (Cont.)														
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	2.7	1.9 J	1.7	ND	NA	NA	4.8 U	2.3	ND	NA	4.8 U	**10**
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	49	NA
Chrysene	0.002	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	9.6 U	NA	NA	NA	32	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Di-n-Butylphthalate	50	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	6.2	NA	0.39 J	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Fluoranthene	50	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	1.0 J	NA
Fluorene	50	ug/L	ND	ND	ND	ND	NA	NA	4.8 U	31	**100**	NA	19	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Hexachloroethane	5	ug/L	**5.3**	ND	ND	ND	NA	NA	4.8 U	ND	ND	NA	4.8 U	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	4.8 U	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Naphthalene	10	ug/L	**12**	ND	ND	ND	NA	NA	4.8 U	**290**	**97**	NA	**130**	5.2
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	NA	NA	4.8 U	ND	ND	NA	4.8 U	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	4.8 U	NA	NA	NA	4.8 U	NA
Pentachlorophenol	- -	ug/L	NA	ND	ND	ND	NA	NA	9.6 U	NA	ND	NA	9.5 U	NA
Phenanthrene	50	ug/L	0.46 J	ND	ND	ND	NA	NA	4.8 U	17	ND	NA	25	ND
Phenol	1	ug/L	ND	ND	ND	ND	NA	NA	4.8 U	**1.8**	**51**	NA	4.8 U	ND
Pyrene	50	ug/L	NA	ND	ND	ND	NA	NA	4.8 U	NA	ND	NA	0.39 J	NA
Total SVOCs	- -	ug/L	21	1.9	1.7	ND	NA	NA	ND	500	670	NA	360 J	17
Inorganics														
Aluminum	- -	ug/L	NA	NA	NA	NA	550 [380]	NA	200 UB	NA	NA	NA	130 J	NA
Antimony	3	ug/L	NA	NA	NA	NA	20.0 U [20.0 U]	NA	20.0 U	NA	NA	NA	20.0 U	NA
Arsenic	25	ug/L	NA	NA	NA	NA	6.10 J [10.0 U]	NA	6.10 J	NA	NA	NA	8.10 J	NA
Barium	1,000	ug/L	NA	NA	NA	NA	47.0 [47.0]	NA	99.0	NA	NA	NA	59.0	NA
Beryllium	3	ug/L	NA	NA	NA	NA	2.00 U [2.00 U]	NA	2.00 U	NA	NA	NA	2.00 U	NA
Cadmium	5	ug/L	NA	NA	NA	NA	1.00 [1.20]	NA	1.10	NA	NA	NA	0.610 J	NA
Calcium	- -	ug/L	NA	NA	NA	NA	133,000 [134,000]	NA	289,000	NA	NA	NA	120,000	NA
Chromium	50	ug/L	NA	NA	NA	NA	5.60 [5.10]	NA	4.30	NA	NA	NA	3.90 J	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	0.860 J [1.00 J]	NA	1.60 J	NA	NA	NA	0.800 J	NA
Copper	200	ug/L	NA	NA	NA	NA	3.20 J [1.60 J]	NA	10.0 U	NA	NA	NA	2.30 J	NA
Iron	300	ug/L	NA	NA	NA	NA	**500 [380]**	NA	95.0	NA	NA	NA	170	NA
Lead	25	ug/L	NA	NA	NA	NA	3.60 J [5.00 U]	NA	5.00 U	NA	NA	NA	5.00 U	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	**304,000 [303,000]**	NA	**707,000**	NA	NA	NA	**273,000 J**	NA
Manganese	300	ug/L	NA	NA	NA	NA	150 [150]	NA	150	NA	NA	NA	**430**	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	0.200 U [0.200 U]	NA	0.200 U	NA	NA	NA	0.200 U	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 10/27/04	MW-30-D2 03/10/05	MW-30-D2 08/11/05	MW-30-D2 03/15/06	MW-30-D2 04/07/11	MW-30-VD 01/08/07	MW-30-VD 01/25/11	MW-31-D1 10/27/04	MW-31-D1 03/10/05	MW-31-D1 08/10/05	MW-31-D1R 01/21/11	MW-31-D2 10/27/04
Inorganics (Cont.)														
Nickel	100	ug/L	NA	NA	NA	NA	1.40 J [10.0 U]	NA	3.90 J	NA	NA	NA	10.0 U	NA
Potassium	- -	ug/L	NA	NA	NA	NA	123,000 [123,000]	NA	258,000	NA	NA	NA	118,000	NA
Selenium	10	ug/L	NA	NA	NA	NA	15.0 U [15.0 U]	NA	15.0 U	NA	NA	NA	15.0 U	NA
Silver	50	ug/L	NA	NA	NA	NA	3.00 U [3.00 U]	NA	3.00 U	NA	NA	NA	3.00 U	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	**2,900,000 [2,870,000]**	NA	**6,100,000**	NA	NA	NA	**2,370,000 J**	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	20.0 U [20.0 U]	NA	20.0 U	NA	NA	NA	20.0 U	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	4.20 J [4.70 J]	NA	8.00	NA	NA	NA	5.80	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	4.40 J [2.30 J]	NA	2.30 J	NA	NA	NA	3.30 J	NA
Inorganics-Filtered														
Aluminum	- -	ug/L	NA	NA	NA	NA	200 U [200 U]	NA	200 UB	NA	NA	NA	200 U	NA
Antimony	3	ug/L	NA	NA	NA	NA	20.0 U [20.0 U]	NA	20.0 U	NA	NA	NA	20.0 U	NA
Arsenic	25	ug/L	NA	NA	NA	NA	10.0 U [10.0 U]	NA	7.80 J	NA	NA	NA	10.0 U	NA
Barium	1,000	ug/L	NA	NA	NA	NA	47.0 [47.0]	NA	100	NA	NA	NA	59.0	NA
Beryllium	3	ug/L	NA	NA	NA	NA	2.00 U [2.00 U]	NA	2.00 U	NA	NA	NA	2.00 U	NA
Cadmium	5	ug/L	NA	NA	NA	NA	0.890 J [0.660 J]	NA	1.00	NA	NA	NA	0.990 J	NA
Calcium	- -	ug/L	NA	NA	NA	NA	138,000 [137,000]	NA	280,000	NA	NA	NA	118,000	NA
Chromium	50	ug/L	NA	NA	NA	NA	3.10 J [2.60 J]	NA	3.80 J	NA	NA	NA	2.00 J	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	4.00 U [4.00 U]	NA	1.50 J	NA	NA	NA	0.810 J	NA
Copper	200	ug/L	NA	NA	NA	NA	10.0 U [10.0 U]	NA	10.0 U	NA	NA	NA	10.0 UB	NA
Iron	300	ug/L	NA	NA	NA	NA	50.0 UB [50.0 U]	NA	50.0 U	NA	NA	NA	50.0 U	NA
Lead	25	ug/L	NA	NA	NA	NA	5.00 U [5.00 U]	NA	5.00 U	NA	NA	NA	5.00 U	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	**315,000 [310,000]**	NA	**703,000**	NA	NA	NA	**268,000**	NA
Manganese	300	ug/L	NA	NA	NA	NA	150 [150]	NA	160	NA	NA	NA	**420**	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	0.200 U [0.200 U]	NA	0.200 U	NA	NA	NA	0.200 U	NA
Nickel	100	ug/L	NA	NA	NA	NA	10.0 U [1.30 J]	NA	3.20 J	NA	NA	NA	10.0 U	NA
Potassium	- -	ug/L	NA	NA	NA	NA	138,000 [138,000]	NA	270,000	NA	NA	NA	106,000	NA
Selenium	10	ug/L	NA	NA	NA	NA	15.0 U [15.0 U]	NA	15.0 U	NA	NA	NA	15.0 U	NA
Silver	50	ug/L	NA	NA	NA	NA	3.00 U [3.00 U]	NA	3.00 U	NA	NA	NA	3.00 U	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	**2,940,000 [2,890,000]**	NA	**5,830,000**	NA	NA	NA	**2,460,000**	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	20.0 U [20.0 U]	NA	20.0 U	NA	NA	NA	20.0 U	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	3.50 J [3.60 J]	NA	6.50	NA	NA	NA	6.00	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	2.50 J [1.90 J]	NA	10.0 U	NA	NA	NA	10.0 U	NA
Miscellaneous														
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	778,000	NA	NA	NA	854,000	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	778,000	NA	NA	NA	854,000	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	2,600	NA	NA	NA	5,100	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	**5,720,000 [5,620,000]**	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	1.5 UJ	NA	NA	NA	300 U	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	1.5 UJ	NA	NA	NA	300 U	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	57 DJ	NA	NA	NA	590	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	50 U	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	50 U	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	290	NA	NA	NA	1,000 U	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	6,000	NA	NA	NA	13,100	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	**1,280,000**	NA	NA	NA	149,000	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	170	NA	NA	NA	120	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	19,900,000	NA	NA	NA	7,590,000	NA
TPH														
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-31-D2 03/10/05	MW-31-D2 08/10/05	MW-31-D2R 01/21/11	MW-32D 01/08/07	MW-32D 01/19/11	MW-33D 01/09/07	MW-33D 01/27/11	MW-34D 01/08/07	MW-35D 01/08/07	MW-35D 01/27/11	MW-36D 01/09/07	MW-DR 08/20/02	P-01 08/20/02	P-02 08/20/02	P-03 08/20/02
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND	0.99 J	ND	1.0 U	0.25 J	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	ND	ND	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	1.0 U	**2.1**	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	ND	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	ND	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	10 U	ND	10 U	2.7 J	10 U	ND	ND	10 U	ND	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	5.0 U	ND	5.0 U	ND	5.0 U	ND	ND	5.0 U	ND	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	5.0 U	ND	5.0 U	ND	5.0 U	ND	ND	5.0 U	ND	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	3.9 J	ND	10 U	3.0 J	10 U	3.9 J	3.7 J	10 U	40	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Benzene	1	ug/L	ND	ND	1.0 U	**11**	1.0 U	ND	1.0 U	**70**	**2.7**	**3.7**	ND	NA	ND	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	0.58 J	9.9	1.0 U	0.69 J	1.0 U	0.46 J	2.3	0.87 J	15	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
Cyclohexane	- -	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	13	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	ND	ND	1.0 U	0.28 J	1.0	0.41 J	1.0 U	0.87 J	0.31 J	1.0 U	ND	NA	ND	ND	ND
Isopropylbenzene	5	ug/L	ND	ND	1.0 U	NA	1.3	NA	1.0 U	NA	NA	**17**	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	ND	NA	ND	NA	ND	NA	3.0	0.48 J	NA	ND	NA	NA	NA	NA
Methyl acetate	- -	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	0.30 J	0.32 J	1.0 U	**80**	**13**	3.6	4.2	9.8	3.6	3.0	**180**	NA	ND	0.34	0.48
Methylcyclohexane	- -	ug/L	NA	NA	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	2.1	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
Naphthalene	10	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	NA	ND	NA	ND	NA	0.64 J	ND	NA	ND	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-31-D2 03/10/05	MW-31-D2 08/10/05	MW-31-D2R 01/21/11	MW-32D 01/08/07	MW-32D 01/19/11	MW-33D 01/09/07	MW-33D 01/27/11	MW-34D 01/08/07	MW-35D 01/08/07	MW-35D 01/27/11	MW-36D 01/09/07	MW-DR 08/20/02	P-01 08/20/02	P-02 08/20/02	P-03 08/20/02
Volatile Organics (Cont.)																	
sec-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	ND	NA	ND	NA	160	NA	ND	ND	NA	250	NA	ND	ND	ND
Tetrachloroethene	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
Toluene	5	ug/L	ND	ND	1.0 U	0.43 J	1.0 U	0.44 J	1.0 U	2.2	0.60 J	1.0 U	0.36 J	NA	ND	ND	ND
Total VOCs	- -	ug/L	1.1	ND	5.5 J	110	16 J	170	4.2	91	14	40 J	490	NA	ND	0.30	0.50
trans-1,2-Dichloroethene	5	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
Trichloroethene	5	ug/L	0.80 J	ND	1.0 U	ND	0.65 J	ND	1.0 U	ND	ND	1.0 U	1.6	NA	ND	ND	ND
Trichlorofluoromethane	5	ug/L	ND	ND	1.0 U	NA	1.0 U	NA	1.0 U	NA	NA	1.0 U	NA	NA	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	ND	1.0 U	ND	1.0 U	ND	1.0 U	ND	ND	1.0 U	ND	NA	ND	ND	ND
Xylenes (total)	5	ug/L	ND	ND	2.0 U	0.90 J	2.0 U	0.39	2.0 U	3.6	0.48 J	0.66 J	ND	NA	ND	ND	ND
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	ND	ND	ND	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	5.1 U	NA	1.5 J	NA	4.8 U	NA	NA	2.3 J	NA	2.1	ND	1.4	ND
Acenaphthylene	- -	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	5.1 U	NA	1.8 J	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	ND
Atrazine	7.5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-31-D2 03/10/05	MW-31-D2 08/10/05	MW-31-D2R 01/21/11	MW-32D 01/08/07	MW-32D 01/19/11	MW-33D 01/09/07	MW-33D 01/27/11	MW-34D 01/08/07	MW-35D 01/08/07	MW-35D 01/27/11	MW-36D 01/09/07	MW-DR 08/20/02	P-01 08/20/02	P-02 08/20/02	P-03 08/20/02
Semivolatile Organics (Cont.)																	
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	**5.4**	NA	5.1 U	NA	4.7 U	NA	1.8 J	NA	NA	4.8 U	NA	ND	ND	ND	NA
Butylbenzylphthalate	50	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	5.1 U	NA	21	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	0.69 J	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	0.37 J	NA	1.1	ND	ND	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	5.1 U	NA	1.2 J	NA	4.8 U	NA	NA	4.8 U	NA	ND	ND	ND	ND
Fluorene	50	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	1.5	ND	0.57	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	0.56	ND	ND	ND
Nitrobenzene	0.4	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	ND	NA	10 U	NA	9.5 U	NA	9.6 U	NA	NA	9.6 U	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	ND	NA	5.1 U	NA	25	NA	4.8 U	NA	NA	4.8 U	NA	ND	ND	ND	ND
Phenol	1	ug/L	ND	NA	5.1 U	NA	4.7 U	NA	4.8 U	NA	NA	4.8 U	NA	ND	ND	ND	NA
Pyrene	50	ug/L	ND	NA	5.1 U	NA	0.46 J	NA	4.8 U	NA	NA	4.8 U	NA	ND	ND	ND	ND
Total SVOCs	- -	ug/L	5.4	NA	ND	NA	51 J	NA	1.8 J	NA	NA	3.4 J	NA	5.3	ND	2.0	ND
Inorganics																	
Aluminum	- -	ug/L	NA	NA	210	NA	200 U	NA	690	NA	NA	6,200	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA	NA	20.0 U	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	NA	7.60 J	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	140	NA	29.0	NA	19.0	NA	NA	33.0	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	2.00 U	NA	2.00 U	NA	2.00 U	NA	NA	2.00 U	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	0.760 J	NA	0.780 J	NA	0.940 J	NA	NA	0.650 J	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	371,000	NA	89,900	NA	74,400	NA	NA	111,000	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	3.50 J	NA	2.40 J	NA	3.20 J	NA	NA	15.0	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	1.70 J	NA	4.00 U	NA	4.00 U	NA	NA	2.70 J	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	1.60 J	NA	10.0 U	NA	2.50 J	NA	NA	7.70 J	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	99.0	NA	44.0 J	NA	**650**	NA	NA	**8,100**	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA	NA	8.40	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	**540,000 J**	NA	**209,000**	NA	**182,000**	NA	NA	30,500	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	120	NA	40.0	NA	48.0	NA	NA	160	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	0.200 U	NA	0.200 U	NA	0.200 U	NA	NA	0.200 U	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	MW-31-D2 03/10/05	MW-31-D2 08/10/05	MW-31-D2R 01/21/11	MW-32D 01/08/07	MW-32D 01/19/11	MW-33D 01/09/07	MW-33D 01/27/11	MW-34D 01/08/07	MW-35D 01/08/07	MW-35D 01/27/11	MW-36D 01/09/07	MW-DR 08/20/02	P-01 08/20/02	P-02 08/20/02	P-03 08/20/02
Inorganics (Cont.)																	
Nickel	100	ug/L	NA	NA	2.70 J	NA	10.0 U	NA	1.30 J	NA	NA	7.70 J	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	222,000	NA	84,500	NA	74,000	NA	NA	21,300	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	15.0 U	NA	15.0 U	NA	15.0 U	NA	NA	15.0 U	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	3.00 U	NA	3.00 U	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	**5,180,000 J**	NA	**1,840,000**	NA	**1,690,000**	NA	NA	**273,000**	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA	NA	20.0 U	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	3.90 J	NA	5.30	NA	5.60	NA	NA	17.0	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	10.0 U	NA	10.0 U	NA	3.80 J	NA	NA	26.0	NA	NA	NA	NA	NA
Inorganics-Filtered																	
Aluminum	- -	ug/L	NA	NA	67.0 J	NA	200 U	NA	73.0 J	NA	NA	200	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA	NA	20.0 U	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	NA	10.0 U	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	130	NA	28.0	NA	19.0	NA	NA	11.0	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	2.00 U	NA	2.00 U	NA	2.00 U	NA	NA	2.00 U	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	1.10	NA	0.950 J	NA	0.770 J	NA	NA	0.480 J	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	363,000	NA	90,500	NA	73,000	NA	NA	97,100	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	2.20 J	NA	2.50 J	NA	1.40 J	NA	NA	1.00 J	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	1.00 J	NA	4.00 U	NA	4.00 U	NA	NA	4.00 U	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	10.0 UB	NA	1.70 J	NA	3.60 J	NA	NA	2.30 J	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	25.0 J	NA	50.0 U	NA	50.0 U	NA	NA	250	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	5.00 U	NA	5.00 U	NA	5.00 U	NA	NA	5.00 U	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	**595,000**	NA	**215,000**	NA	**186,000**	NA	NA	27,300	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	120	NA	37.0	NA	40.0	NA	NA	63.0	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	0.200 U	NA	0.200 U	NA	0.200 U	NA	NA	0.200 U	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	3.20 J	NA	10.0 U	NA	10.0 U	NA	NA	10.0 U	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	204,000	NA	92,400	NA	75,300	NA	NA	20,600	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	15.0 U	NA	15.0 U	NA	15.0 U	NA	NA	15.0 U	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	3.00 U	NA	3.00 U	NA	3.00 U	NA	NA	3.00 U	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	**4,800,000**	NA	**1,890,000**	NA	**1,660,000**	NA	NA	**281,000**	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	20.0 U	NA	20.0 U	NA	20.0 U	NA	NA	20.0 U	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	3.80 J	NA	4.80 J	NA	2.70 J	NA	NA	1.80 J	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	NA	2.00 J	NA	NA	NA	NA	NA
Miscellaneous																	
Alkalinity	- -	ug/L	NA	NA	537,000	NA	924,000	NA	597,000	NA	NA	282,000	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	537,000	NA	924,000	NA	597,000	NA	NA	282,000	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	1,900	NA	5,800	NA	2,900	NA	NA	5,100	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	300 U	NA	1.5 U	NA	150 UJ	NA	NA	1,500 UJ	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	300 U	NA	1.5 U	NA	150 UJ	NA	NA	1,500 UJ	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	270	NA	1,700 DJ	NA	310 J	NA	NA	12,000 J	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	50 U	NA	50 U	NA	50 U	NA	NA	50 U	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	50 U	NA	50 U	NA	50 U	NA	NA	50 U	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	270	NA	380	NA	590	NA	NA	1,300	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	20,900	NA	13,300	NA	11,000	NA	NA	19,100	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	**1,360,000**	NA	15,200	NA	181,000	NA	NA	6,100	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	5,500	NA	470	NA	13,200	NA	NA	1,000	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	17,300,000	NA	6,040,000	NA	4,920,000	NA	NA	1,050,000	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-04 08/20/02	P-05 08/20/02	P-05R 03/05/03	P-05R 06/03/03	P-05R 02/11/04	P-05R 05/20/04	P-05R 10/26/04	P-05R 03/10/05	P-07 08/20/02	P-08 08/20/02	P-09 04/30/02	P-09 08/20/02	P-10 04/07/11	P-11 08/20/02	P-11 03/05/03	P-11 02/11/04
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,1-Dichloroethane	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,1-Dichloroethene	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,2-Dichloropropane	1	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
1,4-Dichlorobenzene	3	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 U	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	23	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	NA	ND	NA	NA
Benzene	1	ug/L	**1.9**	**18**	**190**	**180**	**89**	**180**	**87**	**200**	**27**	**26**	**530**	**190**	**3.1**	**750**	**1,500**	**1,900**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	1.0 U	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.6	NA	NA	NA
Dibromochloromethane	50	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Ethylbenzene	5	ug/L	**9.6**	2.4	**35**	**61**	3.6	**28**	**6.7**	**21**	ND	1.5	**11**	**6.3**	1.0 U	ND	**8.0**	**12**
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.6	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	0.91	8.2	**59**	**40**	**29**	**56**	**70**	**50**	3.0	**18**	NA	**80**	1.0 U	**210**	**350**	**310**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	NA	NA
Methylene Chloride	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-04 08/20/02	P-05 08/20/02	P-05R 03/05/03	P-05R 06/03/03	P-05R 02/11/04	P-05R 05/20/04	P-05R 10/26/04	P-05R 03/10/05	P-07 08/20/02	P-08 08/20/02	P-09 04/30/02	P-09 08/20/02	P-10 04/07/11	P-11 08/20/02	P-11 03/05/03	P-11 02/11/04
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	21	ND	ND	ND	97	33	26	ND	37	NA	350	NA	120	ND	ND
Tetrachloroethene	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
Toluene	5	ug/L	ND	0.87	2.6	2.3	1.6	2.6	2.5	2.5	ND	0.88	**6.6**	3.3	0.72 J	2.6	**10**	**11**
Total VOCs	- -	ug/L	11	52	290	300	130	370	200	310	30	85	570	640	50 J	1,100	1,900	2,200
trans-1,2-Dichloroethene	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	1.0 U	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
Trichloroethene	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	1.0 U	ND	NA	NA
Trichlorofluoromethane	5	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	1.0 U	ND	NA	NA
Vinyl Chloride	2	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	1.0 U	ND	NA	NA
Xylenes (total)	5	ug/L	0.62	2.0	**8.8**	**12**	4.3	**5.5**	4.3	**5.1**	ND	3.1	**22**	**12**	0.86 J	1.8	**9.6**	**17**
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	ND	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	5.3	2.0	1.2	1.2	0.72	1.3	1.3 J	1.4 J	5.4	13	NA	18	NA	2.0	2.0	6.8
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	2.1	ND	NA	NA	ND	NA	ND	ND	ND	1.4	NA	ND	NA	ND	NA	2.5
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	**0.80**	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	NA	NA	**1.9**
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	1.5
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	**2.1**

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-04 08/20/02	P-05 08/20/02	P-05R 03/05/03	P-05R 06/03/03	P-05R 02/11/04	P-05R 05/20/04	P-05R 10/26/04	P-05R 03/10/05	P-07 08/20/02	P-08 08/20/02	P-09 04/30/02	P-09 08/20/02	P-10 04/07/11	P-11 08/20/02	P-11 03/05/03	P-11 02/11/04
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	**1.7**
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	ND	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	2.9
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	**0.70**	ND	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	NA	**0.63**	**1.7**
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	1.5	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	4.1	1.1	ND	ND	ND	NA	NA	ND	0.76	1.9	NA	0.66	NA	0.96	1.8	7.6
Fluorene	50	ug/L	6.8	2.5	1.5	1.3	0.64	1.1	ND	1.3 J	3.5	7.2	NA	6.6	NA	3.0	8.3	11
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	4.7	ND	**17**	**15**	1.9	7.9	ND	ND	ND	ND	NA	1.2	NA	ND	ND	**11**
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	1.2	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND
Phenanthrene	50	ug/L	12	2.1	0.98	ND	ND	ND	ND	0.70 J	1.1	10	NA	2.1	NA	5.7	10	21
Phenol	1	ug/L	NA	NA	ND	**1.7**	ND	**2.5**	**2.1 J**	**2.2 J**	NA	NA	NA	NA	NA	**3.7**	**12**	**9.7**
Pyrene	50	ug/L	3.0	0.87	ND	NA	ND	ND	NA	ND	0.62	1.2	NA	0.60	NA	0.77	1.7	6.0
Total SVOCs	- -	ug/L	39	8.6	22	20	4.5	13	3.4	5.6	11	35	NA	29	NA	16	36	87
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110 J	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.0	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	138,000	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.20	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3,500**	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.90 J	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10,700	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	260	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-04 08/20/02	P-05 08/20/02	P-05R 03/05/03	P-05R 06/03/03	P-05R 02/11/04	P-05R 05/20/04	P-05R 10/26/04	P-05R 03/10/05	P-07 08/20/02	P-08 08/20/02	P-09 04/30/02	P-09 08/20/02	P-10 04/07/11	P-11 08/20/02	P-11 03/05/03	P-11 02/11/04
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.10 J	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,600	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**53,600**	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.40 J	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.30 J	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	200 U	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.0	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00 U	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	136,000	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.70 J	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2,800**	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10,000	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.0 U	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,900	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**44,500**	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.50 J	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 J	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	59,300	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-11 10/26/04	P-11 03/10/05	P-13 08/20/02	P-14 08/20/02	P-14 03/05/03	P-14 06/03/03	P-14 05/20/04	P-14 10/26/04	P-14 03/10/05	P-15 08/20/02	P-15 03/05/03	P-15 06/03/03	P-15 05/20/04	P-15 10/26/04	P-15 03/10/05	P-17 08/20/02
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	**9.3**	NA	4.7	NA	ND	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	ND	ND	**6.0**	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Benzene	1	ug/L	**3,300**	**1,300**	**160**	**240**	**38**	**34**	**50**	**120**	**43**	**1,100**	**300**	**230**	**30**	**24**	**13**	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	ND	ND	**3,400**	**95**	**350**	**2,200**	**3,800**	**34,000**	**1,800**	**190**	**290**	**200**	**5.6**	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	**15**	**12**	**31**	**610**	**130**	**130**	**150**	**240**	**110**	**300**	**160**	**98**	**7.7**	2.2	ND	ND
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**320**	**130**	**94**	ND	**29**	**13**	**32**	**33**	**15**	**210**	**420**	**130**	**88**	**41**	6.5	ND
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-11 10/26/04	P-11 03/10/05	P-13 08/20/02	P-14 08/20/02	P-14 03/05/03	P-14 06/03/03	P-14 05/20/04	P-14 10/26/04	P-14 03/10/05	P-15 08/20/02	P-15 03/05/03	P-15 06/03/03	P-15 05/20/04	P-15 10/26/04	P-15 03/10/05	P-17 08/20/02
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	ND	120	ND	ND	NA	ND	ND	ND	ND	ND	270	120	85	31	ND
Tetrachloroethene	5	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Toluene	5	ug/L	**19**	**7.5**	**5.7**	**910**	**99**	**110**	**79**	**330**	**350**	**1,900**	**220**	**84**	**14**	**6.1**	0.38 J	ND
Total VOCs	- -	ug/L	3,700	1,500	430	1,800	5,200	930	650	4,400	4,800	57,000	4,900	1,100	10,000	610	90	ND
trans-1,2-Dichloroethene	5	ug/L	NA	NA	ND	ND	**24**	**7.8**	3.1	NA	NA	NA	NA	NA	ND	0.78	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	ND	ND	**210**	NA	**52**	NA	**11**	**9,400**	NA	NA	**9,400**	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	ND	ND	**890**	**150**	**400**	**1,100**	**210**	**8,700**	**1,000**	**140**	**250**	**250**	**34**	ND
Xylenes (total)	5	ug/L	**22**	**18**	**25**	ND	**390**	**390**	**280**	**420**	**210**	**770**	**1,000**	ND	**22**	3.1	0.23 J	ND
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	1.1	ND	17	17	NA	NA	NA	ND	2.3	ND	NA	NA	NA	ND	ND
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	1.8	2.5	6.8	8.9	5.5	6.0	8.4	8.0	4.7	**20**	3.3	4.4	3.7	2.9	2.5	ND
Acenaphthylene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	0.58	0.56	1.0	ND	NA	NA	NA	0.59 J	ND	ND	NA	NA	NA	ND	ND	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-11 10/26/04	P-11 03/10/05	P-13 08/20/02	P-14 08/20/02	P-14 03/05/03	P-14 06/03/03	P-14 05/20/04	P-14 10/26/04	P-14 03/10/05	P-15 08/20/02	P-15 03/05/03	P-15 06/03/03	P-15 05/20/04	P-15 10/26/04	P-15 03/10/05	P-17 08/20/02
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	1.0 J	1.4	ND	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	ND	ND
Fluorene	50	ug/L	2.4	3.6	3.9	5.8	1.7	1.9	3.0	4.2	1.7 J	5.6	1.1	1.3	1.5	ND	ND	8.9
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Hexachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	1.8 J	5.3	9.9	**390**	**52**	**53**	**50**	**68**	**22**	**130**	**30**	**20**	ND	ND	ND	1.9
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Phenanthrene	50	ug/L	3.2	5.1	4.3	6.0	1.3	ND	0.96	2.6	0.67 J	ND	ND	ND	ND	ND	ND	1.5
Phenol	1	ug/L	**11**	**8.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	ND	ND	ND	ND
Pyrene	50	ug/L	NA	0.81 J	1.0	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND
Total SVOCs	- -	ug/L	21	28	28	430	77	61	62	83	29	160	34	27	5.2	2.9	2.5	12
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-11 10/26/04	P-11 03/10/05	P-13 08/20/02	P-14 08/20/02	P-14 03/05/03	P-14 06/03/03	P-14 05/20/04	P-14 10/26/04	P-14 03/10/05	P-15 08/20/02	P-15 03/05/03	P-15 06/03/03	P-15 05/20/04	P-15 10/26/04	P-15 03/10/05	P-17 08/20/02
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-18 04/30/02	P-18 08/20/02	P-18 03/05/03	P-18 06/03/03	P-18 02/11/04	P-18 05/20/04	P-18 10/26/04	P-18 03/09/05	P-18 08/10/05	P-18R 01/27/11	P-19 04/30/02	P-19 08/20/02	P-19 03/19/03	P-19 06/03/03	P-19 02/11/04	P-19 05/20/04
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	ND	4.7	NA	NA	ND	NA	0.64 J	0.59	5.0 U	NA	ND	NA	**68**	NA	ND
1,1-Dichloroethene	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	25 U	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND
Benzene	1	ug/L	**1,400**	**740**	**470**	**360**	**120**	**110**	**200**	**170**	**180**	**160**	**15**	**220**	**260**	**420**	**150**	**170**
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	**13,000**	**4,500**	**140**	NA	2.5	NA	**7.0**	**5.7**	5.0 U	ND	**11,000**	**20,000**	**79,000**	**7.2**	1.9
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	30	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	**390**	**470**	**420**	**210**	**80**	**26**	**23**	**34**	**18**	3.8 J	**390**	**76**	**55**	**120**	**86**	**54**
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**36**	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	**790**	**290**	**270**	**72**	**88**	**120**	**230 a**	**140**	5.0 U	NA	**990**	**1,200**	**4,900**	**110**	**62**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
Naphthalene	10	ug/L	**45**	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.4	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-18 04/30/02	P-18 08/20/02	P-18 03/05/03	P-18 06/03/03	P-18 02/11/04	P-18 05/20/04	P-18 10/26/04	P-18 03/09/05	P-18 08/10/05	P-18R 01/27/11	P-19 04/30/02	P-19 08/20/02	P-19 03/19/03	P-19 06/03/03	P-19 02/11/04	P-19 05/20/04
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	ND	180	60	120	110	200	130	NA	NA	ND	1,300	2,600	80	64
Tetrachloroethene	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
Toluene	5	ug/L	**380**	**380**	**140**	**44**	**9.9**	**14**	**16**	**22**	**26**	4.0 J	**150**	**220**	**220**	**450**	**14**	**13**
Total VOCs	- -	ug/L	2,700	26,000	8,900	1,800	370	390	480	500	610	260 J	7,900	20,000	27,000	110,000	480	420
trans-1,2-Dichloroethene	5	ug/L	ND	ND	**11**	**11**	NA	0.42	0.74	2.9	3.1	5.0 U	**7,200**	ND	NA	**100**	1.8	0.96
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	NA	NA	ND
Trichloroethene	5	ug/L	ND	ND	4.7	**90**	NA	ND	NA	1.5	NA	5.0 U	ND	ND	**780**	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	5.0 U	NA	ND	NA	**69**	NA	ND
Vinyl Chloride	2	ug/L	ND	**9,900**	**2,300**	**200**	NA	**7.4**	NA	**31**	**89**	5.0 U	ND	**8,100**	**3,500**	**21,000**	**15**	**3.5**
Xylenes (total)	5	ug/L	**460**	**1,500**	**730**	**350**	**27**	**22**	**17**	**32**	**20**	**9.0 J**	**70**	**140**	**68**	**230**	**24**	**54**
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	5.1	2.5	NA	NA	NA	NA	ND	ND	5.3 U	NA	NA	ND	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	22	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 J	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	11 U	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	8.9	2.3	2.3	0.55	2.0	1.6	1.3	2.1	9.8	NA	18	10	12	6.6	7.0
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	5.3 U	NA	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	ND	NA	NA	ND	NA	ND	ND	ND	0.63 J	NA	ND	NA	NA	ND	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	**0.96**	ND	NA	NA	ND	ND	5.3 U	NA	NA	NA	ND	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	0.98	ND	NA	NA	ND	ND	5.3 U	NA	NA	NA	ND	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	**1.5**	ND	NA	NA	ND	ND	5.3 U	NA	NA	NA	ND	ND	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-18 04/30/02	P-18 08/20/02	P-18 03/05/03	P-18 06/03/03	P-18 02/11/04	P-18 05/20/04	P-18 10/26/04	P-18 03/09/05	P-18 08/10/05	P-18R 01/27/11	P-19 04/30/02	P-19 08/20/02	P-19 03/19/03	P-19 06/03/03	P-19 02/11/04	P-19 05/20/04
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	0.69	NA	NA	NA	ND	ND	5.3 U	NA	NA	NA	ND	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	**0.77**	ND	NA	NA	ND	ND	5.3 U	NA	NA	NA	ND	ND	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	2.0	NA	1.5	NA	NA	ND	ND	5.3 U	NA	NA	ND	NA	ND	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7 J	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	**1.4**	ND	NA	NA	ND	ND	5.3 U	NA	NA	NA	ND	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	5.3 U	NA	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2 J	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	5.3 U	NA	NA	NA	NA	NA	ND
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	ND	0.86	3.6	ND	NA	NA	ND	ND	0.65 J	NA	NA	ND	ND	ND	NA
Fluorene	50	ug/L	NA	6.5	1.3	1.6	ND	2.0	1.9	1.3 J	2.5	4.0 J	NA	9.1	4.5	5.7	3.2	2.5
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	5.3 U	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	5.3 U	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	5.3 U	NA	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	**140**	**67**	**42**	**13**	7.4	ND	ND	ND	6.3	NA	**29**	**21**	**18**	4.3	4.3
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	5.3 U	NA	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3 U	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	ND	11 U	NA	NA	NA	NA	ND	NA
Phenanthrene	50	ug/L	NA	1.0	0.90	2.7	ND	ND	ND	ND	ND	2.3 J	NA	NA	ND	ND	0.74	ND
Phenol	1	ug/L	NA	ND	ND	**15**	ND	ND	ND	ND	ND	5.3 U	NA	ND	ND	**4.3**	ND	ND
Pyrene	50	ug/L	NA	ND	0.58	NA	ND	ND	NA	ND	ND	0.46 J	NA	ND	ND	NA	ND	ND
Total SVOCs	- -	ug/L	NA	160	78	73	15	11	3.5	2.6	4.6	51 J	NA	56	36	41	15	14
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	270	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.60 J	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.0	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.500 J	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	81,900	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.10 J	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.50 J	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.80 J	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**8,700**	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,100	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**420**	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-18 04/30/02	P-18 08/20/02	P-18 03/05/03	P-18 06/03/03	P-18 02/11/04	P-18 05/20/04	P-18 10/26/04	P-18 03/09/05	P-18 08/10/05	P-18R 01/27/11	P-19 04/30/02	P-19 08/20/02	P-19 03/19/03	P-19 06/03/03	P-19 02/11/04	P-19 05/20/04
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.60 J	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,500	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**73,900**	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.90	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.50 J	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	60.0 J	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.10 J	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	42.0	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.530 J	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	80,900	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00 J	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.40 J	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.20 J	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**9,500**	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,800	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**450**	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.200 U	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.40 J	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	15,200	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	15.0 U	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.00 U	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**80,400**	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.0 U	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.10	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.50 J	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	270,000	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	270,000	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,100	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,500 UJ	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,500 UJ	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	12,000 J	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	50 U	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	390	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,300	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,000 UB	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	100 U	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	493,000	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-19 10/26/04	P-19 03/09/05	P-19 03/10/05	P-20 08/20/02	P-21 08/20/02	P-22 08/20/02	P-23 08/20/02	P-24 03/19/03	P-26 08/20/02	P-26 03/19/03	P-26 06/03/03	P-26 05/20/04	P-26 10/26/04	P-26 08/10/05	P-28 08/20/02	TP-01 09/10/96
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	0.63	ND	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Benzene	1	ug/L	**170**	NA	**140**	**57**	**46**	**45**	**50**	**12**	**860**	NA	**640**	NA	**110**	**150**	**6.1**	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	**3,300**	NA	**170**	2.0	1.2	0.66	**170**	**110**	**130**	NA	**20**	NA	NA	**33**	ND	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	**53**	NA	**10**	ND	ND	2.5	ND	0.58	ND	NA	**34**	NA	**56**	**27**	ND	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**900**	NA	**410 a**	**61**	**120**	**150**	**150**	**300**	**630**	NA	**210**	NA	**100**	**150**	**25**	NA
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-19 10/26/04	P-19 03/09/05	P-19 03/10/05	P-20 08/20/02	P-21 08/20/02	P-22 08/20/02	P-23 08/20/02	P-24 03/19/03	P-26 08/20/02	P-26 03/19/03	P-26 06/03/03	P-26 05/20/04	P-26 10/26/04	P-26 08/10/05	P-28 08/20/02	TP-01 09/10/96
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	700	NA	1,400 a	1,600 a	430	500	260	380	480	NA	450	NA	130	120	ND	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Toluene	5	ug/L	**82**	NA	**44**	**220**	**220**	**12**	2.0	1.8	**210**	NA	**20**	NA	2.7	**19**	0.62	NA
Total VOCs	- -	ug/L	7,800	NA	2,500	490	970	710	630	920	3,400	NA	1,400	NA	410	610	33	NA
trans-1,2-Dichloroethene	5	ug/L	**9.8 J**	NA	1.5	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	2.7	ND	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Trichloroethene	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	0.63	ND	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA
Vinyl Chloride	2	ug/L	**2,600**	NA	**330 a**	2.0	**4.8**	1.1	**260 a**	**120**	**300**	NA	NA	NA	NA	**94**	ND	NA
Xylenes (total)	5	ug/L	**34**	NA	**27**	**140**	**140**	**6.3**	1.8	1.7	**810**	NA	**37**	NA	**12**	**15**	1.2	NA
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	5.1	4.3	NA	6.7	**28**	**33**	1.4	ND	**26**	15	20	9.0	9.7	12	14	ND
Acenaphthylene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	ND	NA	ND	0.61	1.4	ND	NA	ND	NA	NA	NA	ND	ND	1.8	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND
Benzo(a)pyrene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-19 10/26/04	P-19 03/09/05	P-19 03/10/05	P-20 08/20/02	P-21 08/20/02	P-22 08/20/02	P-23 08/20/02	P-24 03/19/03	P-26 08/20/02	P-26 03/19/03	P-26 06/03/03	P-26 05/20/04	P-26 10/26/04	P-26 08/10/05	P-28 08/20/02	TP-01 09/10/96
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.4	NA	ND	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	ND	1.8	ND
Fluorene	50	ug/L	2.9	2.0	NA	2.6	13	13	ND	ND	9.2	3.5	5.0	1.1	1.1	ND	11	ND
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Hexachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	ND	ND	NA	ND	ND	0.83	ND	ND	**77**	10	3.1	7.7	9.9	ND	NA	ND
Nitrobenzene	0.4	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Phenanthrene	50	ug/L	ND	ND	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	4.6	ND
Phenol	1	ug/L	ND	ND	NA	**3.5**	ND	ND	ND	ND	ND	**6.7**	**2.2**	ND	ND	ND	NA	NA
Pyrene	50	ug/L	NA	ND	NA	ND	ND	0.65	ND	ND	ND	ND	NA	0.61	NA	ND	1.1	ND
Total SVOCs	- -	ug/L	8.0	ND	NA	13	41	49	1.4	ND	110	35	30	21	21	12	35	ND
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	P-19 10/26/04	P-19 03/09/05	P-19 03/10/05	P-20 08/20/02	P-21 08/20/02	P-22 08/20/02	P-23 08/20/02	P-24 03/19/03	P-26 08/20/02	P-26 03/19/03	P-26 06/03/03	P-26 05/20/04	P-26 10/26/04	P-26 08/10/05	P-28 08/20/02	TP-01 09/10/96
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	590

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-01 09/13/96	TP-01 04/26/97	TP-01 01/27/98	TP-01 04/09/98	TP-01 11/02/01	TP-04 09/10/96	TP-04 04/26/97	TP-04 01/27/98	TP-04 04/09/98	TP-04 11/02/01	TP-04 04/30/02	TP-04 08/20/02	TP-07 04/26/97	TP-09 09/09/96	TP-09 04/26/97	TP-10 09/09/96
Volatile Organics																		
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	NA	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	1.7	4.7	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Benzene	1	ug/L	**3.4**	**4.6**	NA	**1.5**	ND	NA	**10 [8.8]**	NA	ND	ND [ND]	ND	ND	**13**	NA	**71**	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	1.2	2.8	NA	0.20 J	ND	1.6	1.2 [1.1]	NA	ND	ND [ND]	ND	ND	**9.1**	**160**	**60**	**78**
Isopropylbenzene	5	ug/L	ND	1.8	NA	0.30 J	NA	ND	ND [ND]	NA	ND	NA	NA	NA	4.1	**24**	**7.3**	**7.9**
m&p-Xylene	- -	ug/L	3.4	ND	NA	ND	ND	4.6	7.1 [5.7]	NA	ND	ND [ND]	ND	ND	7.8	15	5.6	11
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**16**	2.1	NA	0.70 J	ND	**13**	5.0 [5.1]	NA	2.0	**ND [32]**	NA	ND	10	**47**	**28**	**120**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Naphthalene	10	ug/L	2.3	5.7	NA	1.3	ND	ND	ND [ND]	NA	0.40 J	ND [ND]	ND	NA	**17**	**170**	**35**	**90**
n-Butylbenzene	- -	ug/L	ND	ND	NA	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	4.8	29	ND	4.0
n-Propylbenzene	- -	ug/L	ND	2.3	NA	0.20 J	NA	ND	ND [ND]	NA	ND	NA	NA	NA	7.4	47	17	13
o-Xylene	- -	ug/L	ND	ND	NA	0.80 J	ND	ND	ND [ND]	NA	ND	ND [ND]	ND	ND	ND	4.4	ND	6.4
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	ND	1.8	ND	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-01 09/13/96	TP-01 04/26/97	TP-01 01/27/98	TP-01 04/09/98	TP-01 11/02/01	TP-04 09/10/96	TP-04 04/26/97	TP-04 01/27/98	TP-04 04/09/98	TP-04 11/02/01	TP-04 04/30/02	TP-04 08/20/02	TP-07 04/26/97	TP-09 09/09/96	TP-09 04/26/97	TP-10 09/09/96
Volatile Organics (Cont.)																		
sec-Butylbenzene	- -	ug/L	ND	ND	NA	0.30 J	NA	ND	ND [ND]	NA	ND	NA	NA	NA	1.1	7.2	4.0	3.6
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	ND	1.6	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND [ND]	NA	ND	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Toluene	5	ug/L	ND	ND	NA	ND	ND	ND	ND [ND]	NA	ND	**5.4 [ND]**	ND	ND	ND	**13**	**5.9**	**7.6**
Total VOCs	- -	ug/L	30	19	NA	5.3	0	19	23 [21]	NA	2.4	5.4 [32]	0	0	76	520	230	340
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Xylenes (total)	5	ug/L	3.4	ND	NA	NA	ND	NA	NA	NA	NA	ND [ND]	ND	ND	NA	NA	ND	NA
Semivolatile Organics																		
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	6.2
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	**1.0 J**	NA	NA	ND	NA	**1.0 J**	NA	NA	NA	**2.1**	NA	ND	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	2.0 J	NA	NA	ND	NA	2.0 J	NA	NA	NA	2.5	NA	ND	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	**3.0 J**	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**3.4**	NA	ND	NA	ND

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-01 09/13/96	TP-01 04/26/97	TP-01 01/27/98	TP-01 04/09/98	TP-01 11/02/01	TP-04 09/10/96	TP-04 04/26/97	TP-04 01/27/98	TP-04 04/09/98	TP-04 11/02/01	TP-04 04/30/02	TP-04 08/20/02	TP-07 04/26/97	TP-09 09/09/96	TP-09 04/26/97	TP-10 09/09/96
Semivolatile Organics (Cont.)																		
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	2.0 J	NA	NA	ND	NA	2.0 J	NA	NA	NA	NA	NA	ND	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	**1.0 J**	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	**3.0 J**	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	**3.9**	NA	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	4.0 J	NA	NA	ND	NA	3.0 J	NA	NA	NA	6.5	NA	ND	NA	ND
Fluorene	50	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	5.9
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	**2.0 J**	NA	NA	NA	NA	ND	NA	NA	NA	**1.9**	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	**83**	NA	**51**
Nitrobenzene	0.4	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	2.5	NA	ND	NA	6.5
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	4.0 J	NA	NA	ND	NA	3.0 J	NA	NA	NA	5.2	NA	ND	NA	ND
Total SVOCs	- -	ug/L	NA	NA	22	NA	NA	ND	NA	16	NA	NA	NA	28	NA	83	NA	70
Inorganics																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-01 09/13/96	TP-01 04/26/97	TP-01 01/27/98	TP-01 04/09/98	TP-01 11/02/01	TP-04 09/10/96	TP-04 04/26/97	TP-04 01/27/98	TP-04 04/09/98	TP-04 11/02/01	TP-04 04/30/02	TP-04 08/20/02	TP-07 04/26/97	TP-09 09/09/96	TP-09 04/26/97	TP-10 09/09/96
Inorganics (Cont.)																		
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																		
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																		
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	7,400	NA	NA	ND	NA	2,600	NA	NA	NA	NA	NA	1,200	NA	1,300

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-10 04/26/97	TP-11 09/09/96	TP-12 04/26/97	TP-13 04/26/97	TP-14 09/09/96	TP-15 04/26/97	TW-01 03/15/04	TW-02 03/15/04	TW-03 03/16/04	TW-04 03/15/04	TW-05 03/16/04	TW-06 03/15/04	TW-07 03/16/04	TW-08 03/16/04
Volatile Organics																
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND [ND]	ND	NA	ND	ND	1.7	2.9
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	**17**	ND [ND]	ND	**13**	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	290	440	870	300	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	ug/L	**30**	NA	**3,500**	**3,000**	NA	**530**	**7.9 J**	**2.8 J [2.9 J]**	**9.9**	**12**	**5.0**	**22**	0.83	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	**3,300**	**1,300 [1,300]**	**13**	**6,200**	**28**	**1,200**	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	**83**	**120**	**510**	**1,400**	**1,300**	42 U	4.1 J	4.8 [4.8 J]	3.8	3.5 J	1.9	**8.6 J**	ND	ND
Isopropylbenzene	5	ug/L	4.8	**8.8**	ND	**160**	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	10	19	3,400	4,200	4,500	ND	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	**38**	**670**	**290**	**14,000**	**25,000**	**640**	**960**	**840 [830]**	**450**	**490**	**850**	**2,800**	**55**	**20**
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	**32**	ND [ND]	ND	ND	ND	**5.1 J**	ND	ND
Naphthalene	10	ug/L	**76**	**33**	**330**	**960**	**690**	**41**	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	ND	12	210	1,000	ND	11	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	5.6	13	ND	340	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	5.2	6.2	ND	ND	720	ND	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	ND	1.8	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-10 04/26/97	TP-11 09/09/96	TP-12 04/26/97	TP-13 04/26/97	TP-14 09/09/96	TP-15 04/26/97	TW-01 03/15/04	TW-02 03/15/04	TW-03 03/16/04	TW-04 03/15/04	TW-05 03/16/04	TW-06 03/15/04	TW-07 03/16/04	TW-08 03/16/04
Volatile Organics (Cont.)																
sec-Butylbenzene	- -	ug/L	ND	2.7	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	1,400	820 [810]	870	1,400	1,100	4,600	580	450
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND [ND]	ND	ND	ND	ND	ND	ND
Toluene	5	ug/L	**5.6**	**22**	**76**	**220**	**440**	ND	**9.3**	ND [ND]	**8.9**	ND	0.49 J	**12**	0.44 J	ND
Total VOCs	- -	ug/L	260	1,200	8,800	26,000	33,000	1,200	9,600	3,100 [3,100]	1,400	8,100	2,100	17,000	640	470
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	**30**	**16 [15]**	0.86 J	**38**	1.7	**25**	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	**3,500**	**24 [25]**	ND	**6.4 J**	**21**	**7,800**	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	**370**	**110 [120]**	**46**	**33**	**81**	**71**	ND	ND
Xylenes (total)	5	ug/L	NA	NA	NA	NA	NA	ND	**13**	**5.9 [6.0 J]**	**9.0**	ND	0.91 J	**20**	ND	ND
Semivolatile Organics																
1,1'-Biphenyl	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetophenone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Atrazine	7.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-10 04/26/97	TP-11 09/09/96	TP-12 04/26/97	TP-13 04/26/97	TP-14 09/09/96	TP-15 04/26/97	TW-01 03/15/04	TW-02 03/15/04	TW-03 03/16/04	TW-04 03/15/04	TW-05 03/16/04	TW-06 03/15/04	TW-07 03/16/04	TW-08 03/16/04
Semivolatile Organics (Cont.)																
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Caprolactam	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	**11**	NA	NA	**390**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	NA	11	NA	NA	390	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics																
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Location ID: / Date Collected:	TOGS 1.1.1 Water Guidance Values	Units	TP-10 04/26/97	TP-11 09/09/96	TP-12 04/26/97	TP-13 04/26/97	TP-14 09/09/96	TP-15 04/26/97	TW-01 03/15/04	TW-02 03/15/04	TW-03 03/16/04	TW-04 03/15/04	TW-05 03/16/04	TW-06 03/15/04	TW-07 03/16/04	TW-08 03/16/04
Inorganics (Cont.)																
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered																
Aluminum	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	200	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	25	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	300	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	100	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Alkalinity	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	4,300	NA	NA	11,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 109.

Table 2. Summary of Groundwater Analytical Data, Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Town of Hempstead, NY

Notes:

1. Bold values exceed the NYSDEC TOGS 1.1.1 Water Guidance Values (last amended June 2004).
2. Duplicate results are shown in brackets.

Abbreviations and Acronyms:

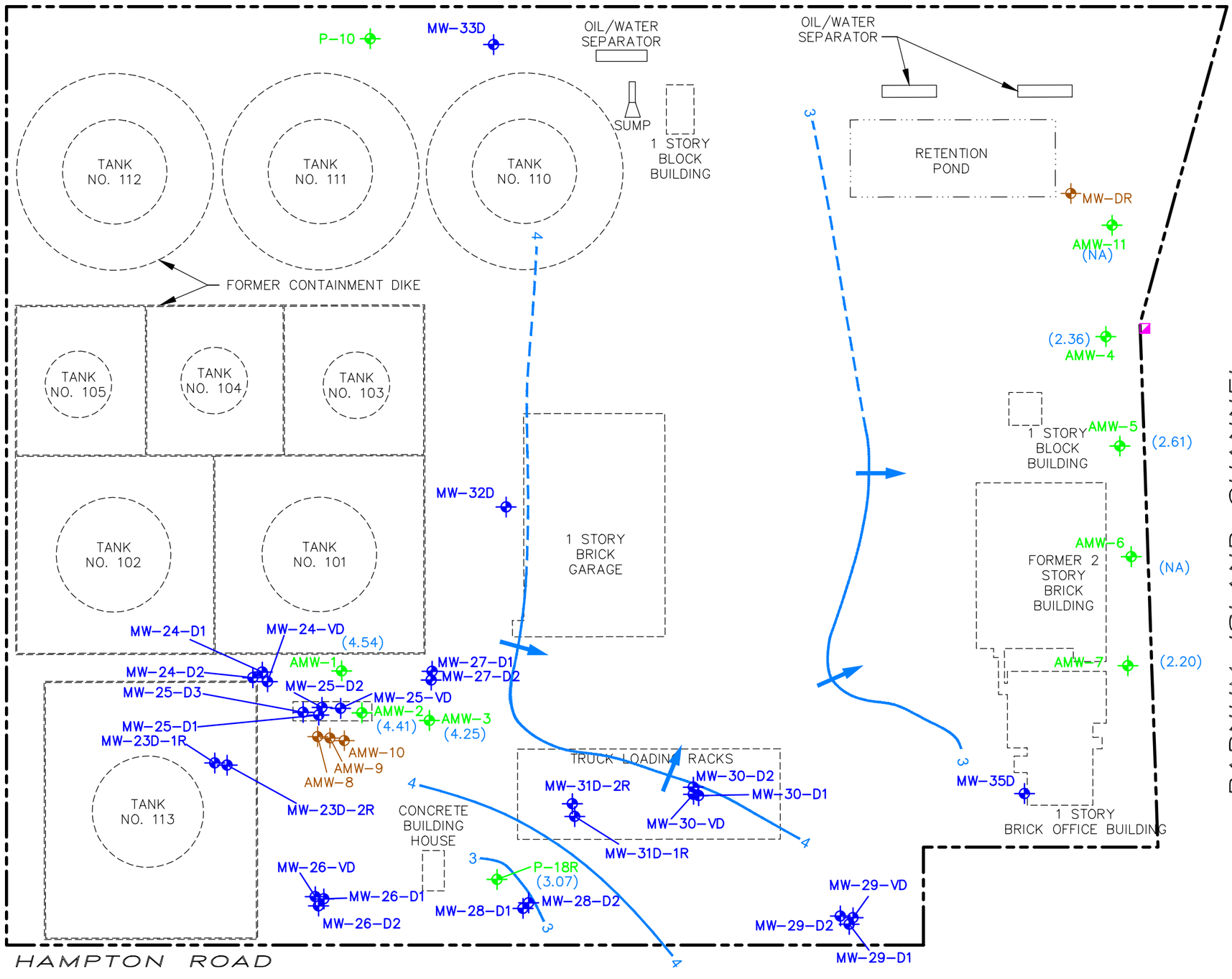
NA =	Not analyzed.
VOCs =	Volatile organics.
SVOCs =	Semivolatile organics.
ug/L =	Micrograms per liter.
T.O.G.S. =	Technical & Operational Guidance Series.
NYSDEC =	New York State Department of Environmental Conservation.

Analytical Qualifiers:

*** =**	Laboratory duplicate analysis was outside control limits.
B =	The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
D =	Concentration is based on a diluted sample analysis.
E =	The compound was quantitated above the calibration range.
J =	The compound was positively identified; however, the associated numerical value is an estimated concentration only.
ND =	None detected.
U =	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Appendix C

Groundwater Contour Maps



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- 3 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (2.36) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. NA – NOT AVAILABLE

0 60' 120'

GRAPHIC SCALE

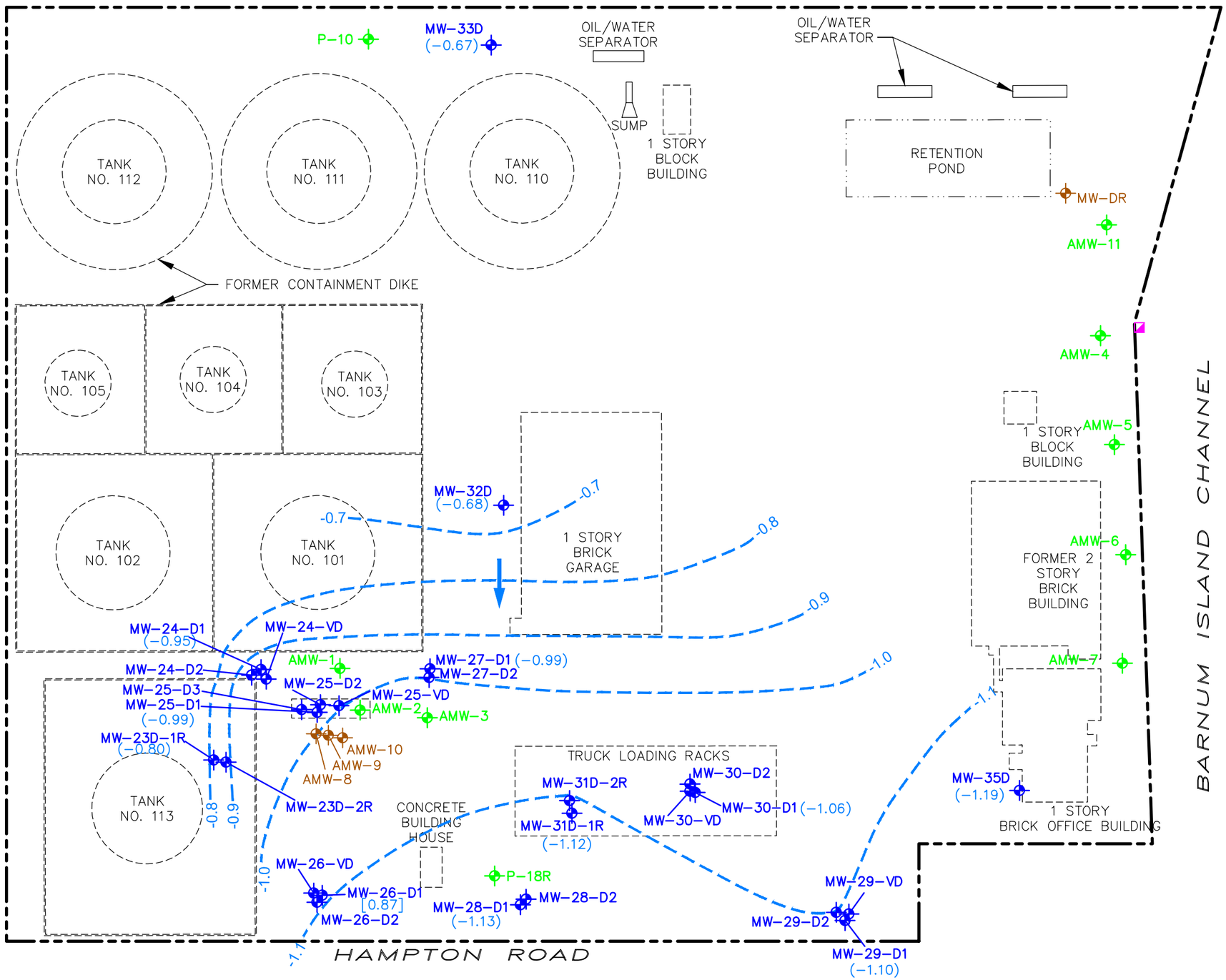
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

WATERTABLE ELEVATION CONTOUR MAP 1/18/11

ARCADIS

FIGURE
C-1

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400001\DWG\GW47517W01.DWG LAYOUT: C-1 SAVED: 5/26/2011 4:02 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 4:15 PM BY: STOWELL, GARY
XREFS:
47517X01
47517X00
IMAGES:
PROJECTNAME: ---



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- -1.0 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (-1.13) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [1.13] — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) ELEVATION NOT USED TO GENERATE GROUNDWATER CONTOURS

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

0 60' 120'

GRAPHIC SCALE

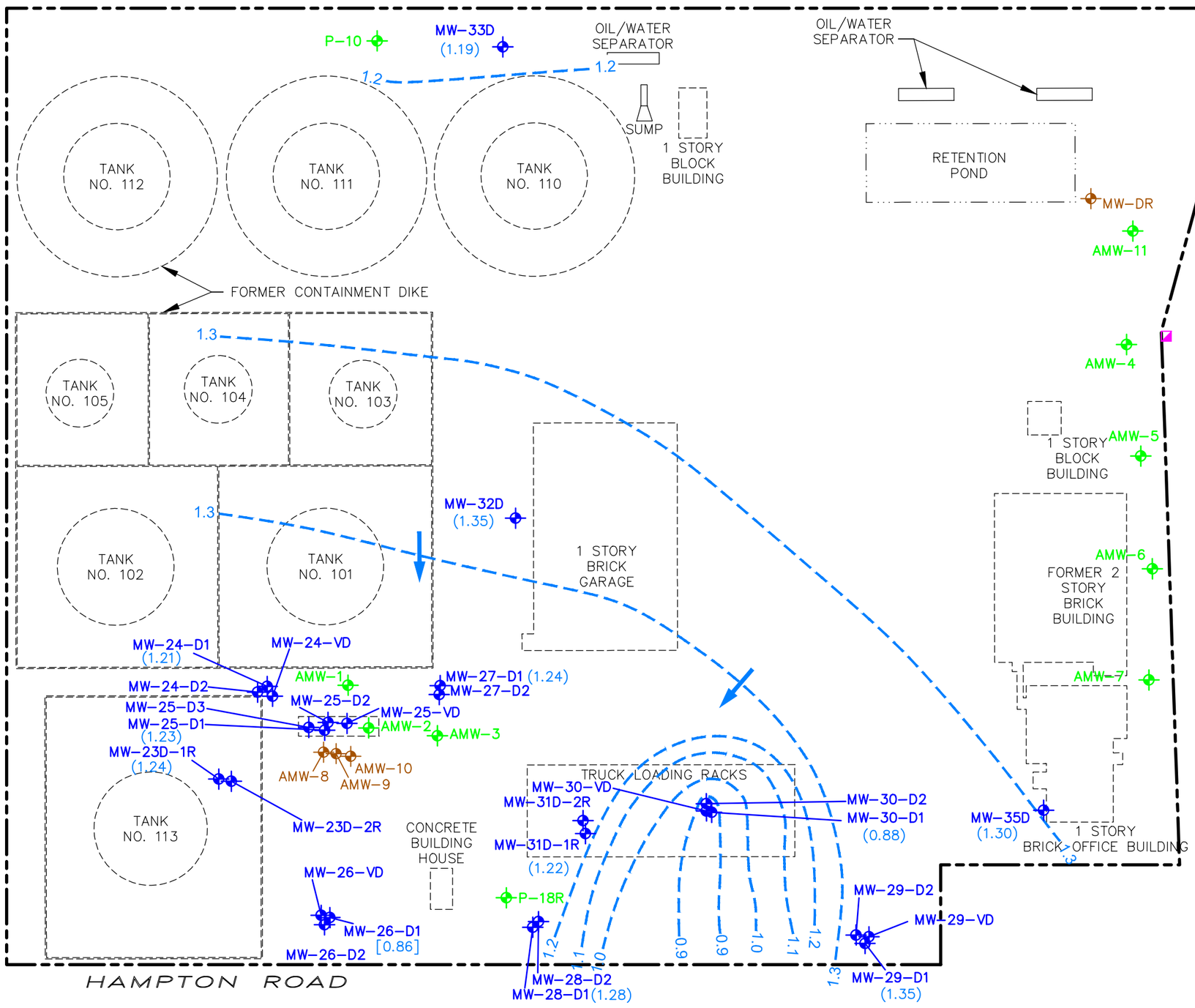
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D1 HORIZON LOW TIDE 4/7/11

ARCADIS

FIGURE C-2

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\0004\0000\1\DWG\GW47517W02.DWG LAYOUT: C-2 SAVED: 5/26/2011 4:06 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 4:15 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00
IMAGES:
PROJECTNAME: ---



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- 1.0 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (0.88) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [1.13] — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) ELEVATION NOT USED TO GENERATE GROUNDWATER CONTOURS

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

0 60' 120'

GRAPHIC SCALE

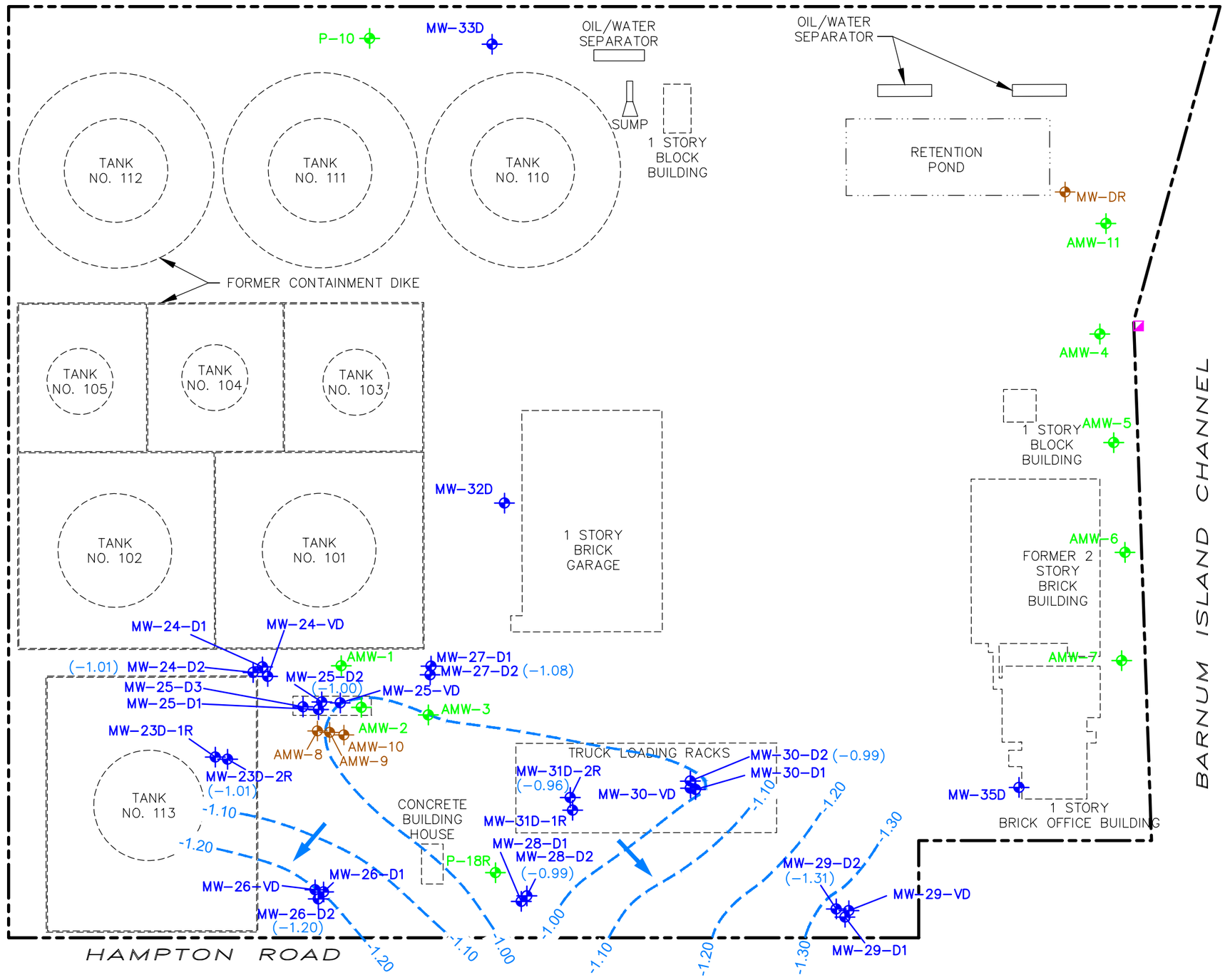
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D1 HORIZON HIGH TIDE 4/6/11

ARCADIS

FIGURE
C-3

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0004\0001\DWG\GW47517W03.DWG LAYOUT: C-3 SAVED: 5/26/2011 4:08 PM ACADVER: 18.0S (LMS TECH) PAGESETUP:
XREFS: IMAGES: PROJECTNAME: ---
47517X01
47517X00



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- -1.00 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (-1.08) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

0 60' 120'

GRAPHIC SCALE

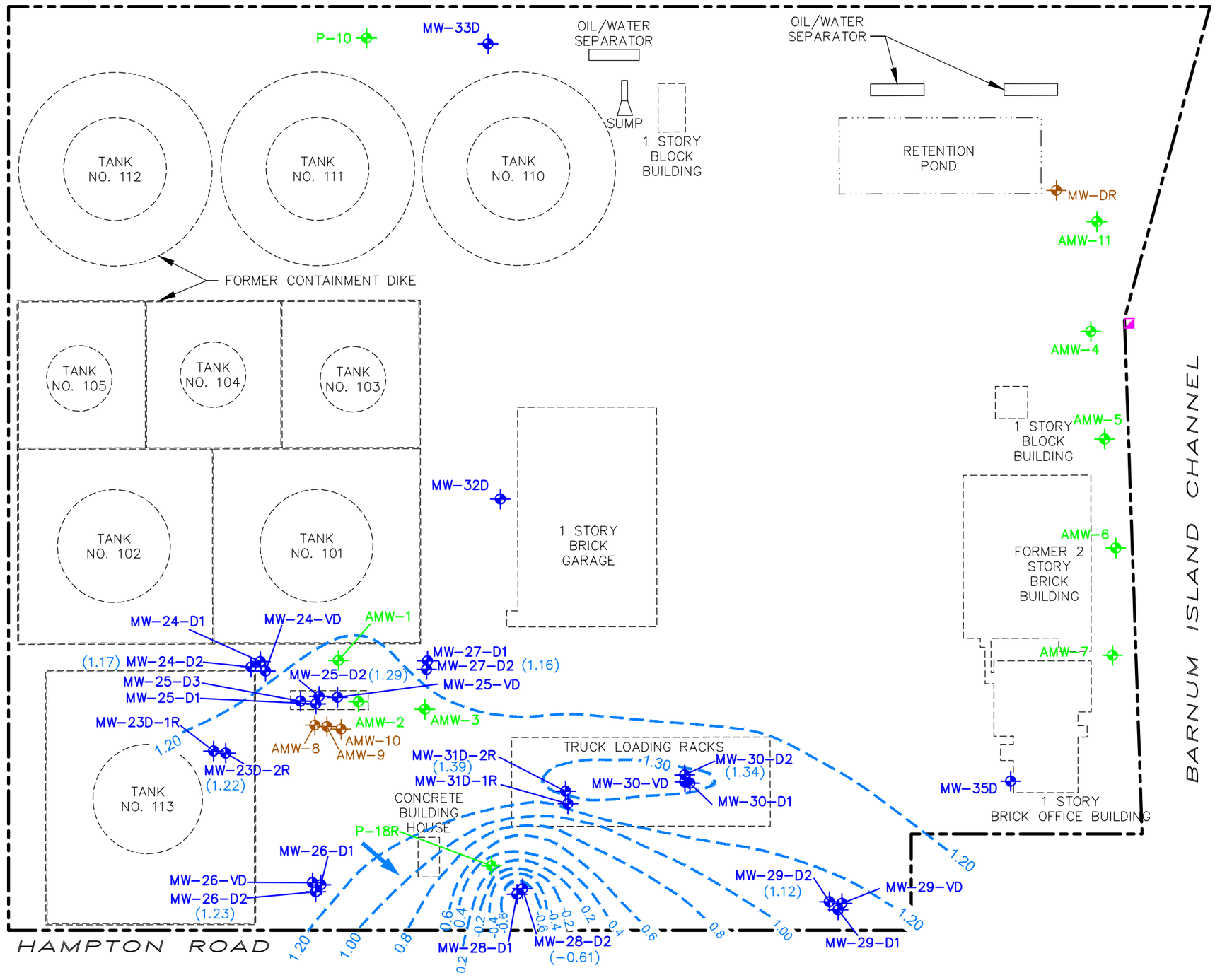
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D2 HORIZON LOW TIDE 4/7/11

ARCADIS

FIGURE
C-4

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\0004\0001\DWG\GW47517W04.DWG LAYOUT: C-4 SAVED: 5/26/2011 4:09 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 4:15 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00
IMAGES: PROJECTNAME: ---



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- -1.00 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (1.12) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

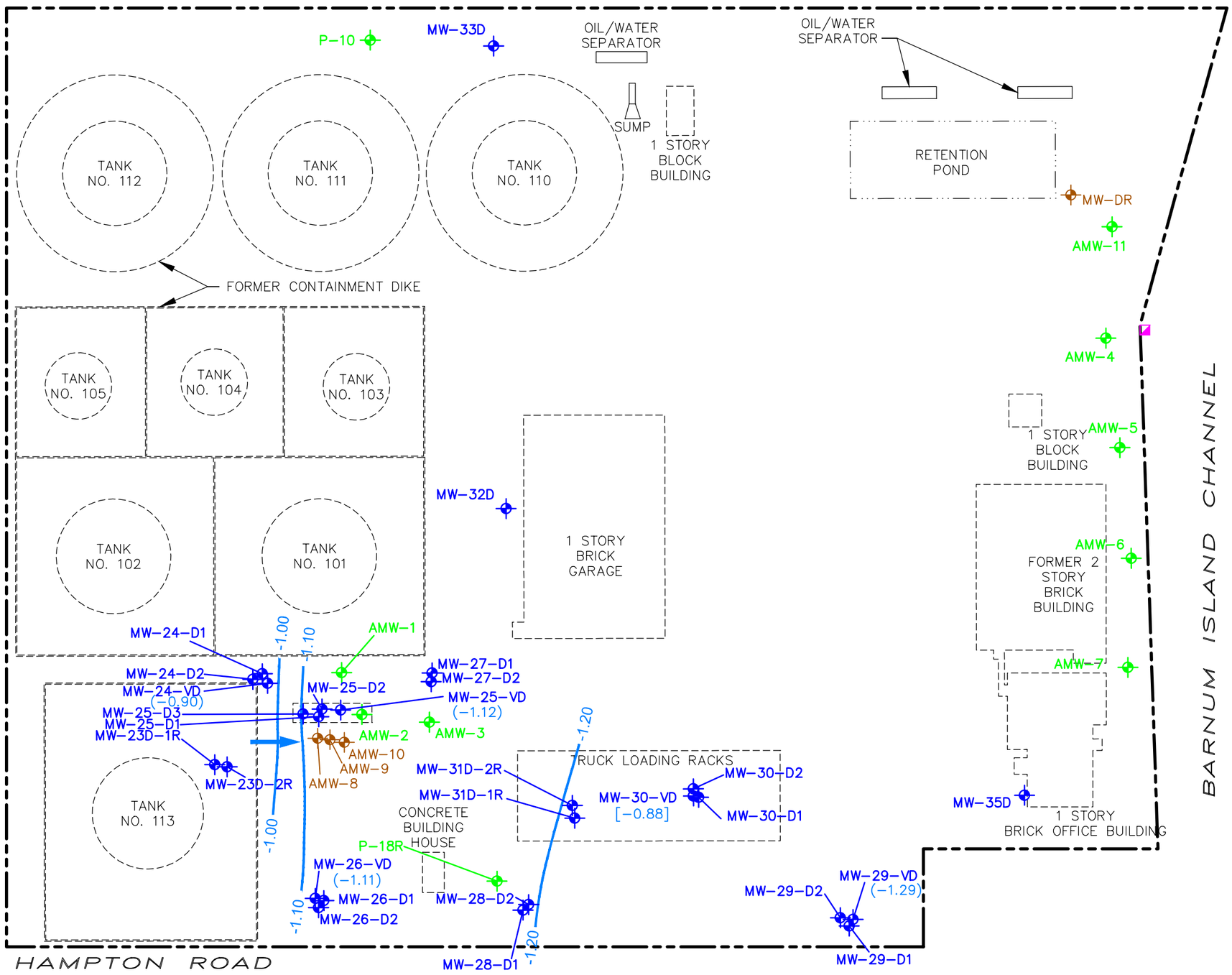
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D2 HORIZON HIGH TIDE 4/7/11

ARCADIS

FIGURE
C-5

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400001\DWG\GW47517W05.DWG LAYOUT: C-5 SAVED: 5/26/2011 4:10 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 4:16 PM BY: STOWELL, GARY
XREFS:
47517X01
47517X00
IMAGES:
PROJECTNAME: ---



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- -1.00 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (1.11) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [1.13] — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL) ELEVATION NOT USED TO GENERATE GROUNDWATER CONTOURS

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

0 60' 120'

GRAPHIC SCALE

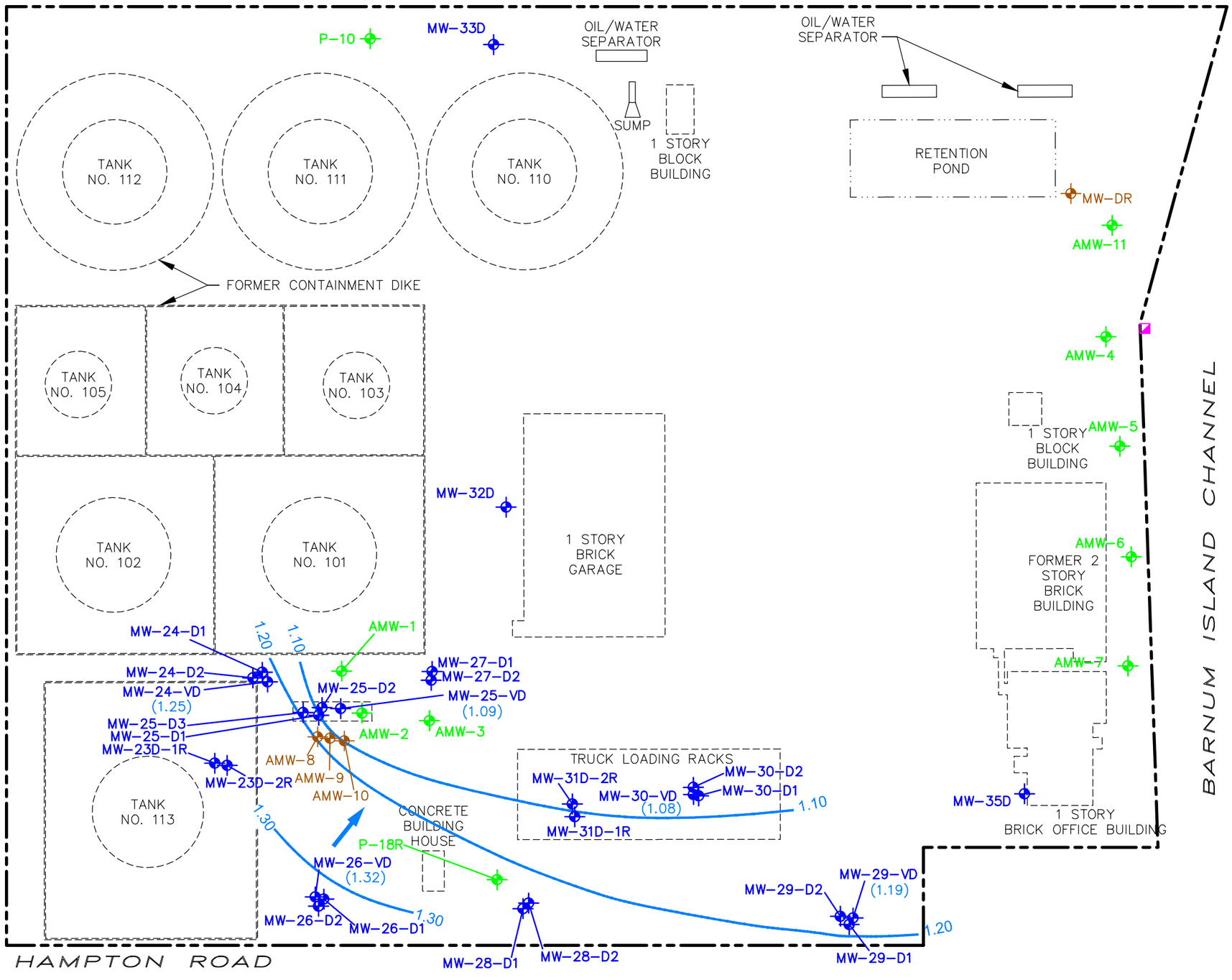
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND VD HORIZON LOW TIDE 4/7/11

ARCADIS

FIGURE
C-6

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENV\CAD\SYRACUSE\ACTIB\00475170\00400001\DWG\GW47517W06.dwg LAYOUT: C-6 SAVED: 5/28/2011 4:13 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C:\LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 4:16 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00 IMAGES: --- PROJECTNAME: ---



LEGEND

- EXISTING MONITORING WELL
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- STREAM GAUGE
- 1.10 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- (1.19) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

SOURCE:

1. MONITORING WELL LOCATIONS SURVEYED BY A. TAY.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.

0 60' 120'

GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
REMEDIAL INVESTIGATION REPORT

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND VD HORIZON HIGH TIDE 4/6/11

ARCADIS

FIGURE
C-7

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: L. FORAKER LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\000400001\DWG\GW47517W07.DWG LAYOUT: C-7 SAVED: 5/26/2011 4:11 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: C-LB-PDF-CONV PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/26/2011 4:16 PM BY: STOWELL, GARY
XREFS: 47517X01 47517X00
IMAGES:
PROJECTNAME: ---

Appendix D

Air Monitoring Data

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: OceanSide Date: 11-17-10

Monitoring Instruments: Multi Rae

Air Monitor: MWE Activity: MW Install

Level of Protection: D

CO PID H_2S
LEL O_2

Time	Location	Instrument Reading	Comments
0745	AMW-1	0 0.0 0 0 20.6	
0800	AMW-1	0 0.0 0 0 20.6	
0815	AMW-1	0 0.0 0 0 20.6	
0845	AMW-2	0 0.0 0 0 20.7	
0900	AMW-2	0 0.0 0 20.9	
1015	MW-31D-1R	0 0.0 0 0 20.6	
1030	MW-31D-1R	0 0.0 0 0 20.6	
1045	MW-31D-1R	0 0.0 0 0 20.6	
1100	MW-31D-1R	0 0.0 0 0 21.0	
1115	MW-31D-1R	0 0.0 0 0 21.1	
1130	MW-31D-1R	0 0.0 0 0 21.1	
1145	MW-31D-1R	0 0.0 0 0 21.0	
1530	MW-31D-2R	0 0.0 0 0 20.9	
1545	MW-31D-2R	0 0.0 0 0 20.7	
1600	MW-31D-2R	0 0.0 0 0 20.6	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal
Date: 11-18-10
Monitoring Instruments: Multi-Rae
Air Monitor: PID
Activity: MW install
Level of Protection: D

CO	PID	H_2S
LEL		O_2

Time	Location	Instrument Reading	Comments
0715	MW-31D-2R	0 0.0 0 0 20.9	
0730	MW-31D-2R	0 0.0 0 0 20.7	
0745	MW-31D-2R	0 0.0 0 0 20.8	
0800	MW-31D-2R	0 0.0 0 0 20.9	
0815	MW-31D-2R	0 0.0 0 0 20.7	
0830	MW-31D-2R	0 0.0 0 0 20.7	
0930	AMW-4	0 0.0 0 0 20.9	
0945	AMW-4	0 0.0 0 0 21.1	
1000	AMW-4	0 0.0 0 0 21.0	
1045	AMW-5	0 0.0 0 0 20.8	
1100	AMW-5	0 0.0 0 0 20.8	
1115	AMW-5	0 0.0 0 0 20.7	
1130	AMW-5	0 0.1 0 0 20.7	
1400	AMW-6	0 0.0 0 0 20.8	
1415	AMW-6	0 0.0 0 0 20.9	
1430	AMW-6	0 0.0 0 0 20.9	
1445	AMW-6	0 0.0 0 0 21.0	
1500	AMW-6	0 0.0 0 0 ~~20.1~~ 21.0	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Foinut Gulf Terminal
Date: 11-30-10
Monitoring Instruments: Minirae
Air Monitor:
Activity: Drilling
Level of Protection: D

Time	Location	Instrument Reading	Comments
0800	AMW-8	0 0.0 0 0 20.9	
0815	AMW-8	0 0.0 0 0 20.6	
0830	AMW-8	0 0.0 0 0 20.8	
0915	AMW-8	0 0.0 0 0 20.9	
0930	AMW-8	0 0.0 0 0 20.9	
0945	AMW-8	0 0.0 0 0 20.9	
1100	AMW-9	0 0.0 0 0 20.8	
1115	AMW-9	0 0.0 0 0 20.7	
1130	AMW-9	0 0.0 0 20.9	
1145	AMW-9	0 0.0 0 20.9	
1400	AMW-3	0 0.0 0 0 20.7	
1415	AMW-3	0 0.0 0 0 20.8	
1430	AMW-3	0 0.0 0 0 20.9	
1445	AMW-3	0 0.8 0 0 20.9	
1515	AMW-10	0 0.0 0 0 20.9	
1530	AMW-10	0 0.0 0 0 20.9	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal

Date: 11-29-10

Monitoring Instruments: Minirae

CO PID H_2S
LEL OXY

Air Monitor:

Activity: Drilling

Level of Protection: D

Time	Location	Instrument Reading	Comments
1415	AMW-7	0 0.0 0 0 20.9	
1430	AMW-7	0 0.0 0 0 20.9	
1445	AMW-7	0 0.0 0 20.9	
1500	AMW-7	0 0.0 0 0 20.6	
1515	AMW-7	0 0.0 0 0 20.6	
1530	AMW-7	0 0.0 0 0 20.5	
1545	AMW-7	0 0.0 0 0 20.7	* Augers pulled, well to grade

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal

Date: 11-30-10

Monitoring Instruments: Minirae

Air Monitor:

Activity: Drilling

Level of Protection: D

Time	Location	Instrument Reading	Comments
0800	AMW-8	0 0.0 0 0 20.9	
0815	AMW-8	0 0.0 0 0 20.4	
0830	AMW-8	0 0.0 0 0 20.8	
0915	AMW-8	0 0.0 0 0 20.9	
0930	AMW-8	0 0.0 0 0 20.9	
0945	AMW-8	0 0.0 0 0 20.9	
1100	AMW-9	0 0.0 0 0 20.8	
1115	AMW-9	0 0.0 0 0 20.7	
1130	AMW-9	0 0.0 0 20.9	
1145	AMW-9	0 0.0 0 20.9	
1400	AMW-3	0 0.0 0 0 20.7	
1415	AMW-3	0 0.0 0 0 20.8	
1430	AMW-3	0 0.0 0 0 20.9	
1445	AMW-3	0 0.8 0 0 20.9	
1515	AMW-10	0 0.0 0 0 20.9	
1530	AMW-10	0 0.0 0 0 20.9	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal

Date: 12-1-10

Monitoring Instruments: CO PID H_2S LEL OXY

Air Monitor: Multirae

Activity: Drilling

Level of Protection: D

Time	Location	Instrument Reading	Comments
0745	AMW-10	CO-0 PID 0.0 H_2S-0 LEL-0 Oxy-20.9	
0800	AMW-10	0 0.0 0 0 20.8	
0815	AMW-10	0 0.0 0 0 20.8	
0830	AMW-10	0 0.0 0 0 20.9	
0900	AMW-3	0 0.0 0 0 21.0	
0915	AMW-3	0 0.0 0 0 20.9	
0930	AMW-3	0 0.0 0 0 20.9	
0945	AMW-3	0 0.0 0 0 20.8	
1100	AMW-11	0 0.0 0 0 20.9	
1115	AMW-11	0 0.0 0 0 20.9	
1130	AMW-11	0 0.0 0 0 20.9	
1330	AMW-11	0 0.0 0 0 20.9	
1345	AMW-11	0 0.0 0 0 20.9	
1400	AMW-11	0 0.0 0 0 20.8	
1415	AMW-11	0 0.0 0 0 20.7	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal Date: 12-2-10

Monitoring Instruments:

Air Monitor: Multirae Activity: Drilling

Level of Protection:

Time	Location	Instrument Reading	Comments
0745	P-18R	0 0.0 0 0 20.9	
0800	P-18R	0 0.0 0 0 20.8	
0815	P-18R	0 0.0 0 0 20.9	
0830	MW-25D3	0 0.0 0 0 20.9	
0845	MW-25D3	0 0.0 0 0 20.9	
0900	P-18R	0 0.0 0 0 20.9	
0915	P-18R	0 0.0 0 0 20.8	
1330	MW-23D-2R	0 0.0 0 0 20.6	
1345	MW-23D-2R	0 0.0 0 0 20.6	
1400	MW-23D-2R	0 0.0 0 0 20.7	
1415	MW-23D-2R	0 0.0 0 0 20.7	
1430	MW-23D-2R	0 0.0 0 0 20.9	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal

Date: 12-6-10

CO / LEL PID H_2S / O_2

Monitoring Instruments: Multirae / PID

Air Monitor:

Activity: Drilling / Sampling

Level of Protection: D

Time	Location	Instrument Reading	Comments
1400	MW-31D-1R	0 0.0 0 / 0 20.9	
1415	MW-31D-1R	0 0.0 0 / 0 21.2	
1430	MW-31D-1R	0 0.0 0 / 0 20.9	
1445	MW-31D-1R	0 0.0 0 / 0 20.9	
1500	MW-31D-1R	0 0.0 0 / 0 20.9	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal Date: 12-7-10

Monitoring Instruments: Multirae/Dust

Air Monitor: Activity: Drilling

Level of Protection: D

Time	Location	Instrument Reading	Comments
0745	MW-31D-2R	0 0.0 0 0 20.9	
0800	MW-31D-2R	0 0.0 0 0 20.8	
0815	MW-31D-2R	0 0.0 0 0 20.9	
0830	MW-31D-2R	0 0.0 0 0 21.0	
0845	MW-31D-2R	0 0.0 0 0 20.9	
0900	MW-31D-2R	0 0.0 0 0 20.9	
0930	MW-31D-2R	0 0.0 0 0 20.8	
MW-23D-2R			
1300	MW-23D-2R	0 0.0 0 0 21.0	
1315	MW-23D-2R	0 0.1 0 0 20.9	
1330	MW-23D-2R	0 0.0 0 0 20.7	
1400	MW-23D-2R	0 0.0 0 0 20.9	
1430	MW-23D-2R	0 0.0 0 0 20.8	
1445	MW-23D-2R	0 0.0 0 0 20.9	
1500	MW-23D-2R	0 0.0 0 0 20.9	
		0 0.0 0 0 20.9	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal Date: 12-8-10

Monitoring Instruments: Multirae/Dust meter

Air Monitor: Activity: Drilling

Level of Protection: D

Time	Location	Instrument Reading	Comments
0830	MW-31D-2R	0 0.0 0 0 20.9	
0845	MW-31D-2R	0 0.0 0 0 21.0	
0900	MW-31D-2R	0 0.0 0 0 20.8	
0915	MW-31D-2R	0 0.0 0 0 20.9	
0945	MW-31D-2R	0 0.0 0 0 20.9	
1000	MW-31D-2R	0 0.0 0 0 20.9	
1030	MW-31D-2R	0 0.0 0 0 20.9	
—		0 0	
1330		0 0.0 0 0 20.8	
1345		0 0.0 0 0 20.8	
1400		0 0.0 0 0 20.7	
1415		0 0.0 0 0 20.9	
1430		0 0.0 0 0 20.9	
1500		0 0.0 0 0 21.0	
1515		0 0.0 0 0 20.9	
1530		0 0.0 0 0 20.8	

ARCADIS
Infrastructure, environment, buildings

Air Monitoring Log

Project: Former Gulf Terminal Date: 12-9-10

Monitoring Instruments: MultiRae

Air Monitor: Activity: Drilling

Level of Protection: D

Time	Location	Instrument Reading	Comments
0900	MW-25D3	0 0.0 0 0 20.9	
0915	MW-25D3	0 0.0 0 0 20.9	
0930	MW-25D3	0 0.0 0 0 20.9	
1000	MW-25D3	0 0.0 0 0 20.9	
1030	MW-25D3	0 0.0 0 0 20.9	
1100	MW-25D3	0 0.0 0 0 20.9	

"Model Number ", "DataRAM 4 ", 106
"Serial no. ", "D756 "
"Device no. ", 1
"Tag Number ", 0
"Start Time ", 5:27:07
"Start Date ", 30-Nov-10
"Log Period ", 0:05:00
"Number ", 103
"CalFactor ", 1
"Unit ", 0
"Unit Name ", "(MASS)ug/m3"
"SIZE_CORRECT ", "DISABLED"
"TEMPUNITS ", C
"Max MASS ", 61.66607
"Max MASS @ ", 102 ,13:57:07 , 30-Nov -2010
"Avg MASS ", 42.94907
"Max Diam ", 0.607074
"Max Diam @ ", 74 ,11:37:07 ,3 0-Nov- 2010
"Avg Diam ", 0.505374
"ALARM ", "DISABLED"
"ALARM_LEVEL ", 0
"AUTO_ZERO ", "DISABLED"
"AZ INTERVAL ", 1
"Errors ", 0

record,"(MASS)	ug/m3", Temp, R	Hum	idity,	Diameter
1,	4 1.0, 7.1, 5	2,	0.52	61 ,05:32:07 ,30-Nov-2010
2,	4 0.1, 7.6, 5	7,	0.55	29 ,05:37:07 ,30-Nov-2010
3,	3 9.4, 8.0, 5	9,	0.5	07 ,05:42:07 ,30-Nov-2010
4,	3 8.3, 8.3, 6	1,	0.45	99 ,05:47:07 ,30-Nov-2010
5,	3 7.6, 8.7, 6	1,	0.46	74 ,05:52:07 ,30-Nov-2010
6,	3 6.5, 9.0, 6	2,	0.44	80 ,05:57:07 ,30-Nov-2010
7,	3 6.5, 9.2, 6	3,	0.44	25 ,06:02:07 ,30-Nov-2010
8,	3 5.8, 9.5, 6	3,	0.42	54 ,06:07:07 ,30-Nov-2010
9,	3 4.1, 9.7, 6	3,	0.38	32 ,06:12:07 ,30-Nov-2010
10,	3 4.7, 9.9, 6	4,	0.4	73 ,06:17:07 ,30-Nov-2010
11,	3 5.1, 10.1, 6	4,	0.43	35 ,06:22:07 ,30-Nov-2010
12,	3 8.2, 10.3, 6	4,	0.45	43 ,06:27:07 ,30-Nov-2010
13,	3 3.6, 10.5, 6	4,	0.42	73 ,06:32:07 ,30-Nov-2010
14,	3 3.5, 10.6, 6	4,	0.41	24 ,06:37:07 ,30-Nov-2010
15,	3 3.6, 10.8, 6	4,	0.44	02 ,06:42:07 ,30-Nov-2010
16,	3 3.8, 11.0, 6	4,	0.47	36 ,06:47:07 ,30-Nov-2010
17,	3 4.6, 11.1, 6	4,	0.48	00 ,06:52:07 ,30-Nov-2010
18,	3 4.0, 11.2, 6	5,	0.47	53 ,06:57:07 ,30-Nov-2010
19,	3 4.5, 11.4, 6	5,	0.45	63 ,07:02:07 ,30-Nov-2010
20,	3 5.1, 11.5, 6	5,	0.53	58 ,07:07:07 ,30-Nov-2010
21,	3 3.7, 11.6, 6	5,	0.46	68 ,07:12:07 ,30-Nov-2010
22,	3 4.0, 11.7, 6	5,	0.46	14 ,07:17:07 ,30-Nov-2010
23,	3 2.8, 11.8, 6	4,	0.5	43 ,07:22:07 ,30-Nov-2010
24,	3 3.4, 11.9, 6	4,	0.49	88 ,07:27:07 ,30-Nov-2010
25,	3 4.8, 12.0, 6	5,	0.51	68 ,07:32:07 ,30-Nov-2010
26,	3 3.8, 12.0, 6	4,	0.49	25 ,07:37:07 ,30-Nov-2010
27,	3 2.9, 12.1, 6	4,	0.48	62 ,07:42:07 ,30-Nov-2010

28, 3 3.7, 12.1, 6 4, 0.48 14 ,07:47:07 ,30-Nov-2010
29, 3 4.2, 12.2, 6 5, 0.52 36 ,07:52:07 ,30-Nov-2010
30, 3 5.1, 12.2, 6 5, 0.48 85 ,07:57:07 ,30-Nov-2010
31, 3 6.1, 12.2, 6 5, 0.49 08 ,08:02:07 ,30-Nov-2010
32, 3 4.1, 12.3, 6 5, 0.44 63 ,08:07:07 ,30-Nov-2010
33, 3 6.5, 12.3, 6 5, 0.44 03 ,08:12:07 ,30-Nov-2010
34, 3 6.8, 12.3, 6 5, 0.45 48 ,08:17:07 ,30-Nov-2010
35, 3 8.2, 12.4, 6 5, 0.49 61 ,08:22:07 ,30-Nov-2010
36, 3 9.6, 12.4, 6 5, 0.45 85 ,08:27:07 ,30-Nov-2010
37, 4 0.2, 12.4, 6 5, 0.52 19 ,08:32:07 ,30-Nov-2010
38, 3 9.9, 12.4, 6 5, 0.52 60 ,08:37:07 ,30-Nov-2010
39, 3 6.3, 12.5, 6 6, 0.49 24 ,08:42:07 ,30-Nov-2010
40, 3 5.8, 12.5, 6 6, 0.49 73 ,08:47:07 ,30-Nov-2010
41, 3 8.0, 12.5, 6 6, 0.51 21 ,08:52:07 ,30-Nov-2010
42, 3 7.2, 12.5, 6 6, 0.48 49 ,08:57:07 ,30-Nov-2010
43, 3 7.8, 12.6, 6 6, 0.48 96 ,09:02:07 ,30-Nov-2010
44, 3 7.5, 12.6, 6 6, 0.48 78 ,09:07:07 ,30-Nov-2010
45, 3 8.6, 12.6, 6 6, 0.49 84 ,09:12:07 ,30-Nov-2010
46, 3 9.6, 12.6, 6 6, 0.51 62 ,09:17:07 ,30-Nov-2010
47, 4 0.1, 12.7, 6 6, 0.55 06 ,09:22:07 ,30-Nov-2010
48, 4 0.5, 12.7, 6 6, 0.52 94 ,09:27:07 ,30-Nov-2010
49, 3 8.9, 12.7, 6 6, 0.5 39 ,09:32:07 ,30-Nov-2010
50, 4 0.9, 12.7, 6 6, 0.56 12 ,09:37:07 ,30-Nov-2010
51, 4 0.4, 12.8, 6 6, 0.5 43 ,09:42:07 ,30-Nov-2010
52, 4 0.7, 12.8, 6 6, 0.48 22 ,09:47:07 ,30-Nov-2010
53, 3 8.7, 12.8, 6 6, 0.47 46 ,09:52:07 ,30-Nov-2010
54, 4 0.3, 12.8, 6 6, 0.55 02 ,09:57:07 ,30-Nov-2010
55, 3 9.8, 12.9, 6 6, 0.53 74 ,10:02:07 ,30-Nov-2010
56, 4 0.0, 12.9, 6 6, 0.54 08 ,10:07:07 ,30-Nov-2010
57, 4 0.3, 12.9, 6 6, 0.52 67 ,10:12:07 ,30-Nov-2010
58, 3 8.7, 12.9, 6 6, 0.51 56 ,10:17:07 ,30-Nov-2010
59, 4 0.2, 12.9, 6 6, 0.54 82 ,10:22:07 ,30-Nov-2010
60, 4 1.2, 12.9, 6 6, 0.53 02 ,10:27:07 ,30-Nov-2010
61, 3 9.9, 12.9, 6 6, 0.53 95 ,10:32:07 ,30-Nov-2010
62, 4 2.4, 12.9, 6 6, 0.53 15 ,10:37:07 ,30-Nov-2010
63, 4 1.6, 12.9, 6 6, 0.51 27 ,10:42:07 ,30-Nov-2010
64, 4 2.4, 12.9, 6 6, 0.5 75 ,10:47:07 ,30-Nov-2010
65, 4 1.8, 12.9, 6 6, 0.53 19 ,10:52:07 ,30-Nov-2010
66, 4 3.7, 12.9, 6 7, 0.56 11 ,10:57:07 ,30-Nov-2010
67, 4 2.6, 12.9, 6 7, 0.5 94 ,11:02:07 ,30-Nov-2010
68, 4 3.7, 12.9, 6 7, 0.56 38 ,11:07:07 ,30-Nov-2010
69, 4 4.5, 12.9, 6 7, 0.55 15 ,11:12:07 ,30-Nov-2010
70, 4 3.8, 12.9, 6 7, 0.5 49 ,11:17:07 ,30-Nov-2010
71, 4 3.6, 12.9, 6 7, 0.5 12 ,11:22:07 ,30-Nov-2010
72, 4 4.0, 12.9, 6 7, 0.51 16 ,11:27:07 ,30-Nov-2010
73, 4 5.2, 12.9, 6 7, 0.53 78 ,11:32:07 ,30-Nov-2010
74, 4 7.3, 12.9, 6 7, 0.6 71 ,11:37:07 ,30-Nov-2010
75, 4 5.1, 12.9, 6 8, 0.53 98 ,11:42:07 ,30-Nov-2010
76, 4 8.0, 13.0, 6 8, 0.54 02 ,11:47:07 ,30-Nov-2010
77, 4 7.3, 13.0, 6 8, 0.56 57 ,11:52:07 ,30-Nov-2010
78, 4 9.5, 13.0, 6 8, 0.59 06 ,11:57:07 ,30-Nov-2010
79, 4 9.9, 13.0, 6 8, 0.52 77 ,12:02:07 ,30-Nov-2010

80, 4 8.4, 13.0, 6 8, 0.51 90 ,12:07:07 ,30-Nov-2010
81, 5 1.2, 13.0, 6 8, 0.51 11 ,12:12:07 ,30-Nov-2010
82, 5 2.1, 12.9, 6 8, 0.51 26 ,12:17:07 ,30-Nov-2010
83, 5 2.4, 12.9, 6 9, 0.52 54 ,12:22:07 ,30-Nov-2010
84, 5 3.5, 12.9, 6 9, 0.53 81 ,12:27:07 ,30-Nov-2010
85, 5 2.6, 12.8, 6 9, 0.48 32 ,12:32:07 ,30-Nov-2010
86, 5 4.1, 12.8, 6 9, 0.55 75 ,12:37:07 ,30-Nov-2010
87, 5 3.7, 12.8, 6 9, 0.53 94 ,12:42:07 ,30-Nov-2010
88, 5 3.4, 12.7, 6 9, 0.51 84 ,12:47:07 ,30-Nov-2010
89, 5 4.7, 12.7, 6 9, 0.54 70 ,12:52:07 ,30-Nov-2010
90, 5 6.2, 12.7, 7 0, 0.55 26 ,12:57:07 ,30-Nov-2010
91, 5 4.5, 12.7, 7 0, 0.49 34 ,13:02:07 ,30-Nov-2010
92, 5 6.5, 12.6, 7 0, 0.52 45 ,13:07:07 ,30-Nov-2010
93, 5 7.3, 12.6, 7 0, 0.5 29 ,13:12:07 ,30-Nov-2010
94, 5 8.7, 12.6, 7 1, 0.52 08 ,13:17:07 ,30-Nov-2010
95, 6 1.5, 12.6, 7 1, 0.54 79 ,13:22:07 ,30-Nov-2010
96, 6 0.0, 12.5, 7 1, 0.52 82 ,13:27:07 ,30-Nov-2010
97, 5 9.1, 12.5, 7 1, 0.5 77 ,13:32:07 ,30-Nov-2010
98, 6 0.8, 12.5, 7 2, 0.51 98 ,13:37:07 ,30-Nov-2010
99, 6 0.2, 12.5, 7 2, 0.51 11 ,13:42:07 ,30-Nov-2010
100, 6 1.7, 12.5, 7 2, 0.5 55 ,13:47:07 ,30-Nov-2010
101, 6 1.1, 12.5, 7 2, 0.54 78 ,13:52:07 ,30-Nov-2010
102, 6 1.7, 12.5, 7 2, 0.5 36 ,13:57:07 ,30-Nov-2010
103, 6 1.1, 12.5, 7 3, 0.5 91 ,14:02:07 ,30-Nov-2010

"Model Number ", "DataRAM 4 " , 106
"Serial no. ", "D756 "
"Device no. ", 1
"Tag Number ", 1
"Start Time ", 5:59:40
"Start Date ", 2-Dec-10
"Log Period ", 0:05:00
"Number ", 109
"CalFactor ", 1
"Unit ", 0
"Unit Name ", "(MASS)ug/m 3"
"SIZE_CORRECT ", "DISABLED"
"TEMPUNITS ", C
"Max MASS ", 96.04491
"Max MASS @ ", 2 ,06:09:40 ,02 #NAME? 10
"Avg MASS ", 30.49982
"Max Diam ", 0.221019
"Max Diam @ ", 107 ,14:54: 40 , 2-Dec -2010
"Avg Diam ", 0.163932
"ALARM ", "DISABLED"
"ALARM_LEVEL ", 0
"AUTO_ZERO ", "DISABLED"
"AZ INTERVAL ", 1
"Errors ", 0

record,"(MASS)	ug/m3", Temp,	RHum idity,	Diameter
1,	4 8.9, 4.4,	64,	0.18 68 ,06:04:40 ,02-Dec-2010
2,	9 6.0, 4.6,	59,	0.2 48 ,06:09:40 ,02-Dec-2010
3,	4 2.0, 4.7,	55,	0.17 01 ,06:14:40 ,02-Dec-2010
4,	4 0.7, 4.5,	54,	0.16 18 ,06:19:40 ,02-Dec-2010
5,	4 0.2, 4.3,	53,	0.15 93 ,06:24:40 ,02-Dec-2010
6,	4 2.0, 4.0,	52,	0.17 27 ,06:29:40 ,02-Dec-2010
7,	4 0.1, 3.8,	52,	0.16 01 ,06:34:40 ,02-Dec-2010
8,	3 8.8, 3.6,	52,	0.15 67 ,06:39:40 ,02-Dec-2010
9,	3 7.9, 3.5,	52,	0.15 38 ,06:44:40 ,02-Dec-2010
10,	3 8.3, 3.5,	52,	0.15 41 ,06:49:40 ,02-Dec-2010
11,	3 7.0, 3.5,	52,	0.14 74 ,06:54:40 ,02-Dec-2010
12,	3 7.1, 3.4,	53,	0.14 84 ,06:59:40 ,02-Dec-2010
13,	3 6.2, 3.5,	52,	0.14 54 ,07:04:40 ,02-Dec-2010
14,	3 4.7, 3.5,	52,	0.14 71 ,07:09:40 ,02-Dec-2010
15,	3 4.2, 3.5,	52,	0.14 39 ,07:14:40 ,02-Dec-2010
16,	3 5.1, 3.6,	51,	0.15 06 ,07:19:40 ,02-Dec-2010
17,	3 4.7, 3.6,	51,	0.15 02 ,07:24:40 ,02-Dec-2010
18,	3 5.8, 3.6,	51,	0.15 85 ,07:29:40 ,02-Dec-2010
19,	3 6.1, 3.7,	51,	0.16 03 ,07:34:40 ,02-Dec-2010
20,	3 6.8, 3.8,	51,	0.15 75 ,07:39:40 ,02-Dec-2010
21,	3 4.5, 3.8,	51,	0.14 44 ,07:44:40 ,02-Dec-2010
22,	3 4.0, 3.9,	50,	0.14 94 ,07:49:40 ,02-Dec-2010
23,	3 4.2, 3.9,	50,	0.14 82 ,07:54:40 ,02-Dec-2010
24,	3 3.0, 4.0,	50,	0.14 90 ,07:59:40 ,02-Dec-2010
25,	3 4.1, 4.0,	50,	0.15 04 ,08:04:40 ,02-Dec-2010
26,	3 4.0, 4.1,	50,	0.14 63 ,08:09:40 ,02-Dec-2010
27,	3 4.5, 4.1,	49,	0.15 27 ,08:14:40 ,02-Dec-2010

28, 3 3.8, 4.2, 49, 0.15 33 ,08:19:40 ,02-Dec-2010
29, 3 4.7, 4.2, 49, 0.14 95 ,08:24:40 ,02-Dec-2010
30, 3 5.8, 4.3, 48, 0.15 78 ,08:29:40 ,02-Dec-2010
31, 4 0.0, 4.3, 48, 0.17 08 ,08:34:40 ,02-Dec-2010
32, 3 5.7, 4.4, 48, 0.16 14 ,08:39:40 ,02-Dec-2010
33, 3 4.0, 4.5, 48, 0.15 60 ,08:44:40 ,02-Dec-2010
34, 3 3.7, 4.5, 48, 0.15 08 ,08:49:40 ,02-Dec-2010
35, 3 3.7, 4.6, 48, 0.15 41 ,08:54:40 ,02-Dec-2010
36, 3 3.0, 4.7, 48, 0.14 96 ,08:59:40 ,02-Dec-2010
37, 3 3.5, 4.7, 47, 0.15 37 ,09:04:40 ,02-Dec-2010
38, 3 4.4, 4.8, 48, 0.15 25 ,09:09:40 ,02-Dec-2010
39, 3 2.7, 4.9, 47, 0.14 11 ,09:14:40 ,02-Dec-2010
40, 3 3.0, 5.0, 47, 0.15 86 ,09:19:40 ,02-Dec-2010
41, 3 6.5, 5.0, 47, 0.16 58 ,09:24:40 ,02-Dec-2010
42, 3 3.5, 5.1, 47, 0.15 52 ,09:29:40 ,02-Dec-2010
43, 3 1.8, 5.2, 46, 0.14 66 ,09:34:40 ,02-Dec-2010
44, 3 2.2, 5.2, 46, 0.15 44 ,09:39:40 ,02-Dec-2010
45, 3 1.4, 5.2, 46, 0.14 67 ,09:44:40 ,02-Dec-2010
46, 3 0.9, 5.3, 46, 0.14 52 ,09:49:40 ,02-Dec-2010
47, 3 0.6, 5.4, 46, 0.15 29 ,09:54:40 ,02-Dec-2010
48, 3 0.7, 5.5, 45, 0.15 05 ,09:59:40 ,02-Dec-2010
49, 3 2.4, 5.5, 45, 0.15 06 ,10:04:40 ,02-Dec-2010
50, 3 2.1, 5.6, 45, 0.14 94 ,10:09:40 ,02-Dec-2010
51, 3 6.1, 5.7, 44, 0.16 87 ,10:14:40 ,02-Dec-2010
52, 3 4.9, 5.8, 45, 0.16 36 ,10:19:40 ,02-Dec-2010
53, 3 2.4, 5.9, 44, 0.15 85 ,10:24:40 ,02-Dec-2010
54, 3 1.6, 6.0, 44, 0.16 03 ,10:29:40 ,02-Dec-2010
55, 3 0.5, 6.0, 44, 0.16 07 ,10:34:40 ,02-Dec-2010
56, 3 0.3, 6.1, 44, 0.16 51 ,10:39:40 ,02-Dec-2010
57, 2 8.0, 6.2, 44, 0.16 25 ,10:44:40 ,02-Dec-2010
58, 2 6.7, 6.3, 43, 0.16 26 ,10:49:40 ,02-Dec-2010
59, 2 7.2, 6.4, 43, 0.15 83 ,10:54:40 ,02-Dec-2010
60, 2 7.3, 6.5, 43, 0.15 62 ,10:59:40 ,02-Dec-2010
61, 2 7.8, 6.5, 43, 0.16 65 ,11:04:40 ,02-Dec-2010
62, 2 9.6, 6.6, 42, 0.15 93 ,11:09:40 ,02-Dec-2010
63, 2 6.8, 6.6, 42, 0.15 42 ,11:14:40 ,02-Dec-2010
64, 2 6.7, 6.7, 42, 0.15 50 ,11:19:40 ,02-Dec-2010
65, 2 8.2, 6.7, 42, 0.16 85 ,11:24:40 ,02-Dec-2010
66, 2 7.3, 6.8, 42, 0.17 40 ,11:29:40 ,02-Dec-2010
67, 2 3.6, 6.9, 41, 0.16 33 ,11:34:40 ,02-Dec-2010
68, 2 5.2, 6.9, 41, 0.16 85 ,11:39:40 ,02-Dec-2010
69, 2 5.9, 7.0, 41, 0.17 44 ,11:44:40 ,02-Dec-2010
70, 2 6.2, 7.0, 40, 0.15 99 ,11:49:40 ,02-Dec-2010
71, 2 4.6, 7.0, 40, 0.17 08 ,11:54:40 ,02-Dec-2010
72, 2 3.7, 7.1, 40, 0.16 57 ,11:59:40 ,02-Dec-2010
73, 2 4.7, 7.1, 40, 0.17 38 ,12:04:40 ,02-Dec-2010
74, 2 4.7, 7.1, 40, 0.16 69 ,12:09:40 ,02-Dec-2010
75, 2 3.8, 7.2, 40, 0.17 12 ,12:14:40 ,02-Dec-2010
76, 2 4.3, 7.2, 40, 0.16 49 ,12:19:40 ,02-Dec-2010
77, 2 4.1, 7.2, 39, 0.16 07 ,12:24:40 ,02-Dec-2010
78, 2 5.2, 7.2, 40, 0.16 33 ,12:29:40 ,02-Dec-2010
79, 2 4.5, 7.3, 39, 0.15 68 ,12:34:40 ,02-Dec-2010

80,	2	3.5,	7.3,	39,	0.16	60	,12:39:40	,02-Dec-2010
81,	2	5.2,	7.3,	39,	0.16	44	,12:44:40	,02-Dec-2010
82,	2	5.5,	7.3,	39,	0.16	30	,12:49:40	,02-Dec-2010
83,	2	4.8,	7.3,	39,	0.16	45	,12:54:40	,02-Dec-2010
84,	2	5.8,	7.3,	39,	0.16	58	,12:59:40	,02-Dec-2010
85,	2	4.8,	7.3,	39,	0.16	24	,13:04:40	,02-Dec-2010
86,	2	4.5,	7.4,	39,	0.15	35	,13:09:40	,02-Dec-2010
87,	2	4.7,	7.4,	39,	0.16	14	,13:14:40	,02-Dec-2010
88,	2	3.9,	7.4,	39,	0.17	05	,13:19:40	,02-Dec-2010
89,	2	3.8,	7.4,	39,	0.17	02	,13:24:40	,02-Dec-2010
90,	2	2.1,	7.4,	39,	0.16	14	,13:29:40	,02-Dec-2010
91,	2	2.0,	7.4,	39,	0.16	94	,13:34:40	,02-Dec-2010
92,	2	1.5,	7.4,	39,	0.16	81	,13:39:40	,02-Dec-2010
93,	2	3.7,	7.3,	39,	0.17	86	,13:44:40	,02-Dec-2010
94,	2	3.7,	7.3,	39,	0.18	53	,13:49:40	,02-Dec-2010
95,	2	2.7,	7.2,	39,	0.18	58	,13:54:40	,02-Dec-2010
96,	2	1.4,	7.2,	39,	0.17	91	,13:59:40	,02-Dec-2010
97,	2	3.0,	7.1,	39,	0.17	67	,14:04:40	,02-Dec-2010
98,	2	1.5,	7.0,	39,	0.18	60	,14:09:40	,02-Dec-2010
99,	1	9.7,	6.9,	39,	0.18	53	,14:14:40	,02-Dec-2010
100,	2	1.1,	6.8,	39,	0.17	95	,14:19:40	,02-Dec-2010
101,	2	1.3,	6.6,	39,	0.18	64	,14:24:40	,02-Dec-2010
102,	2	1.6,	6.5,	39,	0.17	79	,14:29:40	,02-Dec-2010
103,	2	2.6,	6.4,	39,	0.18	43	,14:34:40	,02-Dec-2010
104,	2	4.1,	6.3,	40,	0.19	20	,14:39:40	,02-Dec-2010
105,	2	3.1,	6.2,	40,	0.19	40	,14:44:40	,02-Dec-2010
106,	2	7.9,	6.0,	40,	0.21	48	,14:49:40	,02-Dec-2010
107,	2	4.1,	6.0,	41,	0.22	10	,14:54:40	,02-Dec-2010
108,	2	5.3,	5.9,	42,	0.2	38	,14:59:40	,02-Dec-2010
109,	2	2.5,	6.0,	43,	0.18	64	,15:04:40	,02-Dec-2010

"Model Number ", "DataRAM 4 " , 106
"Serial no. ", "D756 "
"Device no. ", 1
"Tag Number ", 2
"Start Time ", 5:31:19
"Start Date ", 3-Dec-10
"Log Period ", 0:05:00
"Number ", 52
"CalFactor ", 1
"Unit ", 0
"Unit Name ", "(MASS)ug/m 3"
"SIZE_CORRECT ", "DISABLED"
"TEMPUNITS ", C
"Max MASS ", 74.04728
"Max MASS @ ", 12 ,06:31:1 9 ,0 3-Dec- 2010
"Avg MASS ", 38.86157
"Max Diam ", 0.219104
"Max Diam @ ", 1 ,05:36:19 ,03 #NAME? 10
"Avg Diam ", 0.167214
"ALARM ", "DISABLED"
"ALARM_LEVEL ", 0
"AUTO_ZERO ", "DISABLED"
"AZ INTERVAL ", 1
"Errors ", 0

record,"(MASS)	ug/m3", Temp,	RHum	idity,	Diameter
1,	6 0.6, 0.3,	46,	0.21 91	,05:36:19 ,03-Dec-2010
2,	4 2.5, 0.5,	48,	0.18 60	,05:41:19 ,03-Dec-2010
3,	4 2.5, 0.6,	49,	0.18 56	,05:46:19 ,03-Dec-2010
4,	4 4.0, 0.7,	50,	0.18 01	,05:51:19 ,03-Dec-2010
5,	4 3.0, 0.9,	50,	0.17 65	,05:56:19 ,03-Dec-2010
6,	4 1.8, 1.0,	50,	0.17 49	,06:01:19 ,03-Dec-2010
7,	4 0.8, 1.2,	51,	0.17 94	,06:06:19 ,03-Dec-2010
8,	4 1.7, 1.3,	51,	0.17 99	,06:11:19 ,03-Dec-2010
9,	3 9.4, 1.4,	51,	0.16 98	,06:16:19 ,03-Dec-2010
10,	3 9.9, 1.6,	51,	0.17 37	,06:21:19 ,03-Dec-2010
11,	4 9.6, 1.7,	51,	0.15 28	,06:26:19 ,03-Dec-2010
12,	7 4.0, 1.8,	51,	0.09 03	,06:31:19 ,03-Dec-2010
13,	4 4.1, 1.9,	51,	0.14 42	,06:36:19 ,03-Dec-2010
14,	4 1.6, 2.0,	51,	0.17 20	,06:41:19 ,03-Dec-2010
15,	4 3.0, 2.1,	51,	0.17 96	,06:46:19 ,03-Dec-2010
16,	4 1.7, 2.2,	50,	0.17 22	,06:51:19 ,03-Dec-2010
17,	4 1.1, 2.4,	50,	0.17 29	,06:56:19 ,03-Dec-2010
18,	4 0.1, 2.5,	50,	0.17 61	,07:01:19 ,03-Dec-2010
19,	4 0.1, 2.6,	50,	0.17 45	,07:06:19 ,03-Dec-2010
20,	4 9.1, 2.7,	50,	0.15 26	,07:11:19 ,03-Dec-2010
21,	3 8.2, 2.8,	50,	0.16 63	,07:16:19 ,03-Dec-2010
22,	3 7.0, 3.0,	50,	0.16 47	,07:21:19 ,03-Dec-2010
23,	3 8.0, 3.1,	50,	0.16 61	,07:26:19 ,03-Dec-2010
24,	3 7.0, 3.2,	50,	0.15 54	,07:31:19 ,03-Dec-2010
25,	3 6.8, 3.3,	50,	0.16 08	,07:36:19 ,03-Dec-2010
26,	3 8.6, 3.4,	49,	0.16 27	,07:41:19 ,03-Dec-2010
27,	3 8.9, 3.5,	50,	0.16 53	,07:46:19 ,03-Dec-2010

28,	3	8.6,	3.6,	49,	0.17	51	,07:51:19	,03-Dec-2010
29,	3	6.6,	3.8,	49,	0.17	07	,07:56:19	,03-Dec-2010
30,	3	6.6,	4.0,	49,	0.16	26	,08:01:19	,03-Dec-2010
31,	3	6.7,	4.1,	49,	0.16	72	,08:06:19	,03-Dec-2010
32,	3	5.8,	4.3,	49,	0.15	60	,08:11:19	,03-Dec-2010
33,	3	4.3,	4.5,	48,	0.15	06	,08:16:19	,03-Dec-2010
34,	3	4.2,	4.6,	48,	0.15	71	,08:21:19	,03-Dec-2010
35,	3	3.5,	4.7,	48,	0.15	87	,08:26:19	,03-Dec-2010
36,	3	5.1,	4.7,	47,	0.15	99	,08:31:19	,03-Dec-2010
37,	3	4.7,	4.9,	47,	0.15	21	,08:36:19	,03-Dec-2010
38,	3	4.7,	5.0,	47,	0.15	97	,08:41:19	,03-Dec-2010
39,	3	3.8,	5.1,	47,	0.15	89	,08:46:19	,03-Dec-2010
40,	3	4.1,	5.2,	47,	0.16	56	,08:51:19	,03-Dec-2010
41,	3	7.3,	5.4,	47,	0.17	05	,08:56:19	,03-Dec-2010
42,	3	5.3,	5.5,	46,	0.17	55	,09:01:19	,03-Dec-2010
43,	4	3.9,	5.7,	46,	0.19	45	,09:06:19	,03-Dec-2010
44,	4	2.1,	5.8,	46,	0.19	73	,09:11:19	,03-Dec-2010
45,	3	2.5,	6.0,	46,	0.14	93	,09:16:19	,03-Dec-2010
46,	3	2.2,	6.1,	46,	0.16	33	,09:21:19	,03-Dec-2010
47,	3	1.8,	6.2,	45,	0.15	30	,09:26:19	,03-Dec-2010
48,	3	1.7,	6.2,	45,	0.16	31	,09:31:19	,03-Dec-2010
49,	3	0.5,	6.3,	45,	0.15	81	,09:36:19	,03-Dec-2010
50,	2	7.3,	6.4,	44,	0.17	19	,09:41:19	,03-Dec-2010
51,	2	6.6,	6.4,	44,	0.16	76	,09:46:19	,03-Dec-2010
52,	2	6.0,	6.5,	44,	0.18	31	,09:51:19	,03-Dec-2010

"Model Number	",	"DataRAM	, 106							
"Serial no.	",	"D756	"							
"Device no.	",	1								
"Tag Number	",	3								
"Start Time	",	11:15:38								
"Start Date	",	6-Dec-10								
"Log Period	",	0:05:00								
"Number	",	37								
"CalFactor	",	1								
"Unit	",	0								
"Unit Name	",	"(MASS)u	3"							
"SIZE_CORRECT	",	"DISABLED"								
"TEMPUNITS	",	C								
"Max MASS	",	73.14935								
"Max MASS @	",	1	,11:20:3	,06		#NAME?		10		
"Avg MASS	",	26.0561								
"Max Diam	",	1.237301								
"Max Diam @	",	17	,12:40:3	8	,0	6-Dec-		2010		
"Avg Diam	",	0.733228								
"ALARM	",	"DISABLED"								
"ALARM_LEVEL	",	0								
"AUTO_ZERO	",	"DISABLED"								
"AZ INTERVAL	",	1								
"Errors	",	2000								
record,"(MASS	)	ug/m3", Te	RHum	idity,		Diameter				
1,		7	3.1,	20.6,	31,		0.88	16	,11:20:38	,06-Dec-2010
2,		5	2.9,	20.2,	26,		0.75	19	,11:25:38	,06-Dec-2010
3,		3	2.1,	19.6,	24,		0.83	70	,11:30:38	,06-Dec-2010
4,		2	9.8,	18.6,	22,		0.97	69	,11:35:38	,06-Dec-2010
5,		1	7.0,	17.3,	21,		0.63	43	,11:40:38	,06-Dec-2010
6,		1	5.8,	16.1,	21,		0.56	64	,11:45:38	,06-Dec-2010
7,		1	9.3,	15.0,	21,		0.66	88	,11:50:38	,06-Dec-2010
8,		3	9.4,	13.9,	21,		0.72	93	,11:55:38	,06-Dec-2010
9,		4	3.5,	12.9,	21,		0.74	77	,12:00:38	,06-Dec-2010
10,		2	9.5,	11.9,	21,		0.71	07	,12:05:38	,06-Dec-2010
11,		4	0.9,	11.0,	22,		0.8	53	,12:10:38	,06-Dec-2010
12,		1	2.4,	10.2,	22,		1.04	32	,12:15:38	,06-Dec-2010
13,		2	4.2,	9.4,	23,		0.68	07	,12:20:38	,06-Dec-2010
14,		1	9.6,	8.8,	23,		0.79	46	,12:25:38	,06-Dec-2010
15,		2	0.5,	8.2,	24,		0.77	35	,12:30:38	,06-Dec-2010
16,		3	2.3,	7.7,	24,		0.74	62	,12:35:38	,06-Dec-2010
17,		1	8.0,	7.2,	25,		1.23	73	,12:40:38	,06-Dec-2010
18,		2	8.8,	6.8,	26,		0.86	89	,12:45:38	,06-Dec-2010
19,		2	9.4,	6.3,	26,		0.91	70	,12:50:38	,06-Dec-2010
20,		1	6.5,	5.9,	27,		0.78	89	,12:55:38	,06-Dec-2010
21,		2	7.1,	5.6,	28,		0.81	07	,13:00:38	,06-Dec-2010
22,		2	7.0,	5.2,	28,		0.81	14	,13:05:38	,06-Dec-2010
23,		2	4.8,	5.0,	29,		0.81	80	,13:10:38	,06-Dec-2010
24,		2	4.4,	4.7,	29,		0.85	00	,13:15:38	,06-Dec-2010
25,		1	7.6,	4.5,	30,		0.64	64	,13:20:38	,06-Dec-2010
26,		1	9.8,	4.2,	30,		0.49	55	,13:25:38	,06-Dec-2010
27,		1	6.9,	4.1,	31,		0.56	30	,13:30:38	,06-Dec-2010

28,	1	5.2,	3.9,	32,	0.62	12	,13:35:38	,06-Dec-2010
29,	1	9.5,	3.7,	32,	0.57	17	,13:40:38	,06-Dec-2010
30,	2	4.9,	3.6,	32,	0.54	28	,13:45:38	,06-Dec-2010
31,	2	4.3,	3.5,	33,	0.63	26	,13:50:38	,06-Dec-2010
32,	1	9.3,	3.3,	33,	0.54	35	,13:55:38	,06-Dec-2010
33,	2	4.6,	3.2,	34,	0.5	43	,14:00:38	,06-Dec-2010
34,	1	6.8,	3.1,	34,	0.52	54	,14:05:38	,06-Dec-2010
35,	1	4.1,	3.1,	34,	0.69	47	,14:10:38	,06-Dec-2010
36,	1	8.3,	3.0,	35,	0.64	64	,14:15:38	,06-Dec-2010
37,	3	4.3,	2.9,	35,	0.69	17	,14:20:38	,06-Dec-2010

"Model Number	",	"DataRAM 4 ",	106										
"Serial no.	",	"D756 "											
"Device no.	",	1											
"Tag Number	",	4											
"Start Time	",	5:06:42											
"Start Date	",	7-Dec-10											
"Log Period	",	0:05:00											
"Number	",	101											
"CalFactor	",	1											
"Unit	",	0											
"Unit Name	",	"(MASS)ug/m3 "											
"SIZE_CORRECT	",	"DISABLED"											
"TEMPUNITS	",	C											
"Max MASS	",	113.9366											
"Max MASS @	",	98	,13:16:42	,0	7-Dec-	2010							
"Avg MASS	",	28.75725											
"Max Diam	",	1.781901											
"Max Diam @	",	70	,10:56:42	,0	7-Dec-	2010							
"Avg Diam	",	0.625432											
"ALARM	",	"DISABLED"											
"ALARM_LEVEL	",	0											
"AUTO_ZERO	",	"DISABLED"											
"AZ INTERVAL	",	1											
"Errors	",	0											
record,"(MASS	)	ug/m3", Temp,		RHum	idity,		Diameter						
1,		2	9.8,	0.0,	38,		0.34	16	,05:11:42	,07-Dec-2010			
2,		2	4.0,	0.1,	43,		0.29	54	,05:16:42	,07-Dec-2010			
3,		2	4.8,	0.1,	45,		0.28	14	,05:21:42	,07-Dec-2010			
4,		2	5.2,	0.2,	47,		0.27	12	,05:26:42	,07-Dec-2010			
5,		2	7.0,	0.2,	48,		0.29	79	,05:31:42	,07-Dec-2010			
6,		3	9.5,	0.2,	49,		0.35	70	,05:36:42	,07-Dec-2010			
7,		4	0.6,	0.3,	49,		0.38	32	,05:41:42	,07-Dec-2010			
8,		2	9.9,	0.3,	50,		0.34	20	,05:46:42	,07-Dec-2010			
9,		2	8.8,	0.4,	50,		0.29	95	,05:51:42	,07-Dec-2010			
10,		2	5.0,	0.4,	51,		0.25	88	,05:56:42	,07-Dec-2010			
11,		2	4.8,	0.5,	51,		0.27	25	,06:01:42	,07-Dec-2010			
12,		2	5.4,	0.5,	51,		0.28	50	,06:06:42	,07-Dec-2010			
13,		2	4.7,	0.6,	51,		0.3	68	,06:11:42	,07-Dec-2010			
14,		2	4.6,	0.7,	51,		0.27	11	,06:16:42	,07-Dec-2010			
15,		2	5.2,	0.8,	51,		0.29	23	,06:21:42	,07-Dec-2010			
16,		3	0.2,	0.9,	51,		0.31	61	,06:26:42	,07-Dec-2010			
17,		2	6.9,	1.0,	51,		0.3	91	,06:31:42	,07-Dec-2010			
18,		2	4.9,	1.1,	51,		0.3	08	,06:36:42	,07-Dec-2010			
19,		2	3.9,	1.2,	51,		0.29	36	,06:41:42	,07-Dec-2010			
20,		2	3.4,	1.2,	51,		0.29	51	,06:46:42	,07-Dec-2010			
21,		2	1.2,	1.3,	50,		0.27	06	,06:51:42	,07-Dec-2010			
22,		2	3.1,	1.3,	50,		0.31	25	,06:56:42	,07-Dec-2010			
23,		2	4.2,	1.3,	50,		0.27	72	,07:01:42	,07-Dec-2010			
24,		2	2.2,	1.3,	50,		0.28	41	,07:06:42	,07-Dec-2010			
25,		2	1.6,	1.3,	50,		0.27	35	,07:11:42	,07-Dec-2010			
26,		2	2.4,	1.3,	50,		0.29	84	,07:16:42	,07-Dec-2010			
27,		2	2.4,	1.4,	50,		0.32	65	,07:21:42	,07-Dec-2010			

28, 2 2.9, 1.4, 50, 0.3 47 ,07:26:42 ,07-Dec-2010
29, 2 1.1, 1.5, 50, 0.31 99 ,07:31:42 ,07-Dec-2010
30, 2 1.0, 1.5, 50, 0.29 60 ,07:36:42 ,07-Dec-2010
31, 2 2.4, 1.6, 50, 0.3 93 ,07:41:42 ,07-Dec-2010
32, 2 3.6, 1.7, 50, 0.34 20 ,07:46:42 ,07-Dec-2010
33, 2 2.5, 1.8, 50, 0.33 32 ,07:51:42 ,07-Dec-2010
34, 2 4.7, 2.0, 49, 0.45 53 ,07:56:42 ,07-Dec-2010
35, 2 5.1, 2.1, 49, 0.38 50 ,08:01:42 ,07-Dec-2010
36, 2 7.4, 2.2, 48, 0.4 53 ,08:06:42 ,07-Dec-2010
37, 2 1.4, 2.2, 48, 0.34 43 ,08:11:42 ,07-Dec-2010
38, 2 1.6, 2.2, 48, 0.43 05 ,08:16:42 ,07-Dec-2010
39, 2 6.3, 2.3, 48, 0.41 25 ,08:21:42 ,07-Dec-2010
40, 2 3.0, 2.3, 48, 0.38 91 ,08:26:42 ,07-Dec-2010
41, 2 1.0, 2.3, 47, 0.35 80 ,08:31:42 ,07-Dec-2010
42, 2 1.0, 2.4, 47, 0.36 04 ,08:36:42 ,07-Dec-2010
43, 3 4.4, 2.4, 47, 0.43 05 ,08:41:42 ,07-Dec-2010
44, 4 5.6, 2.5, 47, 0.5 20 ,08:46:42 ,07-Dec-2010
45, 4 4.0, 2.6, 47, 0.56 17 ,08:51:42 ,07-Dec-2010
46, 3 2.5, 2.6, 47, 0.42 46 ,08:56:42 ,07-Dec-2010
47, 2 2.5, 2.7, 47, 0.43 95 ,09:01:42 ,07-Dec-2010
48, 2 8.2, 2.8, 46, 0.53 91 ,09:06:42 ,07-Dec-2010
49, 2 1.4, 2.9, 46, 0.45 38 ,09:11:42 ,07-Dec-2010
50, 1 8.3, 3.0, 45, 0.48 50 ,09:16:42 ,07-Dec-2010
51, 2 4.9, 3.1, 45, 0.55 34 ,09:21:42 ,07-Dec-2010
52, 1 9.1, 3.2, 44, 0.53 16 ,09:26:42 ,07-Dec-2010
53, 2 3.1, 3.3, 44, 0.55 75 ,09:31:42 ,07-Dec-2010
54, 5 5.1, 3.4, 43, 0.9 34 ,09:36:42 ,07-Dec-2010
55, 3 8.9, 3.4, 43, 1.18 92 ,09:41:42 ,07-Dec-2010
56, 2 8.2, 3.5, 42, 0.64 19 ,09:46:42 ,07-Dec-2010
57, 1 7.3, 3.5, 42, 0.64 17 ,09:51:42 ,07-Dec-2010
58, 2 1.4, 3.6, 42, 0.69 24 ,09:56:42 ,07-Dec-2010
59, 2 6.1, 3.6, 41, 0.92 96 ,10:01:42 ,07-Dec-2010
60, 3 9.0, 3.6, 41, 0.9 73 ,10:06:42 ,07-Dec-2010
61, 1 6.0, 3.6, 41, 0.7 70 ,10:11:42 ,07-Dec-2010
62, 1 8.5, 3.7, 41, 0.69 63 ,10:16:42 ,07-Dec-2010
63, 3 2.8, 3.7, 41, 0.54 54 ,10:21:42 ,07-Dec-2010
64, 2 7.2, 3.8, 40, 1.1 39 ,10:26:42 ,07-Dec-2010
65, 1 6.7, 3.9, 40, 0.6 76 ,10:31:42 ,07-Dec-2010
66, 2 1.5, 4.0, 40, 0.85 36 ,10:36:42 ,07-Dec-2010
67, 2 3.6, 4.1, 39, 0.81 48 ,10:41:42 ,07-Dec-2010
68, 2 9.3, 4.2, 39, 0.8 72 ,10:46:42 ,07-Dec-2010
69, 5 2.5, 4.3, 39, 1.5 86 ,10:51:42 ,07-Dec-2010
70, 3 8.5, 4.5, 38, 1.78 19 ,10:56:42 ,07-Dec-2010
71, 3 7.3, 4.6, 38, 0.71 22 ,11:01:42 ,07-Dec-2010
72, 1 8.8, 4.7, 38, 0.92 61 ,11:06:42 ,07-Dec-2010
73, 2 3.9, 4.8, 38, 0.85 05 ,11:11:42 ,07-Dec-2010
74, 3 3.1, 4.9, 37, 0.89 17 ,11:16:42 ,07-Dec-2010
75, 5 0.8, 5.0, 37, 1.07 93 ,11:21:42 ,07-Dec-2010
76, 5 6.9, 5.0, 37, 1.7 31 ,11:26:42 ,07-Dec-2010
77, 2 3.1, 5.0, 36, 0.68 30 ,11:31:42 ,07-Dec-2010
78, 2 2.9, 5.0, 36, 1.35 01 ,11:36:42 ,07-Dec-2010
79, 2 5.5, 5.0, 36, 1.03 02 ,11:41:42 ,07-Dec-2010

80, 3 0.8, 4.9, 36, 0.95 51 ,11:46:42 ,07-Dec-2010
81, 2 5.7, 4.9, 36, 1.18 36 ,11:51:42 ,07-Dec-2010
82, 2 1.5, 4.8, 36, 0.74 95 ,11:56:42 ,07-Dec-2010
83, 1 8.4, 4.7, 36, 0.89 65 ,12:01:42 ,07-Dec-2010
84, 1 8.1, 4.6, 36, 0.71 54 ,12:06:42 ,07-Dec-2010
85, 1 3.9, 4.5, 36, 0.97 94 ,12:11:42 ,07-Dec-2010
86, 1 3.6, 4.5, 36, 0.83 20 ,12:16:42 ,07-Dec-2010
87, 1 5.9, 4.4, 36, 0.72 64 ,12:21:42 ,07-Dec-2010
88, 1 9.6, 4.3, 36, 0.79 06 ,12:26:42 ,07-Dec-2010
89, 1 7.8, 4.3, 36, 0.79 29 ,12:31:42 ,07-Dec-2010
90, 1 8.8, 4.2, 37, 0.6 89 ,12:36:42 ,07-Dec-2010
91, 1 7.3, 4.2, 37, 0.64 91 ,12:41:42 ,07-Dec-2010
92, 5 6.2, 4.2, 36, 0.88 99 ,12:46:42 ,07-Dec-2010
93, 2 2.4, 4.1, 37, 0.95 01 ,12:51:42 ,07-Dec-2010
94, 2 8.3, 4.1, 37, 0.67 71 ,12:56:42 ,07-Dec-2010
95, 2 9.2, 4.0, 37, 0.91 91 ,13:01:42 ,07-Dec-2010
96, 2 9.0, 4.0, 37, 1.6 71 ,13:06:42 ,07-Dec-2010
97, 8 2.2, 4.0, 37, 1.28 80 ,13:11:42 ,07-Dec-2010
98, 11 3.9, 4.0, 37, 0.72 95 ,13:16:42 ,07-Dec-2010
99, 2 3.5, 4.0, 37, 0.63 57 ,13:21:42 ,07-Dec-2010
100, 2 2.7, 4.0, 38, 1 16 ,13:26:42 ,07-Dec-2010
101, 10 5.9, 4.0, 38, 0.99 57 ,13:31:42 ,07-Dec-2010

Appendix E

DUSR

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron – Former Gulf Oil Terminal

Data Usability Summary Report

OCEANSIDE, NEW YORK

Volatile, Semivolatile, Metals and Miscellaneous Analyses

SDG#RTL0286

Analyses Performed By:
TestAmerica
Amherst, New York

Report: #13699R
Review Level: Tier III
Project: B0047517.0004.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # RTL0286 for samples collected in association with the Chevron – Former Gulf Oil Terminal Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
AMW-7 (4-6)	RTL0286-01	Soil	11/29/2010		X	X		X	X
AMW-7 (8-10)	RTL0286-02	Soil	11/29/2010		X	X		X	X
AMW-7 (10-12)	RTL0286-03	Soil	11/29/2010		X	X		X	X
TB-4-112910	RTL0286-04	Water	11/29/2010		X				
AMW-8 (10-11)	RTL0286-05	Soil	11/30/2010		X	X		X	X
AMW-8 (12-14)	RTL0286-06	Soil	11/30/2010		X	X		X	X
AMW-8 (14-15)	RTL0286-07	Soil	11/30/2010		X	X		X	X
RB-4-11-30-10	RTL0286-08	Water	11/30/2010		X	X		X	X
TB-5-113010	RTL0286-09	Water	11/30/2010		X				
AMW-9 (9-10)	RTL0286-10	Soil	11/30/2010		X	X		X	X
AMW-9 (10-12)	RTL0286-11	Soil	11/30/2010		X	X		X	X
AMW-9 (14-15)	RTL0286-12	Soil	11/30/2010		X	X		X	X
TP-1-1	RTL0286-13	Soil	11/29/2010		X	X		X	X
TP-1-2	RTL0286-14	Soil	11/30/2010		X	X		X	X
TP-1-3	RTL0286-15	Soil	11/30/2010		X	X		X	X
TP-2-1	RTL0286-16	Soil	11/30/2010		X	X		X	X
TP-2-2	RTL0286-17	Soil	11/30/2010		X	X		X	X
AMW-3 (0-2)	RTL0375-01	Soil	11/30/2010		X	X		X	X
AMW-3 (2-4)	RTL0375-02	Soil	11/30/2010		X	X		X	X
AMW-3 (4-6)	RTL0375-03	Soil	11/30/2010		X	X		X	X
DUP-2-113010	RTL0375-06	Soil	11/30/2010	AMW-3 (2-4)	X	X		X	X
TB-6-120110	RTL0375-07	Water	12/1/2010		X				
AMW-10 (8.5-9.5)	RTL0375-08	Soil	12/1/2010		X	X		X	X
AMW-10 (12-14)	RTL0375-09	Soil	12/1/2010		X	X		X	X
AMW-10 (14-15)	RTL0375-10	Soil	12/1/2010		X	X		X	X
RB-5-120110	RTL0375-11	Water	12/1/2010		X	X		X	X
TB-7-120110	RTL0375-12	Water	12/1/2010		X				

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
AMW-11 (2-4)	RTL0375-13	Soil	12/1/2010		X	X		X	X
AMW-11 (4-6)	RTL0375-14	Soil	12/1/2010		X	X		X	X
AMW-11 (6-8)	RTL0375-15	Soil	12/1/2010		X	X		X	X
TP-3-1	RTL0375-16	Soil	12/1/2010		X	X		X	X
TP-3-2	RTL0375-17	Soil	12/1/2010		X	X		X	X
TP-3-3	RTL0375-18	Soil	12/1/2010		X	X		X	X
P-18R (0-2)	RTL0458-01	Soil	12/2/2010		X	X		X	X
P-18R (4-6)	RTL0458-02	Soil	12/2/2010		X	X		X	X
P-18R (6-8)	RTL0458-03	Soil	12/2/2010		X	X		X	X
MW-25D3 (0-2)	RTL0458-04	Soil	12/2/2010		X	X		X	X
MW-25D3 (2-4)	RTL0458-05	Soil	12/2/2010		X	X		X	X
MW-25D3 (4-6)	RTL0458-06	Soil	12/2/2010		X	X		X	X
TB-8-12-2-10	RTL0458-07	Water	12/2/2010		X				
RB-6-12-2-10	RTL0458-08	Water	12/2/2010		X	X		X	X
TB-9-12-2-10	RTL0458-09	Water	12/2/2010		X				
TP-4-B-1	RTL0458-10	Soil	12/2/2010		X	X		X	X
TP-4-D-1	RTL0458-11	Soil	12/2/2010		X	X		X	X
TP-4-F-1	RTL0458-12	Soil	12/2/2010		X	X		X	X
TP-5-1	RTL0458-13	Soil	12/2/2010		X	X		X	X
TP-5-2	RTL0458-14	Soil	12/2/2010		X	X		X	X
TP-5-3	RTL0458-15	Soil	12/2/2010		X	X		X	X
TB-9-12-3-10	RTL0505-01	Water	12/3/2010		X				
RB-7-12-3-10	RTL0505-02	Water	12/3/2010		X	X		X	X
TP-6-1	RTL0505-03	Soil	12/3/2010		X	X		X	X
TP-6-2	RTL0505-04	Soil	12/3/2010		X	X		X	X
TP-6-3	RTL0505-05	Soil	12/3/2010		X	X		X	X
TP-7-1	RTL0689-01	Soil	12/6/2010		X	X		X	X
TP-7-2	RTL0689-02	Soil	12/6/2010		X	X		X	X
TP-8-1	RTL0689-03	Soil	12/6/2010		X	X		X	X
TP-8-2	RTL0689-04	Soil	12/6/2010		X	X		X	X
TP-9-1	RTL0689-05	Soil	12/7/2010		X	X		X	X
TP-9-2	RTL0689-06	Soil	12/7/2010		X	X		X	X
TP-9-3	RTL0689-07	Soil	12/7/2010		X	X		X	X

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TP-10-1	RTL0689-08	Soil	12/7/2010		X	X		X	X
TP-10-2	RTL0689-09	Soil	12/7/2010		X	X		X	X
DUP-120710	RTL0689-10	Soil	12/7/2010	TP-9-2	X	X		X	X
TP-11-1	RTL0689-11	Soil	12/7/2010		X	X		X	X
TP-12-1	RTL0689-12	Soil	12/7/2010		X	X		X	X
MW-31D-2R (17-19)	RTL0689-13	Soil	12/7/2010		X	X		X	X
MW-23D-2R (18-20)	RTL0689-14	Soil	12/7/2010		X	X		X	X
TP-10-3	RTL0689-17	Soil	12/7/2010		X	X		X	X
RB-12-7-10	RTL0689-18	Water	12/7/2010		X	X		X	X
TB-10-12-7-10	RTL0689-19	Water	12/7/2010		X				
TB-11-12-7-10	RTL0689-20	Water	12/7/2010		X				
MW-25D3 (21-23)	RTL0812-01	Soil	12/9/2010		X	X		X	X
RB-12-9-10	RTL0812-02	Water	12/9/2010		X	X		X	X
TB-12-9-10	RTL0812-03	Water	12/9/2010		X				

Note:
1. Miscellaneous parameters include total organic carbon, sulfate, and ferrous iron.
2. Matrix spike/matrix spike duplicate (MS/MSD) was performed on sample locations AMW-3 (4-6) and MW-23D-2R (18-20).

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) USEPA SW-846 Method 8260 and 8270. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.
	Soil	14 days from collection to analysis	Cool to 4°C±2°C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AMW-11 (4-6) P-18R (0-2) P-18R (4-6)	Methylene chloride	Detected sample results >RL and <BAL	"UB" at detected sample concentration

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.
All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
AMW-9 (14-15) TP-6-1 TP-6-2	CCV %D	1,1,2-Trichloro-1,2,2-trifluoroethane	21.7%
		Bromomethane	29.2%
		Methylene chloride	26.5%
		Trichlorofluoromethane	21.9%
MW-25D3 (0-2) TP-4-B-1 TP-4-D-1 TP-4-F-1	CCV %D	1,2-Dibromo-3-chloropropane	-24.8%
		Bromomethane	20.6%
AMW-11 (4-6) P-18R (0-2) P-18R (4-6)	CCV %D	Chloroethane	22.0%
TP-6-3 TP-12-1	CCV %D	1,2-Dibromo-3-chloropropane	-33.4%
		Bromoform	-41.3%
		Bromomethane	23.8%
		Carbon disulfide	-33.0%
		Carbon tetrachloride	-23.9%
		Cyclohexane	-22.1%
		Dibromochloromethane	-27.2%
		Dichlorodifluoromethane	-25.4%
		Methylcyclohexane	-21.2%
TP-7-2 TP-9-1 TP-9-2 DUP-120710	CCV %D	1,2-Dibromo-3-chloropropane	-24.0%
		Bromoform	-38.3%
		Bromomethane	21.3%
		Carbon disulfide	-26.8%
		Carbon tetrachloride	-29.1%
		Dibromochloromethane	-27.8%
		Dichlorodifluoromethane	-42.2%

Sample Locations	Initial/Continuing	Compound	Criteria
TB-6-120110 RB-5-120110 TB-7-120110 TP-8-1	CCV %D	1,1,2-Trichloro-1,2,2-trifluoroethane	-28.1%
		1,2-Dibromo-3-chloropropane	-29.8%
		Bromoform	-41.8%
		Carbon disulfide	-46.6%
		Carbon tetrachloride	-32.8%
		Cyclohexane	-31.2%
		Dibromochloromethane	-28.5%
		Dichlorodifluoromethane	-40.8%
AMW-7 (4-6) AMW-7 (8-10) AMW-7 (10-12) TB-4-112910 AMW-8 (10-11) AMW-8 (12-14) AMW-8 (14-15) RB-4-11-30-10 TB-5-113010 AMW-9 (9-10) AMW-9 (10-12) TP-1-1 TP-1-2 TP-1-3 TP-2-1 TP-2-2	CCV %D	Chloroethane	-24.0%
		Dichlorodifluoromethane	-20.3%
AMW-3 (0-2) AMW-3 (2-4) AMW-3 (4-6) DUP-2-113010 AMW-10 (8.5-9.5) AMW-10 (12-14) AMW-10 (14-15) AMW-11 (2-4) AMW-11 (6-8)	CCV %D	Carbon disulfide	-23.4%
		Chloroethane	-21.3%
		Methylene chloride	-21.8%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
TP-8-1	1,2-Dichloroethane-d4	> UL
	4-Bromofluorobenzene	AC
	Toluene-d8	AC

UL Upper control limit
LL Lower control limit
D Diluted
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	UJ[1]
	Detect	J[1]

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
TP-3-3	1,2,4-Trichlorobenzene	<LL but >10%	<LL but >10%
	1,2-Dibromo-3-chloropropane	<LL but >10%	AC
	1,2-Dibromoethane	<LL but >10%	AC
	2-Butanone	<LL but >10%	<LL but >10%
	2-Hexanone	<LL but >10%	<LL but >10%
	4-Methyl-2-pentanone	<LL but >10%	<LL but >10%
	Acetone	<LL but >10%	<LL but >10%
	Bromoform	<LL but >10%	<LL but >10%
MW-23D-2R (18-20)	1,1,2,2-Tetrachloroethene	<LL but >10%	<LL but >10%
	1,1,2-Trichloroethane	<LL but >10%	<LL but >10%
	1,2,4-Trichlorobenzene	<LL but >10%	<LL but >10%
	1,2-Dibromo-3-chloropropane	<LL but >10%	<LL but >10%
	1,2-Dibromoethane	<LL but >10%	<LL but >10%
	1,2-Dichlorobenzene	<LL but >10%	<LL but >10%
	2-Butanone	<LL but >10%	<LL but >10%
	2-Hexanone	<LL but >10%	<LL but >10%
	4-Methyl-2-pentanone	<LL but >10%	<LL but >10%
	Acetone	<LL but >10%	<LL but >10%
	Bromoform	<LL but >10%	<LL but >10%
	Dibromochloromethane	<LL but >10%	<LL but >10%
	1,3-Dichlorobenzene	AC	<LL but >10%
	1,4-Dichlorobenzene	AC	<LL but >10%
	Ethylbenzene	AC	<LL but >10%

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
AMW-7 (4-6) AMW-7 (8-10) AMW-7 (10-12) TB-4-112910 AMW-8 (10-11) AMW-8 (12-14) AMW-8 (14-15) RB-4-11-30-10 TB-5-113010 AMW-9 (9-10) AMW-9 (10-12) TP-1-1 TP-1-2 TP-1-3 TP-2-1 TP-2-2 TP-3-1 TP-3-2	Methyl acetate	>UL	--

Sample Locations	Compound	LCS Recovery	LCSD Recovery
TP-3-3 P-18R (6-8) TP-5-2 RB-12-7-10 TB-10-12-7-10 TB-11-12-7-10 TP-7-1 TP-8-2 TP-9-3 TP-10-1 TP-10-2 TP-11-1 MW-31D-2R (17-19) MW-23D-2R (18-20) TP-10-3 AMW-11 (4-6) P-18R (0-2) P-18R (4-6) MW-25D3 (21-23) RB-12-9-10 TB-12-9-10	Methyl acetate	>UL	--

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
AMW-3 (2-4)/DUP-2-113010	Benzene	120 U	110 J	AC
	Ethylbenzene	6700	10000	39.5 %
	Isopropylbenzene	3500	5200	39.0 %
	Methylcyclohexane	2500	6400	87.6 %
	Toluene	200	390	64.4 %
	Xylenes, total	6100	8200	29.3 %

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TP-9-2/DUP-120710	Cyclohexane	120 J	610	NC
	Isopropylbenzene	370	1100	99.3 %
	Methylcyclohexane	600	2900	131.4 %

AC Acceptable
ND Not detected

The compounds cyclohexane and methylcyclohexane associated with sample locations TP-9-2 (4-6) and DUP-120710 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

When samples were re-analyzed at a dilution, a methanol extraction was performed. The methanol extraction method generally exhibits greater extraction efficiency than the water extraction method, therefore the compounds are generally detected at a higher concentration associated with the methanol extraction method. In the instance when the re-analysis sample result completed by the methanol extraction method exhibits a concentration greater than the water extracted analysis, the result from the methanol extracted sample is reported.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration and/or exhibited higher concentration of a detected compound in the methanol-extracted analysis are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
AMW-8 (10-11)	cis-1,2-Dichloroethene	4400E	3200 D	3200 D
	Methyl-t-butyl ether	4600 E	3300 D	3300 D
	Methylene chloride	18000 E	24000 D	24000 D
	Vinyl chloride	4600 E	1900 D	1900 D
AMW-8 (12-14)	Methylene chloride	8900 E	8000 D	8000 D
AMW-9 (9-10)	cis-1,2-Dichloroethene	27000 E	3200 D	3200 D
	Methyl-t-butyl ether	8100 E	9000 D	9000 D
	Methylene chloride	9800 E	7000 D	7000 D
	Trichloroethene	5300 E	5000 D	5000 D
	Vinyl chloride	15000 E	910 DJ	15000 EJ
AMW-9 (10-12)	Methyl-t-butyl ether	2700 E	1500 D	1500 D
	Methylene chloride	9500 E	3700 D	3700 D
	Vinyl chloride	3100 E	250 D	3100 EJ
AMW-10 (8.5-9.5)	cis-1,2-Dichloroethene	71000 E	110000 D	110000 D
	Methyl-t-butyl ether	4800	6700 D	6700 D
	Methylene chloride	520	1100 D	1100 D
	Toluene	1900	2700 D	2700 D
	trans-1,2-Dichloroethene	2200	3300 D	3300 D
	Vinyl chloride	1300	2300 D	2300 D
	Xylenes, total	4700	6400 D	6400 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

The original analysis of sample location AMW-9 (9-10) exhibited a vinyl chloride sample result greater than the calibration range and was flagged by the laboratory as “E”. The diluted analysis exhibited a concentration less than the calibration and was flagged by the laboratory as “DJ”. Since both results were outside of the calibration range the original undiluted analysis was reported as the usable result due to this result exhibiting the higher concentration.

The original analysis of sample location AMW-9 (10-12) exhibited a vinyl chloride sample result greater than the calibration range and was flagged by the laboratory as “E”. The diluted analysis exhibited a concentration within the calibration and was flagged by the laboratory as “D”. Since both results were outside of the calibration range the original undiluted analysis was reported as the usable result due to this result exhibiting the higher concentration.

11. System Performance and Overall Assessment

The results for several sample locations were qualified by the laboratory due to dilutions being performed for matrix effects, sample viscosity, and/or high concentrations of target analytes. Since these causes do not have a direct impact on the quality or usability of the data, the laboratory qualifiers will be removed.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
D. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMI-VOLATILE VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AMW-3 (0-2) AMW-3 (2-4) DUP-2-113010 AMW-10 (8.5-9.5) AMW-10 (12-14) AMW-11 (2-4) AMW-11 (6-8) TP-3-1 TP-3-2 TP-3-3 MW-25D3 (2-4) MW-25D3 (4-6) TP-4-D-1 TP-4-F-1 TP-5-2 TP-5-3	Bis(2-ethylhexyl)phthalate	Detected sample results <RL and <BAL	"UB" at the PQL

Sample Locations	Analytes	Sample Result	Qualification
TP-6-1 TP-6-2 TP-7-1 TP-7-2 TP-8-1 TP-8-2 TP-9-1 TP-9-3 TP-10-1 TP-10-2 DUP-120710 TP-11-1	Bis(2-ethylhexyl)phthalate	Detected sample results <RL and <BAL	"UB" at the PQL
TP-6-2 TP-7-1 TP-8-2 TP-9-3 TP-11-1 MW-31D-2R (17-19)	Diethyl phthalate		
AMW-3 (4-6) AMW-10 (14-15) AMW-11 (4-6) TP-4-B-1 TP-5-1 MW-31D-2R (17-19) MW-23D-2R (18-20) TP-10-3	Bis(2-ethylhexyl)phthalate	Detected sample results >RL and <BAL	"UB" at detected sample concentration

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
P-18R (0-2) TP-4-D-1 TP-4-F-1 TP-5-3	CCV %D	2,2-Oxybis(1-chloropropane	21.2%
		Benzaldehyde	29.4%
TP-6-1 TP-6-2 TP-6-3 TP-7-1 TP-7-2 TP-8-1 TP-8-2 TP-9-1 TP-9-2 TP-9-3 TP-10-1 TP-10-2 DUP-120710	CCV %D	2,4-Dinitrophenol	-30.4%
RB-7-12-3-10	CCV %D	Bis(2-ethylhexyl)phthalate	25.8%
		Butyl benzyl phthalate	20.7%
		Atrazine	22.0%
RB-12-7-10	CCV %D	2,4,6-Tribromophenol	23.1%
		Bis(2-ethylhexyl)phthalate	21.7%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J

Initial/Continuing	Criteria	Sample Result	Qualification
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
AMW-3 (0-2)	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	<LL but > 10%
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC

UL Upper control limit
LL Lower control limit
D Diluted
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	J[1]
	Detect	

[1] A more concentrated analysis was not performed with surrogate compounds within the calibration range; therefore, no determination of extraction efficiency could be made.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
AMW-7 (4-6)	Atrazine	AC	>UL
AMW-3 (4-6)	2-Methylnaphthalene	>UL	AC
	4-Chlorophenyl phenyl ether	>UL	>UL
	Acetophenone	>UL	>UL
	Atrazine	>UL	>UL
	Di-n-butyl phthalate	>UL	>UL
	Fluorene	>UL	AC
	Naphthalene	>UL	AC
	N-Nitrosodiphenylamine	>UL	>UL
RB-4-11-30-10	Diethyl phthalate	AC	<LL but >10%
P-18R (0-2)	2,4-Dinitrophenol	<10%	<10%
	Acenaphthene	>UL	>UL
	Caprolactam	>UL	AC
	Fluorene	>UL	>UL
	Phenanthrene	>UL	>UL
RB-12-7-10	Atrazine	>UL	>UL
	Bis(2-ethylhexyl) phthalate	>UL	AC

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
AMW-3 (4-6)	2-Methylnaphthalene
RB-4-11-30-10	**All compounds except:** 2,4-Dimethylphenol 4-Nitrophenol Hexachlorobutadiene Hexachlorocyclopentadiene Hexachloroethane Phenol
MW-23D-2R (18-20)	4,6-Dinitro-2-methylphenol Dibenzo(a,h)anthracene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
P-18R (0-2) P-18R (4-6) P-18R (6-8) MW-25D3 (0-2)	Acetophenone	>UL

Sample Locations	Compound	LCS Recovery
MW-25D3 (2-4) MW-25D3 (4-6) TB-8-12-2-10 RB-6-12-2-10 TB-9-12-2-10 TP-4-B-1 TP-4-D-1 TP-4-F-1 TP-5-1 TP-5-2 TP-5-3	Benzaldehyde	>UL
	Dibenz(a,h)anthracene	>UL
	N-nitrosodi-n-propylamine	>UL
TP-6-1 TP-6-2 TP-6-3 TP-7-1 TP-7-2 TP-8-1 TP-8-2 TP-9-1 TP-9-2 TP-9-3 TP-10-1 TP-10-2 DUP-120710 TP-11-1 TP-12-1 MW-31D-2R (17-19) MW-23D-2R (18-20) TP-10-3	2,6-Dinitrotoluene	>UL
	2-Chlorophenyl phenyl ether	>UL
	Acetophenone	>UL
	Atrazine	>UL
	Caprolactam	>UL
	Diethyl phthalate	>UL
	Di-n-butyl phthalate	>UL
	Di-n-octyl phthalate	>UL
	Fluorene	>UL
	N-nitrosodiphenylamine	>UL
RB-12-7-10	4-Chlorophenyl pheyl ether	>UL
	Atrazine	>UL
	Bis(2-ethylhexyl) phthalate	>UL
	N-nitrosodiphenylamine	>UL

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
AMW-3 (2-4)/DUP-2-113010	2,6-Dinitrotoluene	2000 U	2000 J	AC
	2-Methylnaphthalene	27000	62000	AC
	Acenaphthene	810 J	1800 J	AC
	Anthracene	430 J	980 J	AC
	Benzo(a)anthracene	260 J	400 J	AC
	Benzo(b)fluoranthene	200 J	390 J	AC
	Benzo(ghi)perylene	2000 U	220 J	AC
	Biphenyl	610 J	1500 J	AC
	Chrysene	230 J	450 J	AC
	Dibenzofuran	760 J	1500 J	AC
	Fluoranthene	690 J	1400 J	AC
	Fluorene	1300 J	2800 J	AC
	Naphthalene	11000	29000	90.0 %
	Phenanthrene	3200	6500	68.0 %
	Pyrene	670 J	1300 J	AC
TP-9-2/DUP-120710	Dibenzofuran	880 J	1400 J	AC
	Phenanthrene	1500	2500	50.0 %

AC Acceptable
U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

The isomers benzo(b)fluoranthene and benzo(k)fluoranthene associated with sample locations AMW-11 (2-4) and TP-12-1 analysis could not be chromatographically resolved. The laboratory quantitated the peak as benzo(b)fluoranthene and flagged the results ID4, and reported benzo(k)fluoranthene as non-detect. Benzo(k)fluoranthene concentration for sample locations AMW-11 (2-4) and TP-12-1 have been calculated from the peak area identified as benzo(b)fluoranthene using the appropriate Benzo(k)fluoranthene response factor. Both compounds have been reported due to the lack of chromatographic resolution and the reported benzo(b)fluoranthene and benzo(k)fluoranthene concentrations have been qualified as (JY) indicating the compounds could not be resolved.

11. System Performance and Overall Assessment

Sample location TP-12-1 was re-extracted and reanalyzed due to LCS recovery deviations. Due to sample non-homogeneity, the re-extracted analysis results' exhibited higher concentrations than the primary analysis. The re-extraction results were flagged as the reportable results. The results for several sample locations were qualified by the laboratory due to dilutions being performed for matrix effects,

sample viscosity, and/or high concentrations of target analytes. Since these causes do not have a direct impact on the quality or usability of the data, the laboratory qualifiers will be removed.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) SW-846 Methods 6000/7000, 3500FE, D-516-90, and the Lloyd Kahn Method for TOC. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    UB Analyte considered non-detect at the listed value due to associated blank contamination.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cool to 4°C±2°C.
SW-846 7470	Water	28 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (J) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AMW-7 (8-10) AMW-7 (10-12) TP-1-2 TP-1-3 TP-2-1 TP-2-2 AMW-3 (4-6) AMW-11 (2-4) AMW-11 (4-6) AMW-11 (6-8) TP-3-1 TP-3-3	Cadmium	Detected sample results <RL and <BAL	"UB" at the RL

RL = reporting limit

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All analytes associated with CRDL standard recoveries were within control limits.

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits with the exception of the following analyte present in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
AMW-7 (4-6)	Aluminum	<LL but >30%	AC
	Lead	>UL	AC
	Manganese	>UL	AC
	Zinc	>UL	<LL but >30%

Sample Location	Analyte	MS Recovery	MSD Recovery
AMW-3 (4-6)	Aluminum	>UL	>UL
	Copper	>UL	AC
	Iron	>UL	>UL
	Lead	>UL	>UL
	Manganese	>UL	>UL
	Zinc	>UL	AC
P-18R (0-2)	Aluminum	<LL but >30%	<LL but >30%
	Antimony	<LL but >30%	<LL but >30%
	Calcium	<LL but >30%	AC
	Magnesium	<LL but >30%	AC
	Manganese	<LL but >30%	<LL but >30%
	Iron	AC	<LL but >30%

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD was performed in place of a laboratory duplicate. Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
AMW-7 (4-6)	Manganese
	Zinc
P-18R (0-2)	Calcium

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
AMW-3 (2-4)/DUP-2-113010	Aluminum	2230	4990	76.4 %
	Arsenic	2.2 J	3 J	AC
	Barium	14	27	63.4 %
	Beryllium	0.166 J	0.227 J	AC
	Cadmium	0.231 J	0.389	50.9 %
	Calcium	113000	61900	58.4 %
	Chromium	4.68	7.99	52.2 %
	Cobalt	1.76	3.26	59.7 %
	Copper	7	11.6	49.4 %
	Iron	5180	7700	39.1 %
	Lead	52.4	72.6	32.3 %
	Magnesium	63000	35800	55.0 %
	Manganese	100	110	9.5 %
	Nickel	4.78 J	7.77 J	AC
	Potassium	490	597	19.6 %
	Sodium	153 J	169 J	AC
	Vanadium	11.5	11.9	3.4 %
	Zinc	21.1	37.8	56.7 %
	Mercury	0.0525	0.077	37.8 %
TP-9-2/DUP-120710	Aluminum	564	512	9.6 %
	Barium	2.12	1.37	42.9 %
	Beryllium	0.044 J	0.049 J	AC
	Calcium	106	91.2	15.0 %
	Chromium	1.35	1.14	16.8 %
	Cobalt	0.411 J	0.347 J	AC
	Copper	0.7 J	0.6 J	AC
	Iron	778	753	3.2 %
	Lead	0.7 J	0.5 J	AC
	Magnesium	108	95	12.8 %
	Manganese	6.7	6.4	4.5 %
	Nickel	0.964 J	0.846 J	AC

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
TP-9-2/DUP-120710	Potassium	110	99.7	9.8 %
	Sodium	32.3 J	45.2 J	AC
	Vanadium	1.42	1.29	9.5 %
	Zinc	1.5 J	1.5 J	AC
	Mercury	0.023 U	0.0165 J	AC

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits, with the exception of the analytes presented in the following table. The sample locations associated with the deviant %D are also presented in the following table.

Sample Locations	Analytes	Serial Dilution (%D)
AMW-7 (4-6)	Arsenic	29%
	Cadmium	25%
AMW-3 (4-6)	Cadmium	84%
P-18R (0-2)	Arsenic	11%
	Beryllium	15%
MW-23D-2R (18-20)	Lead	19%

The criteria used to evaluate the serial dilution are presented in the following table. In the case of a serial dilution deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALs

METALS; SW-846 6000/7000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X		X	
C. Equipment/Field Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field Duplicate (RPD)		X		X	
ICP Serial Dilution		X	X		
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X	X		
ICP Interference Check		X		X	
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Organic Carbon by Lloyd Kahn	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of greater than 12.
	Soil		Cool to 4°C±2°C.
Ferrous Iron by SM3500FE	Water	24 hours from collection to analysis	Cool to 4°C±2°C.
	Leachate	24 hours from collection to analysis	Cool to 4°C±2°C.
Sulfate by D-516-90	Water	28 days from collection to analysis	Cool to 4°C+2°C.
	Leachate	28 days from collection to analysis	Cool to 4°C±2°C.

The analyses that exceeded the holding time are presented in the following table.

Sample Locations	Holding Time	Criteria
Ferrous Iron: AMW-7 (4-6) AMW-7 (8-10) AMW-7 (10-12) AMW-8 (10-11) AMW-8 (12-14) AMW-8 (14-15) AMW-9 (9-10) AMW-9 (10-12) AMW-9 (14-15) TP-1-1 TP-1-2 TP-1-3 TP-2-1 TP-2-2 AMW-3 (0-2) AMW-3 (2-4) AMW-3 (4-6) DUP-2-113010 AMW-10 (8.5-9.5) AMW-10 (12-14) AMW-10 (14-15) AMW-11 (2-4) AMW-11 (4-6) AMW-11 (6-8) TP-3-1 TP-3-2 TP-3-3 P-18R (0-2)	>48 hours	<24 hours

Sample Locations	Holding Time	Criteria
P-18R (4-6) P-18R (6-8) MW-25D3 (0-2) MW-25D3 (2-4) MW-25D3 (4-6) TP-4-B-1 TP-4-D-1 TP-4-F-1 TP-5-1 TP-5-2 TP-5-3 TP-6-1 TP-6-2 TP-6-3 TP-7-1 TP-7-2 TP-8-1 TP-8-2 TP-9-1 TP-9-2 TP-9-3 TP-10-1 TP-10-2 DUP-120710 TP-11-1 TP-12-1 MW-31D-2R (17-19) MW-23D-2R (18-20) TP-10-3 MW-25D3 (21-23)	>48 hours	<24 hours
RB-12-7-10 RB-4-11-30-10 RB-5-120110	28 hours	<24 hours
RB-12-9-10 RB-6-12-2-10	47 hours	
RB-7-12-3-10	26 hours	

Sample results associated with sample locations analyzed by analytical method SM3500FE were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ
Analysis completed greater than two times holding time	J	R

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier will be removed.

All analytes associated with MS/MSD recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analytes	MS Recovery	MSD Recovery
RB-7-12-3-10	Ferrous Iron	207%	--
AMW-3 (4-6)	Sulfate	134%	147%
	TOC	127%	--

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate recoveries exhibited acceptable RPD.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
AMW-3 (2-4)/DUP-2-113010	Total Organic Carbon	7720	10800	33.2 %
	Ferrous Iron	1.6 J	2.3 J	AC
	Sulfate	397	717	57.4 %
TP-9-2/DUP-120710	Ferrous Iron	0.4 J	0.6 J	AC

ND = Not detected
AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: Miscellaneous analyses	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTL0286	11/29/2010	SW846	AMW-7 (4-6)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/29/2010	SW846	AMW-7 (8-10)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – Blank, MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/29/2010	SW846	AMW-7 (10-12)	Soil	No	No	--	No	Yes	VOC – CCV %D MET - Blank, MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/29/2010	SW846	TB-4-112910	Soil	No	No	--	No	Yes	VOC – CCV %D
RTL0286	11/30/2010	SW846	AMW-8 (10-11)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-8 (12-14)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-8 (14-15)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	RB-4-11-30-10	Water	No	No	--	No	Yes	VOC – CCV %D SVOC - MSD %R, RPD MISC – Hold time
RTL0286	11/30/2010	SW846	TB-5-113010	Water	No	No	--	No	Yes	VOC – CCV %D
RTL0286	11/30/2010	SW846	AMW-9 (9-10)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-9 (10-12)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-9 (14-15)	Soil	No	No	--	No	Yes	MET – MS/MSD %R, RPD, Ser. Dil.

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTL0286	11/29/2010	SW846	TP-1-1	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	TP-1-2	Soil	No	No	--	No	Yes	VOC – CCV %D MET - Blank, MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	TP-1-3	Soil	No	No	--	No	Yes	VOC – CCV %D MET - Blank, MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	TP-2-1	Soil	No	No	--	No	Yes	VOC – CCV %D MET - Blank, MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	TP-2-2	Soil	No	No	--	No	Yes	VOC – CCV %D MET - Blank, MS/MSD %R, RPD, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-3 (0-2)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - MS/MSD %R, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-3 (2-4)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - MS/MSD %R, Ser. Dil.
RTL0286	11/30/2010	SW846	AMW-3 (4-6)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank, MS/MSD RPD MET - Blank, MS/MSD %R, Ser. Dil. MISC – MS/MSD %R
RTL0286	11/30/2010	SW846	DUP-2-113010	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	TB-6-120110	Soil	No	No	--	No	Yes	VOC – CCV %D
RTL0286	12/1/2010	SW846	AMW-10 (8.5-9.5)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	AMW-10 (12-14)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
										MET - MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	AMW-10 (14-15)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	RB-5-120110	Water	No	No	--	No	Yes	VOC – CCV %D MISC – Hold time
RTL0286	12/1/2010	SW846	TB-7-120110	Water	No	No	--	No	Yes	VOC – CCV %D
RTL0286	12/1/2010	SW846	AMW-11 (2-4)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - Blank, MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	AMW-11 (4-6)	Soil	No	No	--	No	Yes	VOC – Blank SVOC – Blank MET - Blank, MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	AMW-11 (6-8)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET - Blank, MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	TP-3-1	Soil	No	No	--	No	Yes	SVOC – Blank MET - Blank, MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	TP-3-2	Soil	No	No	--	No	Yes	SVOC – Blank MET - Blank, MS/MSD %R, Ser. Dil.
RTL0286	12/1/2010	SW846	TP-3-3	Soil	No	No	--	No	Yes	VOC – MS/MSD %R SVOC – Blank MET - MS/MSD %R, Ser. Dil.
RTL0286	12/2/2010	SW846	P-18R (0-2)	Soil	No	No	--	No	Yes	VOC – Blank SVOC – MS/MSD %R MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	P-18R (4-6)	Soil	No	No	--	No	Yes	VOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTL0286	12/2/2010	SW846	P-18R (6-8)	Soil	No	No	--	No	Yes	MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	MW-25D3 (0-2)	Soil	No	No	--	No	Yes	VOC – CCV %D MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	MW-25D3 (2-4)	Soil	No	No	--	No	Yes	SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	MW-25D3 (4-6)	Soil	No	No	--	No	Yes	SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	TB-8-12-2-10	Water	No	No	--	No	Yes	
RTL0286	12/2/2010	SW846	RB-6-12-2-10	Water	No	No	--	No	Yes	MISC – Hold time
RTL0286	12/2/2010	SW846	TB-9-12-2-10	Water	No	No	--	No	Yes	
RTL0286	12/2/2010	SW846	TP-4-B-1	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	TP-4-D-1	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	TP-4-F-1	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	TP-5-1	Soil	No	No	--	No	Yes	SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/2/2010	SW846	TP-5-2	Soil	No	No	--	No	Yes	SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTL0286	12/2/2010	SW846	TP-5-3	Soil	No	No	--	No	Yes	SVOC – Blank MET – MS/MSD %R, RPD, Ser. Dil.
RTL0286	12/3/2010	SW846	TB-9-12-3-10	Soil	No	No	--	No	Yes	
RTL0286	12/3/2010	SW846	RB-7-12-3-10	Soil	No	No	--	No	Yes	MISC – Hold time, MS %R
RTL0286	12/3/2010	SW846	TP-6-1	Soil	No	No	--	No	Yes	SVOC – Blank, CCV %D
RTL0286	12/3/2010	SW846	TP-6-2	Soil	No	No	--	No	Yes	SVOC – Blank, CCV %D
RTL0286	12/3/2010	SW846	TP-6-3	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – CCV %D
RTL0286	12/6/2010	SW846	TP-7-1	Soil	No	No	--	No	Yes	SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/6/2010	SW846	TP-7-2	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/6/2010	SW846	TP-8-1	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/6/2010	SW846	TP-8-2	Soil	No	No	--	No	Yes	SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-9-1	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-9-2	Soil	No	No	--	No	Yes	VOC – CCV %D, Field dup RPD SVOC – CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-9-3	Soil	No	No	--	No	Yes	SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-10-1	Soil	No	No	--	No	Yes	SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-10-2	Soil	No	No	--	No	Yes	SVOC - Blank, CCV %D MET – Ser. Dil.

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTL0286	12/7/2010	SW846	DUP-120710	Soil	No	No	--	No	Yes	VOC – CCV %D, Field dup RPD SVOC - Blank, CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-11-1	Soil	No	No	--	No	Yes	SVOC – Blank MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-12-1	Soil	No	No	--	No	Yes	VOC – CCV %D MET – Ser. Dil.
RTL0286	12/7/2010	SW846	MW-31D-2R (17-19)	Soil	No	No	--	No	Yes	SVOC – Blank MET – Ser. Dil.
RTL0286	12/7/2010	SW846	MW-23D-2R (18-20)	Soil	No	No	--	No	Yes	VOC – MS/MSD %R SVOC – Blank, MS/MSD RPD MET – Ser. Dil.
RTL0286	12/7/2010	SW846	TP-10-3	Soil	No	No	--	No	Yes	SVOC – Blank MET – Ser. Dil.
RTL0286	12/7/2010	SW846	RB-12-7-10	Water	No	No	--	No	Yes	MISC – Hold time
RTL0286	12/7/2010	SW846	TB-10-12-7-10	Water	No	No	--	No	Yes	
RTL0286	12/7/2010	SW846	TB-11-12-7-10	Water	No	No	--	No	Yes	
RTL0286	12/9/2010	SW846	MW-25D3 (21-23)	Soil	No	No	--	No	Yes	MISC – Hold time
RTL0286	12/9/2010	SW846	RB-12-9-10	Water	No	No	--	No	Yes	MISC – Hold time
RTL0286	12/9/2010	SW846	TB-12-9-10	Water	No	No	--	No	Yes	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE: 

DATE: April 7, 2011

PEER REVIEW: Dennis Capria

DATE: April 15, 2011

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Chain of Custody Record

Temperature on Receipt: ____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	Jo Ann Robertson	11-30-10	180082
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 2**
6723 Towpath Rd	315-446-9120		
City	**State** / **Zip Code**	**Site Contact**	**Lab Contact**
Syracuse	NY / 13214	Marcus Barkisson	
Project Name and Location (State)	**Carrier/Waybill Number**		
Former Gulf Terminal / Oceanside, NY			
Contract/Purchase Order/Quote No			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOC's	SVOC's	TAL Metals	Fetbus Iron	TOC	Sulfide	Special Instructions/ Conditions of Receipt
AMW-7(4-6)	11-29-10	1420				X	5						X	X	X	X	X	X	
AMW-7(8-10)	11-29-10	1500				X	5						X	X	X	X	X	X	
AMW-7(10-12)	11-29-10	1510				X	5						X	X	X	X	X	X	
TB-4-112910	11-29-10	-		X						1			X						
AMW-8(10-11)	11-30-10	0915				X	5						X	X	X	X	X	X	
AMW-8(12-14)	11-30-10	0925				X	5						X	X	X	X	X	X	
AMW-8(14-15)	11-30-10	0930				X	6						X	X	X	X	X	X	
RB-4-11-30-10	11-30-10	1600		X			3		1	4			X	X	X	X	X	X	
TB-5-113010	11-30-10	-		X						1			X						
AMW-9(9-10)	11-30-10	1100				X	5						X	X	X	X	X	X	
AMW-9(10-12)	11-30-10	1105				X	5						X	X	X	X	X	X	
AMW-9(14-15)	11-30-10	1120				X	5						X	X	X	X	X	X	

9337633

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
	11-30-10	1700		12/1/10	0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

2 cu

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Arcadis	Project Manager: Jo Ann Robertson	Date: 11-30-10	Chain of Custody Number: 180079
Address: 6723 Towpath Rd.	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number:	Page 2 of 2
City: Syracuse	State: NY	Zip Code: 13214	Site Contact: Melissa Erikson	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): Former Gulf Terminal - Chevron	Carrier/Waybill Number:		Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC's	SVOC's	TAL Metals	Extract. Iron	TOC	Sulfide	
TP-1-1	11/29/10	1550				✓	✓						✓	✓	✓	✓	✓	✓	
TP-1-2	11/30/10	856				✓	✓						✓	✓	✓	✓	✓	✓	
TP-1-3	11/30/10	906				✓	✓						✓	✓	✓	✓	✓	✓	
TP-2-1	11/30/10	1242				✓	✓						✓	✓	✓	✓	✓	✓	
TP-2-2	11/30/10	1412				✓	✓						✓	✓	✓	✓	✓	✓	

5387/331

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Sample Disposal

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other: _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11-30-10	1700	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report CANARY - Stays with the Sample PINK - Field Copy

Chain of Custody Record

Temperature on Receipt ____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Arcadis
Project Manager: Jo Ann Robertson
Date: 12-1-10
Chain of Custody Number: 166934
Page 1 of 2

Address: 6723 Towpath Rd.
Telephone Number (Area Code)/Fax Number: 315-446-9120
Lab Number:

City: Syracuse | State: NY | Zip Code: 13214
Site Contact: Marus Eriksson | Lab Contact:
Analysis (Attach list if more space is needed)

Project Name and Location (State): Former Gulf Terminal - Oceanside, NY
Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	VOCs	SVOCs	TAL Metals	Ferrous Iron	TOC	Sulfate	
AMW-3 (0-2)	11-30-10	1430				X	5						X	X	X	X	X	X	
AMW-3 (2-4)	11-30-10	1445				X	5						X	X	X	X	X	X	
AMW-3 (4-6)	11-30-10	1455				X	10						X	X	X	X	X	X	MS/MSD
Dup-2-113010	11-30-10	—				X	5						X	X	X	X	X	X	
FB-6-12110	12-1-10	—		X						1			X						
AMW-10 (8.5-9.5)	12-1-10	07:45				X	5						X	X	X	X	X	X	
AMW-10 (12-14)	12-1-10	07:55				X	5						X	X	X	X	X	X	
AMW-10 (14-15)	12-1-10	08:10				X	5						X	X	X	X	X	X	
RB-5-12110	12-1-10	16:00		X			3		1	4			X	X	X	X	X	X	
TB-7-12110	12-1-10	—		X						1			X						
AMW-11 (2-4)	12-1-10	11:10				X	6						X	X	X	X	X	X	
AMW-11 (4-6)	12-1-10	11:15				X	5						X	X	X	X	X	X	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	12-1-10	1600	1. Received By	12/2/10	0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

2047

DISTRIBUTION: WHITE - Returned to Client with Report. CANARY - Stays with the Sample. PINK - Field Copy

[redacted]

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	JoAnn Robertson	12-1-10	166905

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page
6723 Towpath Rd	315-446-9120		Page 2 of 2

City	State	Zip Code	Site Contact	Lab Contact
Syracuse	NY	13214	Marcus Eriksson	

Project Name and Location (State): Former Gulf Terminal

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	8260 VOCs	8260 SVOCs	TAL Metals	Ferrous Iron	TDS	Sulfate
AMW-11 (6-8)	12-1-10	11:30				X	5						X	X	X	X	X	X
TP-3-1	12-1-10	8:00				X	5						X	X	X	X	X	X
TP-3-2	12-Ho	10.10				X	5						X	X	X	X	X	X
TP-3-3	12-1-10	11:02				X	5						X	X	X	X	X	X

5407331

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	12-1-10	1600	1. Received By	12/2/10	0830
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

2047

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Arcadis	Project Manager: Jo Ann Robertson	Date: 12-2-10	Chain of Custody Number: 166908
Address: 6723 Towpath Rd	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number:	Page ___ of ___
City: Syracuse	State: NY	Zip Code: 13214	Site Contact: Mark Erikson	Lab Contact:
Project Name and Location (State): Former Gulf Terminal	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOC's	SVOC's	TAL Metals	TOC	Ferrous Iron	Sulfide	Special Instructions/ Conditions of Receipt
P-18R(0-2)	12-2-10	0730				X	5						X	X	X	X	X	X	
P-18R(4-6)	12-2-10	0810				X	5						X	X	X	X	X	X	
P-18R(6-8)	12-2-10	0815				X	5						X	X	X	X	X	X	
MW-2503(0-2)	12-2-10	0830				X	5						X	X	X	X	X	X	
MW-2503(2-4)	12-2-10	0835				X	5						X	X	X	X	X	X	
MW-2503(4-6)	12-2-10	0845				X	5						X	X	X	X	X	X	
TB-8-12-2-10	12-2-10	-		X						1			X						
RB-6-12-2-10	12-2-10	1600		X			3		1	4			X	X	X	X	X	X	

Possible Hazard Identification:
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal:
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By	12-2-10	1700	1. Received By	12/3/10	0730
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: 2-02.0°

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt: ____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	Jo Ann Robertson	12-2-10	180081
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page ____ of ____**
6723 Towpath Rd	315-446-9120		
City	**State / Zip Code**	**Site Contact**	**Lab Contact**
Syracuse	NY 13214	Marcus Eriksson	
Project Name and Location (State)	**Carrier/Waybill Number**		
Former Gulf Terminal - Cicero, NY			
Contract/Purchase Order/Quote No			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Solid	Containers & Preservatives: Unpres.	HNO3	HNO3 – HCl	NaOH	ZnAc/ NaOH	Analysis (Attach list if more space is needed): VOC's	SVOC's	TAL Metals	TOC	Ferrous Iron	Sulfide	Special Instructions/ Conditions of Receipt
TB-9-12-2-10	12-2-10	-		X					1			X						
TP-4-B-1	12-2-10	837		X			5					X	X	X	X	X	X	
TP-4-D-1	12-2-10	1057		X			5					X	X	X	X	X	X	
TP-4-F-1	12-2-10	1348		X			5					X	X	X	X	X	X	
TP-5-1	12-2-10	1505		X			5					X	X	X	X	X	X	
TP-5-2	12-2-10	1608		X			5					X	X	X	X	X	X	
TP-5-3	12-2-10	1616		X			5					X	X	X	X	X	X	

5427183

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	12-2-10	1700	1. Received By	12/3/10	0930
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

2620

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt ____ . ____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

fc2

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arad's	Jo Ann Robertson	12-3-10	180080
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
6723 Towpath Rd.	315-446-9120		
City	**State**	**Zip Code**	**Site Contact**	**Lab Contact**
Syracuse	NY	13214	Marcus Eriksson	
Project Name and Location (State)	**Carrier/Waybill Number**	
Former Gulf Terminal		
Contract/Purchase Order/Quote No		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOCs	SVOCs	TAL Metals	Fe/Mn/Al/Ca	TOC	Sulfate	Special Instructions/ Conditions of Receipt
TB-9-12-3-10	12-3-10	—		X						1			X						
RB-7-12-3-10	12-3-10	12:00		X			3		1	4			X	X	X	X	X	X	
TP-6-1	12-3-10	8:24		X			3						X	X	X	X	X	X	
TP-6-2	12-3-10	9:56		X			5						X	X	X	X	X	X	
TP-6-3	12-3-10	11:06		X			5						X	X	X	X	X	X	

5437331

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Relinquished By	Date	Time	Received By	Date	Time
1.	Ricardo Jaime	12/3/10	17:50	R English Sgn	12-03-10	17:50
2.	R English	12/3/10	19:02	R English Sgn	12-4-10	0840
3.						

Comments

2.0°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt ____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Fed

TAL-4124 (1007)

Client: Arcadis	Project Manager: Jo Ann Robertson	Date: 12-3-10 / 12-4-10	Chain of Custody Number: 166907
Address: 6723 Towpath Rd	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number	Page 2 of 2
City: Syracuse	State: NY	Zip Code: 13214	Site Contact: Marcus Eriksson	Lab Contact
Project Name and Location (State): Former Gulf Terminal - Chevron		Carrier/Waybill Number	
Contract/Purchase Order/Quote No			

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt:

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Matrix: Soil	Containers & Preservatives: Volume	HCl	HNO3	NaOH	ZnAc/NaOH	VOC_5	SVOC_3	TAL Metals	TPH	Ferrous Iron	Sulfide
TP-7-1	12/6/10	1409		X	5					X	X	X	X	X	X
TP-7-2	12/6/10	1458		X	5					X	X	X	X	X	X
TP-8-1	12/6/10	1528		X	5					X	X	X	X	X	X
TP-8-2	12/6/10	16:03		X	5					X	X	X	X	X	X
TP-9-1	12/7/10	7:51		X	5					X	X	X	X	X	X
TP-9-2	12/7/10	8:40		X	5					X	X	X	X	X	X
TP-9-3	12/7/10	9:25		X	5					X	X	X	X	X	X
TP-10-1	12/7/10	~~11:11~~ 10:43		X	10					X	X	X	X	X	X
TP-10-2 / ~~TP-10-3~~	12/7/10	11:19 ~~13:11~~		X	5					X	X	X	X	X	X
DUP-120710	12/7/10	—		X	5					X	X	X	X	X	X
TP-11-1	12/7/10	1360		X	5					X	X	X	X	X	X
TP-12-1	12/7/10	14:11		X	5					X	X	X	X	X	X

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	12-7-10	17:00	1. Received By		
2. Relinquished By			2. Received By	12-8-10	1015
3. Relinquished By			3. Received By		

Comments

2020

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

5447331

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

Fe 2

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	Jo Ann Robertson	12-7-10	166906
Address: 6723 Towpath Rd.	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number	Page 1 of 2
City: Syracuse	State: NY	Zip Code: 13214	Site Contact: Marcus Eriksson	Lab Contact
Project Name and Location (State): Former Gulf Terminal	Carrier/Waybill Number	
Contract/Purchase Order/Quote No		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	HNO3	NaOH	HCl	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOCs	SVOCs	TAL Metals	TDC	Formate, HDA	Sulfate	Special Instructions/ Conditions of Receipt
TB-10-12-7-10	12-7-10	—		X						1		X						
TB-11-12-7-10	12-7-10	—		X						1		X						
MW-31D-2R (17-19)	12-7-10	08:10				X	5					X	X	X	X	X	X	
RB-RB-12-7-10	12-7-10	16:00		X			3		1	4		X	X	X	X	X	X	
MW-23D-2R (18-20)	12-7-10	13:50				X	10					X	X	X	X	X	X	MS/MSD
TP-10-3	12-7-10	13:11				X	5					X	X	X	X	X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	12-7-10	1700	1. Received By	12-8-10	1015
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

2020

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

545/7331

ARCADIS
Infrastructure, environment, buildings

ID#: 17678

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Fe2

Lab Work Order #

Send Results to:

Contact & Company Name: John Robertson/Arcadis
Telephone: 315-446-9120
Address: 6723 Towpath Rd
Fax:
City: Syracuse State: NY Zip: 13214
E-mail Address:
Project Name/Location (City, State): Former Gulf Terminal/Jacksonville
Project #:
Sampler(s) Printed Name: Marcus Eriksson
Sampler(s) Signature:

Preservative
Filtered (Y/N)
# of Containers
Container Information

PARAMETER ANALYSIS & METHOD

Keys

Preservation Key:
A. H_2SO_4
B. HCl
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10 Other: _____

Matrix Key:
SO - Soil
SE - Sediment
NL - NAPL/Oil
W - Water
SL - Sludge
SW - Sample Wipe
T - Tissue
A - Air
Other: _____

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	VOC's	SVOC's	TAL Metals	TOC	Ferrous Iron	Sulfate	REMARKS
RB-12-9-10	12-9-10	-		8	Aqu.	X	X	X	X	X	X	
TB-12-9-10	12-9-10	-		1	Aqu.	X						
MW-25D3(21-23)	12-9-10	09:15		5	Soil	X	X	X	X	X	X	

546/733

Special Instructions/Comments:

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name	Cooler Custody Seal (✓)	Printed Name: Marcus Eriksson	Printed Name: Lab Courier	Printed Name:	Printed Name
☐ Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature:	Signature:	Signature:	Signature
Specify Turnaround Requirements	Sample Receipt:	Firm: Arcadis	Firm/Courier: FA Bull	Firm/Courier:	Firm:
Shipping Tracking #	Condition/Cooler Temp: _____	Date/Time: 12-9-10/1500	Date/Time: 12-10-10 0820	Date/Time: 2.4°	Date/Time

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-7 (4-6) (RTL0286-01 - Soil) **Sampled: 11/29/10 14:20** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.89	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		5.5	0.71	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.2	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		5.5	0.67	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.33	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		5.5	0.70	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		5.5	0.28	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		5.5	0.77	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Acetone	**6.3**	J	27	4.6	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Bromodichloromethane	ND		5.5	0.73	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Bromoform	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Bromomethane	ND		5.5	0.49	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Carbon disulfide	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		5.5	0.53	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Chlorobenzene	ND		5.5	0.72	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Dibromochloromethane	ND		5.5	0.70	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Chloroethane	ND	J	5.5	1.2	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		5.5	0.70	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Cyclohexane	ND		5.5	0.77	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	5.5	0.45	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Isopropylbenzene	ND		5.5	0.83	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Methylcyclohexane	ND		5.5	0.83	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Methylene Chloride	**7.6**		5.5	2.5	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Styrene	ND		5.5	0.27	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Tetrachloroethene	ND		5.5	0.74	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Toluene	ND		5.5	0.41	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (4-6) (RTL0286-01 - Soil) - cont.						**Sampled: 11/29/10 14:20**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.92	ug/kg dry	1.00	12/03/10 17:47	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (64-126%)*				*12/03/10 17:47*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*115 %*		*Surr Limits: (72-126%)*				*12/03/10 17:47*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/03/10 17:47*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		180	40	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		180	12	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		180	9.6	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		180	50	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		360	64	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		180	28	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		180	45	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2-Chloronaphthalene	ND		180	12	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2-Chlorophenol	ND		180	9.3	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2-Methylnaphthalene	ND		180	2.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2-Methylphenol	ND		180	5.6	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2-Nitroaniline	ND		360	59	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2-Nitrophenol	ND		180	8.4	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		180	160	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
3-Nitroaniline	ND		360	42	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		360	63	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		180	58	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		180	7.6	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Chloroaniline	ND		180	54	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		180	3.9	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Methylphenol	ND		360	10	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Nitroaniline	ND		360	21	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
4-Nitrophenol	ND		360	45	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Acenaphthene	ND		180	2.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Acenaphthylene	ND		180	1.5	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Acetophenone	ND		180	9.4	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Anthracene	**17**	J	180	4.7	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Atrazine	ND		180	8.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Benzaldehyde	ND		180	20	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Benzo[a]anthracene	**88**	J	180	3.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Benzo[a]pyrene	**87**	J	180	4.4	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Benzo[b]fluoranthene	**93**	J	180	3.6	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Benzo[g,h,i]perylene	**61**	J	180	2.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Benzo[k]fluoranthene	**33**	J	180	2.0	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Biphenyl	ND		180	11	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		180	10	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		180	16	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		180	19	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	**420**		180	59	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (4-6) (RTL0286-01 - Soil) - cont.						**Sampled: 11/29/10 14:20**		**Recvd: 12/01/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	**150**	J	180	49	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Caprolactam	ND		180	79	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Carbazole	ND		180	2.1	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Chrysene	**82**	J	180	1.8	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	**17**	J	180	2.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Dibenzofuran	ND		180	1.9	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Diethyl phthalate	ND		180	5.5	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Dimethyl phthalate	ND		180	4.8	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		180	63	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		180	4.3	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Fluoranthene	**170**	J	180	2.7	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Fluorene	ND		180	4.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Hexachlorobenzene	ND		180	9.1	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Hexachlorobutadiene	ND		180	9.4	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		180	56	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Hexachloroethane	ND		180	14	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	**49**	J	180	5.1	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Isophorone	ND		180	9.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Naphthalene	ND		180	3.1	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Nitrobenzene	ND		180	8.1	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		180	15	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		180	10	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Pentachlorophenol	ND		360	63	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Phenanthrene	**90**	J	180	3.9	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Phenol	ND		180	19	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
Pyrene	**160**	J	180	1.2	ug/kg dry	1.00	12/03/10 03:32	JLG	10L0109	8270C
2,4,6-Tribromophenol	*115 %*		*Surr Limits:*	*(39-146%)*			*12/03/10 03:32*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*85 %*		*Surr Limits:*	*(37-120%)*			*12/03/10 03:32*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits:*	*(18-120%)*			*12/03/10 03:32*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits:*	*(34-132%)*			*12/03/10 03:32*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*75 %*		*Surr Limits:*	*(11-120%)*			*12/03/10 03:32*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*90 %*		*Surr Limits:*	*(58-147%)*			*12/03/10 03:32*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4490**	J	11.0	4.8	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Antimony	ND		16.4	0.6	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Arsenic	**3.1**	J	2.2	0.4	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Barium	**26.0**		0.548	0.121	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Beryllium	**0.200**	J	0.219	0.031	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Cadmium	**0.463**	J	B	0.219	0.033	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Calcium	**875**		B	54.8	3.6	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Chromium	**7.94**		0.548	0.219	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Cobalt	**2.72**		0.548	0.055	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Copper	**8.4**		1.1	0.2	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Iron	**10600**		11.0	1.2	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Lead	**22.4**	J	1.1	0.3	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Magnesium	**878**		21.9	1.0	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Manganese	**119**	J	B	0.2	0.04	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (4-6) (RTL0286-01 - Soil) - cont.						**Sampled: 11/29/10 14:20**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.49**		5.48	0.252	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Potassium	**541**		32.9	21.9	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Selenium	**0.6**	J	4.4	0.6	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Silver	ND		0.548	0.219	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Sodium	**70.5**	J	153	14.2	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Thallium	ND		6.6	0.3	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Vanadium	**9.26**		0.548	0.121	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Zinc	**120**	J B	2.2	0.2	mg/kg dry	1.00	12/04/10 11:58	LMH	10L0207	6010B
Mercury	**0.0492**		0.0206	0.0083	mg/kg dry	1.00	12/07/10 12:25	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**91**		0.010	NR	%	1.00	12/03/10 07:28	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~2.2~~	~~0.3~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**346**		110	55.0	mg/kg dry	1.00	12/04/10 11:36	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**5020**		1100	1100	mg/Kg dry	1.00	12/03/10 18:58	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**9.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**90.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-7 (8-10) (RTL0286-02 - Soil) — **Sampled: 11/29/10 15:00** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.89	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		5.5	0.71	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.3	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		5.5	0.67	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.33	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		5.5	0.70	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		5.5	0.28	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		5.5	0.77	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Acetone	37		27	4.6	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Bromodichloromethane	ND		5.5	0.74	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Bromoform	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Bromomethane	ND		5.5	0.49	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Carbon disulfide	ND		5.5	2.7	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		5.5	0.53	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Chlorobenzene	ND		5.5	0.72	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Dibromochloromethane	ND		5.5	0.70	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Chloroethane	ND	J	5.5	1.2	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		5.5	0.70	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Cyclohexane	ND		5.5	0.77	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	5.5	0.45	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Isopropylbenzene	ND		5.5	0.83	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Methylcyclohexane	ND		5.5	0.83	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Methylene Chloride	16		5.5	2.5	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Styrene	ND		5.5	0.27	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Tetrachloroethene	ND		5.5	0.74	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Toluene	ND		5.5	0.41	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (8-10) (RTL0286-02 - Soil) - cont.						**Sampled: 11/29/10 15:00**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.92	ug/kg dry	1.00	12/03/10 18:17	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*99 %*		*Surr Limits: (64-126%)*				*12/03/10 18:17*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*113 %*		*Surr Limits: (72-126%)*				*12/03/10 18:17*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/03/10 18:17*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		190	42	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		190	13	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		190	10	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		190	52	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		370	67	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		190	30	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		190	47	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2-Chloronaphthalene	ND		190	13	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2-Chlorophenol	ND		190	9.7	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2-Methylnaphthalene	ND		190	2.3	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2-Methylphenol	ND		190	5.9	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2-Nitroaniline	ND		370	61	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2-Nitrophenol	ND		190	8.8	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		190	170	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
3-Nitroaniline	ND		370	44	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		370	66	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		190	61	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		190	7.9	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Chloroaniline	ND		190	56	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		190	4.1	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Methylphenol	ND		370	11	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Nitroaniline	ND		370	21	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
4-Nitrophenol	ND		370	46	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Acenaphthene	ND		190	2.3	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Acenaphthylene	ND		190	1.6	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Acetophenone	ND		190	9.8	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Anthracene	17	J	190	4.9	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Atrazine	ND		190	8.5	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Benzaldehyde	ND		190	21	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Benzo[a]anthracene	54	J	190	3.3	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Benzo[a]pyrene	56	J	190	4.6	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Benzo[b]fluoranthene	64	J	190	3.7	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Benzo[g,h,i]perylene	43	J	190	2.3	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		190	2.1	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		190	17	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	20	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	110	J	190	62	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (8-10) (RTL0286-02 - Soil) - cont.						**Sampled: 11/29/10 15:00**		**Recvd: 12/01/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		190	51	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Caprolactam	ND		190	83	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Carbazole	ND		190	2.2	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Chrysene	**50**	J	190	1.9	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		190	2.3	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Dibenzofuran	ND		190	2.0	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Diethyl phthalate	ND		190	5.8	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Dimethyl phthalate	ND		190	5.0	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		190	66	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		190	4.5	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Fluoranthene	**110**	J	190	2.8	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Fluorene	ND		190	4.4	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Hexachlorobenzene	ND		190	9.5	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Hexachlorobutadiene	ND		190	9.8	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		190	58	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Hexachloroethane	ND		190	15	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	**33**	J	190	5.3	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Isophorone	ND		190	9.6	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Naphthalene	ND		190	3.2	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Nitrobenzene	ND		190	8.5	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		190	15	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		190	10	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Pentachlorophenol	ND		370	66	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Phenanthrene	**41**	J	190	4.0	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Phenol	ND		190	20	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
Pyrene	**88**	J	190	1.2	ug/kg dry	1.00	12/03/10 03:55	JLG	10L0109	8270C
2,4,6-Tribromophenol	*114 %*		*Surr Limits: (39-146%)*				*12/03/10 03:55*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*88 %*		*Surr Limits: (37-120%)*				*12/03/10 03:55*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*12/03/10 03:55*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits: (34-132%)*				*12/03/10 03:55*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*74 %*		*Surr Limits: (11-120%)*				*12/03/10 03:55*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*88 %*		*Surr Limits: (58-147%)*				*12/03/10 03:55*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3290**	J	11.2	4.9	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Antimony	ND		16.8	0.6	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Arsenic	**2.0**	J J	2.2	0.4	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Barium	**28.5**		0.559	0.123	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Beryllium	**0.142**	J	0.224	0.031	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Cadmium	~~0.111~~ 0.224	UB ~~J,B~~ J	0.224	0.034	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Calcium	**743**	B	55.9	3.7	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Chromium	**7.96**		0.559	0.224	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Cobalt	**2.27**		0.559	0.056	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Copper	**7.2**		1.1	0.2	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Iron	**5780**		11.2	1.2	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Lead	**18.5**	J	1.1	0.3	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Magnesium	**766**		22.4	1.0	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Manganese	**55.2**	J B	0.2	0.04	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (8-10) (RTL0286-02 - Soil) - cont.						**Sampled: 11/29/10 15:00**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**4.87**	J	5.59	0.257	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Potassium	**420**		33.6	22.4	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Selenium	**0.6**	J	4.5	0.6	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Silver	ND		0.559	0.224	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Sodium	**131**	J	157	14.5	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Thallium	ND		6.7	0.3	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Vanadium	**7.66**		0.559	0.123	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Zinc	**29.0**	J B	2.2	0.2	mg/kg dry	1.00	12/04/10 12:09	LMH	10L0207	6010B
Mercury	**0.189**		0.0221	0.0089	mg/kg dry	1.00	12/07/10 12:32	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**88**		0.010	NR	%	1.00	12/03/10 07:30	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~ R	~~HFT~~	~~2.3~~	~~0.3~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**291**		114	56.8	mg/kg dry	1.00	12/04/10 11:36	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2900**		1220	1220	mg/Kg dry	1.00	12/03/10 19:11	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**18.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**81.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-7 (10-12) (RTL0286-03 - Soil) — **Sampled: 11/29/10 15:10** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		6.5	0.47	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		6.5	1.0	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		6.5	0.84	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.5	1.5	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		6.5	0.79	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		6.5	0.79	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		6.5	0.39	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		6.5	3.2	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		6.5	0.83	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		6.5	0.51	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		6.5	0.32	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		6.5	3.2	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		6.5	0.33	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		6.5	0.90	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
2-Butanone	**5.2**	J	32	2.4	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
2-Hexanone	ND		32	3.2	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		32	2.1	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Acetone	**50**		32	5.4	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Benzene	ND		6.5	0.32	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Bromodichloromethane	ND		6.5	0.87	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Bromoform	ND		6.5	3.2	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Bromomethane	ND		6.5	0.58	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Carbon disulfide	**5.3**	J	6.5	3.2	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		6.5	0.63	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Chlorobenzene	ND		6.5	0.85	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Dibromochloromethane	ND		6.5	0.83	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Chloroethane	ND	J	6.5	1.5	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Chloroform	ND		6.5	0.40	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Chloromethane	ND		6.5	0.39	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	**1.5**	J	6.5	0.83	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		6.5	0.93	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Cyclohexane	ND		6.5	0.90	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	6.5	0.53	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Ethylbenzene	ND		6.5	0.45	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Isopropylbenzene	ND		6.5	0.97	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Methyl Acetate	ND		6.5	1.2	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	**4.6**	J	6.5	0.63	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Methylcyclohexane	ND		6.5	0.98	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Methylene Chloride	**23**		6.5	3.0	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Styrene	ND		6.5	0.32	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Tetrachloroethene	ND		6.5	0.87	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Toluene	ND		6.5	0.49	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		6.5	0.67	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		6.5	2.8	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Trichloroethene	ND		6.5	1.4	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		6.5	0.61	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
Vinyl chloride	**3.2**	J	6.5	0.79	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (10-12) (RTL0286-03 - Soil) - cont.						**Sampled: 11/29/10 15:10**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		13	1.1	ug/kg dry	1.00	12/03/10 18:47	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*103 %*		*Surr Limits: (64-126%)*				*12/03/10 18:47*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*116 %*		*Surr Limits: (72-126%)*				*12/03/10 18:47*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/03/10 18:47*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		220	47	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		220	14	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		220	11	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		220	59	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		420	76	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		220	34	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		220	53	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2-Chloronaphthalene	ND		220	15	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2-Chlorophenol	ND		220	11	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2-Methylnaphthalene	ND		220	2.6	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2-Methylphenol	ND		220	6.7	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2-Nitroaniline	ND		420	69	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2-Nitrophenol	ND		220	9.9	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		220	190	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
3-Nitroaniline	ND		420	50	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		420	75	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		220	69	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		220	8.9	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Chloroaniline	ND		220	64	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		220	4.6	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Methylphenol	ND		420	12	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Nitroaniline	ND		420	24	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
4-Nitrophenol	ND		420	53	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Acenaphthene	ND		220	2.5	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Acenaphthylene	ND		220	1.8	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Acetophenone	ND		220	11	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Anthracene	ND		220	5.5	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Atrazine	ND		220	9.6	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Benzaldehyde	ND		220	24	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Benzo[a]anthracene	**24**	J	220	3.7	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Benzo[a]pyrene	**25**	J	220	5.2	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Benzo[b]fluoranthene	**28**	J	220	4.2	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Benzo[g,h,i]perylene	**21**	J	220	2.6	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		220	2.4	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Biphenyl	ND		220	13	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		220	12	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		220	19	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		220	23	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	**98**	J	220	70	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (10-12) (RTL0286-03 - Soil) - cont.						**Sampled: 11/29/10 15:10**		**Recvd: 12/01/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		220	58	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Caprolactam	ND		220	94	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Carbazole	ND		220	2.5	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Chrysene	**21**	J	220	2.2	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		220	2.5	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Dibenzofuran	ND		220	2.3	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Diethyl phthalate	ND		220	6.5	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Dimethyl phthalate	ND		220	5.7	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		220	75	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		220	5.1	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Fluoranthene	**41**	J	220	3.1	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Fluorene	ND		220	5.0	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Hexachlorobenzene	ND		220	11	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Hexachlorobutadiene	ND		220	11	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		220	65	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Hexachloroethane	ND		220	17	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		220	6.0	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Isophorone	ND		220	11	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Naphthalene	ND		220	3.6	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Nitrobenzene	ND		220	9.6	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		220	17	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		220	12	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Pentachlorophenol	ND		420	74	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Phenanthrene	ND		220	4.5	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Phenol	ND		220	23	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
Pyrene	**35**	J	220	1.4	ug/kg dry	1.00	12/03/10 04:19	JLG	10L0109	8270C
2,4,6-Tribromophenol	*110 %*		*Surr Limits: (39-146%)*				*12/03/10 04:19*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*86 %*		*Surr Limits: (37-120%)*				*12/03/10 04:19*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*68 %*		*Surr Limits: (18-120%)*				*12/03/10 04:19*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*82 %*		*Surr Limits: (34-132%)*				*12/03/10 04:19*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*76 %*		*Surr Limits: (11-120%)*				*12/03/10 04:19*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*88 %*		*Surr Limits: (58-147%)*				*12/03/10 04:19*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4510**	J	12.9	5.7	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Antimony	ND		19.3	0.7	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Arsenic	**4.1**	J	2.6	0.5	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Barium	**13.2**		0.644	0.142	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Beryllium	**0.195**	J	0.258	0.036	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Cadmium	0.258 ~~0.142~~ UB ~~J, B~~ J		0.258	0.039	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Calcium	**1450**	~~B~~	64.4	4.3	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Chromium	**12.1**		0.644	0.258	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Cobalt	**3.05**		0.644	0.064	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Copper	**5.6**		1.3	0.3	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Iron	**9990**		12.9	1.4	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Lead	**6.6**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Magnesium	**1950**		25.8	1.2	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Manganese	**82.8**	J ~~B~~	0.3	0.04	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-7 (10-12) (RTL0286-03 - Soil) - cont.						**Sampled: 11/29/10 15:10**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**7.91**		6.44	0.296	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Potassium	**1010**		38.7	25.8	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Selenium	**0.7**	J	5.2	0.7	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Silver	ND		0.644	0.258	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Sodium	**742**		180	16.7	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Thallium	ND		7.7	0.4	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Vanadium	**13.7**		0.644	0.142	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Zinc	**23.4**	J ~~B~~	2.6	0.2	mg/kg dry	1.00	12/04/10 12:11	LMH	10L0207	6010B
Mercury	**0.0219**	J	0.0256	0.0104	mg/kg dry	1.00	12/07/10 12:33	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**77**		0.010	NR	%	1.00	12/03/10 07:32	JRR	10L0148	Dry Weight
Ferrous Iron	R ~~ND~~	~~HFT~~	~~2.6~~	~~0.4~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**149**		130	65.1	mg/kg dry	1.00	12/04/10 11:36	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**22300**		1490	1490	mg/Kg dry	1.00	12/03/10 19:24	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**32.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**67.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-4-112910 (RTL0286-04 - Water) **Sampled: 11/29/10** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	~~N1~~	1.0	0.82	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,1,2,2-Tetrachloroethane	ND	~~N1~~	1.0	0.21	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,1,2-Trichloroethane	ND	~~N1~~	1.0	0.23	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	~~N1~~	1.0	0.31	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,1-Dichloroethane	ND	~~N1~~	1.0	0.38	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,1-Dichloroethene	ND	~~N1~~	1.0	0.29	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2,4-Trichlorobenzene	ND	~~N1~~	1.0	0.41	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2-Dibromo-3-chloropropane	ND	~~N1~~	1.0	0.39	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2-Dibromoethane	ND	~~N1~~	1.0	0.73	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2-Dichlorobenzene	ND	~~N1~~	1.0	0.79	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2-Dichloroethane	ND	~~N1~~	1.0	0.21	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2-Dichloropropane	ND	~~N1~~	1.0	0.72	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,3-Dichlorobenzene	ND	~~N1~~	1.0	0.78	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,4-Dichlorobenzene	ND	~~N1~~	1.0	0.84	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
2-Butanone	ND	~~N1~~	5.0	1.3	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
2-Hexanone	ND	~~N1~~	5.0	1.2	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
4-Methyl-2-pentanone	ND	~~N1~~	5.0	2.1	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Acetone	ND	~~N1~~	5.0	3.0	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Benzene	ND	~~N1~~	1.0	0.41	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Bromodichloromethane	ND	~~N1~~	1.0	0.39	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Bromoform	ND	~~N1~~	1.0	0.26	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Bromomethane	ND	~~N1~~	1.0	0.69	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Carbon disulfide	ND	~~N1~~	1.0	0.19	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Carbon Tetrachloride	ND	~~N1~~	1.0	0.27	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Chlorobenzene	ND	~~N1~~	1.0	0.75	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Dibromochloromethane	ND	~~N1~~	1.0	0.32	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Chloroethane	ND	J ~~N1~~	1.0	0.32	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Chloroform	ND	~~N1~~	1.0	0.34	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Chloromethane	ND	~~N1~~	1.0	0.35	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
cis-1,2-Dichloroethene	ND	~~N1~~	1.0	0.81	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
cis-1,3-Dichloropropene	ND	~~N1~~	1.0	0.36	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Cyclohexane	ND	~~N1~~	1.0	0.18	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Dichlorodifluoromethane	ND	J ~~N1~~	1.0	0.68	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Ethylbenzene	ND	~~N1~~	1.0	0.74	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Isopropylbenzene	ND	~~N1~~	1.0	0.79	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Methyl Acetate	ND	~~N1~~	1.0	0.50	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Methyl-t-Butyl Ether (MTBE)	ND	~~N1~~	1.0	0.16	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Methylcyclohexane	ND	~~N1~~	1.0	0.16	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Methylene Chloride	**1.3**	~~N1,B~~	1.0	0.44	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
trans-1,3-Dichloropropene	ND	~~N1~~	1.0	0.37	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Trichloroethene	ND	~~N1~~	1.0	0.46	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Trichlorofluoromethane	ND	~~N1~~	1.0	0.88	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
Vinyl chloride	ND	~~N1~~	1.0	0.90	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-4-112910 (RTL0286-04 - Water) - cont.						**Sampled: 11/29/10**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	N1	2.0	0.66	ug/L	1.00	12/03/10 15:49	PJQ	10L0226	8260B
1,2-Dichloroethane-d4	*101 %*	*N1*	*Surr Limits: (66-137%)*				*12/03/10 15:49*	*PJQ*	*10L0226*	*8260B*
4-Bromofluorobenzene	*118 %*	*N1*	*Surr Limits: (73-120%)*				*12/03/10 15:49*	*PJQ*	*10L0226*	*8260B*
Toluene-d8	*106 %*	*N1*	*Surr Limits: (71-126%)*				*12/03/10 15:49*	*PJQ*	*10L0226*	*8260B*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (10-11) (RTL0286-05 - Soil) **Sampled: 11/30/10 09:15** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		74	5.4	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		74	12	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		74	9.6	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		74	17	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,1-Dichloroethane	25	J	74	9.0	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		74	9.0	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		74	4.5	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		74	37	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		74	9.5	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		74	5.8	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		74	3.7	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		74	37	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		74	3.8	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		74	10	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
2-Butanone	230	J	370	27	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
2-Hexanone	ND		370	37	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		370	24	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Acetone	240	J	370	62	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Benzene	78		74	3.6	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Bromodichloromethane	ND		74	9.9	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Bromoform	ND		74	37	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Bromomethane	ND		74	6.7	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Carbon disulfide	1800		74	37	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		74	7.2	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Chlorobenzene	ND		74	9.8	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Dibromochloromethane	ND		74	9.5	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Chloroethane	ND J		74	17	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Chloroform	ND		74	4.6	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Chloromethane	ND		74	4.5	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	~~4400~~ 3200	E D	74	9.5	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		74	11	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Cyclohexane	ND		74	10	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND J		74	6.1	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Ethylbenzene	ND		74	5.1	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Isopropylbenzene	ND		74	11	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Methyl Acetate	ND		74	14	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	~~4600~~ 3300	E D	74	7.3	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Methylcyclohexane	ND		74	11	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Methylene Chloride	~~18000~~ 24000	E D	74	34	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Styrene	ND		74	3.7	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Tetrachloroethene	ND		74	9.9	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Toluene	ND		74	5.6	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	46	J	74	7.6	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		74	33	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Trichloroethene	20	J	74	16	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		74	7.0	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
Vinyl chloride	~~4600~~ 1400	E D	74	9.0	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (10-11) (RTL0286-05 - Soil) - cont.						**Sampled: 11/30/10 09:15**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		150	12	ug/kg dry	1.00	12/03/10 19:16	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*102 %*		*Surr Limits: (64-126%)*				*12/03/10 19:16*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*117 %*		*Surr Limits: (72-126%)*				*12/03/10 19:16*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*12/03/10 19:16*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		280	62	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		280	19	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		280	15	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		280	76	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		550	99	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		280	44	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		280	69	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2-Chloronaphthalene	ND		280	19	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2-Chlorophenol	ND		280	14	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2-Methylnaphthalene	ND		280	3.4	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2-Methylphenol	ND		280	8.7	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2-Nitroaniline	ND		550	91	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2-Nitrophenol	ND		280	13	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		280	250	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
3-Nitroaniline	ND		550	65	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		550	97	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		280	90	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		280	12	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Chloroaniline	ND		280	83	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		280	6.0	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Methylphenol	**210**	J	550	16	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Nitroaniline	ND		550	32	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
4-Nitrophenol	ND		550	68	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Acenaphthene	**26**	J	280	3.3	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Acenaphthylene	ND		280	2.3	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Acetophenone	ND		280	14	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Anthracene	ND		280	7.2	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Atrazine	ND		280	13	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Benzaldehyde	ND		280	31	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Benzo[a]anthracene	ND		280	4.9	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Benzo[a]pyrene	ND		280	6.8	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		280	5.5	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		280	3.4	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		280	3.1	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Biphenyl	ND		280	18	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		280	15	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		280	24	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		280	29	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	**110**	J	280	91	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (10-11) (RTL0286-05 - Soil) - cont.						**Sampled: 11/30/10 09:15**		**Recvd: 12/01/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		280	76	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Caprolactam	ND		280	120	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Carbazole	ND		280	3.3	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Chrysene	ND		280	2.8	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		280	3.3	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Dibenzofuran	ND		280	2.9	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Diethyl phthalate	ND		280	8.5	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Dimethyl phthalate	ND		280	7.4	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		280	98	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		280	6.6	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Fluoranthene	**50**	J	280	4.1	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Fluorene	**25**	J	280	6.5	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Hexachlorobenzene	ND		280	14	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Hexachlorobutadiene	ND		280	14	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		280	85	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Hexachloroethane	ND		280	22	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		280	7.8	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Isophorone	ND		280	14	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Naphthalene	ND		280	4.7	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Nitrobenzene	ND		280	13	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		280	22	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		280	15	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Pentachlorophenol	ND		550	97	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Phenanthrene	**79**	J	280	5.9	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Phenol	**130**	J	280	30	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
Pyrene	**32**	J	280	1.8	ug/kg dry	1.00	12/03/10 04:43	JLG	10L0109	8270C
2,4,6-Tribromophenol	*118 %*		*Surr Limits: (39-146%)*				*12/03/10 04:43*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*81 %*		*Surr Limits: (37-120%)*				*12/03/10 04:43*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*12/03/10 04:43*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits: (34-132%)*				*12/03/10 04:43*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*73 %*		*Surr Limits: (11-120%)*				*12/03/10 04:43*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*88 %*		*Surr Limits: (58-147%)*				*12/03/10 04:43*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**12300**	J	16.4	7.2	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Antimony	ND		24.6	0.9	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Arsenic	**13.2**	J	3.3	0.7	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Barium	**29.3**		0.820	0.180	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Beryllium	**0.580**		0.328	0.046	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Cadmium	**0.407**	J	B	0.328	0.049	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Calcium	**1810**	B	82.0	5.4	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Chromium	**35.9**		0.820	0.328	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Cobalt	**7.12**		0.820	0.082	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Copper	**11.9**		1.6	0.3	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Iron	**31200**		16.4	1.8	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Lead	**14.3**	J	1.6	0.4	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Magnesium	**6330**		32.8	1.5	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Manganese	**214**	J	B	0.3	0.05	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (10-11) (RTL0286-05 - Soil) - cont.						**Sampled: 11/30/10 09:15**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**21.3**		8.20	0.377	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Potassium	**3560**		49.2	32.8	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Selenium	**1.5**	J	6.6	0.9	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Silver	ND		0.820	0.328	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Sodium	**4550**		230	21.3	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Thallium	ND		9.8	0.5	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Vanadium	**39.4**		0.820	0.180	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Zinc	**53.2**	J B	3.3	0.3	mg/kg dry	1.00	12/04/10 12:17	LMH	10L0207	6010B
Mercury	ND		0.0332	0.0134	mg/kg dry	1.00	12/07/10 12:35	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**59**		0.010	NR	%	1.00	12/03/10 07:34	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~3.4~~	~~0.5~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**1070**		168	84.2	mg/kg dry	1.00	12/04/10 11:36	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**24200**		1670	1670	mg/Kg dry	1.00	12/03/10 19:37	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**40.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**60.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (10-11) (RTL0286-05RE1 - Soil)						**Sampled: 11/30/10 09:15**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	D08, W1	1600	460	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,1,2,2-Tetrachloroethane	ND	D08, W1	1600	270	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,1,2-Trichloroethane	ND	D08, W1	1600	350	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D08, W1	1600	820	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,1-Dichloroethane	ND	D08, W1	1600	510	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,1-Dichloroethene	ND	D08, W1	1600	570	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2,4-Trichlorobenzene	ND	D08, W1	1600	630	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2-Dibromo-3-chloropropane	ND	D08, W1	1600	820	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2-Dibromoethane	ND	D08, W1	1600	63	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2-Dichlorobenzene	ND	D08, W1	1600	420	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2-Dichloroethane	ND	D08, W1	1600	670	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2-Dichloropropane	ND	D08, W1	1600	270	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,3-Dichlorobenzene	ND	D08, W1	1600	440	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,4-Dichlorobenzene	ND	D08, W1	1600	230	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
2-Butanone	ND	D08, W1	8200	4900	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
2-Hexanone	ND	D08, W1	8200	3400	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
4-Methyl-2-pentanone	ND	D08, W1	8200	530	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Acetone	ND	D08, W1	8200	6800	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Benzene	ND	D08, W1	1600	79	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Bromodichloromethane	ND	D08, W1	1600	330	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Bromoform	ND	D08, W1	1600	820	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Bromomethane	ND	D08, W1	1600	360	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Carbon disulfide	ND	D08, W1	1600	750	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Carbon Tetrachloride	ND	D08, W1	1600	420	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Chlorobenzene	ND	D08, W1	1600	220	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Dibromochloromethane	ND	D08, W1	1600	800	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Chloroethane	ND	D08, W1	1600	340	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Chloroform	ND	D08, W1	1600	1100	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Chloromethane	ND	D08, W1	1600	390	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
cis-1,2-Dichloroethene	**3200**	D08, W1	1600	460	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
cis-1,3-Dichloropropene	ND	D08, W1	1600	390	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Cyclohexane	ND	D08, W1	1600	370	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Dichlorodifluoromethane	ND	D08, W1	1600	720	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Ethylbenzene	ND	D08, W1	1600	480	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Isopropylbenzene	ND	D08, W1	1600	250	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Methyl Acetate	ND	D08, W1	1600	790	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Methyl-t-Butyl Ether (MTBE)	**3300**	D08, W1	1600	620	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Methylcyclohexane	ND	D08, W1	1600	770	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Methylene Chloride	**24000**	D08, W1	1600	330	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Styrene	ND	D08, W1	1600	400	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Tetrachloroethene	ND	D08, W1	1600	220	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Toluene	ND	D08, W1	1600	440	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
trans-1,2-Dichloroethene	ND	D08, W1	1600	390	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
trans-1,3-Dichloropropene	ND	D08, W1	1600	79	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Trichloroethene	ND	D08, W1	1600	460	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Trichlorofluoromethane	ND	D08, W1	1600	770	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
Vinyl chloride	**1900**	D08, W1	1600	550	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (10-11) (RTL0286-05RE1 - Soil) - cont.						**Sampled: 11/30/10 09:15**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	D08, W1	3300	280	ug/kg dry	10.0	12/07/10 06:19	NMD	10L0469	8260B
1,2-Dichloroethane-d4	*110 %*	*D08, W1*	*Surr Limits: (53-146%)*				*12/07/10 06:19*	*NMD*	*10L0469*	*8260B*
4-Bromofluorobenzene	*107 %*	*D08, W1*	*Surr Limits: (49-148%)*				*12/07/10 06:19*	*NMD*	*10L0469*	*8260B*
Toluene-d8	*119 %*	*D08, W1*	*Surr Limits: (50-149%)*				*12/07/10 06:19*	*NMD*	*10L0469*	*8260B*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (12-14) (RTL0286-06 - Soil) **Sampled: 11/30/10 09:25** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		71	5.2	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		71	12	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		71	9.2	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		71	16	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		71	8.7	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		71	8.7	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		71	4.3	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		71	36	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		71	9.1	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		71	5.6	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		71	3.6	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		71	36	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		71	3.7	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		71	9.9	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
2-Butanone	**89**	J	360	26	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
2-Hexanone	ND		360	36	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		360	23	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Acetone	**170**	J	360	60	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Benzene	ND		71	3.5	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Bromodichloromethane	ND		71	9.5	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Bromoform	ND		71	36	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Bromomethane	ND		71	6.4	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Carbon disulfide	**2600**		71	36	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		71	6.9	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Chlorobenzene	ND		71	9.4	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Dibromochloromethane	ND		71	9.1	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Chloroethane	ND J		71	16	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Chloroform	ND		71	4.4	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Chloromethane	ND		71	4.3	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	**1400**		71	9.1	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		71	10	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Cyclohexane	ND		71	9.9	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND J		71	5.9	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Ethylbenzene	ND		71	4.9	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Isopropylbenzene	ND		71	11	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Methyl Acetate	ND		71	13	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	**1400**		71	7.0	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Methylcyclohexane	ND		71	11	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Methylene Chloride	~~8900~~ 9000 E D		71	33	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Styrene	ND		71	3.6	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Tetrachloroethene	ND		71	9.5	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Toluene	ND		71	5.4	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		71	7.3	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		71	31	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Trichloroethene	ND		71	16	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		71	6.7	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
Vinyl chloride	**170**		71	8.7	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (12-14) (RTL0286-06 - Soil) - cont. **Sampled: 11/30/10 09:25** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		140	12	ug/kg dry	1.00	12/03/10 19:46	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (64-126%)*				*12/03/10 19:46*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*116 %*		*Surr Limits: (72-126%)*				*12/03/10 19:46*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*12/03/10 19:46*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		280	61	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		280	19	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		280	15	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		280	76	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		550	98	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		280	43	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		280	69	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2-Chloronaphthalene	ND		280	19	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2-Chlorophenol	ND		280	14	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2-Methylnaphthalene	ND		280	3.4	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2-Methylphenol	ND		280	8.6	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2-Nitroaniline	ND		550	90	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2-Nitrophenol	ND		280	13	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		280	250	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
3-Nitroaniline	ND		550	65	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		550	97	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		280	89	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		280	12	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Chloroaniline	ND		280	82	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		280	6.0	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Methylphenol	ND		550	16	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Nitroaniline	ND		550	31	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
4-Nitrophenol	ND		550	68	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Acenaphthene	ND		280	3.3	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Acenaphthylene	ND		280	2.3	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Acetophenone	ND		280	14	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Anthracene	ND		280	7.2	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Atrazine	ND		280	12	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Benzaldehyde	ND		280	31	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Benzo[a]anthracene	ND		280	4.8	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Benzo[a]pyrene	ND		280	6.8	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		280	5.4	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		280	3.4	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		280	3.1	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Biphenyl	ND		280	17	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		280	15	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		280	24	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		280	29	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		280	90	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (12-14) (RTL0286-06 - Soil) - cont. **Sampled: 11/30/10 09:25** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		280	75	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Caprolactam	ND		280	120	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Carbazole	ND		280	3.2	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Chrysene	ND		280	2.8	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		280	3.3	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Dibenzofuran	ND		280	2.9	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Diethyl phthalate	ND		280	8.5	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Dimethyl phthalate	ND		280	7.3	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		280	97	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		280	6.6	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Fluoranthene	**27**	J	280	4.1	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Fluorene	ND		280	6.5	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Hexachlorobenzene	ND		280	14	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Hexachlorobutadiene	ND		280	14	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		280	85	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Hexachloroethane	ND		280	22	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		280	7.8	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Isophorone	ND		280	14	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Naphthalene	ND		280	4.7	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Nitrobenzene	ND		280	12	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		280	22	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		280	15	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Pentachlorophenol	ND		550	96	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Phenanthrene	**34**	J	280	5.9	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Phenol	ND		280	30	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
Pyrene	ND		280	1.8	ug/kg dry	1.00	12/03/10 05:06	JLG	10L0109	8270C
2,4,6-Tribromophenol	*122 %*		*Surr Limits: (39-146%)*				*12/03/10 05:06*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*90 %*		*Surr Limits: (37-120%)*				*12/03/10 05:06*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*73 %*		*Surr Limits: (18-120%)*				*12/03/10 05:06*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*87 %*		*Surr Limits: (34-132%)*				*12/03/10 05:06*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*81 %*		*Surr Limits: (11-120%)*				*12/03/10 05:06*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*93 %*		*Surr Limits: (58-147%)*				*12/03/10 05:06*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**14000**	J	16.7	7.4	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Antimony	ND		25.1	0.9	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Arsenic	**16.1**	J	3.3	0.7	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Barium	**32.8**		0.837	0.184	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Beryllium	**0.669**		0.335	0.047	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Cadmium	**0.549**	J B	0.335	0.050	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Calcium	**2070**	B	83.7	5.5	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Chromium	**41.1**		0.837	0.335	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Cobalt	**8.30**		0.837	0.084	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Copper	**13.9**		1.7	0.4	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Iron	**35600**		16.7	1.8	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Lead	**13.3**	J	1.7	0.4	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Magnesium	**7220**		33.5	1.6	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Manganese	**267**	J B	0.3	0.05	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (12-14) (RTL0286-06 - Soil) - cont.						**Sampled: 11/30/10 09:25**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**25.0**		8.37	0.385	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Potassium	**4050**		50.2	33.5	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Selenium	**1.8**	J	6.7	1.0	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Silver	ND		0.837	0.335	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Sodium	**5570**		234	21.8	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Thallium	ND		10.0	0.5	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Vanadium	**45.0**		0.837	0.184	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Zinc	**60.6**	J ~~B~~	3.3	0.3	mg/kg dry	1.00	12/04/10 12:19	LMH	10L0207	6010B
Mercury	**0.0168**	J	0.0339	0.0137	mg/kg dry	1.00	12/07/10 12:37	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**60**		0.010	NR	%	1.00	12/03/10 07:36	JRR	10L0148	Dry Weight
Ferrous Iron	R ~~ND~~	~~HFT~~	~~3.4~~	~~0.5~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**1570**	~~D08~~	838	419	mg/kg dry	5.00	12/04/10 11:49	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**22000**		1650	1650	mg/Kg dry	1.00	12/03/10 19:50	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**39.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**60.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (12-14) (RTL0286-06RE1 - Soil) — Sampled: 11/30/10 09:25 — Recvd: 12/01/10 09:00

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1, N1	160	45	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,1,2,2-Tetrachloroethane	ND	W1, N1	160	26	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,1,2-Trichloroethane	ND	W1, N1	160	34	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1, N1	160	82	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,1-Dichloroethane	ND	W1, N1	160	50	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,1-Dichloroethene	ND	W1, N1	160	56	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2,4-Trichlorobenzene	ND	W1, N1	160	62	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2-Dibromo-3-chloropropane	ND	W1, N1	160	82	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2-Dibromoethane	ND	W1, N1	160	6.2	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2-Dichlorobenzene	ND	W1, N1	160	42	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2-Dichloroethane	ND	W1, N1	160	67	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2-Dichloropropane	ND	W1, N1	160	26	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,3-Dichlorobenzene	ND	W1, N1	160	44	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,4-Dichlorobenzene	ND	W1, N1	160	23	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
2-Butanone	ND	W1, N1	820	480	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
2-Hexanone	ND	W1, N1	820	330	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
4-Methyl-2-pentanone	ND	W1, N1	820	52	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Acetone	ND	W1, N1	820	670	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Benzene	ND	W1, N1	160	7.8	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Bromodichloromethane	ND	W1, N1	160	33	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Bromoform	ND	W1, N1	160	82	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Bromomethane	ND	W1, N1	160	36	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Carbon disulfide	970	W1, N1	160	74	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Carbon Tetrachloride	ND	W1, N1	160	42	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Chlorobenzene	ND	W1, N1	160	22	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Dibromochloromethane	ND	W1, N1	160	79	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Chloroethane	ND	W1, N1	160	34	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Chloroform	ND	W1, N1	160	110	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Chloromethane	ND	W1, N1	160	39	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
cis-1,2-Dichloroethene	1400	W1, N1	160	45	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
cis-1,3-Dichloropropene	ND	W1, N1	160	39	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Cyclohexane	ND	W1, N1	160	36	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Dichlorodifluoromethane	ND	W1, N1	160	71	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Ethylbenzene	ND	W1, N1	160	47	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Isopropylbenzene	ND	W1, N1	160	24	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Methyl Acetate	ND	W1, N1	160	78	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Methyl-t-Butyl Ether (MTBE)	1100	W1, N1	160	62	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Methylcyclohexane	ND	W1, N1	160	76	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Methylene Chloride	8000	W1, N1	160	32	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Styrene	ND	W1, N1	160	39	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Tetrachloroethene	ND	W1, N1	160	22	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Toluene	ND	W1, N1	160	44	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
trans-1,2-Dichloroethene	ND	W1, N1	160	38	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
trans-1,3-Dichloropropene	ND	W1, N1	160	7.8	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Trichloroethene	ND	W1, N1	160	45	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Trichlorofluoromethane	ND	W1, N1	160	76	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
Vinyl chloride	ND	W1, N1	160	55	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (12-14) (RTL0286-06RE1 - Soil) - cont.						**Sampled: 11/30/10 09:25**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	W1, N1	330	27	ug/kg dry	1.00	12/07/10 19:19	DHC	10L0469	8260B
1,2-Dichloroethane-d4	*119 %*	*W1, N1*	*Surr Limits: (53-146%)*				*12/07/10 19:19*	*DHC*	*10L0469*	*8260B*
4-Bromofluorobenzene	*121 %*	*W1, N1*	*Surr Limits: (49-148%)*				*12/07/10 19:19*	*DHC*	*10L0469*	*8260B*
Toluene-d8	*133 %*	*W1, N1*	*Surr Limits: (50-149%)*				*12/07/10 19:19*	*DHC*	*10L0469*	*8260B*

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (14-15) (RTL0286-07 - Soil)						**Sampled: 11/30/10 09:30**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		85	6.2	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		85	14	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		85	19	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		85	10	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		85	10	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		85	5.2	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		85	42	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		85	6.6	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		85	4.3	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		85	42	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		85	4.4	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		85	12	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
2-Butanone	ND		420	31	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
2-Hexanone	ND		420	42	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		420	28	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Acetone	**150**	J	420	71	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Benzene	ND		85	4.2	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Bromodichloromethane	ND		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Bromoform	ND		85	42	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Bromomethane	ND		85	7.6	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Carbon disulfide	**250**		85	42	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		85	8.2	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Chlorobenzene	ND		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Dibromochloromethane	ND		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Chloroethane	ND	J	85	19	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Chloroform	ND		85	5.2	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Chloromethane	ND		85	5.1	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	**110**		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		85	12	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Cyclohexane	ND		85	12	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	85	7.0	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Ethylbenzene	ND		85	5.9	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Isopropylbenzene	ND		85	13	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Methyl Acetate	ND		85	16	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	**60**	J	85	8.3	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Methylcyclohexane	ND		85	13	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Methylene Chloride	**1500**		85	39	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Styrene	ND		85	4.2	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Tetrachloroethene	ND		85	11	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Toluene	ND		85	6.4	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		85	8.8	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		85	37	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Trichloroethene	ND		85	19	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		85	8.0	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
Vinyl chloride	ND		85	10	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (14-15) (RTL0286-07 - Soil) - cont. **Sampled: 11/30/10 09:30** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		170	14	ug/kg dry	1.00	12/03/10 20:15	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*101 %*		*Surr Limits: (64-126%)*				*12/03/10 20:15*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*115 %*		*Surr Limits: (72-126%)*				*12/03/10 20:15*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*12/03/10 20:15*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		290	62	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		290	19	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		290	15	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		290	77	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		560	100	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		290	44	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		290	70	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2-Chloronaphthalene	ND		290	19	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2-Chlorophenol	ND		290	15	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2-Methylnaphthalene	ND		290	3.5	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2-Methylphenol	ND		290	8.8	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2-Nitroaniline	ND		560	92	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2-Nitrophenol	ND		290	13	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		290	250	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
3-Nitroaniline	ND		560	66	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		560	99	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		290	91	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		290	12	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Chloroaniline	ND		290	84	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		290	6.1	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Methylphenol	ND		560	16	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Nitroaniline	ND		560	32	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
4-Nitrophenol	ND		560	69	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Acenaphthene	27	J	290	3.4	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Acenaphthylene	ND		290	2.3	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Acetophenone	ND		290	15	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Anthracene	ND		290	7.3	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Atrazine	ND		290	13	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Benzaldehyde	ND		290	31	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Benzo[a]anthracene	ND		290	4.9	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Benzo[a]pyrene	ND		290	6.9	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		290	5.5	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		290	3.4	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		290	3.1	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Biphenyl	ND		290	18	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		290	16	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		290	25	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		290	30	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		290	92	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-8 (14-15) (RTL0286-07 - Soil) - cont. **Sampled: 11/30/10 09:30** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		290	77	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Caprolactam	ND		290	120	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Carbazole	ND		290	3.3	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Chrysene	ND		290	2.9	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		290	3.4	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Dibenzofuran	ND		290	3.0	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Diethyl phthalate	ND		290	8.6	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Dimethyl phthalate	ND		290	7.5	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		290	99	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		290	6.7	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Fluoranthene	**60**	J	290	4.1	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Fluorene	**24**	J	290	6.6	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Hexachlorobenzene	ND		290	14	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Hexachlorobutadiene	ND		290	15	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		290	86	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Hexachloroethane	ND		290	22	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		290	7.9	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Isophorone	ND		290	14	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Naphthalene	ND		290	4.8	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Nitrobenzene	ND		290	13	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		290	23	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		290	16	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Pentachlorophenol	ND		560	98	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Phenanthrene	**77**	J	290	6.0	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Phenol	ND		290	30	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
Pyrene	**38**	J	290	1.9	ug/kg dry	1.00	12/03/10 05:30	JLG	10L0109	8270C
2,4,6-Tribromophenol	*109 %*		*Surr Limits: (39-146%)*				*12/03/10 05:30*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*80 %*		*Surr Limits: (37-120%)*				*12/03/10 05:30*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*58 %*		*Surr Limits: (18-120%)*				*12/03/10 05:30*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*70 %*		*Surr Limits: (34-132%)*				*12/03/10 05:30*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*69 %*		*Surr Limits: (11-120%)*				*12/03/10 05:30*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*81 %*		*Surr Limits: (58-147%)*				*12/03/10 05:30*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**13600**	J	16.9	7.4	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Antimony	ND		25.3	0.9	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Arsenic	**13.7**	J	3.4	0.7	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Barium	**32.5**		0.844	0.186	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Beryllium	**0.609**		0.338	0.047	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Cadmium	**0.491**	J B	0.338	0.051	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Calcium	**1710**	B	84.4	5.6	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Chromium	**38.4**		0.844	0.338	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Cobalt	**7.95**		0.844	0.084	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Copper	**13.0**		1.7	0.4	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Iron	**34200**		16.9	1.9	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Lead	**12.7**	J	1.7	0.4	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Magnesium	**6870**		33.8	1.6	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Manganese	**268**	J B	0.3	0.05	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-8 (14-15) (RTL0286-07 - Soil) - cont.						**Sampled: 11/30/10 09:30**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**23.3**		8.44	0.388	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Potassium	**3730**		50.6	33.8	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Selenium	**1.6**	J	6.8	1.0	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Silver	ND		0.844	0.338	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Sodium	**5460**		236	21.9	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Thallium	ND		10.1	0.5	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Vanadium	**44.3**		0.844	0.186	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Zinc	**57.2**	J B	3.4	0.3	mg/kg dry	1.00	12/04/10 12:21	LMH	10L0207	6010B
Mercury	**0.0379**		0.0331	0.0134	mg/kg dry	1.00	12/07/10 12:38	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**59**		0.010	NR	%	1.00	12/03/10 07:38	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~ R	~~HFT~~	~~3.4~~	~~0.5~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**1280**		170	84.8	mg/kg dry	1.00	12/04/10 11:36	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**20500**		1620	1620	mg/Kg dry	1.00	12/03/10 20:03	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**38.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**61.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-4-11-30-10 (RTL0286-08 - Water) **Sampled: 11/30/10 16:00** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Chloroethane	ND	J N1	1.0	0.32	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Dichlorodifluoromethane	ND	J N1	1.0	0.68	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Methylene Chloride	1.8	N1,B	1.0	0.44	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-4-11-30-10 (RTL0286-08 - Water) - cont.						**Sampled: 11/30/10 16:00**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	N1	2.0	0.66	ug/L	1.00	12/03/10 16:19	PJQ	10L0226	8260B
1,2-Dichloroethane-d4	*99 %*	*N1*	*Surr Limits: (66-137%)*				*12/03/10 16:19*	*PJQ*	*10L0226*	*8260B*
4-Bromofluorobenzene	*115 %*	*N1*	*Surr Limits: (73-120%)*				*12/03/10 16:19*	*PJQ*	*10L0226*	*8260B*
Toluene-d8	*106 %*	*N1*	*Surr Limits: (71-126%)*				*12/03/10 16:19*	*PJQ*	*10L0226*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	J	5.2	0.50	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,4-Dichlorophenol	ND		5.2	0.53	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,4-Dimethylphenol	ND		5.2	0.52	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,4-Dinitrophenol	ND		10	2.3	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2-Chloronaphthalene	ND		5.2	0.48	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2-Chlorophenol	ND		5.2	0.55	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2-Methylnaphthalene	ND		5.2	0.62	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2-Methylphenol	ND		5.2	0.42	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2-Nitroaniline	ND		10	0.44	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2-Nitrophenol	ND		5.2	0.50	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
3-Nitroaniline	ND		10	0.50	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Chloroaniline	ND		5.2	0.61	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Methylphenol	ND		10	0.38	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Nitroaniline	ND		10	0.26	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
4-Nitrophenol	ND		10	1.6	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Acenaphthene	ND	J	5.2	0.43	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Acenaphthylene	ND		5.2	0.40	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Acetophenone	ND		5.2	0.56	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Anthracene	ND		5.2	0.29	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Atrazine	ND		5.2	0.48	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Benzaldehyde	ND		5.2	0.28	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Benzo(a)anthracene	ND		5.2	0.38	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Benzo(a)pyrene	ND		5.2	0.49	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Benzo(ghi)perylene	ND		5.2	0.36	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Biphenyl	ND		5.2	0.68	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.2	0.54	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Bis(2-ethylhexyl) phthalate	3.7	J, B	5.2	1.9	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-4-11-30-10 (RTL0286-08 - Water) - cont. **Sampled: 11/30/10 16:00** **Recvd: 12/01/10 09:00**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Butyl benzyl phthalate	ND	J	5.2	0.44	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Caprolactam	ND		5.2	2.3	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Carbazole	ND		5.2	0.31	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Chrysene	ND		5.2	0.34	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Dibenzo(a,h)anthracene	ND		5.2	0.44	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Dibenzofuran	ND		5.2	0.53	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Diethyl phthalate	ND		5.2	0.23	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Dimethyl phthalate	ND		5.2	0.38	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Di-n-butyl phthalate	ND		5.2	0.32	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Di-n-octyl phthalate	ND		5.2	0.49	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Fluoranthene	ND		5.2	0.42	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Fluorene	ND		5.2	0.38	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Hexachlorobenzene	ND		5.2	0.53	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Hexachlorobutadiene	ND		5.2	0.71	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Hexachloroethane	ND		5.2	0.61	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Indeno(1,2,3-cd)pyrene	ND	J	5.2	0.49	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Isophorone	ND		5.2	0.45	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Naphthalene	ND		5.2	0.79	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Nitrobenzene	ND		5.2	0.30	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Pentachlorophenol	ND		10	2.3	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Phenanthrene	ND		5.2	0.46	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Phenol	ND		5.2	0.41	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
Pyrene	ND	J	5.2	0.35	ug/L	1.00	12/06/10 16:04	MKP	10L0274	8270C
2,4,6-Tribromophenol	*97 %*		*Surr Limits: (52-132%)*				*12/06/10 16:04*	*MKP*	*10L0274*	*8270C*
2-Fluorobiphenyl	*88 %*		*Surr Limits: (48-120%)*				*12/06/10 16:04*	*MKP*	*10L0274*	*8270C*
2-Fluorophenol	*51 %*		*Surr Limits: (20-120%)*				*12/06/10 16:04*	*MKP*	*10L0274*	*8270C*
Nitrobenzene-d5	*88 %*		*Surr Limits: (46-120%)*				*12/06/10 16:04*	*MKP*	*10L0274*	*8270C*
Phenol-d5	*35 %*		*Surr Limits: (16-120%)*				*12/06/10 16:04*	*MKP*	*10L0274*	*8270C*
p-Terphenyl-d14	*92 %*		*Surr Limits: (24-136%)*				*12/06/10 16:04*	*MKP*	*10L0274*	*8270C*

Total Metals by SW 846 Series Methods

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	ND		0.200	0.045	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Barium	ND		0.0020	0.0005	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Calcium	0.1	J	0.5	0.1	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Copper	ND		0.0100	0.0015	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Iron	ND		0.050	0.019	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Magnesium	ND		0.200	0.043	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Potassium	ND		0.500	0.200	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-4-11-30-10 (RTL0286-08 - Water) - cont. **Sampled: 11/30/10 16:00** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Total Metals by SW 846 Series Methods - cont.										
Selenium	ND		0.0150	0.0087	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Sodium	ND		1.0	0.3	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Vanadium	0.0011	J	0.0050	0.0011	mg/L	1.00	12/07/10 16:04	LMH	10L0243	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/07/10 12:30	JRK	10L0402	7470A
General Chemistry Parameters										
Ferrous Iron	ND	J	0.100	0.0750	mg/L	1.00	12/01/10 20:15	JLN	10L0106	3500FE
Sulfate	1.7	J	5.0	1.5	mg/L	1.00	12/06/10 15:24	KLD	10L0439	D-516-90
Total Organic Carbon	ND		1.0	0.4	mg/L	1.00	12/05/10 02:04	KLD	10L0331	9060

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-4-11-30-10 (RTL0286-08RE1 - Water)						**Sampled: 11/30/10 16:00**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods										
Manganese	ND		0.0030	0.0002	mg/L	1.00	12/14/10 16:27	AMH	10L1077	6010B
Zinc	ND		0.0100	0.0017	mg/L	1.00	12/14/10 16:27	AMH	10L1077	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-5-113010 (RTL0286-09 - Water) — **Sampled: 11/30/10** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Chloroethane	ND J	N1	1.0	0.32	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Dichlorodifluoromethane	ND J	N1	1.0	0.68	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Methylene Chloride	**1.5**	N1,B	1.0	0.44	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-5-113010 (RTL0286-09 - Water) - cont.						**Sampled: 11/30/10**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	N1	2.0	0.66	ug/L	1.00	12/03/10 16:48	PJQ	10L0226	8260B
1,2-Dichloroethane-d4	*102 %*	*N1*	*Surr Limits: (66-137%)*				*12/03/10 16:48*	*PJQ*	*10L0226*	*8260B*
4-Bromofluorobenzene	*117 %*	*N1*	*Surr Limits: (73-120%)*				*12/03/10 16:48*	*PJQ*	*10L0226*	*8260B*
Toluene-d8	*107 %*	*N1*	*Surr Limits: (71-126%)*				*12/03/10 16:48*	*PJQ*	*10L0226*	*8260B*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-9 (9-10) (RTL0286-10 - Soil) — Sampled: 11/30/10 11:00 — Recvd: 12/01/10 09:00

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		64	4.7	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		64	10	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		64	8.4	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		64	15	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,1-Dichloroethane	57	J	64	7.8	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,1-Dichloroethene	190		64	7.9	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		64	3.9	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		64	32	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		64	8.3	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		64	5.0	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		64	3.2	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		64	32	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		64	3.3	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		64	9.0	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
2-Butanone	ND		320	24	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
2-Hexanone	ND		320	32	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		320	21	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Acetone	380		320	54	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Benzene	610		64	3.2	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Bromodichloromethane	ND		64	8.6	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Bromoform	ND		64	32	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Bromomethane	ND		64	5.8	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Carbon disulfide	1700		64	32	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		64	6.2	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Chlorobenzene	ND		64	8.5	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Dibromochloromethane	ND		64	8.2	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Chloroethane	ND J		64	15	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Chloroform	ND		64	4.0	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Chloromethane	ND		64	3.9	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	~~27000~~ 9600	E D	64	8.2	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		64	9.3	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Cyclohexane	230		64	9.0	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND J		64	5.3	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Ethylbenzene	470		64	4.4	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Isopropylbenzene	34	J	64	9.7	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Methyl Acetate	ND		64	12	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	~~8100~~ 9000	E D	64	6.3	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Methylcyclohexane	44	J	64	9.8	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Methylene Chloride	~~9800~~ 7000	E D	64	30	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Styrene	ND		64	3.2	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Tetrachloroethene	34	J	64	8.6	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Toluene	1400		64	4.9	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	1400		64	6.6	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		64	28	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Trichloroethene	~~5300~~ 5000	E D	64	14	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		64	6.1	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
Vinyl chloride	15000	E J	64	7.8	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (9-10) (RTL0286-10 - Soil) - cont.						**Sampled: 11/30/10 11:00**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**2500**		130	11	ug/kg dry	1.00	12/03/10 20:45	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*101 %*		*Surr Limits: (64-126%)*				*12/03/10 20:45*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*115 %*		*Surr Limits: (72-126%)*				*12/03/10 20:45*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*12/03/10 20:45*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		340	74	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		340	22	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		340	18	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		340	91	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		660	120	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		340	52	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		340	83	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2-Chloronaphthalene	ND		340	23	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2-Chlorophenol	ND		340	17	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2-Methylnaphthalene	ND		340	4.1	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2-Methylphenol	ND		340	10	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2-Nitroaniline	ND		660	110	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2-Nitrophenol	ND		340	15	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		340	300	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
3-Nitroaniline	ND		660	78	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		660	120	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		340	110	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		340	14	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Chloroaniline	ND		340	99	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		340	7.2	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Methylphenol	**1600**		660	19	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Nitroaniline	ND		660	38	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
4-Nitrophenol	ND		660	82	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Acenaphthene	ND		340	4.0	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Acenaphthylene	ND		340	2.8	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Acetophenone	ND		340	17	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Anthracene	ND		340	8.7	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Atrazine	ND		340	15	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Benzaldehyde	ND		340	37	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Benzo[a]anthracene	ND		340	5.8	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Benzo[a]pyrene	ND		340	8.2	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		340	6.6	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		340	4.1	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		340	3.7	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Biphenyl	ND		340	21	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		340	18	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		340	29	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		340	35	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	**570**		340	110	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (9-10) (RTL0286-10 - Soil) - cont.						**Sampled: 11/30/10 11:00**		**Recvd: 12/01/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		340	91	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Caprolactam	ND		340	150	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Carbazole	ND		340	3.9	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Chrysene	ND		340	3.4	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		340	4.0	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Dibenzofuran	ND		340	3.5	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Diethyl phthalate	ND		340	10	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Dimethyl phthalate	ND		340	8.8	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		340	120	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		340	7.9	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Fluoranthene	ND		340	4.9	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Fluorene	ND		340	7.8	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Hexachlorobenzene	ND		340	17	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Hexachlorobutadiene	ND		340	17	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		340	100	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Hexachloroethane	ND		340	26	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		340	9.4	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Isophorone	ND		340	17	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Naphthalene	ND		340	5.6	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Nitrobenzene	ND		340	15	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		340	27	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		340	18	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Pentachlorophenol	ND		660	120	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Phenanthrene	ND		340	7.1	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Phenol	**490**		340	36	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
Pyrene	ND		340	2.2	ug/kg dry	1.00	12/03/10 05:54	JLG	10L0109	8270C
2,4,6-Tribromophenol	*126 %*		*Surr Limits: (39-146%)*				*12/03/10 05:54*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*75 %*		*Surr Limits: (37-120%)*				*12/03/10 05:54*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*64 %*		*Surr Limits: (18-120%)*				*12/03/10 05:54*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*77 %*		*Surr Limits: (34-132%)*				*12/03/10 05:54*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*73 %*		*Surr Limits: (11-120%)*				*12/03/10 05:54*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*80 %*		*Surr Limits: (58-147%)*				*12/03/10 05:54*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**15900**	J	20.3	8.9	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Antimony	ND		30.4	1.1	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Arsenic	**12.8**	J	4.1	0.8	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Barium	**39.5**		1.01	0.223	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Beryllium	**0.710**		0.406	0.057	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Cadmium	**0.466**	J B	0.406	0.061	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Calcium	**2780**	B	101	6.7	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Chromium	**43.9**		1.01	0.406	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Cobalt	**8.47**		1.01	0.101	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Copper	**13.9**		2.0	0.4	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Iron	**36600**		20.3	2.2	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Lead	**14.0**	J	2.0	0.5	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Magnesium	**7130**		40.6	1.9	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Manganese	**268**	J B	0.4	0.06	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (9-10) (RTL0286-10 - Soil) - cont.						**Sampled: 11/30/10 11:00**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**25.9**		10.1	0.466	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Potassium	**4350**		60.8	40.6	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Selenium	**1.6**	J	8.1	1.2	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Silver	ND		1.01	0.406	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Sodium	**1790**		284	26.4	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Thallium	ND		12.2	0.6	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Vanadium	**48.7**		1.01	0.223	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Zinc	**65.3**	J B	4.1	0.3	mg/kg dry	1.00	12/04/10 12:23	LMH	10L0207	6010B
Mercury	**0.0284**	J	0.0398	0.0161	mg/kg dry	1.00	12/07/10 12:40	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**49**		0.010	NR	%	1.00	12/03/10 07:40	JRR	10L0148	Dry Weight
Ferrous Iron	R ~~ND~~	~~HFT~~	~~4.1~~	~~0.6~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**1210**		203	101	mg/kg dry	1.00	12/04/10 11:40	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**25200**		1670	1670	mg/Kg dry	1.00	12/03/10 20:16	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**40.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**60.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-9 (9-10) (RTL0286-10RE1 - Soil) — **Sampled: 11/30/10 11:00** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	D08, W1	1000	280	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,1,2,2-Tetrachloroethane	ND	D08, W1	1000	160	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,1,2-Trichloroethane	ND	D08, W1	1000	210	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D08, W1	1000	500	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,1-Dichloroethane	ND	D08, W1	1000	310	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,1-Dichloroethene	ND	D08, W1	1000	350	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2,4-Trichlorobenzene	ND	D08, W1	1000	380	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2-Dibromo-3-chloropropane	ND	D08, W1	1000	500	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2-Dibromoethane	ND	D08, W1	1000	38	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2-Dichlorobenzene	ND	D08, W1	1000	260	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2-Dichloroethane	ND	D08, W1	1000	410	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2-Dichloropropane	ND	D08, W1	1000	160	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,3-Dichlorobenzene	ND	D08, W1	1000	270	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,4-Dichlorobenzene	ND	D08, W1	1000	140	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
2-Butanone	ND	D08, W1	5000	3000	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
2-Hexanone	ND	D08, W1	5000	2100	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
4-Methyl-2-pentanone	ND	D08, W1	5000	320	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Acetone	ND	D08, W1	5000	4100	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Benzene	ND	D08, W1	1000	48	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Bromodichloromethane	ND	D08, W1	1000	200	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Bromoform	ND	D08, W1	1000	500	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Bromomethane	ND	D08, W1	1000	220	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Carbon disulfide	ND	D08, W1	1000	460	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Carbon Tetrachloride	ND	D08, W1	1000	260	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Chlorobenzene	ND	D08, W1	1000	130	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Dibromochloromethane	ND	D08, W1	1000	490	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Chloroethane	ND	D08, W1	1000	210	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Chloroform	ND	D08, W1	1000	690	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Chloromethane	ND	D08, W1	1000	240	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
cis-1,2-Dichloroethene	**96000**	D08, W1	1000	280	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
cis-1,3-Dichloropropene	ND	D08, W1	1000	240	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Cyclohexane	ND	D08, W1	1000	220	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Dichlorodifluoromethane	ND	D08, W1	1000	440	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Ethylbenzene	**530**	D08, W1,J	1000	290	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Isopropylbenzene	ND	D08, W1	1000	150	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Methyl Acetate	ND	D08, W1	1000	480	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Methyl-t-Butyl Ether (MTBE)	**9000**	D08, W1	1000	380	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Methylcyclohexane	ND	D08, W1	1000	470	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Methylene Chloride	**7000**	D08, W1	1000	200	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Styrene	ND	D08, W1	1000	240	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Tetrachloroethene	ND	D08, W1	1000	140	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Toluene	**1400**	D08, W1	1000	270	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
trans-1,2-Dichloroethene	**1000**	D08, W1	1000	240	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
trans-1,3-Dichloropropene	ND	D08, W1	1000	48	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Trichloroethene	**5000**	D08, W1	1000	280	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Trichlorofluoromethane	ND	D08, W1	1000	470	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
Vinyl chloride	**910**	D08, W1,J	1000	340	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (9-10) (RTL0286-10RE1 - Soil) - cont.						**Sampled: 11/30/10 11:00**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**3200**	D08, W1	2000	170	ug/kg dry	5.00	12/10/10 18:55	DHC	10L0469	8260B
1,2-Dichloroethane-d4	*112 %*	*D08, W1*	*Surr Limits: (53-146%)*				*12/10/10 18:55*	*DHC*	*10L0469*	*8260B*
4-Bromofluorobenzene	*107 %*	*D08, W1*	*Surr Limits: (49-148%)*				*12/10/10 18:55*	*DHC*	*10L0469*	*8260B*
Toluene-d8	*117 %*	*D08, W1*	*Surr Limits: (50-149%)*				*12/10/10 18:55*	*DHC*	*10L0469*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (10-12) (RTL0286-11 - Soil)						**Sampled: 11/30/10 11:05**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		51	3.7	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		51	8.2	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		51	6.6	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		51	12	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,1-Dichloroethane	17	J	51	6.2	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		51	6.2	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		51	3.1	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		51	25	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		51	6.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		51	4.0	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		51	2.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		51	25	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		51	2.6	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		51	7.1	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
2-Butanone	130	J	250	19	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
2-Hexanone	ND		250	25	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		250	17	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Acetone	180	J	250	43	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Benzene	51		51	2.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Bromodichloromethane	ND		51	6.8	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Bromoform	ND		51	25	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Bromomethane	ND		51	4.6	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Carbon disulfide	1800		51	25	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		51	4.9	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Chlorobenzene	ND		51	6.7	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Dibromochloromethane	ND		51	6.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Chloroethane	ND	J	51	11	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Chloroform	ND		51	3.1	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Chloromethane	ND		51	3.1	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	530		51	6.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		51	7.3	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Cyclohexane	ND		51	7.1	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	51	4.2	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Ethylbenzene	ND		51	3.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Isopropylbenzene	ND		51	7.6	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Methyl Acetate	ND		51	9.4	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	~~2700~~ 1500	E D	51	5.0	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Methylcyclohexane	ND		51	7.7	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Methylene Chloride	~~9500~~ 3700	E D	51	23	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Styrene	ND		51	2.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Tetrachloroethene	ND		51	6.8	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Toluene	ND		51	3.8	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	27	J	51	5.2	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		51	22	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Trichloroethene	ND		51	11	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		51	4.8	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
Vinyl chloride	3100	E J	51	6.2	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (10-12) (RTL0286-11 - Soil) - cont.						**Sampled: 11/30/10 11:05**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		100	8.5	ug/kg dry	1.00	12/03/10 21:14	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*102 %*		*Surr Limits: (64-126%)*				*12/03/10 21:14*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*115 %*		*Surr Limits: (72-126%)*				*12/03/10 21:14*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*12/03/10 21:14*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		240	53	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		240	16	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		240	13	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		240	66	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		470	85	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		240	38	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		240	59	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2-Chloronaphthalene	ND		240	16	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2-Chlorophenol	ND		240	12	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2-Methylnaphthalene	ND		240	2.9	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2-Methylphenol	ND		240	7.5	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2-Nitroaniline	ND		470	78	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2-Nitrophenol	ND		240	11	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		240	210	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
3-Nitroaniline	ND		470	56	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		470	84	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		240	77	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		240	10	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Chloroaniline	ND		240	71	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		240	5.2	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Methylphenol	**210**	J	470	14	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Nitroaniline	ND		470	27	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
4-Nitrophenol	ND		470	59	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Acenaphthene	ND		240	2.9	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Acenaphthylene	ND		240	2.0	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Acetophenone	ND		240	12	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Anthracene	ND		240	6.2	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Atrazine	ND		240	11	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Benzaldehyde	ND		240	27	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Benzo[a]anthracene	ND		240	4.2	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Benzo[a]pyrene	ND		240	5.8	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		240	4.7	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		240	2.9	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		240	2.7	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Biphenyl	ND		240	15	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		240	13	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		240	21	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		240	25	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		240	78	ug/kg dry	1.00	12/03/10 06:18	JLC	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-9 (10-12) (RTL0286-11 - Soil) - cont. **Sampled: 11/30/10 11:05** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		240	65	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Caprolactam	ND		240	100	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Carbazole	ND		240	2.8	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Chrysene	ND		240	2.4	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		240	2.9	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Dibenzofuran	ND		240	2.5	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Diethyl phthalate	ND		240	7.3	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Dimethyl phthalate	ND		240	6.3	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		240	84	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		240	5.7	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Fluoranthene	ND		240	3.5	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Fluorene	ND		240	5.6	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Hexachlorobenzene	ND		240	12	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Hexachlorobutadiene	ND		240	12	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		240	73	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Hexachloroethane	ND		240	19	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		240	6.7	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Isophorone	ND		240	12	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Naphthalene	ND		240	4.0	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Nitrobenzene	ND		240	11	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		240	19	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		240	13	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Pentachlorophenol	ND		470	83	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Phenanthrene	ND		240	5.1	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Phenol	ND		240	26	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
Pyrene	ND		240	1.6	ug/kg dry	1.00	12/03/10 06:18	JLG	10L0109	8270C
2,4,6-Tribromophenol	*123 %*		*Surr Limits: (39-146%)*				*12/03/10 06:18*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*85 %*		*Surr Limits: (37-120%)*				*12/03/10 06:18*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*71 %*		*Surr Limits: (18-120%)*				*12/03/10 06:18*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*84 %*		*Surr Limits: (34-132%)*				*12/03/10 06:18*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*78 %*		*Surr Limits: (11-120%)*				*12/03/10 06:18*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*88 %*		*Surr Limits: (58-147%)*				*12/03/10 06:18*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**6040**	J	14.3	6.3	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Antimony	ND		21.5	0.8	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Arsenic	**9.4**	J	2.9	0.6	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Barium	**16.9**		0.716	0.157	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Beryllium	**0.276**	J	0.286	0.040	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Cadmium	**0.335**	J B	0.286	0.043	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Calcium	**1980**	B	71.6	4.7	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Chromium	**19.8**		0.716	0.286	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Cobalt	**3.69**		0.716	0.072	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Copper	**5.8**		1.4	0.3	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Iron	**17700**		14.3	1.6	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Lead	**6.3**	J	1.4	0.3	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Magnesium	**3160**		28.6	1.3	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Manganese	**132**	J B	0.3	0.05	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (10-12) (RTL0286-11 - Soil) - cont.						**Sampled: 11/30/10 11:05**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**10.7**		7.16	0.329	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Potassium	**1800**		42.9	28.6	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Selenium	ND		5.7	0.8	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Silver	ND		0.716	0.286	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Sodium	**2210**		200	18.6	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Thallium	ND		8.6	0.4	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Vanadium	**22.8**		0.716	0.157	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Zinc	**34.0**	J B	2.9	0.2	mg/kg dry	1.00	12/04/10 12:25	LMH	10L0207	6010B
Mercury	ND		0.0270	0.0109	mg/kg dry	1.00	12/07/10 12:46	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**69**		0.010	NR	%	1.00	12/03/10 07:42	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~2.9~~	~~0.4~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**105**	J	146	72.9	mg/kg dry	1.00	12/04/10 11:40	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**9750**		1400	1400	mg/Kg dry	1.00	12/03/10 20:42	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**28.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**71.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (10-12) (RTL0286-11RE1 - Soil)						**Sampled: 11/30/10 11:05**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1, N1	140	40	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,1,2,2-Tetrachloroethane	ND	W1, N1	140	23	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,1,2-Trichloroethane	ND	W1, N1	140	30	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1, N1	140	72	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,1-Dichloroethane	ND	W1, N1	140	45	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,1-Dichloroethene	ND	W1, N1	140	50	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2,4-Trichlorobenzene	ND	W1, N1	140	55	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2-Dibromo-3-chloropropane	ND	W1, N1	140	72	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2-Dibromoethane	ND	W1, N1	140	5.5	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2-Dichlorobenzene	ND	W1, N1	140	37	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2-Dichloroethane	ND	W1, N1	140	59	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2-Dichloropropane	ND	W1, N1	140	23	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,3-Dichlorobenzene	ND	W1, N1	140	38	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,4-Dichlorobenzene	ND	W1, N1	140	20	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
2-Butanone	ND	W1, N1	720	430	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
2-Hexanone	ND	W1, N1	720	300	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
4-Methyl-2-pentanone	ND	W1, N1	720	46	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Acetone	ND	W1, N1	720	590	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Benzene	ND	W1, N1	140	6.9	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Bromodichloromethane	ND	W1, N1	140	29	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Bromoform	ND	W1, N1	140	72	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Bromomethane	ND	W1, N1	140	32	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Carbon disulfide	**660**	W1, N1	140	66	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Carbon Tetrachloride	ND	W1, N1	140	37	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Chlorobenzene	ND	W1, N1	140	19	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Dibromochloromethane	ND	W1, N1	140	70	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Chloroethane	ND	W1, N1	140	30	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Chloroform	ND	W1, N1	140	99	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Chloromethane	ND	W1, N1	140	34	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
cis-1,2-Dichloroethene	**220**	W1, N1	140	40	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
cis-1,3-Dichloropropene	ND	W1, N1	140	34	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Cyclohexane	ND	W1, N1	140	32	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Dichlorodifluoromethane	ND	W1, N1	140	63	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Ethylbenzene	ND	W1, N1	140	42	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Isopropylbenzene	ND	W1, N1	140	22	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Methyl Acetate	ND	W1, N1	140	69	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Methyl-t-Butyl Ether (MTBE)	**1500**	W1, N1	140	54	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Methylcyclohexane	ND	W1, N1	140	67	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Methylene Chloride	**3700**	W1, N1	140	29	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Styrene	ND	W1, N1	140	35	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Tetrachloroethene	ND	W1, N1	140	19	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Toluene	ND	W1, N1	140	39	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
trans-1,2-Dichloroethene	ND	W1, N1	140	34	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
trans-1,3-Dichloropropene	ND	W1, N1	140	6.9	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Trichloroethene	ND	W1, N1	140	40	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Trichlorofluoromethane	ND	W1, N1	140	68	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
Vinyl chloride	**250**	W1, N1	140	48	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (10-12) (RTL0286-11RE1 - Soil) - cont.						**Sampled: 11/30/10 11:05**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	W1, N1	290	24	ug/kg dry	1.00	12/07/10 19:40	DHC	10L0469	8260B
1,2-Dichloroethane-d4	*121 %*	*W1, N1*	*Surr Limits: (53-146%)*				*12/07/10 19:40*	*DHC*	*10L0469*	*8260B*
4-Bromofluorobenzene	*121 %*	*W1, N1*	*Surr Limits: (49-148%)*				*12/07/10 19:40*	*DHC*	*10L0469*	*8260B*
Toluene-d8	*136 %*	*W1, N1*	*Surr Limits: (50-149%)*				*12/07/10 19:40*	*DHC*	*10L0469*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-9 (14-15) (RTL0286-12 - Soil) **Sampled: 11/30/10 11:20** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		55	4.0	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,1,2,2-Tetrachloroethane	ND		55	9.0	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,1,2-Trichloroethane	ND		55	7.2	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		55	13	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,1-Dichloroethane	ND		55	6.7	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,1-Dichloroethene	ND		55	6.8	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2,4-Trichlorobenzene	ND		55	3.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2-Dibromo-3-chloropropane	ND		55	28	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2-Dibromoethane	ND		55	7.1	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2-Dichlorobenzene	ND		55	4.3	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2-Dichloroethane	ND		55	2.8	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2-Dichloropropane	ND		55	28	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,3-Dichlorobenzene	ND		55	2.8	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,4-Dichlorobenzene	ND		55	7.7	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
2-Butanone	ND		280	20	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
2-Hexanone	ND		280	28	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
4-Methyl-2-pentanone	ND		280	18	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Acetone	**190**	J	280	47	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Benzene	ND		55	2.7	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Bromodichloromethane	ND		55	7.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Bromoform	ND		55	28	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Bromomethane	ND		55	5.0	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Carbon disulfide	**78**		55	28	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Carbon Tetrachloride	ND		55	5.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Chlorobenzene	ND		55	7.3	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Dibromochloromethane	ND		55	7.1	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Chloroethane	ND		55	12	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Chloroform	ND		55	3.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Chloromethane	ND		55	3.3	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
cis-1,2-Dichloroethene	**180**		55	7.1	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
cis-1,3-Dichloropropene	ND		55	8.0	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Cyclohexane	ND		55	7.7	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Dichlorodifluoromethane	ND		55	4.6	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Ethylbenzene	ND		55	3.8	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Isopropylbenzene	ND		55	8.3	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Methyl Acetate	ND		55	10	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Methyl-t-Butyl Ether (MTBE)	**67**		55	5.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Methylcyclohexane	ND		55	8.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Methylene Chloride	**570**	J	55	25	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Styrene	ND		55	2.8	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Tetrachloroethene	ND		55	7.4	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Toluene	ND		55	4.2	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
trans-1,2-Dichloroethene	ND		55	5.7	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
trans-1,3-Dichloropropene	ND		55	24	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Trichloroethene	**41**	J	55	12	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Trichlorofluoromethane	ND		55	5.2	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
Vinyl chloride	**26**	J	55	6.7	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-9 (14-15) (RTL0286-12 - Soil) - cont. **Sampled: 11/30/10 11:20** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		110	9.3	ug/kg dry	1.00	12/06/10 20:05	CDC	10L0423	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/06/10 20:05*	*CDC*	*10L0423*	*8260B*
4-Bromofluorobenzene	*101 %*		*Surr Limits: (72-126%)*				*12/06/10 20:05*	*CDC*	*10L0423*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/06/10 20:05*	*CDC*	*10L0423*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		370	79	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		370	24	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		370	19	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		370	98	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		710	130	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		370	56	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		370	89	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2-Chloronaphthalene	ND		370	24	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2-Chlorophenol	ND		370	19	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2-Methylnaphthalene	ND		370	4.4	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2-Methylphenol	ND		370	11	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2-Nitroaniline	ND		710	120	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2-Nitrophenol	ND		370	17	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		370	320	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
3-Nitroaniline	ND		710	84	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		710	130	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		370	120	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		370	15	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Chloroaniline	ND		370	110	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		370	7.8	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Methylphenol	ND		710	20	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Nitroaniline	ND		710	41	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
4-Nitrophenol	ND		710	88	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Acenaphthene	ND		370	4.3	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Acenaphthylene	ND		370	3.0	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Acetophenone	ND		370	19	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Anthracene	ND		370	9.3	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Atrazine	ND		370	16	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Benzaldehyde	ND		370	40	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Benzo[a]anthracene	ND		370	6.3	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Benzo[a]pyrene	ND		370	8.8	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		370	7.1	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		370	4.4	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		370	4.0	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Biphenyl	ND		370	23	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		370	20	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		370	31	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		370	38	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		370	120	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-9 (14-15) (RTL0286-12 - Soil) - cont. **Sampled: 11/30/10 11:20** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		370	98	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Caprolactam	ND		370	160	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Carbazole	ND		370	4.2	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Chrysene	ND		370	3.6	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		370	4.3	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Dibenzofuran	ND		370	3.8	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Diethyl phthalate	ND		370	11	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Dimethyl phthalate	ND		370	9.5	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		370	130	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		370	8.5	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Fluoranthene	ND		370	5.3	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Fluorene	ND		370	8.4	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Hexachlorobenzene	ND		370	18	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Hexachlorobutadiene	ND		370	19	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		370	110	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Hexachloroethane	ND		370	28	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		370	10	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Isophorone	ND		370	18	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Naphthalene	ND		370	6.1	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Nitrobenzene	ND		370	16	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		370	29	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		370	20	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Pentachlorophenol	ND		710	120	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Phenanthrene	ND		370	7.6	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Phenol	ND		370	38	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
Pyrene	ND		370	2.4	ug/kg dry	1.00	12/03/10 06:41	JLG	10L0109	8270C
2,4,6-Tribromophenol	*116 %*		*Surr Limits: (39-146%)*				*12/03/10 06:41*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*80 %*		*Surr Limits: (37-120%)*				*12/03/10 06:41*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*68 %*		*Surr Limits: (18-120%)*				*12/03/10 06:41*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*80 %*		*Surr Limits: (34-132%)*				*12/03/10 06:41*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*76 %*		*Surr Limits: (11-120%)*				*12/03/10 06:41*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*82 %*		*Surr Limits: (58-147%)*				*12/03/10 06:41*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**18600**	J	21.3	9.4	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Antimony	ND		32.0	1.2	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Arsenic	**15.3**	J	4.3	0.9	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Barium	**43.6**		1.07	0.235	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Beryllium	**0.862**		0.427	0.060	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Cadmium	**0.675**	J	B	0.427	0.064	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Calcium	**2200**		B	107	7.0	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Chromium	**51.5**			1.07	0.427	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Cobalt	**10.4**			1.07	0.107	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Copper	**17.4**			2.1	0.4	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Iron	**44400**			21.3	2.3	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Lead	**16.9**	J		2.1	0.5	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Magnesium	**9380**			42.7	2.0	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Manganese	**378**	J	B	0.4	0.07	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-9 (14-15) (RTL0286-12 - Soil) - cont.						**Sampled: 11/30/10 11:20**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**31.4**		10.7	0.491	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Potassium	**5240**		64.0	42.7	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Selenium	**2.3**	J	8.5	1.2	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Silver	ND		1.07	0.427	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Sodium	**8060**		299	27.8	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Thallium	ND		12.8	0.6	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Vanadium	**57.9**		1.07	0.235	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Zinc	**82.6**	J B	4.3	0.3	mg/kg dry	1.00	12/04/10 12:27	LMH	10L0207	6010B
Mercury	ND		0.0441	0.0179	mg/kg dry	1.00	12/07/10 12:48	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**46**		0.010	NR	%	1.00	12/03/10 07:44	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~	~~HET~~	~~4.3~~	~~0.7~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**2940**	~~D08~~	1080	542	mg/kg dry	5.00	12/04/10 12:12	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**22500**		1640	1640	mg/Kg dry	1.00	12/03/10 20:55	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**39.1**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**60.9**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-1 (RTL0286-13 - Soil) **Sampled: 11/29/10 15:50** **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.9	0.43	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		5.9	0.96	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		5.9	0.77	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.9	1.4	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		5.9	0.72	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		5.9	0.73	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		5.9	0.36	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		5.9	3.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		5.9	0.76	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		5.9	0.46	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		5.9	0.30	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		5.9	3.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		5.9	0.31	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		5.9	0.83	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		30	1.9	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Acetone	18	J	30	5.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Benzene	ND		5.9	0.29	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Bromodichloromethane	ND		5.9	0.80	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Bromoform	ND		5.9	3.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Bromomethane	ND		5.9	0.53	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Carbon disulfide	ND		5.9	3.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		5.9	0.57	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Chlorobenzene	ND		5.9	0.78	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Dibromochloromethane	ND		5.9	0.76	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Chloroethane	ND	J	5.9	1.3	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Chloroform	ND		5.9	0.37	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Chloromethane	ND		5.9	0.36	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		5.9	0.76	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		5.9	0.85	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Cyclohexane	ND		5.9	0.83	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	5.9	0.49	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Ethylbenzene	ND		5.9	0.41	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Isopropylbenzene	ND		5.9	0.90	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Methyl Acetate	ND		5.9	1.1	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.9	0.58	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Methylcyclohexane	ND		5.9	0.90	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Methylene Chloride	8.5		5.9	2.7	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Styrene	ND		5.9	0.30	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Tetrachloroethene	ND		5.9	0.80	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Toluene	1.4	J	5.9	0.45	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		5.9	0.61	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		5.9	2.6	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Trichloroethene	ND		5.9	1.3	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		5.9	0.56	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
Vinyl chloride	ND		5.9	0.72	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-1 (RTL0286-13 - Soil) - cont. **Sampled: 11/29/10 15:50** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**11**	J	12	1.0	ug/kg dry	1.00	12/03/10 22:13	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*102 %*		*Surr Limits: (64-126%)*				*12/03/10 22:13*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*114 %*		*Surr Limits: (72-126%)*				*12/03/10 22:13*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/03/10 22:13*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	44	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		200	11	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		200	55	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		400	71	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		200	31	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		200	50	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2-Chloronaphthalene	ND		200	14	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2-Methylnaphthalene	**31**	J	200	2.5	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2-Methylphenol	ND		200	6.3	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2-Nitroaniline	ND		400	65	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2-Nitrophenol	ND		200	9.3	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		200	180	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
3-Nitroaniline	ND		400	47	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		400	70	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		200	65	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		200	8.4	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Chloroaniline	ND		200	60	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		200	4.3	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Methylphenol	ND		400	11	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Nitroaniline	ND		400	23	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
4-Nitrophenol	ND		400	49	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Acenaphthene	**18**	J	200	2.4	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Acenaphthylene	ND		200	1.7	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Acetophenone	ND		200	10	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Anthracene	**60**	J	200	5.2	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Atrazine	ND		200	9.0	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Benzo[a]anthracene	**200**		200	3.5	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Benzo[a]pyrene	**190**	J	200	4.9	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Benzo[b]fluoranthene	**220**		200	3.9	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Benzo[g,h,i]perylene	**150**	J	200	2.4	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Benzo[k]fluoranthene	**85**	J	200	2.2	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Biphenyl	ND		200	13	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		200	18	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		200	66	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-1 (RTL0286-13 - Soil) - cont. **Sampled: 11/29/10 15:50** **Recvd: 12/01/10 09:00**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Butyl benzyl phthalate	ND		200	55	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Caprolactam	ND		200	88	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Carbazole	**32**	J	200	2.4	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Chrysene	**190**	J	200	2.0	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	**29**	J	200	2.4	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Dibenzofuran	ND		200	2.1	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Diethyl phthalate	ND		200	6.1	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Dimethyl phthalate	ND		200	5.3	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		200	70	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		200	4.8	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Fluoranthene	**480**		200	2.9	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Fluorene	**26**	J	200	4.7	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Hexachlorobenzene	ND		200	10	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		200	61	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Hexachloroethane	ND		200	16	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	**120**	J	200	5.6	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Isophorone	ND		200	10	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Naphthalene	ND		200	3.4	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Nitrobenzene	ND		200	9.0	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Pentachlorophenol	ND		400	70	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Phenanthrene	**290**		200	4.3	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
Pyrene	**360**		200	1.3	ug/kg dry	1.00	12/03/10 09:03	JLG	10L0109	8270C
2,4,6-Tribromophenol	*109 %*		*Surr Limits: (39-146%)*				*12/03/10 09:03*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*90 %*		*Surr Limits: (37-120%)*				*12/03/10 09:03*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*71 %*		*Surr Limits: (18-120%)*				*12/03/10 09:03*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*82 %*		*Surr Limits: (34-132%)*				*12/03/10 09:03*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*78 %*		*Surr Limits: (11-120%)*				*12/03/10 09:03*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*90 %*		*Surr Limits: (58-147%)*				*12/03/10 09:03*	*JLG*	*10L0109*	*8270C*

Total Metals by SW 846 Series Methods

Analyte	Sample Result	Data Qualifiers		RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	**1830**	J		11.7	5.1	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Antimony	ND			17.5	0.6	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Arsenic	**1.4**		J	2.3	0.5	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Barium	**18.4**			0.585	0.129	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Beryllium	**0.058**		J	0.234	0.033	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Cadmium	**0.250**	J	B	0.234	0.035	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Calcium	**5090**		B	58.5	3.9	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Chromium	**4.59**			0.585	0.234	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Cobalt	**0.927**			0.585	0.058	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Copper	**3.5**			1.2	0.2	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Iron	**3540**			11.7	1.3	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Lead	**12.0**	J		1.2	0.3	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Magnesium	**709**			23.4	1.1	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Manganese	**40.4**	J	B	0.2	0.04	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-1-1 (RTL0286-13 - Soil) - cont.						**Sampled: 11/29/10 15:50**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**2.56**	J	5.85	0.269	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Potassium	**504**		35.1	23.4	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Silver	ND		0.585	0.234	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Sodium	**87.6**	J	164	15.2	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Thallium	ND		7.0	0.4	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Vanadium	**5.77**		0.585	0.129	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Zinc	**32.6**	J B	2.3	0.2	mg/kg dry	1.00	12/04/10 12:29	LMH	10L0207	6010B
Mercury	ND		0.0234	0.0095	mg/kg dry	1.00	12/07/10 12:50	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**83**		0.010	NR	%	1.00	12/03/10 07:46	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~ R	~~HFT~~	~~2.4~~	~~0.4~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**846**		121	60.5	mg/kg dry	1.00	12/04/10 11:34	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3800**		1170	1170	mg/Kg dry	1.00	12/03/10 21:08	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**14.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**85.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-2 (RTL0286-14 - Soil) — **Sampled: 11/30/10 08:56** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.4	0.40	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		5.4	0.88	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		5.4	0.71	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.4	1.2	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		5.4	0.66	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		5.4	0.67	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		5.4	0.33	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		5.4	2.7	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		5.4	0.70	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		5.4	0.43	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		5.4	0.27	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		5.4	2.7	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		5.4	0.28	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		5.4	0.76	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Acetone	**20**	J	27	4.6	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Benzene	ND		5.4	0.27	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Bromodichloromethane	ND		5.4	0.73	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Bromoform	ND		5.4	2.7	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Bromomethane	ND		5.4	0.49	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Carbon disulfide	ND		5.4	2.7	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		5.4	0.53	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Chlorobenzene	ND		5.4	0.72	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Dibromochloromethane	ND		5.4	0.70	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Chloroethane	ND	J	5.4	1.2	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Chloroform	ND		5.4	0.34	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Chloromethane	ND		5.4	0.33	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		5.4	0.70	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		5.4	0.78	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Cyclohexane	ND		5.4	0.76	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	5.4	0.45	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Ethylbenzene	ND		5.4	0.38	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Isopropylbenzene	ND		5.4	0.82	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Methyl Acetate	ND		5.4	1.0	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.4	0.53	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Methylcyclohexane	ND		5.4	0.83	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Methylene Chloride	**9.7**		5.4	2.5	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Styrene	ND		5.4	0.27	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Tetrachloroethene	ND		5.4	0.73	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Toluene	ND		5.4	0.41	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		5.4	0.56	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		5.4	2.4	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Trichloroethene	ND		5.4	1.2	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		5.4	0.52	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
Vinyl chloride	ND		5.4	0.66	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-2 (RTL0286-14 - Soil) - cont. **Sampled: 11/30/10 08:56** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.91	ug/kg dry	1.00	12/03/10 22:43	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*101 %*		*Surr Limits: (64-126%)*				*12/03/10 22:43*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*113 %*		*Surr Limits: (72-126%)*				*12/03/10 22:43*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/03/10 22:43*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		190	40	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		190	12	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		190	9.7	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		190	50	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		360	65	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		190	29	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		190	45	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2-Chloronaphthalene	ND		190	12	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2-Chlorophenol	ND		190	9.4	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2-Methylnaphthalene	ND		190	2.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2-Methylphenol	ND		190	5.7	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2-Nitroaniline	ND		360	59	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2-Nitrophenol	ND		190	8.5	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		190	160	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
3-Nitroaniline	ND		360	43	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		360	64	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		190	59	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		190	7.6	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Chloroaniline	ND		190	54	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		190	3.9	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Methylphenol	ND		360	10	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Nitroaniline	ND		360	21	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
4-Nitrophenol	ND		360	45	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Acenaphthene	ND		190	2.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Acenaphthylene	ND		190	1.5	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Acetophenone	ND		190	9.5	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Anthracene	ND		190	4.7	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Atrazine	ND		190	8.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Benzaldehyde	ND		190	20	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Benzo[a]anthracene	ND		190	3.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Benzo[a]pyrene	ND		190	4.5	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		190	3.6	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		190	2.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		190	2.0	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		190	16	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	19	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		190	60	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-2 (RTL0286-14 - Soil) - cont. **Sampled: 11/30/10 08:56** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		190	50	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Caprolactam	ND		190	80	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Carbazole	ND		190	2.1	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Chrysene	ND		190	1.9	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		190	2.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Dibenzofuran	ND		190	1.9	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Diethyl phthalate	ND		190	5.6	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Dimethyl phthalate	ND		190	4.8	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		190	64	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		190	4.3	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Fluoranthene	ND		190	2.7	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Fluorene	ND		190	4.3	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Hexachlorobenzene	ND		190	9.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Hexachlorobutadiene	ND		190	9.5	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		190	56	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Hexachloroethane	ND		190	14	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		190	5.1	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Isophorone	ND		190	9.3	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Naphthalene	ND		190	3.1	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Nitrobenzene	ND		190	8.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		190	15	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		190	10	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Pentachlorophenol	ND		360	64	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Phenanthrene	ND		190	3.9	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Phenol	ND		190	19	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
Pyrene	ND		190	1.2	ug/kg dry	1.00	12/03/10 07:29	JLG	10L0109	8270C
2,4,6-Tribromophenol	*117 %*		*Surr Limits: (39-146%)*				*12/03/10 07:29*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*85 %*		*Surr Limits: (37-120%)*				*12/03/10 07:29*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*68 %*		*Surr Limits: (18-120%)*				*12/03/10 07:29*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits: (34-132%)*				*12/03/10 07:29*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*75 %*		*Surr Limits: (11-120%)*				*12/03/10 07:29*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*90 %*		*Surr Limits: (58-147%)*				*12/03/10 07:29*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2370**	J	10.9	4.8	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Antimony	ND		16.4	0.6	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Arsenic	**1.5**	J	2.2	0.4	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Barium	**9.88**		0.546	0.120	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Beryllium	**0.104**	J	0.218	0.031	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Cadmium	0.214 ~~**0.067**~~	UB J, B J	0.218	0.033	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Calcium	**1440**	B	54.6	3.6	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Chromium	**6.17**		0.546	0.218	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Cobalt	**1.32**		0.546	0.055	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Copper	**3.3**		1.1	0.2	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Iron	**4430**		10.9	1.2	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Lead	**3.8**	J	1.1	0.3	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Magnesium	**752**		21.8	1.0	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Manganese	**26.0**	J B	0.2	0.03	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-1-2 (RTL0286-14 - Soil) - cont.						**Sampled: 11/30/10 08:56**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**3.77**	J	5.46	0.251	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Potassium	**516**		32.8	21.8	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Selenium	ND		4.4	0.6	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Silver	ND		0.546	0.218	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Sodium	**58.2**	J	153	14.2	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Thallium	ND		6.6	0.3	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Vanadium	**7.31**		0.546	0.120	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Zinc	**10.5**	J B	2.2	0.2	mg/kg dry	1.00	12/04/10 12:32	LMH	10L0207	6010B
Mercury	ND		0.0218	0.0088	mg/kg dry	1.00	12/07/10 12:51	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**90**		0.010	NR	%	1.00	12/03/10 07:48	JRR	10L0148	Dry Weight
Ferrous Iron	R ~~ND~~	~~HFT~~	~~2.2~~	~~0.3~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**477**		112	55.8	mg/kg dry	1.00	12/04/10 11:34	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1320	1320	mg/Kg dry	1.00	12/03/10 21:21	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**24.1**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**75.9**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-3 (RTL0286-15 - Soil) — **Sampled: 11/30/10 09:06** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.7	0.42	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		5.7	0.93	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		5.7	0.74	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		5.7	0.70	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		5.7	0.70	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		5.7	0.35	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		5.7	2.9	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		5.7	0.74	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		5.7	0.45	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		5.7	0.29	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		5.7	2.9	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		5.7	0.29	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		5.7	0.80	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
2-Butanone	ND		29	2.1	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
2-Hexanone	ND		29	2.9	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		29	1.9	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Acetone	15	J	29	4.8	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Benzene	ND		5.7	0.28	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Bromodichloromethane	ND		5.7	0.77	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Bromoform	ND		5.7	2.9	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Bromomethane	ND		5.7	0.52	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Carbon disulfide	ND		5.7	2.9	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		5.7	0.55	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Chlorobenzene	ND		5.7	0.76	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Dibromochloromethane	ND		5.7	0.73	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Chloroethane	ND	J	5.7	1.3	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Chloroform	ND		5.7	0.35	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Chloromethane	ND		5.7	0.35	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		5.7	0.83	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Cyclohexane	ND		5.7	0.80	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	5.7	0.47	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Ethylbenzene	ND		5.7	0.40	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Isopropylbenzene	ND		5.7	0.86	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Methyl Acetate	ND		5.7	1.1	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.7	0.56	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Methylcyclohexane	ND		5.7	0.87	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Methylene Chloride	11		5.7	2.6	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Styrene	ND		5.7	0.29	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Tetrachloroethene	ND		5.7	0.77	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Toluene	ND		5.7	0.43	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Trichloroethene	ND		5.7	1.3	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		5.7	0.54	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
Vinyl chloride	ND		5.7	0.70	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-1-3 (RTL0286-15 - Soil) - cont.						**Sampled: 11/30/10 09:06**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.96	ug/kg dry	1.00	12/03/10 23:12	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*102 %*		*Surr Limits: (64-126%)*				*12/03/10 23:12*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*115 %*		*Surr Limits: (72-126%)*				*12/03/10 23:12*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-125%)*				*12/03/10 23:12*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	43	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		200	54	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		390	69	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		200	31	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		200	49	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2-Methylnaphthalene	ND		200	2.4	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2-Methylphenol	ND		200	6.1	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2-Nitroaniline	ND		390	64	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2-Nitrophenol	ND		200	9.1	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		200	170	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
3-Nitroaniline	ND		390	46	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		390	68	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		200	63	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		200	8.2	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Chloroaniline	ND		200	58	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Methylphenol	ND		390	11	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Nitroaniline	ND		390	22	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
4-Nitrophenol	ND		390	48	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Acenaphthene	ND		200	2.3	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Acetophenone	ND		200	10	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Anthracene	ND		200	5.1	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Atrazine	ND		200	8.8	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Benzo[a]anthracene	ND		200	3.4	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Benzo[a]pyrene	ND		200	4.8	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		200	3.8	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		200	2.4	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Biphenyl	ND		200	12	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		200	64	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-1-3 (RTL0286-15 - Soil) - cont. **Sampled: 11/30/10 09:06** **Recvd: 12/01/10 09:00**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Butyl benzyl phthalate	ND		200	53	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Caprolactam	ND		200	86	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Carbazole	ND		200	2.3	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Chrysene	ND		200	2.0	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		200	2.3	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Dibenzofuran	ND		200	2.1	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Diethyl phthalate	ND		200	6.0	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Dimethyl phthalate	ND		200	5.2	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		200	69	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		200	4.6	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Fluoranthene	ND		200	2.9	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Fluorene	ND		200	4.6	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Hexachlorobenzene	ND		200	9.8	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		200	60	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		200	5.5	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Isophorone	ND		200	9.9	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Naphthalene	ND		200	3.3	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Nitrobenzene	ND		200	8.8	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Pentachlorophenol	ND		390	68	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Phenanthrene	ND		200	4.2	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
Pyrene	ND		200	1.3	ug/kg dry	1.00	12/03/10 07:52	JLG	10L0109	8270C
2,4,6-Tribromophenol	*106 %*		*Surr Limits: (39-146%)*				*12/03/10 07:52*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*84 %*		*Surr Limits: (37-120%)*				*12/03/10 07:52*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*65 %*		*Surr Limits: (18-120%)*				*12/03/10 07:52*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*76 %*		*Surr Limits: (34-132%)*				*12/03/10 07:52*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*72 %*		*Surr Limits: (11-120%)*				*12/03/10 07:52*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*88 %*		*Surr Limits: (58-147%)*				*12/03/10 07:52*	*JLG*	*10L0109*	*8270C*

Total Metals by SW 846 Series Methods

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	**1250**	J	11.7	5.2	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Antimony	ND		17.6	0.6	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Arsenic	ND	J	2.3	0.5	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Barium	**6.17**		0.586	0.129	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Beryllium	ND		0.234	0.033	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Cadmium	0.234 ~~**0.043**~~	UB ~~J, B~~ J	0.234	0.035	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Calcium	**687**	B	58.6	3.9	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Chromium	**3.51**		0.586	0.234	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Cobalt	**0.491**	J	0.586	0.059	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Copper	**1.4**		1.2	0.2	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Iron	**2380**		11.7	1.3	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Lead	**1.6**	J	1.2	0.3	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Magnesium	**422**		23.4	1.1	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Manganese	**15.2**	J B	0.2	0.04	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Nickel	**1.63**	J	5.86	0.270	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-1-3 (RTL0286-15 - Soil) - cont.						**Sampled: 11/30/10 09:06**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	**352**		35.2	23.4	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Silver	ND		0.586	0.234	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Sodium	**38.8**	J	164	15.2	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Thallium	ND		7.0	0.4	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Vanadium	**4.28**		0.586	0.129	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Zinc	**4.9**	J B	2.3	0.2	mg/kg dry	1.00	12/04/10 12:34	LMH	10L0207	6010B
Mercury	ND		0.0227	0.0092	mg/kg dry	1.00	12/07/10 12:53	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**85**		0.010	NR	%	1.00	12/03/10 07:50	JRR	10L0148	Dry Weight
Ferrous Iron	R ~~ND~~	~~HFT~~	~~2.4~~	~~0.4~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**271**		118	59.0	mg/kg dry	1.00	12/04/10 11:34	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1200	1200	mg/Kg dry	1.00	12/03/10 21:34	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**17.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**83.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-2-1 (RTL0286-16 - Soil) — **Sampled: 11/30/10 12:42** — **Recvd: 12/01/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		6.2	0.45	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		6.2	0.81	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		6.2	0.76	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		6.2	0.76	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		6.2	0.80	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		6.2	0.49	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		6.2	0.31	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		6.2	0.32	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		6.2	0.87	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
2-Butanone	**4.9**	J	31	2.3	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Acetone	**35**		31	5.3	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Benzene	ND		6.2	0.31	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Bromodichloromethane	ND		6.2	0.84	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Bromoform	ND		6.2	3.1	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Bromomethane	ND		6.2	0.56	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Carbon disulfide	**4.8**	J	6.2	3.1	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		6.2	0.60	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Chlorobenzene	ND		6.2	0.82	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Dibromochloromethane	ND		6.2	0.80	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Chloroethane	ND	J	6.2	1.4	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Chloroform	ND		6.2	0.39	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Chloromethane	ND		6.2	0.38	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		6.2	0.80	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		6.2	0.90	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Cyclohexane	ND		6.2	0.87	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	6.2	0.52	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Ethylbenzene	**1.6**	J	6.2	0.43	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Isopropylbenzene	ND		6.2	0.94	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Methyl Acetate	ND		6.2	1.2	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.2	0.61	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Methylcyclohexane	ND		6.2	0.95	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Methylene Chloride	**12**		6.2	2.9	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Styrene	ND		6.2	0.31	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Tetrachloroethene	ND		6.2	0.84	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Toluene	**1.9**	J	6.2	0.47	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Trichloroethene	ND		6.2	1.4	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		6.2	0.59	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
Vinyl chloride	ND		6.2	0.76	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-2-1 (RTL0286-16 - Soil) - cont. **Sampled: 11/30/10 12:42** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	9.5	J	12	1.0	ug/kg dry	1.00	12/03/10 23:41	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (64-126%)*				*12/03/10 23:41*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*113 %*		*Surr Limits: (72-126%)*				*12/03/10 23:41*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*103 %*		*Surr Limits: (71-125%)*				*12/03/10 23:41*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		210	56	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		410	73	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		210	32	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		210	51	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2-Methylnaphthalene	ND		210	2.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2-Methylphenol	ND		210	6.4	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2-Nitroaniline	ND		410	67	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2-Nitrophenol	ND		210	9.6	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
3-Nitroaniline	ND		410	48	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		410	72	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		210	67	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		210	8.6	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Chloroaniline	ND		210	61	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Nitroaniline	ND		410	23	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Acenaphthene	ND		210	2.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Acetophenone	ND		210	11	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Anthracene	ND		210	5.4	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Atrazine	ND		210	9.3	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Benzo[a]anthracene	ND		210	3.6	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Benzo[a]pyrene	ND		210	5.0	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		210	4.1	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		210	2.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		210	2.3	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		210	67	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-2-1 (RTL0286-16 - Soil) - cont. — **Sampled: 11/30/10 12:42** — **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		210	56	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Caprolactam	ND		210	90	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Carbazole	ND		210	2.4	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Chrysene	ND		210	2.1	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		210	2.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Dibenzofuran	ND		210	2.2	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Diethyl phthalate	ND		210	6.3	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		210	72	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Fluoranthene	**19**	J	210	3.0	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Fluorene	ND		210	4.8	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		210	63	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		210	5.8	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Isophorone	ND		210	10	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Nitrobenzene	ND		210	9.3	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		210	11	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Pentachlorophenol	ND		410	72	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Phenanthrene	**24**	J	210	4.4	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Phenol	**110**	J	210	22	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
Pyrene	ND		210	1.4	ug/kg dry	1.00	12/03/10 08:16	JLG	10L0109	8270C
2,4,6-Tribromophenol	*118 %*		*Surr Limits: (39-146%)*				*12/03/10 08:16*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*87 %*		*Surr Limits: (37-120%)*				*12/03/10 08:16*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*62 %*		*Surr Limits: (18-120%)*				*12/03/10 08:16*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*74 %*		*Surr Limits: (34-132%)*				*12/03/10 08:16*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*71 %*		*Surr Limits: (11-120%)*				*12/03/10 08:16*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*91 %*		*Surr Limits: (58-147%)*				*12/03/10 08:16*	*JLG*	*10L0109*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1320**	J	12.3	5.4	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Antimony	ND		18.5	0.7	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Arsenic	**1.3**	J	2.5	0.5	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Barium	**10.1**		0.616	0.135	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Beryllium	ND		0.246	0.034	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Cadmium	0.246 ~~**0.082**~~	UB ~~J, B~~ J	0.246	0.037	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Calcium	**306**	B	61.6	4.1	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Chromium	**3.69**		0.616	0.246	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Cobalt	**0.825**		0.616	0.062	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Copper	**5.9**		1.2	0.3	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Iron	**3240**		12.3	1.4	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Lead	**2.1**	J	1.2	0.3	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Magnesium	**441**		24.6	1.1	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Manganese	**27.5**	J B	0.2	0.04	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-2-1 (RTL0286-16 - Soil) - cont.						**Sampled: 11/30/10 12:42**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**2.00**	J	6.16	0.283	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Potassium	**355**		36.9	24.6	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Selenium	ND		4.9	0.7	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Silver	ND		0.616	0.246	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Sodium	**65.0**	J	172	16.0	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Thallium	ND		7.4	0.4	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Vanadium	**3.92**		0.616	0.135	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Zinc	**6.1**	J B	2.5	0.2	mg/kg dry	1.00	12/04/10 12:36	LMH	10L0207	6010B
Mercury	**0.0119**	J	0.0248	0.0100	mg/kg dry	1.00	12/07/10 12:55	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	12/03/10 07:52	JRR	10L0148	Dry Weight
Ferrous Iron	R ~~ND~~	~~HFT~~	~~2.5~~	~~0.4~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**307**		126	63.0	mg/kg dry	1.00	12/04/10 11:34	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1250	1250	mg/Kg dry	1.00	12/03/10 21:47	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**20.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**79.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-2-2 (RTL0286-17 - Soil)						**Sampled: 11/30/10 14:12**		**Recvd: 12/01/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.4	0.46	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,1,2,2-Tetrachloroethane	ND		6.4	1.0	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,1,2-Trichloroethane	ND		6.4	0.83	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.4	1.5	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,1-Dichloroethane	ND		6.4	0.78	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,1-Dichloroethene	ND		6.4	0.78	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2,4-Trichlorobenzene	ND		6.4	0.39	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2-Dibromo-3-chloropropane	ND		6.4	3.2	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2-Dibromoethane	ND		6.4	0.82	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2-Dichlorobenzene	ND		6.4	0.50	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2-Dichloroethane	ND		6.4	0.32	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2-Dichloropropane	ND		6.4	3.2	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,3-Dichlorobenzene	ND		6.4	0.33	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,4-Dichlorobenzene	ND		6.4	0.89	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
2-Butanone	ND		32	2.3	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
2-Hexanone	ND		32	3.2	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
4-Methyl-2-pentanone	ND		32	2.1	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Acetone	15	J	32	5.4	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Benzene	ND		6.4	0.31	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Bromodichloromethane	ND		6.4	0.85	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Bromoform	ND		6.4	3.2	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Bromomethane	ND		6.4	0.57	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Carbon disulfide	ND		6.4	3.2	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Carbon Tetrachloride	ND		6.4	0.62	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Chlorobenzene	ND		6.4	0.84	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Dibromochloromethane	ND		6.4	0.81	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Chloroethane	ND	J	6.4	1.4	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Chloroform	ND		6.4	0.39	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Chloromethane	ND		6.4	0.38	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
cis-1,2-Dichloroethene	ND		6.4	0.81	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
cis-1,3-Dichloropropene	ND		6.4	0.92	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Cyclohexane	ND		6.4	0.89	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Dichlorodifluoromethane	ND	J	6.4	0.53	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Ethylbenzene	ND		6.4	0.44	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Isopropylbenzene	ND		6.4	0.96	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Methyl Acetate	ND		6.4	1.2	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.4	0.63	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Methylcyclohexane	ND		6.4	0.97	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Methylene Chloride	13		6.4	2.9	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Styrene	ND		6.4	0.32	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Tetrachloroethene	ND		6.4	0.85	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Toluene	ND		6.4	0.48	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
trans-1,2-Dichloroethene	ND		6.4	0.66	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
trans-1,3-Dichloropropene	ND		6.4	2.8	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Trichloroethene	ND		6.4	1.4	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Trichlorofluoromethane	ND		6.4	0.60	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
Vinyl chloride	ND		6.4	0.78	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-2-2 (RTL0286-17 - Soil) - cont. **Sampled: 11/30/10 14:12** **Recvd: 12/01/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	1.4	J	13	1.1	ug/kg dry	1.00	12/04/10 00:11	PJQ	10L0224	8260B
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (64-126%)*				*12/04/10 00:11*	*PJQ*	*10L0224*	*8260B*
4-Bromofluorobenzene	*113 %*		*Surr Limits: (72-126%)*				*12/04/10 00:11*	*PJQ*	*10L0224*	*8260B*
Toluene-d8	*103 %*		*Surr Limits: (71-125%)*				*12/04/10 00:11*	*PJQ*	*10L0224*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		220	48	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,4,6-Trichlorophenol	ND		220	14	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,4-Dichlorophenol	ND		220	11	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,4-Dimethylphenol	ND		220	59	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,4-Dinitrophenol	ND		430	76	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,4-Dinitrotoluene	ND		220	34	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,6-Dinitrotoluene	ND		220	53	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2-Chloronaphthalene	ND		220	15	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2-Chlorophenol	ND		220	11	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2-Methylnaphthalene	ND		220	2.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2-Methylphenol	ND		220	6.7	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2-Nitroaniline	ND		430	70	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2-Nitrophenol	ND		220	10	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
3,3'-Dichlorobenzidine	ND		220	190	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
3-Nitroaniline	ND		430	50	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4,6-Dinitro-2-methylphenol	ND		430	75	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Bromophenyl phenyl ether	ND		220	69	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Chloro-3-methylphenol	ND		220	9.0	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Chloroaniline	ND		220	64	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Chlorophenyl phenyl ether	ND		220	4.7	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Methylphenol	ND		430	12	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Nitroaniline	ND		430	24	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
4-Nitrophenol	ND		430	53	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Acenaphthene	ND		220	2.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Acenaphthylene	ND		220	1.8	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Acetophenone	ND		220	11	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Anthracene	ND		220	5.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Atrazine	ND		220	9.7	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Benzaldehyde	ND		220	24	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Benzo[a]anthracene	ND		220	3.8	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Benzo[a]pyrene	ND		220	5.3	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Benzo[b]fluoranthene	ND		220	4.2	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Benzo[g,h,i]perylene	ND		220	2.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Benzo[k]fluoranthene	ND		220	2.4	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Biphenyl	ND		220	14	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Bis(2-chloroethoxy)methane	ND		220	12	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Bis(2-chloroethyl)ether	ND		220	19	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,2'-Oxybis(1-Chloropropane)	ND		220	23	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Bis(2-ethylhexyl) phthalate	ND		220	70	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-2-2 (RTL0286-17 - Soil) - cont. **Sampled: 11/30/10 14:12** **Recvd: 12/01/10 09:00**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Butyl benzyl phthalate	ND		220	59	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Caprolactam	ND		220	94	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Carbazole	ND		220	2.5	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Chrysene	ND		220	2.2	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Dibenzo(a,h)anthracene	ND		220	2.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Dibenzofuran	ND		220	2.3	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Diethyl phthalate	ND		220	6.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Dimethyl phthalate	ND		220	5.7	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Di-n-butyl phthalate	ND		220	75	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Di-n-octyl phthalate	ND		220	5.1	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Fluoranthene	ND		220	3.2	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Fluorene	ND		220	5.0	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Hexachlorobenzene	ND		220	11	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Hexachlorobutadiene	ND		220	11	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Hexachlorocyclopentadiene	ND		220	66	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Hexachloroethane	ND		220	17	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Indeno[1,2,3-cd]pyrene	ND		220	6.0	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Isophorone	ND		220	11	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Naphthalene	ND		220	3.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Nitrobenzene	ND		220	9.7	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
N-Nitrosodi-n-propylamine	ND		220	17	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
N-Nitrosodiphenylamine	ND		220	12	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Pentachlorophenol	ND		430	75	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Phenanthrene	ND		220	4.6	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Phenol	ND		220	23	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
Pyrene	ND		220	1.4	ug/kg dry	1.00	12/03/10 08:40	JLG	10L0109	8270C
2,4,6-Tribromophenol	*111 %*		*Surr Limits: (39-146%)*				*12/03/10 08:40*	*JLG*	*10L0109*	*8270C*
2-Fluorobiphenyl	*85 %*		*Surr Limits: (37-120%)*				*12/03/10 08:40*	*JLG*	*10L0109*	*8270C*
2-Fluorophenol	*62 %*		*Surr Limits: (18-120%)*				*12/03/10 08:40*	*JLG*	*10L0109*	*8270C*
Nitrobenzene-d5	*73 %*		*Surr Limits: (34-132%)*				*12/03/10 08:40*	*JLG*	*10L0109*	*8270C*
Phenol-d5	*70 %*		*Surr Limits: (11-120%)*				*12/03/10 08:40*	*JLG*	*10L0109*	*8270C*
p-Terphenyl-d14	*95 %*		*Surr Limits: (58-147%)*				*12/03/10 08:40*	*JLG*	*10L0109*	*8270C*

Total Metals by SW 846 Series Methods

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	**927**	J	12.6	5.5	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Antimony	ND		18.9	0.7	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Arsenic	ND	J	2.5	0.5	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Barium	**8.32**		0.629	0.138	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Beryllium	ND		0.252	0.035	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Cadmium	0.252 ~~0.062~~	UB J, B J	0.252	0.038	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Calcium	**464**	B	62.9	4.2	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Chromium	**2.14**		0.629	0.252	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Cobalt	**0.331**	J	0.629	0.063	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Copper	**0.7**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Iron	**1170**		12.6	1.4	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Lead	**1.1**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Magnesium	**269**		25.2	1.2	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Manganese	**11.1**	J B	0.3	0.04	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Nickel	**1.20**	J	6.29	0.289	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-2-2 (RTL0286-17 - Soil) - cont.						**Sampled: 11/30/10 14:12**		**Recvd: 12/01/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	**225**		37.8	25.2	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Selenium	ND		5.0	0.7	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Silver	ND		0.629	0.252	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Sodium	**39.2**	J	176	16.4	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Thallium	ND		7.6	0.4	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Vanadium	**2.15**		0.629	0.138	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Zinc	**3.7**	J B	2.5	0.2	mg/kg dry	1.00	12/04/10 12:42	LMH	10L0207	6010B
Mercury	ND		0.0250	0.0101	mg/kg dry	1.00	12/07/10 12:57	JRK	10L0403	7471A
General Chemistry Parameters										
Percent Solids	**77**		0.010	NR	%	1.00	12/03/10 07:54	JRR	10L0148	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~2.6~~	~~0.4~~	mg/kg dry	1.00	12/02/10 21:54	JLN	10L0184	3500FE
Sulfate	**261**		130	64.9	mg/kg dry	1.00	12/04/10 11:34	RJF	10L0339	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1200	1200	mg/Kg dry	1.00	12/03/10 22:00	MNT	10638	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**16.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**83.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-3 (0-2) (RTL0375-01 - Soil) — **Sampled: 11/30/10 14:30** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	130	36	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	130	21	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	130	27	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	130	64	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	130	40	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	130	45	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	130	49	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	130	64	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	130	4.9	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	130	33	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	130	53	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	130	21	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	130	34	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	130	18	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
2-Butanone	ND	W1	640	380	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
2-Hexanone	ND	W1	640	260	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	640	41	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Acetone	ND	W1	640	530	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Benzene	ND	W1	130	6.2	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	130	26	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Bromoform	ND	W1	130	64	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Bromomethane	ND	W1	130	28	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	130	59	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	130	33	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Chlorobenzene	ND	W1	130	17	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	130	62	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Chloroethane	ND J	W1	130	27	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Chloroform	ND	W1	130	88	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Chloromethane	ND	W1	130	31	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	130	36	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	130	31	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Cyclohexane	ND	W1	130	29	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	130	56	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Ethylbenzene	**2400**	W1	130	37	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Isopropylbenzene	**1200**	W1	130	19	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Methyl Acetate	ND	W1	130	61	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	130	49	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Methylcyclohexane	**2900**	W1	130	60	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Methylene Chloride	ND J	W1	130	25	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Styrene	ND	W1	130	31	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	130	17	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Toluene	**110**	W1,J	130	35	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	130	30	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	130	6.2	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Trichloroethene	ND	W1	130	36	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	130	60	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
Vinyl chloride	ND	W1	130	43	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-3 (0-2) (RTL0375-01 - Soil) - cont.							**Sampled: 11/30/10 14:30**		**Recvd: 12/02/10 09:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**5200**	~~W1~~	260	22	ug/kg dry	1.00	12/08/10 13:46	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*130 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 13:46*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*82 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 13:46*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*102 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 13:46*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D02	2200	480	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND	D02	2200	150	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,4-Dichlorophenol	ND	D02	2200	120	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,4-Dimethylphenol	ND	D02	2200	600	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,4-Dinitrophenol	ND	D02	4300	770	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND	D02	2200	340	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND	D02	2200	540	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2-Chloronaphthalene	ND	D02	2200	150	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2-Chlorophenol	ND	D02	2200	110	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2-Methylnaphthalene	**16000**	D02	2200	27	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2-Methylphenol	ND	D02	2200	68	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2-Nitroaniline	ND	D02	4300	710	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2-Nitrophenol	ND	D02	2200	100	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND	D02	2200	1900	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
3-Nitroaniline	ND	D02	4300	510	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND	D02	4300	760	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND	~~D02~~	2200	700	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND	D02	2200	91	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Chloroaniline	ND	D02	2200	650	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND	D02	2200	47	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Methylphenol	ND	D02	4300	120	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Nitroaniline	ND	D02	4300	250	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
4-Nitrophenol	ND	D02	4300	530	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Acenaphthene	**990**	~~D02~~,J	2200	26	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Acenaphthylene	ND	D02	2200	18	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Acetophenone	ND	D02	2200	110	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Anthracene	**370**	~~D02~~,J	2200	56	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Atrazine	ND	D02	2200	98	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Benzaldehyde	ND	D02	2200	240	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Benzo[a]anthracene	**370**	~~D02~~,J	2200	38	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Benzo[a]pyrene	**230**	~~D02~~,J	2200	53	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Benzo[b]fluoranthene	**270**	~~D02~~,J	2200	43	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Benzo[g,h,i]perylene	**180**	~~D02~~,J	2200	26	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND	~~D02~~	2200	24	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Biphenyl	**580**	~~D02~~,J	2200	140	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND	~~D02~~	2200	120	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND	D02	2200	190	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	2200	230	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	2200 ~~1700~~ UB	~~D02,J,B~~	2200	710	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-3 (0-2) (RTL0375-01 - Soil) - cont. **Sampled: 11/30/10 14:30** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D02	2200	590	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Caprolactam	ND	D02	2200	950	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Carbazole	**140**	D02,J	2200	26	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Chrysene	**290**	D02,J	2200	22	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND	D02	2200	26	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Dibenzofuran	**790**	D02,J	2200	23	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Diethyl phthalate	ND	D02	2200	67	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Dimethyl phthalate	ND	D02	2200	58	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Di-n-butyl phthalate	ND	D02	2200	760	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Di-n-octyl phthalate	ND	D02	2200	52	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Fluoranthene	**1000**	D02,J	2200	32	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Fluorene	**1100**	D02,J	2200	51	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Hexachlorobenzene	ND	D02	2200	110	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Hexachlorobutadiene	ND	D02	2200	110	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND	D02	2200	670	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Hexachloroethane	ND	D02	2200	170	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND	D02	2200	61	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Isophorone	ND	D02	2200	110	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Naphthalene	**5400**	D02	2200	37	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Nitrobenzene	ND	D02	2200	98	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND	D02	2200	170	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND	D02	2200	120	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Pentachlorophenol	ND	D02	4300	760	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Phenanthrene	**3600**	D02	2200	46	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Phenol	ND	D02	2200	230	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
Pyrene	**940**	D02,J	2200	14	ug/kg dry	10.0	12/07/10 19:43	MKP	10L0180	8270C
2,4,6-Tribromophenol	*18 %*	*D02,Z*	*Surr Limits: (39-146%)*				*12/07/10 19:43*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*83 %*	*D02*	*Surr Limits: (37-120%)*				*12/07/10 19:43*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*57 %*	*D02*	*Surr Limits: (18-120%)*				*12/07/10 19:43*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*82 %*	*D02*	*Surr Limits: (34-132%)*				*12/07/10 19:43*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*75 %*	*D02*	*Surr Limits: (11-120%)*				*12/07/10 19:43*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*81 %*	*D02*	*Surr Limits: (58-147%)*				*12/07/10 19:43*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4860**	J	13.2	5.8	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Antimony	ND		19.9	0.7	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Arsenic	**2.0**	J	2.6	0.5	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Barium	**26.7**		0.662	0.146	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Beryllium	**0.224**	J	0.265	0.037	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Cadmium	**0.282**	J B	0.265	0.040	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Calcium	**28000**	B	66.2	4.4	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Chromium	**7.46**		0.662	0.265	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Cobalt	**2.44**		0.662	0.066	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Copper	**14.5**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Iron	**5670**	J	13.2	1.5	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Lead	**69.6**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Magnesium	**5250**		26.5	1.2	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Manganese	**76.6**	J B	0.3	0.04	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-3 (0-2) (RTL0375-01 - Soil) - cont.						**Sampled: 11/30/10 14:30**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**7.11**		6.62	0.305	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Potassium	**548**		39.7	26.5	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Selenium	ND		5.3	0.8	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Silver	ND		0.662	0.265	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Sodium	**119**	J	185	17.2	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Thallium	ND		7.9	0.4	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Vanadium	**8.76**		0.662	0.146	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Zinc	**57.3**	J B	2.6	0.2	mg/kg dry	1.00	12/04/10 12:51	LMH	10L0208	6010B
Mercury	**0.0329**		0.0260	0.0105	mg/kg dry	1.00	12/06/10 12:51	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**75**		0.010	NR	%	1.00	12/03/10 13:00	JRR	10L0204	Dry Weight
Ferrous Iron	**0.6**	J	2.7	0.4	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**78.1**	J	134	66.8	mg/kg dry	1.00	12/08/10 10:48	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**6440**		1080	1080	mg/Kg dry	1.00	12/06/10 20:41	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**7.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**92.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-3 (2-4) (RTL0375-02 - Soil)						**Sampled: 11/30/10 14:45**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1	120	33	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	120	19	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	120	25	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	120	59	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	120	36	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	120	41	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	120	45	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	120	59	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	120	4.5	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	120	30	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	120	48	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	120	19	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	120	32	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	120	17	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
2-Butanone	ND	W1	590	350	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
2-Hexanone	ND	W1	590	240	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	590	38	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Acetone	ND	W1	590	490	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Benzene	ND	W1	120	5.7	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	120	24	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Bromoform	ND	W1	120	59	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Bromomethane	ND	W1	120	26	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	120	54	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	120	30	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Chlorobenzene	ND	W1	120	16	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	120	57	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Chloroethane	ND J	W1	120	25	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Chloroform	ND	W1	120	81	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Chloromethane	ND	W1	120	28	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	120	33	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	120	28	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Cyclohexane	ND	W1	120	26	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	120	51	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Ethylbenzene	**6700**	W1	120	34	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Isopropylbenzene	**3500**	W1	120	18	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Methyl Acetate	ND	W1	120	56	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	120	45	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Methylcyclohexane	**2500**	W1	120	55	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Methylene Chloride	ND J	W1	120	23	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Styrene	ND	W1	120	28	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	120	16	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Toluene	**200**	W1	120	32	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	120	28	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	120	5.7	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Trichloroethene	ND	W1	120	33	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	120	55	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
Vinyl chloride	ND	W1	120	40	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-3 (2-4) (RTL0375-02 - Soil) - cont. **Sampled: 11/30/10 14:45** **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Xylenes, total	6100	~~W1~~	240	20	ug/kg dry	1.00	12/08/10 14:07	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*137 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 14:07*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*75 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 14:07*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*105 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 14:07*	*DHC*	*10L0623*	*8260B*

Semivolatile Organics by GC/MS

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	~~D08~~	2000	440	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND	~~D08~~	2000	130	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,4-Dichlorophenol	ND	~~D08~~	2000	110	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,4-Dimethylphenol	ND	~~D08~~	2000	550	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,4-Dinitrophenol	ND	~~D08~~	4000	710	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND	~~D08~~	2000	310	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND	~~D08~~	2000	500	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2-Chloronaphthalene	ND	~~D08~~	2000	140	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2-Chlorophenol	ND	~~D08~~	2000	100	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2-Methylnaphthalene	27000	~~D08~~	2000	25	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2-Methylphenol	ND	~~D08~~	2000	62	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2-Nitroaniline	ND	~~D08~~	4000	650	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2-Nitrophenol	ND	~~D08~~	2000	93	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND	~~D08~~	2000	1800	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
3-Nitroaniline	ND	~~D08~~	4000	470	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND	~~D08~~	4000	700	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND	~~D08~~	2000	650	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND	~~D08~~	2000	84	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Chloroaniline	ND	~~D08~~	2000	600	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND	~~D08~~	2000	43	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Methylphenol	ND	~~D08~~	4000	110	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Nitroaniline	ND	~~D08~~	4000	230	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
4-Nitrophenol	ND	~~D08~~	4000	490	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Acenaphthene	810	~~D08~~,J	2000	24	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Acenaphthylene	ND	~~D08~~	2000	17	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Acetophenone	ND	~~D08~~	2000	100	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Anthracene	430	~~D08~~,J	2000	52	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Atrazine	ND	~~D08~~	2000	90	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Benzaldehyde	ND	~~D08~~	2000	220	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Benzo[a]anthracene	260	~~D08~~,J	2000	35	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Benzo[a]pyrene	ND	~~D08~~	2000	49	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Benzo[b]fluoranthene	200	~~D08~~,J	2000	39	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND	~~D08~~	2000	24	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND	~~D08~~	2000	22	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Biphenyl	610	~~D08~~,J	2000	130	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND	~~D08~~	2000	110	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND	~~D08~~	2000	180	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND	~~D08~~	2000	210	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Bis(2 ethylhexyl) phthalate	2000 ~~1600~~ UB	~~D08~~,J, B	2000	650	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-3 (2-4) (RTL0375-02 - Soil) - cont. **Sampled: 11/30/10 14:45** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	~~D08~~	2000	550	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Caprolactam	ND	~~D08~~	2000	880	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Carbazole	ND	~~D08~~	2000	23	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Chrysene	**230**	~~D08~~,J	2000	20	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND	~~D08~~	2000	24	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Dibenzofuran	**760**	~~D08~~,J	2000	21	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Diethyl phthalate	ND	~~D08~~	2000	61	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Dimethyl phthalate	ND	~~D08~~	2000	53	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Di-n-butyl phthalate	ND	~~D08~~	2000	700	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Di-n-octyl phthalate	ND	~~D08~~	2000	48	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Fluoranthene	**690**	~~D08~~,J	2000	29	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Fluorene	**1300**	~~D08~~,J	2000	47	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Hexachlorobenzene	ND	~~D08~~	2000	100	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Hexachlorobutadiene	ND	~~D08~~	2000	100	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND	~~D08~~	2000	610	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Hexachloroethane	ND	~~D08~~	2000	160	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND	~~D08~~	2000	56	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Isophorone	ND	~~D08~~	2000	100	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Naphthalene	**11000**	~~D08~~	2000	34	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Nitrobenzene	ND	~~D08~~	2000	90	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND	~~D08~~	2000	160	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND	~~D08~~	2000	110	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Pentachlorophenol	ND	~~D08~~	4000	700	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Phenanthrene	**3200**	~~D08~~	2000	43	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Phenol	ND	~~D08~~	2000	210	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
Pyrene	**670**	~~D08~~,J	2000	13	ug/kg dry	10.0	12/07/10 20:07	MKP	10L0180	8270C
2,4,6-Tribromophenol	*43 %*	~~*D08*~~	*Surr Limits: (39-146%)*				*12/07/10 20:07*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*90 %*	~~*D08*~~	*Surr Limits: (37-120%)*				*12/07/10 20:07*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*70 %*	~~*D08*~~	*Surr Limits: (18-120%)*				*12/07/10 20:07*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*92 %*	~~*D08*~~	*Surr Limits: (34-132%)*				*12/07/10 20:07*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*81 %*	~~*D08*~~	*Surr Limits: (11-120%)*				*12/07/10 20:07*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*81 %*	~~*D08*~~	*Surr Limits: (58-147%)*				*12/07/10 20:07*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2230** J		12.0	5.3	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Antimony	ND		18.1	0.7	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Arsenic	**2.2**	J	2.4	0.5	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Barium	**14.0**		0.602	0.133	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Beryllium	**0.166**	J	0.241	0.034	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Cadmium	**0.231**	J, ~~B~~	0.241	0.036	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Calcium	**113000**	~~D08, B~~	301	19.9	mg/kg dry	5.00	12/06/10 16:29	MxM	10L0208	6010B
Chromium	**4.68**		0.602	0.241	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Cobalt	**1.76**		0.602	0.060	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Copper	**7.0** J		1.2	0.3	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Iron	**5180** J		12.0	1.3	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Lead	**52.4** J		1.2	0.3	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Magnesium	**63000**	~~D08~~	120	5.6	mg/kg dry	5.00	12/06/10 16:29	MxM	10L0208	6010B
Manganese	**100** J	~~B~~	0.2	0.04	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-3 (2-4) (RTL0375-02 - Soil) - cont.						**Sampled: 11/30/10 14:45**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	4.78	J	6.02	0.277	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Potassium	490		36.1	24.1	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Selenium	ND		4.8	0.7	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Silver	ND		0.602	0.241	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Sodium	153	J	169	15.7	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Thallium	ND		7.2	0.4	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Vanadium	11.5		0.602	0.133	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Zinc	21.1	J B	2.4	0.2	mg/kg dry	1.00	12/04/10 12:53	LMH	10L0208	6010B
Mercury	0.0525		0.0240	0.0097	mg/kg dry	1.00	12/06/10 12:53	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	82		0.010	NR	%	1.00	12/03/10 13:02	JRR	10L0204	Dry Weight
Ferrous Iron	1.6	J	2.4	0.4	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	397		121	60.5	mg/kg dry	1.00	12/08/10 10:48	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	7720		1300	1300	mg/Kg dry	1.00	12/06/10 20:54	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	22.8		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	77.2		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-3 (4-6) (RTL0375-03 - Soil) **Sampled: 11/30/10 14:55** **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	120	35	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	120	20	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	120	26	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	120	62	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	120	39	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	120	43	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	120	47	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	120	62	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	120	4.7	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	120	32	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	120	51	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	120	20	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	120	33	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	120	17	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
2-Butanone	ND	W1	620	370	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
2-Hexanone	ND	W1	620	260	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	620	40	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Acetone	ND	W1	620	510	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Benzene	**110**	W1,J	120	6.0	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	120	25	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Bromoform	ND	W1	120	62	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Bromomethane	ND	W1	120	27	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	120	57	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	120	32	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Chlorobenzene	ND	W1	120	16	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	120	60	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Chloroethane	ND J	W1	120	26	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Chloroform	ND	W1	120	85	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Chloromethane	ND	W1	120	30	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	120	34	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	120	30	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Cyclohexane	ND	W1	120	28	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	120	54	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Ethylbenzene	**2000**	W1	120	36	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Isopropylbenzene	**1600**	W1	120	19	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Methyl Acetate	ND	W1	120	59	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	120	47	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Methylcyclohexane	**2400**	W1	120	58	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Methylene Chloride	**62** J	W1,J	120	25	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Styrene	ND	W1	120	30	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	120	17	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Toluene	ND	W1	120	33	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	120	29	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	120	6.0	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Trichloroethene	ND	W1	120	35	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	120	58	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
Vinyl chloride	ND	W1	120	42	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-3 (4-6) (RTL0375-03 - Soil) - cont.							**Sampled: 11/30/10 14:55**		**Recvd: 12/02/10 09:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**260**	W1	250	21	ug/kg dry	1.00	12/08/10 14:28	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*122 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 14:28*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*97 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 14:28*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*113 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 14:28*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		210	56	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		410	73	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		210	32	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		210	51	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2-Methylnaphthalene	**4200**	J	210	2.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2-Methylphenol	ND		210	6.4	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2-Nitroaniline	ND		410	67	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2-Nitrophenol	ND		210	9.6	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
3-Nitroaniline	ND		410	48	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		410	72	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		210	66	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		210	8.6	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Chloroaniline	ND		210	61	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Nitroaniline	ND		410	23	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Acenaphthene	**120**	J	210	2.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Acetophenone	ND		210	11	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Anthracene	**50**	J	210	5.4	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Atrazine	ND		210	9.3	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Benzo[a]anthracene	**19**	J	210	3.6	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Benzo[a]pyrene	ND		210	5.0	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Benzo[b]fluoranthene	ND		210	4.1	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND		210	2.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		210	2.3	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Biphenyl	**29**	J	210	13	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	**210**	B	210	67	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-3 (4-6) (RTL0375-03 - Soil) - cont. **Sampled: 11/30/10 14:55** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		210	56	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Caprolactam	ND		210	90	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Carbazole	**33**	J	210	2.4	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Chrysene	**17**	J	210	2.1	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		210	2.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Dibenzofuran	**130**	J	210	2.2	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Diethyl phthalate	ND		210	6.3	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		210	72	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Fluoranthene	**59**	J	210	3.0	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Fluorene	**290**	J	210	4.8	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		210	63	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		210	5.8	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Isophorone	ND		210	10	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Naphthalene	**2600**	J	210	3.5	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Nitrobenzene	ND		210	9.3	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		210	11	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Pentachlorophenol	ND		410	72	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Phenanthrene	**450**		210	4.4	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Phenol	ND		210	22	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
Pyrene	**58**	J	210	1.4	ug/kg dry	1.00	12/07/10 20:30	MKP	10L0180	8270C
2,4,6-Tribromophenol	*139 %*		*Surr Limits: (39-146%)*				*12/07/10 20:30*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*107 %*		*Surr Limits: (37-120%)*				*12/07/10 20:30*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*82 %*		*Surr Limits: (18-120%)*				*12/07/10 20:30*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*100 %*		*Surr Limits: (34-132%)*				*12/07/10 20:30*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*100 %*		*Surr Limits: (11-120%)*				*12/07/10 20:30*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*127 %*		*Surr Limits: (58-147%)*				*12/07/10 20:30*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2810**	J	12.3	5.4	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Antimony	ND		18.4	0.7	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Arsenic	**2.3**	J	2.5	0.5	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Barium	**16.0**		0.614	0.135	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Beryllium	**0.113**	J	0.246	0.034	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Cadmium	0.246 ~~0.454~~ UB ~~J,B~~ J		0.246	0.037	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Calcium	**1670**	~~B~~	61.4	4.1	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Chromium	**5.67**		0.614	0.246	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Cobalt	**1.76**		0.614	0.061	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Copper	**7.4**	J	1.2	0.3	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Iron	**5450**	J	12.3	1.4	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Lead	**25.9**	J	1.2	0.3	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Magnesium	**1330**		24.6	1.1	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Manganese	**68.7**	J ~~B~~	0.2	0.04	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-3 (4-6) (RTL0375-03 - Soil) - cont.						**Sampled: 11/30/10 14:55**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.19**	J	6.14	0.282	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Potassium	**498**		36.8	24.6	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Selenium	ND		4.9	0.7	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Silver	ND		0.614	0.246	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Sodium	**66.9**	J	172	16.0	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Thallium	ND		7.4	0.4	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Vanadium	**8.45**		0.614	0.135	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Zinc	**20.2**	J B	2.5	0.2	mg/kg dry	1.00	12/04/10 12:56	LMH	10L0208	6010B
Mercury	**0.0184**	J	0.0244	0.0099	mg/kg dry	1.00	12/06/10 12:54	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	12/03/10 13:04	JRR	10L0204	Dry Weight
Ferrous Iron	**0.5**	J	2.5	0.4	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**569**	J	126	63.1	mg/kg dry	1.00	12/08/10 13:14	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**6430**	J	1550	1550	mg/Kg dry	1.00	12/06/10 21:07	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**35.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**64.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-2-113010 (RTL0375-06 - Soil)						**Sampled: 11/30/10**			**Recvd: 12/02/10 09:00**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1	190	52	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	190	31	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	190	40	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	190	95	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	190	58	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	190	65	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	190	72	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	190	95	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	190	7.2	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	190	48	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	190	77	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	190	31	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	190	51	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	190	27	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
2-Butanone	ND	W1	950	560	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
2-Hexanone	ND	W1	950	390	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	950	61	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Acetone	ND	W1	950	780	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Benzene	**110**	W1,J	190	9.1	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	190	38	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Bromoform	ND	W1	190	95	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Bromomethane	ND	W1	190	42	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	190	86	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	190	48	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Chlorobenzene	ND	W1	190	25	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	190	92	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Chloroethane	ND J	W1	190	39	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Chloroform	ND	W1	190	130	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Chloromethane	ND	W1	190	45	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	190	52	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	190	45	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Cyclohexane	ND	W1	190	42	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	190	83	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Ethylbenzene	**10000**	W1	190	55	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Isopropylbenzene	**5200**	W1	190	28	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Methyl Acetate	ND	W1	190	90	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	190	72	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Methylcyclohexane	**6400**	W1	190	89	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Methylene Chloride	ND J	W1	190	37	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Styrene	ND	W1	190	46	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	190	25	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Toluene	**390**	W1	190	51	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	190	45	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	190	9.1	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Trichloroethene	ND	W1	190	53	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	190	89	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
Vinyl chloride	ND	W1	190	63	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: DUP-2-113010 (RTL0375-06 - Soil) - cont. **Sampled: 11/30/10** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**8200**	~~W1~~	380	32	ug/kg dry	1.00	12/08/10 15:32	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*133 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 15:32*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*74 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 15:32*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*104 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 15:32*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	~~D08~~	3200	700	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND	~~D08~~	3200	210	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,4-Dichlorophenol	ND	~~D08~~	3200	170	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,4-Dimethylphenol	ND	~~D08~~	3200	870	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,4-Dinitrophenol	ND	~~D08~~	6300	1100	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND	~~D08~~	3200	500	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,6-Dinitrotoluene	**2000**	~~D08~~,J	3200	790	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2-Chloronaphthalene	ND	~~D08~~	3200	220	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2-Chlorophenol	ND	~~D08~~	3200	160	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2-Methylnaphthalene	**62000**	~~D08~~	3200	39	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2-Methylphenol	ND	~~D08~~	3200	99	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2-Nitroaniline	ND	~~D08~~	6300	1000	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2-Nitrophenol	ND	~~D08~~	3200	150	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND	~~D08~~	3200	2800	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
3-Nitroaniline	ND	~~D08~~	6300	740	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND	~~D08~~	6300	1100	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND	~~D08~~	3200	1000	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND	~~D08~~	3200	130	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Chloroaniline	ND	~~D08~~	3200	950	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND	~~D08~~	3200	69	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Methylphenol	ND	~~D08~~	6300	180	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Nitroaniline	ND	~~D08~~	6300	360	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
4-Nitrophenol	ND	~~D08~~	6300	780	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Acenaphthene	**1800**	~~D08~~,J	3200	38	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Acenaphthylene	ND	~~D08~~	3200	26	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Acetophenone	ND	~~D08~~	3200	170	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Anthracene	**980**	~~D08~~,J	3200	83	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Atrazine	ND	~~D08~~	3200	140	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Benzaldehyde	ND	~~D08~~	3200	350	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Benzo[a]anthracene	**400**	~~D08~~,J	3200	56	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Benzo[a]pyrene	ND	~~D08~~	3200	78	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Benzo[b]fluoranthene	**390**	~~D08~~,J	3200	63	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Benzo[g,h,i]perylene	**220**	~~D08~~,J	3200	39	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND	~~D08~~	3200	35	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Biphenyl	**1500**	~~D08~~,J	3200	200	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND	~~D08~~	3200	180	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND	~~D08~~	3200	280	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND	~~D08~~	3200	340	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	3200 ~~2700~~ UB	~~D08,J, B~~	3200	1000	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-2-113010 (RTL0375-06 - Soil) - cont.						**Sampled: 11/30/10**		**Recvd: 12/02/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D08	3200	870	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Caprolactam	ND	D08	3200	1400	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Carbazole	ND	D08	3200	37	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Chrysene	**450**	D08,J	3200	32	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND	D08	3200	38	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Dibenzofuran	**1500**	D08,J	3200	34	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Diethyl phthalate	ND	D08	3200	97	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Dimethyl phthalate	ND	D08	3200	84	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Di-n-butyl phthalate	ND	D08	3200	1100	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Di-n-octyl phthalate	ND	D08	3200	75	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Fluoranthene	**1400**	D08,J	3200	47	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Fluorene	**2800**	D08,J	3200	74	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Hexachlorobenzene	ND	D08	3200	160	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Hexachlorobutadiene	ND	D08	3200	160	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND	D08	3200	970	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Hexachloroethane	ND	D08	3200	250	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND	D08	3200	89	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Isophorone	ND	D08	3200	160	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Naphthalene	**29000**	D08	3200	54	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Nitrobenzene	ND	D08	3200	140	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND	D08	3200	260	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND	D08	3200	180	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Pentachlorophenol	ND	D08	6300	1100	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Phenanthrene	**6500**	D08	3200	68	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Phenol	ND	D08	3200	340	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
Pyrene	**1300**	D08,J	3200	21	ug/kg dry	10.0	12/07/10 20:54	MKP	10L0180	8270C
2,4,6-Tribromophenol	*53 %*	*D08*	*Surr Limits: (39-146%)*				*12/07/10 20:54*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*94 %*	*D08*	*Surr Limits: (37-120%)*				*12/07/10 20:54*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*73 %*	*D08*	*Surr Limits: (18-120%)*				*12/07/10 20:54*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*104 %*	*D08*	*Surr Limits: (34-132%)*				*12/07/10 20:54*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*94 %*	*D08*	*Surr Limits: (11-120%)*				*12/07/10 20:54*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*87 %*	*D08*	*Surr Limits: (58-147%)*				*12/07/10 20:54*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4990**	J	19.2	8.5	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Antimony	ND		28.9	1.0	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Arsenic	**3.0**	J	3.8	0.8	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Barium	**27.0**		0.962	0.212	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Beryllium	**0.227**	J	0.385	0.054	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Cadmium	**0.389**	J B	0.385	0.058	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Calcium	**61900**	B	96.2	6.4	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Chromium	**7.99**		0.962	0.385	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Cobalt	**3.26**		0.962	0.096	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Copper	**11.6**	J	1.9	0.4	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Iron	**7700**	J	19.2	2.1	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Lead	**72.6**	J	1.9	0.5	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Magnesium	**35800**		38.5	1.8	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Manganese	**110**	J B	0.4	0.06	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-2-113010 (RTL0375-06 - Soil) - cont.						**Sampled: 11/30/10**			**Recvd: 12/02/10 09:00**	
Total Metals by SW 846 Series Methods - cont.										
Nickel	**7.77**	J	9.62	0.443	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Potassium	**597**		57.7	38.5	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Selenium	ND		7.7	1.1	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Silver	ND		0.962	0.385	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Sodium	**169**	J	269	25.0	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Thallium	ND		11.5	0.6	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Vanadium	**11.9**		0.962	0.212	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Zinc	**37.8**	J B	3.8	0.3	mg/kg dry	1.00	12/04/10 13:10	LMH	10L0208	6010B
Mercury	**0.0770**		0.0353	0.0143	mg/kg dry	1.00	12/06/10 13:01	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**52**		0.010	NR	%	1.00	12/03/10 13:06	JRR	10L0204	Dry Weight
Ferrous Iron	**2.3**	J	3.9	0.6	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**717**		192	96.0	mg/kg dry	1.00	12/08/10 10:48	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**10800**		1130	1130	mg/Kg dry	1.00	12/06/10 21:46	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**11.7**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**88.3**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-6-120110 (RTL0375-07 - Water) — **Sampled: 12/01/10** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	J	1.0	0.31	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2-Dibromo-3-chloropropane	ND	J	1.0	0.39	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Acetone	ND		5.0	3.0	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Bromoform	ND	J	1.0	0.26	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Carbon disulfide	ND	J	1.0	0.19	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Carbon Tetrachloride	ND	J	1.0	0.27	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Dibromochloromethane	ND	J	1.0	0.32	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Cyclohexane	ND	J	1.0	0.18	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Dichlorodifluoromethane	ND	J	1.0	0.68	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-6-120110 (RTL0375-07 - Water) - cont.						**Sampled: 12/01/10**			**Recvd: 12/02/10 09:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	12/13/10 15:23	RJ	10L1040	8260B
1,2-Dichloroethane-d4	*109 %*		*Surr Limits: (66-137%)*				*12/13/10 15:23*	*RJ*	*10L1040*	*8260B*
4-Bromofluorobenzene	*97 %*		*Surr Limits: (73-120%)*				*12/13/10 15:23*	*RJ*	*10L1040*	*8260B*
Toluene-d8	*113 %*		*Surr Limits: (71-126%)*				*12/13/10 15:23*	*RJ*	*10L1040*	*8260B*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-10 (8.5-9.5) (RTL0375-08 - Soil) — **Sampled: 12/01/10 07:45** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	200	54	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	200	32	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	200	41	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	200	98	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	200	61	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	200	68	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	200	74	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	200	98	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	200	7.5	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	200	50	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	200	80	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	200	32	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	200	52	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	200	28	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
2-Butanone	ND	W1	980	580	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
2-Hexanone	ND	W1	980	400	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	980	63	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Acetone	ND	W1	980	810	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Benzene	480	W1	200	9.4	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	200	39	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Bromoform	ND	W1	200	98	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Bromomethane	ND	W1	200	43	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	200	89	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	200	50	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Chlorobenzene	ND	W1	200	26	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	200	95	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Chloroethane	ND J	W1	200	41	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Chloroform	ND	W1	200	130	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Chloromethane	ND	W1	200	47	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
cis-1,2-Dichloroethene	~~74000~~ 110000	W1,E D	200	54	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	200	47	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Cyclohexane	ND	W1	200	44	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	200	86	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Ethylbenzene	830	W1	200	57	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Isopropylbenzene	ND	W1	200	29	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Methyl Acetate	ND	W1	200	94	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	~~4800~~ 6700	~~W1~~ D	200	74	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Methylcyclohexane	ND	~~W1~~	200	92	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Methylene Chloride	1100 ~~520~~ J	~~W1~~ DJ	200	39	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Styrene	ND	W1	200	47	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	200	26	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Toluene	~~1900~~ 2700	~~W1~~ D	200	53	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
trans-1,2-Dichloroethene	~~2200~~ 3300	~~W1~~ D	200	46	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	~~W1~~	200	9.4	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Trichloroethene	130	W1,J	200	55	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Trichlorofluoromethane	ND	~~W1~~	200	92	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
Vinyl chloride	~~1300~~ 2300	~~W1~~ D	200	66	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (8.5-9.5) (RTL0375-08 - Soil) - cont.						**Sampled: 12/01/10 07:45**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	~~4700~~ 640	~~W1~~ D	390	33	ug/kg dry	1.00	12/08/10 15:53	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*103 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 15:53*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*102 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 15:53*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*114 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 15:53*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		340	73	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		340	22	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		340	18	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		340	91	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		660	120	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		340	52	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		340	82	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2-Chloronaphthalene	ND		340	22	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2-Chlorophenol	ND		340	17	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2-Methylnaphthalene	ND		340	4.1	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2-Methylphenol	ND		340	10	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2-Nitroaniline	ND		660	110	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2-Nitrophenol	ND		340	15	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		340	290	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
3-Nitroaniline	ND		660	77	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		660	120	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		340	110	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		340	14	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Chloroaniline	ND		340	98	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		340	7.1	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Methylphenol	**900**		660	19	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Nitroaniline	ND		660	37	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
4-Nitrophenol	ND		660	81	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Acenaphthene	ND		340	3.9	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Acenaphthylene	ND		340	2.7	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Acetophenone	ND		340	17	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Anthracene	ND		340	8.6	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Atrazine	ND		340	15	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Benzaldehyde	ND		340	37	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Benzo[a]anthracene	ND		340	5.8	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Benzo[a]pyrene	ND		340	8.1	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Benzo[b]fluoranthene	ND		340	6.5	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND		340	4.0	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		340	3.7	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Biphenyl	ND		340	21	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		340	18	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		340	29	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		340	35	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	340 ~~300~~	UB ~~J, B~~	340	110	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-10 (8.5-9.5) (RTL0375-08 - Soil) - cont. **Sampled: 12/01/10 07:45** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		340	90	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Caprolactam	ND		340	150	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Carbazole	ND		340	3.9	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Chrysene	ND		340	3.4	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		340	3.9	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Dibenzofuran	ND		340	3.5	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Diethyl phthalate	ND		340	10	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Dimethyl phthalate	ND		340	8.7	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		340	120	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		340	7.8	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Fluoranthene	ND		340	4.9	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Fluorene	ND		340	7.7	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Hexachlorobenzene	ND		340	17	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Hexachlorobutadiene	ND		340	17	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		340	100	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Hexachloroethane	ND		340	26	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		340	9.3	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Isophorone	ND		340	17	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Naphthalene	ND		340	5.6	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Nitrobenzene	ND		340	15	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		340	27	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		340	18	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Pentachlorophenol	ND		660	110	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Phenanthrene	ND		340	7.0	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Phenol	**210**	J	340	35	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
Pyrene	ND		340	2.2	ug/kg dry	1.00	12/07/10 21:18	MKP	10L0180	8270C
2,4,6-Tribromophenol	*128 %*		*Surr Limits: (39-146%)*				*12/07/10 21:18*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*102 %*		*Surr Limits: (37-120%)*				*12/07/10 21:18*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*77 %*		*Surr Limits: (18-120%)*				*12/07/10 21:18*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*90 %*		*Surr Limits: (34-132%)*				*12/07/10 21:18*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*94 %*		*Surr Limits: (11-120%)*				*12/07/10 21:18*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*131 %*		*Surr Limits: (58-147%)*				*12/07/10 21:18*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**12300**	J	20.3	8.9	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Antimony	ND		30.4	1.1	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Arsenic	**8.6**		4.1	0.8	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Barium	**32.1**		1.01	0.223	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Beryllium	**0.580**		0.406	0.057	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Cadmium	**0.418**	J B	0.406	0.061	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Calcium	**2330**	B	101	6.7	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Chromium	**35.3**		1.01	0.406	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Cobalt	**6.38**		1.01	0.101	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Copper	**10.8**	J	2.0	0.4	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Iron	**27700**	J	20.3	2.2	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Lead	**12.4**	J	2.0	0.5	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Magnesium	**5730**		40.6	1.9	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Manganese	**204**	J B	0.4	0.06	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (8.5-9.5) (RTL0375-08 - Soil) - cont.						**Sampled: 12/01/10 07:45**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**20.8**		10.1	0.467	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Potassium	**3410**		60.9	40.6	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Selenium	ND		8.1	1.2	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Silver	ND		1.01	0.406	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Sodium	**1790**		284	26.4	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Thallium	ND		12.2	0.6	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Vanadium	**41.9**		1.01	0.223	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Zinc	**51.6**	J B	4.1	0.3	mg/kg dry	1.00	12/04/10 13:12	LMH	10L0208	6010B
Mercury	**0.181**		0.0403	0.0163	mg/kg dry	1.00	12/06/10 13:06	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**49**		0.010	NR	%	1.00	12/03/10 13:08	JRR	10L0204	Dry Weight
Ferrous Iron	**2.0**	J	4.1	0.6	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**2240**	~~D08~~	1010	505	mg/kg dry	5.00	12/08/10 11:33	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**30900**		1870	1870	mg/Kg dry	1.00	12/06/10 21:59	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**46.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**53.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-10 (8.5-9.5) (RTL0375-08RE1 - Soil) **Sampled: 12/01/10 07:45** **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1, D08, W1	1600	440	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	N1, D08, W1	1600	260	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	N1, D08, W1	1600	330	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1, D08, W1	1600	790	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,1-Dichloroethane	ND	N1, D08, W1	1600	490	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,1-Dichloroethene	ND	N1, D08, W1	1600	540	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	N1, D08, W1	1600	600	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	N1, D08, W1	1600	790	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2-Dibromoethane	ND	N1, D08, W1	1600	60	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	N1, D08, W1	1600	400	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2-Dichloroethane	ND	N1, D08, W1	1600	640	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2-Dichloropropane	ND	N1, D08, W1	1600	250	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	N1, D08, W1	1600	420	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	N1, D08, W1	1600	220	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
2-Butanone	ND	N1, D08, W1	7900	4700	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
2-Hexanone	ND	N1, D08, W1	7900	3200	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	N1, D08, W1	7900	500	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Acetone	ND	N1, D08, W1	7900	6500	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Benzene	ND	N1, D08, W1	1600	75	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Bromodichloromethane	ND	N1, D08, W1	1600	310	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Bromoform	ND	N1, D08, W1	1600	790	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Bromomethane	ND	N1, D08, W1	1600	350	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Carbon disulfide	ND	N1, D08, W1	1600	720	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Carbon Tetrachloride	ND	N1, D08, W1	1600	400	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Chlorobenzene	ND	N1, D08, W1	1600	210	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Dibromochloromethane	ND	N1, D08, W1	1600	760	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (8.5-9.5) (RTL0375-08RE1 - Soil) - cont.						**Sampled: 12/01/10 07:45**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Chloroethane	ND	N1, D08, W1	1600	330	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Chloroform	ND	N1, D08, W1	1600	1100	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Chloromethane	ND	N1, D08, W1	1600	370	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
cis-1,2-Dichloroethene	**110000**	N1, D08, W1	1600	430	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	N1, D08, W1	1600	380	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Cyclohexane	ND	N1, D08, W1	1600	350	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	N1, D08, W1	1600	690	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Ethylbenzene	**1100**	N1, D08, W1,J	1600	460	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Isopropylbenzene	ND	N1, D08, W1	1600	240	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Methyl Acetate	ND	N1, D08, W1	1600	750	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	**6700**	N1, D08, W1	1600	590	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Methylcyclohexane	ND	N1, D08, W1	1600	740	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Methylene Chloride	**1100**	N1, D08, W1,J	1600	310	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Styrene	ND	N1, D08, W1	1600	380	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Tetrachloroethene	ND	N1, D08, W1	1600	210	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Toluene	**2700**	N1, D08, W1	1600	420	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
trans-1,2-Dichloroethene	**3300**	N1, D08, W1	1600	370	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	N1, D08, W1	1600	75	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Trichloroethene	ND	N1, D08, W1	1600	440	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Trichlorofluoromethane	ND	N1, D08, W1	1600	740	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Vinyl chloride	**2300**	N1, D08, W1	1600	530	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
Xylenes, total	**6400**	N1, D08, W1	3100	260	ug/kg dry	8.00	12/09/10 12:00	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*103 %*	*N1, D08, W1*	*Surr Limits: (53-146%)*				*12/09/10 12:00*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*93 %*	*N1, D08, W1*	*Surr Limits: (49-148%)*				*12/09/10 12:00*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*106 %*	*N1, D08, W1*	*Surr Limits: (50-149%)*				*12/09/10 12:00*	*DHC*	*10L0623*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (12-14) (RTL0375-09 - Soil)						**Sampled: 12/01/10 07:55**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1	130	35	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	130	21	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	130	27	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	130	63	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	130	39	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	130	44	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	130	48	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	130	63	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	130	4.8	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	130	32	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	130	52	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	130	20	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	130	34	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	130	18	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
2-Butanone	ND	W1	630	380	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
2-Hexanone	ND	W1	630	260	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	630	40	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Acetone	ND	W1	630	520	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Benzene	ND	W1	130	6.1	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	130	25	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Bromoform	ND	W1	130	63	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Bromomethane	ND	W1	130	28	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	130	57	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	130	32	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Chlorobenzene	ND	W1	130	17	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	130	61	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Chloroethane	ND J	W1	130	26	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Chloroform	ND	W1	130	87	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Chloromethane	ND	W1	130	30	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	130	35	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	130	30	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Cyclohexane	ND	W1	130	28	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	130	55	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Ethylbenzene	ND	W1	130	37	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Isopropylbenzene	ND	W1	130	19	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Methyl Acetate	ND	W1	130	60	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	**880**	W1	130	48	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Methylcyclohexane	ND	W1	130	59	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Methylene Chloride	**1000** J	W1	130	25	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Styrene	ND	W1	130	30	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	130	17	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Toluene	ND	W1	130	34	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	130	30	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	130	6.1	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Trichloroethene	ND	W1	130	35	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	130	59	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
Vinyl chloride	**95**	W1,J	130	42	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-10 (12-14) (RTL0375-09 - Soil) - cont. **Sampled: 12/01/10 07:55** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~W1~~	250	21	ug/kg dry	1.00	12/08/10 16:15	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*118 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 16:15*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*118 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 16:15*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*134 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 16:15*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		220	47	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		220	14	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		220	11	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		220	58	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		420	76	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		220	33	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		220	53	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2-Chloronaphthalene	ND		220	14	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2-Chlorophenol	ND		220	11	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2-Methylnaphthalene	ND		220	2.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2-Methylphenol	ND		220	6.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2-Nitroaniline	ND		420	69	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2-Nitrophenol	ND		220	9.9	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		220	190	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
3-Nitroaniline	ND		420	50	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		420	75	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		220	69	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		220	8.9	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Chloroaniline	ND		220	63	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		220	4.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Methylphenol	**26**	J	420	12	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Nitroaniline	ND		420	24	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
4-Nitrophenol	ND		420	52	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Acenaphthene	ND		220	2.5	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Acenaphthylene	ND		220	1.8	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Acetophenone	ND		220	11	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Anthracene	ND		220	5.5	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Atrazine	ND		220	9.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Benzaldehyde	ND		220	24	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Benzo[a]anthracene	ND		220	3.7	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Benzo[a]pyrene	ND		220	5.2	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Benzo[b]fluoranthene	ND		220	4.2	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND		220	2.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		220	2.4	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Biphenyl	ND		220	13	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		220	12	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		220	19	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		220	23	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	220 ~~190~~	UG ~~J, B~~	220	70	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (12-14) (RTL0375-09 - Soil) - cont.						**Sampled: 12/01/10 07:55**		**Recvd: 12/02/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		220	58	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Caprolactam	ND		220	93	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Carbazole	ND		220	2.5	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Chrysene	ND		220	2.2	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		220	2.5	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Dibenzofuran	ND		220	2.2	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Diethyl phthalate	ND		220	6.5	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Dimethyl phthalate	ND		220	5.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		220	75	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		220	5.1	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Fluoranthene	ND		220	3.1	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Fluorene	ND		220	5.0	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Hexachlorobenzene	ND		220	11	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Hexachlorobutadiene	ND		220	11	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		220	65	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Hexachloroethane	ND		220	17	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		220	6.0	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Isophorone	ND		220	11	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Naphthalene	ND		220	3.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Nitrobenzene	ND		220	9.6	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		220	17	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		220	12	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Pentachlorophenol	ND		420	74	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Phenanthrene	ND		220	4.5	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Phenol	ND		220	23	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
Pyrene	ND		220	1.4	ug/kg dry	1.00	12/07/10 21:42	MKP	10L0180	8270C
2,4,6-Tribromophenol	*104 %*		*Surr Limits: (39-146%)*				*12/07/10 21:42*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*79 %*		*Surr Limits: (37-120%)*				*12/07/10 21:42*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*65 %*		*Surr Limits: (18-120%)*				*12/07/10 21:42*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*75 %*		*Surr Limits: (34-132%)*				*12/07/10 21:42*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*77 %*		*Surr Limits: (11-120%)*				*12/07/10 21:42*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*95 %*		*Surr Limits: (58-147%)*				*12/07/10 21:42*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**8940**	J	12.5	5.5	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Antimony	ND		18.8	0.7	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Arsenic	**11.0**		2.5	0.5	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Barium	**21.4**		0.627	0.138	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Beryllium	**0.430**		0.251	0.035	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Cadmium	**0.306**	J B	0.251	0.038	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Calcium	**2490**	B	62.7	4.1	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Chromium	**25.6**		0.627	0.251	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Cobalt	**4.99**		0.627	0.063	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Copper	**8.3**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Iron	**24100**	J	12.5	1.4	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Lead	**8.8**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Magnesium	**4580**		25.1	1.2	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Manganese	**176**	J B	0.3	0.04	mg/kg dry	1.00	12/04/10 13.14	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (12-14) (RTL0375-09 - Soil) - cont.						**Sampled: 12/01/10 07:55**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**15.8**		6.27	0.289	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Potassium	**2660**		37.6	25.1	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Selenium	**0.9**	J	5.0	0.7	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Silver	ND		0.627	0.251	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Sodium	**3340**		176	16.3	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Thallium	ND		7.5	0.4	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Vanadium	**32.2**		0.627	0.138	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Zinc	**39.0**	J ~~B~~	2.5	0.2	mg/kg dry	1.00	12/04/10 13:14	LMH	10L0208	6010B
Mercury	**0.0354**		0.0242	0.0098	mg/kg dry	1.00	12/06/10 13:08	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**78**		0.010	NR	%	1.00	12/03/10 13:10	JRR	10L0204	Dry Weight
Ferrous Iron	**1.4**	J	2.6	0.4	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**2020**	~~D08~~	640	320	mg/kg dry	5.00	12/08/10 11:33	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**10100**		1460	1460	mg/Kg dry	1.00	12/06/10 22:12	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**31.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**68.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-10 (14-15) (RTL0375-10 - Soil) — **Sampled: 12/01/10 08:10** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	200	56	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	200	33	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	200	42	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	200	100	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	200	62	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	200	70	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	200	76	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	200	100	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	200	7.7	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	200	51	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	200	83	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	200	33	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	200	54	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	200	28	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
2-Butanone	ND	W1	1000	600	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
2-Hexanone	ND	W1	1000	410	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	1000	65	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Acetone	ND	W1	1000	830	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Benzene	ND	W1	200	9.7	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	200	40	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Bromoform	ND	W1	200	100	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Bromomethane	ND	W1	200	44	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	200	92	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	200	51	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Chlorobenzene	ND	W1	200	27	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	200	98	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Chloroethane	ND J	W1	200	42	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Chloroform	ND	W1	200	140	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Chloromethane	ND	W1	200	48	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
cis-1,2-Dichloroethene	**4400**	W1	200	56	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	200	48	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Cyclohexane	ND	W1	200	45	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	200	88	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Ethylbenzene	ND	W1	200	59	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Isopropylbenzene	ND	W1	200	30	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Methyl Acetate	ND	W1	200	96	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	**1800**	W1	200	76	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Methylcyclohexane	ND	W1	200	94	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Methylene Chloride	**680** J	W1	200	40	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Styrene	ND	W1	200	49	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	200	27	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Toluene	**180**	W1,J	200	54	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	200	48	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	200	9.7	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Trichloroethene	ND	W1	200	56	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	200	95	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
Vinyl chloride	**120**	W1,J	200	68	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (14-15) (RTL0375-10 - Soil) - cont.							**Sampled: 12/01/10 08:10**		**Recvd: 12/02/10 09:00**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	170	W1,J	400	34	ug/kg dry	1.00	12/08/10 16:36	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*115 %*	*W1*	*Surr Limits: (53-146%)*				*12/08/10 16:36*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*113 %*	*W1*	*Surr Limits: (49-148%)*				*12/08/10 16:36*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*128 %*	*W1*	*Surr Limits: (50-149%)*				*12/08/10 16:36*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		340	75	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		340	23	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		340	18	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		340	92	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		670	120	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		340	53	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		340	84	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2-Chloronaphthalene	ND		340	23	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2-Chlorophenol	ND		340	17	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2-Methylnaphthalene	ND		340	4.1	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2-Methylphenol	ND		340	11	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2-Nitroaniline	ND		670	110	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2-Nitrophenol	ND		340	16	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		340	300	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
3-Nitroaniline	ND		670	79	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		670	120	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		340	110	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		340	14	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Chloroaniline	ND		340	100	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		340	7.3	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Methylphenol	230	J	670	19	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Nitroaniline	ND		670	38	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
4-Nitrophenol	ND		670	83	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Acenaphthene	ND		340	4.0	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Acenaphthylene	ND		340	2.8	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Acetophenone	ND		340	18	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Anthracene	ND		340	8.8	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Atrazine	ND		340	15	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Benzaldehyde	ND		340	38	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Benzo[a]anthracene	ND		340	5.9	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Benzo[a]pyrene	ND		340	8.2	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Benzo[b]fluoranthene	ND		340	6.6	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND		340	4.1	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		340	3.8	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Biphenyl	ND		340	21	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		340	19	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		340	30	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		340	36	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	390	U B	340	110	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-10 (14-15) (RTL0375-10 - Soil) - cont.						**Sampled: 12/01/10 08:10**		**Recvd: 12/02/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		340	92	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Caprolactam	ND		340	150	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Carbazole	ND		340	4.0	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Chrysene	ND		340	3.4	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		340	4.0	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Dibenzofuran	ND		340	3.6	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Diethyl phthalate	ND		340	10	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Dimethyl phthalate	ND		340	8.9	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		340	120	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		340	8.0	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Fluoranthene	ND		340	5.0	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Fluorene	ND		340	7.9	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Hexachlorobenzene	ND		340	17	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Hexachlorobutadiene	ND		340	18	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		340	100	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Hexachloroethane	ND		340	26	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		340	9.5	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Isophorone	ND		340	17	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Naphthalene	ND		340	5.7	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Nitrobenzene	ND		340	15	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		340	27	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		340	19	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Pentachlorophenol	ND		670	120	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Phenanthrene	ND		340	7.2	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Phenol	ND		340	36	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
Pyrene	ND		340	2.2	ug/kg dry	1.00	12/07/10 22:05	MKP	10L0180	8270C
2,4,6-Tribromophenol	*109 %*		*Surr Limits: (39-146%)*				*12/07/10 22:05*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*88 %*		*Surr Limits: (37-120%)*				*12/07/10 22:05*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*64 %*		*Surr Limits: (18-120%)*				*12/07/10 22:05*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*76 %*		*Surr Limits: (34-132%)*				*12/07/10 22:05*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*79 %*		*Surr Limits: (11-120%)*				*12/07/10 22:05*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*101 %*		*Surr Limits: (58-147%)*				*12/07/10 22:05*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**10800**	J	20.2	8.9	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Antimony	ND		30.3	1.1	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Arsenic	**13.4**		4.0	0.8	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Barium	**27.1**		1.01	0.223	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Beryllium	**0.465**		0.405	0.057	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Cadmium	**0.326**	J, B	0.405	0.061	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Calcium	**2050**	B	101	6.7	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Chromium	**29.1**		1.01	0.405	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Cobalt	**5.86**		1.01	0.101	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Copper	**10.1**	J	2.0	0.4	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Iron	**28200**	J	20.2	2.2	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Lead	**12.9**	J	2.0	0.5	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Magnesium	**5300**		40.5	1.9	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Manganese	**217**	J, B	0.4	0.06	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-10 (14-15) (RTL0375-10 - Soil) - cont. **Sampled: 12/01/10 08:10** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Total Metals by SW 846 Series Methods - cont.										
Nickel	**18.3**		10.1	0.465	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Potassium	**2890**		60.7	40.5	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Selenium	**1.4**	J	8.1	1.2	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Silver	ND		1.01	0.405	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Sodium	**4840**		283	26.3	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Thallium	ND		12.1	0.6	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Vanadium	**40.1**		1.01	0.223	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Zinc	**44.8**	J B	4.0	0.3	mg/kg dry	1.00	12/04/10 13:16	LMH	10L0208	6010B
Mercury	ND		0.0378	0.0153	mg/kg dry	1.00	12/06/10 13:10	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**49**		0.010	NR	%	1.00	12/03/10 13:12	JRR	10L0204	Dry Weight
Ferrous Iron	**2.9**	J	4.1	0.6	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**3350**	~~D08~~	1010	506	mg/kg dry	5.00	12/08/10 11:37	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**18100**		1670	1670	mg/Kg dry	1.00	12/06/10 22:38	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**40.3**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**59.7**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-5-120110 (RTL0375-11 - Water) — **Sampled: 12/01/10 16:00** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	J	1.0	0.31	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2-Dibromo-3-chloropropane	ND	J	1.0	0.39	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Acetone	ND		5.0	3.0	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Bromoform	ND	J	1.0	0.26	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Carbon disulfide	ND	J	1.0	0.19	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Carbon Tetrachloride	ND	J	1.0	0.27	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Dibromochloromethane	ND	J	1.0	0.32	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Cyclohexane	ND	J	1.0	0.18	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Dichlorodifluoromethane	ND	J	1.0	0.68	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-5-120110 (RTL0375-11 - Water) - cont. **Sampled: 12/01/10 16:00** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	12/13/10 15:46	RJ	10L1040	8260B
1,2-Dichloroethane-d4	*109 %*		*Surr Limits: (66-137%)*				*12/13/10 15:46*	*RJ*	*10L1040*	*8260B*
4-Bromofluorobenzene	*96 %*		*Surr Limits: (73-120%)*				*12/13/10 15:46*	*RJ*	*10L1040*	*8260B*
Toluene-d8	*113 %*		*Surr Limits: (71-126%)*				*12/13/10 15:46*	*RJ*	*10L1040*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,4-Dichlorophenol	ND		5.2	0.53	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,4-Dimethylphenol	ND		5.2	0.52	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,4-Dinitrophenol	ND		10	2.3	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2-Chloronaphthalene	ND		5.2	0.48	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2-Chlorophenol	ND		5.2	0.55	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2-Methylnaphthalene	ND		5.2	0.62	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2-Methylphenol	ND		5.2	0.42	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2-Nitroaniline	ND		10	0.44	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2-Nitrophenol	ND		5.2	0.50	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
3-Nitroaniline	ND		10	0.50	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Chloroaniline	ND		5.2	0.61	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Methylphenol	ND		10	0.38	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Nitroaniline	ND		10	0.26	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
4-Nitrophenol	ND		10	1.6	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Acenaphthene	ND		5.2	0.43	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Acenaphthylene	ND		5.2	0.40	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Acetophenone	ND		5.2	0.56	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Anthracene	ND		5.2	0.29	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Atrazine	ND		5.2	0.48	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Benzaldehyde	ND		5.2	0.28	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Benzo(a)anthracene	ND		5.2	0.38	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Benzo(a)pyrene	ND		5.2	0.49	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Benzo(b)fluoranthene	ND		5.2	0.35	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Benzo(ghi)perylene	ND		5.2	0.36	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Benzo(k)fluoranthene	ND		5.2	0.76	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Biphenyl	ND		5.2	0.68	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.2	0.54	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Bis(2-ethylhexyl) phthalate	3.7	J, B	5.2	1.9	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-5-120110 (RTL0375-11 - Water) - cont. **Sampled: 12/01/10 16:00** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		5.2	0.44	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Caprolactam	ND		5.2	2.3	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Carbazole	ND		5.2	0.31	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Chrysene	ND		5.2	0.34	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Dibenzo(a,h)anthracene	ND		5.2	0.44	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Dibenzofuran	ND		5.2	0.53	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Diethyl phthalate	ND		5.2	0.23	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Dimethyl phthalate	ND		5.2	0.38	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Di-n-butyl phthalate	ND		5.2	0.32	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Di-n-octyl phthalate	ND		5.2	0.49	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Fluoranthene	ND		5.2	0.42	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Fluorene	ND		5.2	0.38	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Hexachlorobenzene	ND		5.2	0.53	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Hexachlorobutadiene	ND		5.2	0.71	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Hexachloroethane	ND		5.2	0.61	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Indeno(1,2,3-cd)pyrene	ND		5.2	0.49	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Isophorone	ND		5.2	0.45	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Naphthalene	ND		5.2	0.79	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Nitrobenzene	ND		5.2	0.30	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Pentachlorophenol	ND		10	2.3	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Phenanthrene	ND		5.2	0.46	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Phenol	ND		5.2	0.41	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
Pyrene	ND		5.2	0.35	ug/L	1.00	12/06/10 16:27	MKP	10L0274	8270C
2,4,6-Tribromophenol	*88 %*		*Surr Limits: (52-132%)*				*12/06/10 16:27*	*MKP*	*10L0274*	*8270C*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (48-120%)*				*12/06/10 16:27*	*MKP*	*10L0274*	*8270C*
2-Fluorophenol	*46 %*		*Surr Limits: (20-120%)*				*12/06/10 16:27*	*MKP*	*10L0274*	*8270C*
Nitrobenzene-d5	*77 %*		*Surr Limits: (46-120%)*				*12/06/10 16:27*	*MKP*	*10L0274*	*8270C*
Phenol-d5	*32 %*		*Surr Limits: (16-120%)*				*12/06/10 16:27*	*MKP*	*10L0274*	*8270C*
p-Terphenyl-d14	*88 %*		*Surr Limits: (24-136%)*				*12/06/10 16:27*	*MKP*	*10L0274*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	ND		0.200	0.045	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Barium	ND		0.0020	0.0005	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Calcium	0.1	J	0.5	0.1	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Copper	ND		0.0100	0.0015	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Magnesium	ND		0.200	0.043	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Potassium	ND		0.500	0.200	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-5-120110 (RTL0375-11 - Water) - cont.						**Sampled: 12/01/10 16:00**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.0030	0.0017	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Sodium	ND		1.0	0.3	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Vanadium	ND		0.0050	0.0011	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Zinc	ND		0.0100	0.0017	mg/L	1.00	12/07/10 16:08	LMH	10L0243	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/07/10 12:50	JRK	10L0402	7470A
General Chemistry Parameters										
Ferrous Iron	ND	J ~~HFT~~	0.100	0.0750	mg/L	1.00	12/02/10 21:54	JLN	10L0186	3500FE
Sulfate	**26.8**	B	5.0	1.5	mg/L	1.00	12/13/10 13:55	KLD	10L1115	D-516-90
Total Organic Carbon	**0.8**	J	1.0	0.4	mg/L	1.00	12/06/10 21:57	KLD	10L0430	9060

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-5-120110 (RTL0375-11RE1 - Water)						**Sampled: 12/01/10 16:00**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods										
Iron	ND		0.050	0.019	mg/L	1.00	12/14/10 16:40	AMH	10L1077	6010B
Manganese	ND		0.0030	0.0002	mg/L	1.00	12/14/10 16:40	AMH	10L1077	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-7-120110 (RTL0375-12 - Water)						**Sampled: 12/01/10**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	J	1.0	0.31	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2-Dibromo-3-chloropropane	ND	J	1.0	0.39	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Acetone	ND		5.0	3.0	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Bromoform	ND	J	1.0	0.26	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Carbon disulfide	ND	J	1.0	0.19	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Carbon Tetrachloride	ND	J	1.0	0.27	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Dibromochloromethane	ND	J	1.0	0.32	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Cyclohexane	ND	J	1.0	0.18	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Dichlorodifluoromethane	ND	J	1.0	0.68	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-7-120110 (RTL0375-12 - Water) - cont.						**Sampled: 12/01/10**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	12/13/10 16:09	RJ	10L1040	8260B
1,2-Dichloroethane-d4	*107 %*		*Surr Limits: (66-137%)*				*12/13/10 16:09*	*RJ*	*10L1040*	*8260B*
4-Bromofluorobenzene	*97 %*		*Surr Limits: (73-120%)*				*12/13/10 16:09*	*RJ*	*10L1040*	*8260B*
Toluene-d8	*113 %*		*Surr Limits: (71-126%)*				*12/13/10 16:09*	*RJ*	*10L1040*	*8260B*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (2-4) (RTL0375-13 - Soil) — **Sampled: 12/01/10 11:10** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	130	37	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	130	21	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	130	28	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	130	66	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	130	41	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	130	46	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	130	50	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	130	66	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	130	5.0	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	130	34	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	130	54	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	130	21	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	130	35	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	130	19	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
2-Butanone	ND	W1	660	390	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
2-Hexanone	ND	W1	660	270	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	660	42	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Acetone	ND	W1	660	540	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Benzene	ND	W1	130	6.3	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	130	26	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Bromoform	ND	W1	130	66	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Bromomethane	ND	W1	130	29	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	130	60	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	130	34	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Chlorobenzene	ND	W1	130	17	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	130	64	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Chloroethane	ND J	W1	130	27	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Chloroform	ND	W1	130	91	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Chloromethane	ND	W1	130	31	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	130	36	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	130	32	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Cyclohexane	ND	W1	130	29	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	130	58	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Ethylbenzene	ND	W1	130	38	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Isopropylbenzene	ND	W1	130	20	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Methyl Acetate	ND	W1	130	63	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	130	50	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Methylcyclohexane	ND	W1	130	62	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Methylene Chloride	ND J	W1	130	26	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Styrene	ND	W1	130	32	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	130	18	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Toluene	ND	W1	130	35	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	130	31	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	130	6.3	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Trichloroethene	ND	W1	130	37	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	130	62	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
Vinyl chloride	ND	W1	130	44	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (2-4) (RTL0375-13 - Soil) - cont. **Sampled: 12/01/10 11:10** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~W1~~	260	22	ug/kg dry	1.00	12/08/10 16:57	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*122 %*	~~W1~~	*Surr Limits: (53-146%)*				*12/08/10 16:57*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*118 %*	~~W1~~	*Surr Limits: (49-148%)*				*12/08/10 16:57*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*135 %*	~~W1~~	*Surr Limits: (50-149%)*				*12/08/10 16:57*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		230	49	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		230	15	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		230	12	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		230	61	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		440	79	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		230	35	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		230	56	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2-Chloronaphthalene	ND		230	15	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2-Chlorophenol	ND		230	12	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2-Methylnaphthalene	**400**		230	2.7	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2-Methylphenol	ND		230	7.0	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2-Nitroaniline	ND		440	73	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2-Nitrophenol	ND		230	10	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		230	200	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
3-Nitroaniline	ND		440	52	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		440	78	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		230	72	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		230	9.3	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Chloroaniline	ND		230	67	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		230	4.8	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Methylphenol	ND		440	13	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Nitroaniline	ND		440	25	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
4-Nitrophenol	ND		440	55	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Acenaphthene	**900**		230	2.7	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Acenaphthylene	ND		230	1.9	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Acetophenone	ND		230	12	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Anthracene	**160**	J	230	5.8	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Atrazine	ND		230	10	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Benzaldehyde	ND		230	25	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Benzo[a]anthracene	**79**	J	230	3.9	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Benzo[a]pyrene	**37**	J	230	5.5	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Benzo[b]fluoranthene	**67** JY	~~ID4,J~~	230	4.4	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Benzo[g,h,i]perylene	**16**	J	230	2.7	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Benzo[k]fluoranthene	~~ND~~ 69	J Y	230	2.5	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Biphenyl	**70**	J	230	14	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		230	12	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		230	20	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		230	24	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	230 ~~210~~	UB ~~J,B~~	230	73	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-11 (2-4) (RTL0375-13 - Soil) - cont.						**Sampled: 12/01/10 11:10**		**Recvd: 12/02/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		230	61	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Caprolactam	ND		230	98	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Carbazole	**320**		230	2.6	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Chrysene	**65**	J	230	2.3	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		230	2.7	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Dibenzofuran	**560**		230	2.4	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Diethyl phthalate	ND		230	6.9	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Dimethyl phthalate	ND		230	5.9	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		230	78	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		230	5.3	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Fluoranthene	**480**		230	3.3	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Fluorene	**530**		230	5.2	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Hexachlorobenzene	ND		230	11	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Hexachlorobutadiene	ND		230	12	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		230	69	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Hexachloroethane	ND		230	18	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		230	6.3	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Isophorone	ND		230	11	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Naphthalene	**850**		230	3.8	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Nitrobenzene	ND		230	10	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		230	18	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		230	12	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Pentachlorophenol	ND		440	78	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Phenanthrene	**1300**		230	4.8	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Phenol	ND		230	24	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
Pyrene	**320**		230	1.5	ug/kg dry	1.00	12/07/10 22:29	MKP	10L0180	8270C
2,4,6-Tribromophenol	*114 %*		*Surr Limits: (39-146%)*				*12/07/10 22:29*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*87 %*		*Surr Limits: (37-120%)*				*12/07/10 22:29*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*63 %*		*Surr Limits: (18-120%)*				*12/07/10 22:29*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*74 %*		*Surr Limits: (34-132%)*				*12/07/10 22:29*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*76 %*		*Surr Limits: (11-120%)*				*12/07/10 22:29*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*107 %*		*Surr Limits: (58-147%)*				*12/07/10 22:29*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**5460**	J	13.3	5.9	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Antimony	ND		20.0	0.7	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Arsenic	**4.7**		2.7	0.5	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Barium	**26.3**		0.667	0.147	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Beryllium	**0.264**	J	0.267	0.037	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Cadmium	0.267 ~~0.181~~	UB ~~J, B~~ J	0.267	0.040	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Calcium	**1770**	B	66.7	4.4	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Chromium	**12.9**		0.667	0.267	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Cobalt	**3.47**		0.667	0.067	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Copper	**9.7**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Iron	**12000**	J	13.3	1.5	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Lead	**15.1**	J	1.3	0.3	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Magnesium	**2210**		26.7	1.2	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Manganese	111 J	B	0.3	0.04	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-11 (2-4) (RTL0375-13 - Soil) - cont.						**Sampled: 12/01/10 11:10**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**9.80**		6.67	0.307	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Potassium	**1210**		40.0	26.7	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Selenium	ND		5.3	0.8	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Silver	ND		0.667	0.267	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Sodium	**289**		187	17.3	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Thallium	ND		8.0	0.4	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Vanadium	**17.9**		0.667	0.147	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Zinc	**30.2**	J B	2.7	0.2	mg/kg dry	1.00	12/04/10 13:18	LMH	10L0208	6010B
Mercury	**0.0285**		0.0273	0.0111	mg/kg dry	1.00	12/06/10 13:12	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**74**		0.010	NR	%	1.00	12/03/10 13:14	JRR	10L0204	Dry Weight
Ferrous Iron	~~ND~~	R	~~2.7~~	~~0.4~~	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**1510**	~~D08~~	671	336	mg/kg dry	5.00	12/08/10 11:37	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**7270**		1160	1160	mg/Kg dry	1.00	12/06/10 22:51	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**14.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**86.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (4-6) (RTL0375-14 - Soil) **Sampled: 12/01/10 11:15** **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.8	0.42	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,1,2,2-Tetrachloroethane	ND		5.8	0.93	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,1,2-Trichloroethane	ND		5.8	0.75	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.8	1.3	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,1-Dichloroethane	ND		5.8	0.70	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,1-Dichloroethene	ND		5.8	0.71	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2,4-Trichlorobenzene	ND		5.8	0.35	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2-Dibromo-3-chloropropane	ND		5.8	2.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2-Dibromoethane	ND		5.8	0.74	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2-Dichlorobenzene	ND		5.8	0.45	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2-Dichloroethane	ND		5.8	0.29	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2-Dichloropropane	ND		5.8	2.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,3-Dichlorobenzene	ND		5.8	0.30	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,4-Dichlorobenzene	ND		5.8	0.81	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
2-Butanone	ND		29	2.1	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
2-Hexanone	ND		29	2.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
4-Methyl-2-pentanone	ND		29	1.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Acetone	**19**	J	29	4.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Benzene	ND		5.8	0.28	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Bromodichloromethane	ND		5.8	0.77	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Bromoform	ND		5.8	2.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Bromomethane	ND		5.8	0.52	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Carbon disulfide	ND		5.8	2.9	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Carbon Tetrachloride	ND		5.8	0.56	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Chlorobenzene	ND		5.8	0.76	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Dibromochloromethane	ND		5.8	0.74	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Chloroethane	ND		5.8	1.3	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Chloroform	ND		5.8	0.36	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Chloromethane	ND		5.8	0.35	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
cis-1,2-Dichloroethene	ND		5.8	0.74	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
cis-1,3-Dichloropropene	ND		5.8	0.83	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Cyclohexane	ND		5.8	0.81	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Dichlorodifluoromethane	ND		5.8	0.48	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Ethylbenzene	ND		5.8	0.40	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Isopropylbenzene	**1.9**	J	5.8	0.87	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Methyl Acetate	ND	J	5.8	1.1	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.8	0.57	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Methylcyclohexane	**1.9**	J	5.8	0.88	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Methylene Chloride	**9.4**	U B	5.8	2.6	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Styrene	ND		5.8	0.29	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Tetrachloroethene	ND		5.8	0.77	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Toluene	ND		5.8	0.44	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
trans-1,2-Dichloroethene	ND		5.8	0.59	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
trans-1,3-Dichloropropene	ND		5.8	2.5	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Trichloroethene	ND		5.8	1.3	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Trichlorofluoromethane	ND		5.8	0.54	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
Vinyl chloride	ND		5.8	0.70	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-11 (4-6) (RTL0375-14 - Soil) - cont.						**Sampled: 12/01/10 11:15**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		12	0.97	ug/kg dry	1.00	12/14/10 22:07	CDC	10L1199	8260B
1,2-Dichloroethane-d4	*118 %*		*Surr Limits: (64-126%)*				*12/14/10 22:07*	*CDC*	*10L1199*	*8260B*
4-Bromofluorobenzene	*101 %*		*Surr Limits: (72-126%)*				*12/14/10 22:07*	*CDC*	*10L1199*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/14/10 22:07*	*CDC*	*10L1199*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	43	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		200	53	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		380	69	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		200	30	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		200	48	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2-Methylnaphthalene	**130**	J	200	2.4	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2-Methylphenol	ND		200	6.0	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2-Nitroaniline	ND		380	63	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2-Nitrophenol	ND		200	9.0	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		200	170	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
3-Nitroaniline	ND		380	45	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		380	68	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		200	63	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		200	8.1	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Chloroaniline	ND		200	58	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Methylphenol	ND		380	11	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Nitroaniline	ND		380	22	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
4-Nitrophenol	ND		380	48	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Acenaphthene	**360**		200	2.3	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Acetophenone	ND		200	10	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Anthracene	**81**	J	200	5.0	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Atrazine	ND		200	8.7	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Benzo[a]anthracene	**48**	J	200	3.4	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Benzo[a]pyrene	**27**	J	200	4.7	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Benzo[b]fluoranthene	**40**	J	200	3.8	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Benzo[g,h,i]perylene	**24**	J	200	2.4	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Biphenyl	**33**	J	200	12	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	**290**	B	200	63	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (4-6) (RTL0375-14 - Soil) - cont. **Sampled: 12/01/10 11:15** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		200	53	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Caprolactam	ND		200	85	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Carbazole	**75**	J	200	2.3	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Chrysene	**41**	J	200	2.0	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		200	2.3	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Dibenzofuran	**200**		200	2.0	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Diethyl phthalate	ND		200	5.9	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Dimethyl phthalate	ND		200	5.1	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		200	68	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		200	4.6	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Fluoranthene	**250**		200	2.8	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Fluorene	**200**		200	4.5	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Hexachlorobenzene	ND		200	9.8	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		200	59	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		200	5.4	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Isophorone	ND		200	9.8	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Naphthalene	**300**		200	3.3	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Nitrobenzene	ND		200	8.7	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Pentachlorophenol	ND		380	67	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Phenanthrene	**580**		200	4.1	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
Pyrene	**190**	J	200	1.3	ug/kg dry	1.00	12/08/10 10:06	MKP	10L0180	8270C
2,4,6-Tribromophenol	*107 %*		*Surr Limits: (39-146%)*				*12/08/10 10:06*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*90 %*		*Surr Limits: (37-120%)*				*12/08/10 10:06*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*71 %*		*Surr Limits: (18-120%)*				*12/08/10 10:06*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*81 %*		*Surr Limits: (34-132%)*				*12/08/10 10:06*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*82 %*		*Surr Limits: (11-120%)*				*12/08/10 10:06*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*109 %*		*Surr Limits: (58-147%)*				*12/08/10 10:06*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4040**	J	11.7	5.2	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Antimony	ND		17.6	0.6	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Arsenic	**4.5**		2.3	0.5	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Barium	**18.6**		0.587	0.129	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Beryllium	**0.173**	J	0.235	0.033	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Cadmium	0.235 ~~0.164~~ UB	~~J, B~~ J	0.235	0.035	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Calcium	**1560**	B	58.7	3.9	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Chromium	**9.82**		0.587	0.235	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Cobalt	**2.76**		0.587	0.059	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Copper	**11.4**	J	1.2	0.2	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Iron	**9160**	J	11.7	1.3	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Lead	**14.0**	J	1.2	0.3	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Magnesium	**1800**		23.5	1.1	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Manganese	**92.4**	J B	0.2	0.04	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-11 (4-6) (RTL0375-14 - Soil) - cont.						**Sampled: 12/01/10 11:15**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**7.78**		5.87	0.270	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Potassium	**825**		35.2	23.5	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Silver	ND		0.587	0.235	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Sodium	**231**		164	15.3	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Thallium	ND		7.0	0.4	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Vanadium	**12.9**		0.587	0.129	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Zinc	**28.1**	J B	2.3	0.2	mg/kg dry	1.00	12/04/10 13:20	LMH	10L0208	6010B
Mercury	**0.0187**	J	0.0235	0.0095	mg/kg dry	1.00	12/06/10 13:14	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**84**		0.010	NR	%	1.00	12/03/10 13:16	JRR	10L0204	Dry Weight
Ferrous Iron	~~ND~~	R	~~2.4~~	~~0.4~~	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**1510**	~~D08~~	592	296	mg/kg dry	5.00	12/08/10 11:37	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**9840**		1280	1280	mg/Kg dry	1.00	12/06/10 23:04	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**21.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**78.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (6-8) (RTL0375-15 - Soil) **Sampled: 12/01/10 11:30** **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	170	46	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,1,2,2-Tetrachloroethane	ND	W1	170	27	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,1,2-Trichloroethane	ND	W1	170	35	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	170	83	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,1-Dichloroethane	ND	W1	170	51	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,1-Dichloroethene	ND	W1	170	57	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2,4-Trichlorobenzene	ND	W1	170	63	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2-Dibromo-3-chloropropane	ND	W1	170	83	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2-Dibromoethane	ND	W1	170	6.3	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2-Dichlorobenzene	ND	W1	170	42	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2-Dichloroethane	ND	W1	170	68	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2-Dichloropropane	ND	W1	170	27	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,3-Dichlorobenzene	ND	W1	170	44	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,4-Dichlorobenzene	ND	W1	170	23	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
2-Butanone	ND	W1	830	490	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
2-Hexanone	ND	W1	830	340	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
4-Methyl-2-pentanone	ND	W1	830	53	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Acetone	ND	W1	830	680	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Benzene	ND	W1	170	7.9	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Bromodichloromethane	ND	W1	170	33	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Bromoform	ND	W1	170	83	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Bromomethane	ND	W1	170	36	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Carbon disulfide	ND J	W1	170	75	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Carbon Tetrachloride	ND	W1	170	42	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Chlorobenzene	ND	W1	170	22	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Dibromochloromethane	ND	W1	170	80	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Chloroethane	ND J	W1	170	34	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Chloroform	ND	W1	170	110	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Chloromethane	ND	W1	170	39	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
cis-1,2-Dichloroethene	ND	W1	170	46	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
cis-1,3-Dichloropropene	ND	W1	170	39	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Cyclohexane	ND	W1	170	37	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Dichlorodifluoromethane	ND	W1	170	72	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Ethylbenzene	ND	W1	170	48	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Isopropylbenzene	ND	W1	170	25	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Methyl Acetate	ND	W1	170	79	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	170	62	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Methylcyclohexane	ND	W1	170	77	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Methylene Chloride	ND J	W1	170	33	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Styrene	ND	W1	170	40	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Tetrachloroethene	ND	W1	170	22	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Toluene	ND	W1	170	44	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
trans-1,2-Dichloroethene	ND	W1	170	39	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
trans-1,3-Dichloropropene	ND	W1	170	7.9	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Trichloroethene	ND	W1	170	46	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Trichlorofluoromethane	ND	W1	170	77	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
Vinyl chloride	ND	W1	170	55	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (6-8) (RTL0375-15 - Soil) - cont. **Sampled: 12/01/10 11:30** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~W1~~	330	28	ug/kg dry	1.00	12/08/10 17:39	DHC	10L0623	8260B
1,2-Dichloroethane-d4	*117 %*	~~*W1*~~	*Surr Limits: (53-146%)*				*12/08/10 17:39*	*DHC*	*10L0623*	*8260B*
4-Bromofluorobenzene	*114 %*	~~*W1*~~	*Surr Limits: (49-148%)*				*12/08/10 17:39*	*DHC*	*10L0623*	*8260B*
Toluene-d8	*130 %*	~~*W1*~~	*Surr Limits: (50-149%)*				*12/08/10 17:39*	*DHC*	*10L0623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	~~D08~~	560	120	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND	~~D08~~	560	37	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,4-Dichlorophenol	ND	~~D08~~	560	29	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,4-Dimethylphenol	ND	~~D08~~	560	150	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,4-Dinitrophenol	ND	~~D08~~	1100	190	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND	~~D08~~	560	86	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND	~~D08~~	560	140	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2-Chloronaphthalene	ND	~~D08~~	560	37	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2-Chlorophenol	ND	~~D08~~	560	28	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2-Methylnaphthalene	**2300**	~~D08~~	560	6.7	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2-Methylphenol	ND	~~D08~~	560	17	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2-Nitroaniline	ND	~~D08~~	1100	180	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2-Nitrophenol	ND	~~D08~~	560	25	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND	~~D08~~	560	490	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
3-Nitroaniline	ND	~~D08~~	1100	130	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND	~~D08~~	1100	190	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND	~~D08~~	560	180	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND	~~D08~~	560	23	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Chloroaniline	ND	~~D08~~	560	160	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND	~~D08~~	560	12	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Methylphenol	ND	~~D08~~	1100	31	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Nitroaniline	ND	~~D08~~	1100	62	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
4-Nitrophenol	ND	~~D08~~	1100	140	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Acenaphthene	**4200**	~~D08~~	560	6.5	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Acenaphthylene	ND	~~D08~~	560	4.6	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Acetophenone	ND	~~D08~~	560	29	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Anthracene	**1400**	~~D08~~	560	14	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Atrazine	ND	~~D08~~	560	25	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Benzaldehyde	ND	~~D08~~	560	61	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Benzo[a]anthracene	**540**	~~D08,J~~	560	9.6	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Benzo[a]pyrene	**200**	~~D08,J~~	560	13	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Benzo[b]fluoranthene	**280**	~~D08,J~~	560	11	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Benzo[g,h,i]perylene	**94**	~~D08,J~~	560	6.7	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Benzo[k]fluoranthene	**86**	~~D08,J~~	560	6.1	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Biphenyl	**500**	~~D08,J~~	560	35	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND	~~D08~~	560	30	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND	~~D08~~	560	48	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND	~~D08~~	560	58	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	560 ~~450~~ UB	~~D08,J, B~~	560	180	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: AMW-11 (6-8) (RTL0375-15 - Soil) - cont. **Sampled: 12/01/10 11:30** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D08	560	150	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Caprolactam	ND	D08	560	240	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Carbazole	1600	D08	560	6.4	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Chrysene	460	~~D08~~,J	560	5.6	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND	D08	560	6.6	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Dibenzofuran	3000	D08	560	5.8	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Diethyl phthalate	ND	D08	560	17	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Dimethyl phthalate	ND	D08	560	15	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Di-n-butyl phthalate	ND	D08	560	190	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Di-n-octyl phthalate	ND	D08	560	13	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Fluoranthene	4000	D08	560	8.1	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Fluorene	3400	D08	560	13	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Hexachlorobenzene	ND	D08	560	28	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Hexachlorobutadiene	ND	D08	560	29	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND	D08	560	170	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Hexachloroethane	ND	~~D08~~	560	43	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	74	~~D08~~,J	560	15	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Isophorone	ND	D08	560	28	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Naphthalene	4700	D08	560	9.3	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Nitrobenzene	ND	D08	560	25	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND	D08	560	44	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND	D08	560	30	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Pentachlorophenol	ND	D08	1100	190	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Phenanthrene	11000	D08	560	12	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Phenol	ND	D08	560	59	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
Pyrene	2600	D08	560	3.6	ug/kg dry	2.00	12/08/10 10:30	MKP	10L0180	8270C
2,4,6-Tribromophenol	*86 %*	*D08*	*Surr Limits: (39-146%)*				*12/08/10 10:30*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*83 %*	*D08*	*Surr Limits: (37-120%)*				*12/08/10 10:30*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*63 %*	*D08*	*Surr Limits: (18-120%)*				*12/08/10 10:30*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*71 %*	*D08*	*Surr Limits: (34-132%)*				*12/08/10 10:30*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*76 %*	*D08*	*Surr Limits: (11-120%)*				*12/08/10 10:30*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*94 %*	*D08*	*Surr Limits: (58-147%)*				*12/08/10 10:30*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	3750	J	16.7	7.3	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Antimony	ND		25.1	0.9	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Arsenic	8.4		3.3	0.7	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Barium	32.7		0.835	0.184	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Beryllium	0.254	J	0.334	0.047	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Cadmium	0.334 ~~0.157~~	UB ~~J, B~~ J	0.334	0.050	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Calcium	1500	B	83.5	5.5	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Chromium	17.2		0.835	0.334	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Cobalt	2.81		0.835	0.084	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Copper	35.1 J		1.7	0.4	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Iron	15500 J		16.7	1.8	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Lead	10.2 J		1.7	0.4	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Magnesium	1330		33.4	1.5	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Manganese	54.2 J	B	0.3	0.05	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-11 (6-8) (RTL0375-15 - Soil) - cont.						**Sampled: 12/01/10 11:30**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.83**	J	8.35	0.384	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Potassium	**801**		50.1	33.4	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Selenium	**1.3**	J	6.7	1.0	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Silver	ND		0.835	0.334	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Sodium	**406**		234	21.7	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Thallium	ND		10.0	0.5	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Vanadium	**27.1**		0.835	0.184	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Zinc	**19.7**	J B	3.3	0.3	mg/kg dry	1.00	12/04/10 13:23	LMH	10L0208	6010B
Mercury	**0.0389**		0.0320	0.0129	mg/kg dry	1.00	12/06/10 13:15	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**60**		0.010	NR	%	1.00	12/03/10 13:18	JRR	10L0204	Dry Weight
Ferrous Iron	~~ND~~		~~3.3~~	~~0.5~~	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**2630**	~~D08~~	831	416	mg/kg dry	5.00	12/08/10 11:41	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**4430**		1260	1260	mg/Kg dry	1.00	12/06/10 23:17	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**20.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**79.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-1 (RTL0375-16 - Soil) — **Sampled: 12/01/10 08:00** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		7.3	0.53	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,1,2,2-Tetrachloroethane	ND		7.3	1.2	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,1,2-Trichloroethane	ND		7.3	0.94	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.3	1.7	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,1-Dichloroethane	ND		7.3	0.89	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,1-Dichloroethene	ND		7.3	0.89	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2,4-Trichlorobenzene	ND		7.3	0.44	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2-Dibromo-3-chloropropane	ND		7.3	3.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2-Dibromoethane	ND		7.3	0.93	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2-Dichlorobenzene	ND		7.3	0.57	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2-Dichloroethane	ND		7.3	0.36	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2-Dichloropropane	ND		7.3	3.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,3-Dichlorobenzene	ND		7.3	0.37	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,4-Dichlorobenzene	ND		7.3	1.0	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
2-Butanone	ND		36	2.7	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
2-Hexanone	ND		36	3.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
4-Methyl-2-pentanone	ND		36	2.4	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Acetone	**32**	J	36	6.1	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Benzene	ND		7.3	0.36	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Bromodichloromethane	ND		7.3	0.97	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Bromoform	ND		7.3	3.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Bromomethane	ND		7.3	0.65	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Carbon disulfide	ND		7.3	3.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Carbon Tetrachloride	ND		7.3	0.70	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Chlorobenzene	ND		7.3	0.96	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Dibromochloromethane	ND		7.3	0.93	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Chloroethane	ND		7.3	1.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Chloroform	ND		7.3	0.45	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Chloromethane	ND		7.3	0.44	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
cis-1,2-Dichloroethene	ND		7.3	0.93	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
cis-1,3-Dichloropropene	ND		7.3	1.0	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Cyclohexane	ND		7.3	1.0	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Dichlorodifluoromethane	ND		7.3	0.60	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Ethylbenzene	ND		7.3	0.50	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Isopropylbenzene	ND		7.3	1.1	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Methyl Acetate	ND		7.3	1.4	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Methyl-t-Butyl Ether (MTBE)	ND		7.3	0.71	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Methylcyclohexane	ND		7.3	1.1	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Methylene Chloride	**9.4**		7.3	3.3	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Styrene	ND		7.3	0.36	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Tetrachloroethene	ND		7.3	0.98	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Toluene	ND		7.3	0.55	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
trans-1,2-Dichloroethene	ND		7.3	0.75	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
trans-1,3-Dichloropropene	ND		7.3	3.2	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Trichloroethene	ND		7.3	1.6	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Trichlorofluoromethane	ND		7.3	0.69	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
Vinyl chloride	ND		7.3	0.89	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-1 (RTL0375-16 - Soil) - cont. **Sampled: 12/01/10 08:00** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		15	1.2	ug/kg dry	1.00	12/11/10 16:56	PJQ	10L0991	8260B
1,2-Dichloroethane-d4	*107 %*		*Surr Limits: (64-126%)*				*12/11/10 16:56*	*PJQ*	*10L0991*	*8260B*
4-Bromofluorobenzene	*104 %*		*Surr Limits: (72-126%)*				*12/11/10 16:56*	*PJQ*	*10L0991*	*8260B*
Toluene-d8	*107 %*		*Surr Limits: (71-125%)*				*12/11/10 16:56*	*PJQ*	*10L0991*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		240	52	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		240	16	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		240	13	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		240	65	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		470	84	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		240	37	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		240	59	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2-Chloronaphthalene	ND		240	16	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2-Chlorophenol	ND		240	12	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2-Methylnaphthalene	ND		240	2.9	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2-Methylphenol	ND		240	7.4	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2-Nitroaniline	ND		470	77	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2-Nitrophenol	ND		240	11	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		240	210	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
3-Nitroaniline	ND		470	55	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		470	83	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		240	76	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		240	9.9	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Chloroaniline	ND		240	70	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		240	5.1	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Methylphenol	ND		470	13	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Nitroaniline	ND		470	27	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
4-Nitrophenol	ND		470	58	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Acenaphthene	**110**	J	240	2.8	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Acenaphthylene	**22**	J	240	2.0	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Acetophenone	ND		240	12	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Anthracene	**40**	J	240	6.1	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Atrazine	ND		240	11	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Benzaldehyde	ND		240	26	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Benzo[a]anthracene	**160**	J	240	4.1	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Benzo[a]pyrene	**160**	J	240	5.8	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Benzo[b]fluoranthene	**170**	J	240	4.7	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Benzo[g,h,i]perylene	**110**	J	240	2.9	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Benzo[k]fluoranthene	**55**	J	240	2.6	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Biphenyl	ND		240	15	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		240	13	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		240	21	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		240	25	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	240 ~~190~~	UB ~~J,B~~	240	77	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-3-1 (RTL0375-16 - Soil) - cont.						**Sampled: 12/01/10 08:00**		**Recvd: 12/02/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		240	64	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Caprolactam	ND		240	100	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Carbazole	ND		240	2.8	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Chrysene	**150**	J	240	2.4	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		240	2.8	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Dibenzofuran	ND		240	2.5	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Diethyl phthalate	ND		240	7.2	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Dimethyl phthalate	ND		240	6.3	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		240	83	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		240	5.6	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Fluoranthene	**210**	J	240	3.5	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Fluorene	**150**	J	240	5.5	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Hexachlorobenzene	ND		240	12	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Hexachlorobutadiene	ND		240	12	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		240	73	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Hexachloroethane	ND		240	19	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	**83**	J	240	6.6	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Isophorone	ND		240	12	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Naphthalene	ND		240	4.0	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Nitrobenzene	ND		240	11	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		240	19	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		240	13	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Pentachlorophenol	ND		470	82	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Phenanthrene	**49**	J	240	5.0	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Phenol	ND		240	25	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
Pyrene	**230**	J	240	1.6	ug/kg dry	1.00	12/08/10 10:53	MKP	10L0180	8270C
2,4,6-Tribromophenol	*115 %*		*Surr Limits: (39-146%)*				*12/08/10 10:53*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*95 %*		*Surr Limits: (37-120%)*				*12/08/10 10:53*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*72 %*		*Surr Limits: (18-120%)*				*12/08/10 10:53*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*84 %*		*Surr Limits: (34-132%)*				*12/08/10 10:53*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*86 %*		*Surr Limits: (11-120%)*				*12/08/10 10:53*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*116 %*		*Surr Limits: (58-147%)*				*12/08/10 10:53*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2710** J		14.4	6.4	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Antimony	ND		21.7	0.8	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Arsenic	**1.5**	J	2.9	0.6	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Barium	**15.9**		0.722	0.159	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Beryllium	**0.124**	J	0.289	0.040	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Cadmium	0.284 ~~**0.077**~~ UB ~~J, B~~ J		0.289	0.043	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Calcium	**983**	~~B~~	72.2	4.8	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Chromium	**6.76**		0.722	0.289	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Cobalt	**1.54**		0.722	0.072	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Copper	**3.6** J		1.4	0.3	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Iron	**5200** J		14.4	1.6	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Lead	**3.0** J		1.4	0.3	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Magnesium	**1040**		28.9	1.3	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Manganese	**44.4** J	~~B~~	0.3	0.05	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-3-1 (RTL0375-16 - Soil) - cont.						**Sampled: 12/01/10 08:00**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**4.38**	J	7.22	0.332	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Potassium	**751**		43.3	28.9	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Selenium	ND		5.8	0.8	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Silver	ND		0.722	0.289	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Sodium	**117**	J	202	18.8	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Thallium	ND		8.7	0.4	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Vanadium	**9.50**		0.722	0.159	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Zinc	**12.5**	J B	2.9	0.2	mg/kg dry	1.00	12/04/10 13:25	LMH	10L0208	6010B
Mercury	ND		0.0270	0.0109	mg/kg dry	1.00	12/06/10 13:17	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**68**		0.010	NR	%	1.00	12/03/10 13:20	JRR	10L0204	Dry Weight
Ferrous Iron	~~ND~~ R		~~2.9~~	~~0.4~~	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**814**		146	73.0	mg/kg dry	1.00	12/08/10 10:52	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1900**		1250	1250	mg/Kg dry	1.00	12/06/10 23:30	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**19.9**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**80.1**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-2 (RTL0375-17 - Soil) — **Sampled: 12/01/10 10:10** — **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		7.1	0.51	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,1,2,2-Tetrachloroethane	ND		7.1	1.1	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,1,2-Trichloroethane	ND		7.1	0.92	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.1	1.6	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,1-Dichloroethane	ND		7.1	0.86	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,1-Dichloroethene	ND		7.1	0.87	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2,4-Trichlorobenzene	ND		7.1	0.43	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2-Dibromo-3-chloropropane	ND		7.1	3.5	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2-Dibromoethane	ND		7.1	0.91	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2-Dichlorobenzene	ND		7.1	0.55	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2-Dichloroethane	ND		7.1	0.36	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2-Dichloropropane	ND		7.1	3.5	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,3-Dichlorobenzene	ND		7.1	0.36	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,4-Dichlorobenzene	ND		7.1	0.99	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
2-Butanone	ND		35	2.6	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
2-Hexanone	ND		35	3.5	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
4-Methyl-2-pentanone	ND		35	2.3	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Acetone	**26**	J	35	6.0	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Benzene	ND		7.1	0.35	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Bromodichloromethane	ND		7.1	0.95	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Bromoform	ND		7.1	3.5	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Bromomethane	ND		7.1	0.64	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Carbon disulfide	**5.7**	J	7.1	3.5	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Carbon Tetrachloride	ND		7.1	0.69	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Chlorobenzene	ND		7.1	0.93	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Dibromochloromethane	ND		7.1	0.91	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Chloroethane	ND		7.1	1.6	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Chloroform	ND		7.1	0.44	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Chloromethane	ND		7.1	0.43	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
cis-1,2-Dichloroethene	ND		7.1	0.91	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
cis-1,3-Dichloropropene	ND		7.1	1.0	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Cyclohexane	ND		7.1	0.99	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Dichlorodifluoromethane	ND		7.1	0.58	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Ethylbenzene	ND		7.1	0.49	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Isopropylbenzene	ND		7.1	1.1	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Methyl Acetate	ND		7.1	1.3	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Methyl-t-Butyl Ether (MTBE)	ND		7.1	0.70	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Methylcyclohexane	ND		7.1	1.1	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Methylene Chloride	**12**		7.1	3.3	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Styrene	ND		7.1	0.35	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Tetrachloroethene	ND		7.1	0.95	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Toluene	ND		7.1	0.54	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
trans-1,2-Dichloroethene	ND		7.1	0.73	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
trans-1,3-Dichloropropene	ND		7.1	3.1	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Trichloroethene	ND		7.1	1.6	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Trichlorofluoromethane	ND		7.1	0.67	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
Vinyl chloride	ND		7.1	0.86	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-2 (RTL0375-17 - Soil) - cont. **Sampled: 12/01/10 10:10** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		14	1.2	ug/kg dry	1.00	12/11/10 17:21	PJQ	10L0991	8260B
1,2-Dichloroethane-d4	*108 %*		*Surr Limits: (64-126%)*				*12/11/10 17:21*	*PJQ*	*10L0991*	*8260B*
4-Bromofluorobenzene	*104 %*		*Surr Limits: (72-126%)*				*12/11/10 17:21*	*PJQ*	*10L0991*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-125%)*				*12/11/10 17:21*	*PJQ*	*10L0991*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		240	52	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		240	16	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		240	13	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		240	64	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		470	83	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		240	37	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		240	58	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2-Chloronaphthalene	ND		240	16	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2-Chlorophenol	ND		240	12	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2-Methylnaphthalene	ND		240	2.9	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2-Methylphenol	ND		240	7.3	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2-Nitroaniline	ND		470	77	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2-Nitrophenol	ND		240	11	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		240	210	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
3-Nitroaniline	ND		470	55	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		470	82	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		240	76	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		240	9.8	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Chloroaniline	ND		240	70	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		240	5.1	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Methylphenol	ND		470	13	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Nitroaniline	ND		470	27	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
4-Nitrophenol	ND		470	58	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Acenaphthene	ND		240	2.8	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Acenaphthylene	ND		240	2.0	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Acetophenone	ND		240	12	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Anthracene	ND		240	6.1	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Atrazine	ND		240	11	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Benzaldehyde	ND		240	26	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Benzo[a]anthracene	ND		240	4.1	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Benzo[a]pyrene	ND		240	5.7	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Benzo[b]fluoranthene	ND		240	4.6	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND		240	2.9	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		240	2.6	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Biphenyl	ND		240	15	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		240	13	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		240	21	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		240	25	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	240 ~~470~~ UB ~~J,B~~		240	77	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-2 (RTL0375-17 - Soil) - cont. **Sampled: 12/01/10 10:10** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		240	64	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Caprolactam	ND		240	100	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Carbazole	ND		240	2.8	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Chrysene	ND		240	2.4	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		240	2.8	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Dibenzofuran	ND		240	2.5	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Diethyl phthalate	ND		240	7.2	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Dimethyl phthalate	ND		240	6.2	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		240	82	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		240	5.6	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Fluoranthene	ND		240	3.5	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Fluorene	ND		240	5.5	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Hexachlorobenzene	ND		240	12	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Hexachlorobutadiene	ND		240	12	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		240	72	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Hexachloroethane	ND		240	18	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		240	6.6	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Isophorone	ND		240	12	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Naphthalene	ND		240	4.0	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Nitrobenzene	ND		240	11	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		240	19	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		240	13	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Pentachlorophenol	ND		470	82	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Phenanthrene	ND		240	5.0	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Phenol	ND		240	25	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
Pyrene	ND		240	1.5	ug/kg dry	1.00	12/08/10 00:04	MKP	10L0180	8270C
2,4,6-Tribromophenol	*109 %*		*Surr Limits: (39-146%)*				*12/08/10 00:04*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*90 %*		*Surr Limits: (37-120%)*				*12/08/10 00:04*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*73 %*		*Surr Limits: (18-120%)*				*12/08/10 00:04*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*82 %*		*Surr Limits: (34-132%)*				*12/08/10 00:04*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*86 %*		*Surr Limits: (11-120%)*				*12/08/10 00:04*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*105 %*		*Surr Limits: (58-147%)*				*12/08/10 00:04*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**11000**	J	13.8	6.1	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Antimony	ND		20.6	0.7	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Arsenic	**10.1**		2.8	0.6	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Barium	**25.2**		0.688	0.151	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Beryllium	**0.513**		0.275	0.039	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Cadmium	**0.314**	J B	0.275	0.041	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Calcium	**1630**	B	68.8	4.5	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Chromium	**28.5**		0.688	0.275	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Cobalt	**5.86**		0.688	0.069	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Copper	**12.5**	J	1.4	0.3	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Iron	**22200**	J	13.8	1.5	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Lead	**11.4**	J	1.4	0.3	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Magnesium	**4380**		27.5	1.3	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Manganese	**192**	J B	0.3	0.04	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-2 (RTL0375-17 - Soil) - cont. **Sampled: 12/01/10 10:10** **Recvd: 12/02/10 09:00**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Total Metals by SW 846 Series Methods - cont.										
Nickel	**18.0**		6.88	0.316	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Potassium	**2290**		41.3	27.5	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Selenium	**0.8**	J	5.5	0.8	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Silver	ND		0.688	0.275	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Sodium	**1150**		193	17.9	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Thallium	ND		8.3	0.4	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Vanadium	**35.7**		0.688	0.151	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Zinc	**43.6**	J B	2.8	0.2	mg/kg dry	1.00	12/04/10 13:27	LMH	10L0208	6010B
Mercury	**0.0166**	J	0.0263	0.0107	mg/kg dry	1.00	12/06/10 13:19	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	**70**		0.010	NR	%	1.00	12/03/10 13:22	JRR	10L0204	Dry Weight
Ferrous Iron	~~ND~~ R		~~2.9~~	~~0.4~~	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	**2270**	~~D08~~	708	354	mg/kg dry	5.00	12/08/10 11:41	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**7750**		1380	1380	mg/Kg dry	1.00	12/06/10 23:44	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**27.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**72.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-3-3 (RTL0375-18 - Soil) **Sampled: 12/01/10 11:02** **Recvd: 12/02/10 09:00**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		7.3	0.53	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,1,2,2-Tetrachloroethane	ND		7.3	1.2	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,1,2-Trichloroethane	ND		7.3	0.95	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.3	1.7	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,1-Dichloroethane	ND		7.3	0.89	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,1-Dichloroethene	ND		7.3	0.89	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2,4-Trichlorobenzene	ND	J	7.3	0.44	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2-Dibromo-3-chloropropane	ND	J	7.3	3.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2-Dibromoethane	ND	J	7.3	0.94	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2-Dichlorobenzene	ND		7.3	0.57	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2-Dichloroethane	ND		7.3	0.37	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2-Dichloropropane	ND		7.3	3.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,3-Dichlorobenzene	ND		7.3	0.37	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,4-Dichlorobenzene	ND		7.3	1.0	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
2-Butanone	ND	J	36	2.7	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
2-Hexanone	ND	J	36	3.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
4-Methyl-2-pentanone	ND	J	36	2.4	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Acetone	17	J	36	6.1	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Benzene	ND		7.3	0.36	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Bromodichloromethane	ND		7.3	0.98	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Bromoform	ND	J	7.3	3.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Bromomethane	ND		7.3	0.66	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Carbon disulfide	ND		7.3	3.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Carbon Tetrachloride	ND		7.3	0.71	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Chlorobenzene	ND		7.3	0.96	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Dibromochloromethane	ND		7.3	0.93	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Chloroethane	ND		7.3	1.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Chloroform	ND		7.3	0.45	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Chloromethane	ND		7.3	0.44	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
cis-1,2-Dichloroethene	ND		7.3	0.93	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
cis-1,3-Dichloropropene	ND		7.3	1.0	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Cyclohexane	ND		7.3	1.0	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Dichlorodifluoromethane	ND		7.3	0.60	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Ethylbenzene	ND		7.3	0.50	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Isopropylbenzene	ND		7.3	1.1	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Methyl Acetate	ND		7.3	1.4	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Methyl-t-Butyl Ether (MTBE)	ND		7.3	0.72	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Methylcyclohexane	ND		7.3	1.1	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Methylene Chloride	8.2		7.3	3.4	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Styrene	ND		7.3	0.36	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Tetrachloroethene	ND		7.3	0.98	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Toluene	ND		7.3	0.55	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
trans-1,2-Dichloroethene	ND		7.3	0.75	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
trans-1,3-Dichloropropene	ND		7.3	3.2	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Trichloroethene	ND		7.3	1.6	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Trichlorofluoromethane	ND		7.3	0.69	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
Vinyl chloride	ND		7.3	0.89	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-3-3 (RTL0375-18 - Soil) - cont.						**Sampled: 12/01/10 11:02**		**Recvd: 12/02/10 09:00**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		15	1.2	ug/kg dry	1.00	12/11/10 17:46	PJQ	10L0991	8260B
1,2-Dichloroethane-d4	*98 %*		*Surr Limits: (64-126%)*				*12/11/10 17:46*	*PJQ*	*10L0991*	*8260B*
4-Bromofluorobenzene	*99 %*		*Surr Limits: (72-126%)*				*12/11/10 17:46*	*PJQ*	*10L0991*	*8260B*
Toluene-d8	*103 %*		*Surr Limits: (71-125%)*				*12/11/10 17:46*	*PJQ*	*10L0991*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		250	55	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,4,6-Trichlorophenol	ND		250	17	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,4-Dichlorophenol	ND		250	13	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,4-Dimethylphenol	ND		250	68	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,4-Dinitrophenol	ND		490	88	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,4-Dinitrotoluene	ND		250	39	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,6-Dinitrotoluene	ND		250	61	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2-Chloronaphthalene	ND		250	17	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2-Chlorophenol	ND		250	13	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2-Methylnaphthalene	ND		250	3.0	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2-Methylphenol	ND		250	7.7	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2-Nitroaniline	ND		490	80	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2-Nitrophenol	ND		250	11	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
3,3'-Dichlorobenzidine	ND		250	220	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
3-Nitroaniline	ND		490	58	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4,6-Dinitro-2-methylphenol	ND		490	86	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Bromophenyl phenyl ether	ND		250	80	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Chloro-3-methylphenol	ND		250	10	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Chloroaniline	ND		250	74	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Chlorophenyl phenyl ether	ND		250	5.3	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Methylphenol	ND		490	14	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Nitroaniline	ND		490	28	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
4-Nitrophenol	ND		490	61	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Acenaphthene	ND		250	2.9	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Acenaphthylene	ND		250	2.0	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Acetophenone	ND		250	13	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Anthracene	ND		250	6.4	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Atrazine	ND		250	11	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Benzaldehyde	ND		250	27	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Benzo[a]anthracene	ND		250	4.3	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Benzo[a]pyrene	ND		250	6.0	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Benzo[b]fluoranthene	ND		250	4.9	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Benzo[g,h,i]perylene	ND		250	3.0	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Benzo[k]fluoranthene	ND		250	2.8	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Biphenyl	ND		250	16	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Bis(2-chloroethoxy)methane	ND		250	14	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Bis(2-chloroethyl)ether	ND		250	22	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,2'-Oxybis(1-Chloropropane)	ND		250	26	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Bis(2-ethylhexyl) phthalate	25 ~~180~~	UB ~~J,B~~	250	81	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-3-3 (RTL0375-18 - Soil) - cont.						**Sampled: 12/01/10 11:02**		**Recvd: 12/02/10 09:00**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		250	67	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Caprolactam	ND		250	110	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Carbazole	ND		250	2.9	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Chrysene	ND		250	2.5	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Dibenzo(a,h)anthracene	ND		250	2.9	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Dibenzofuran	ND		250	2.6	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Diethyl phthalate	ND		250	7.6	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Dimethyl phthalate	ND		250	6.5	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Di-n-butyl phthalate	ND		250	87	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Di-n-octyl phthalate	ND		250	5.9	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Fluoranthene	ND		250	3.6	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Fluorene	ND		250	5.8	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Hexachlorobenzene	ND		250	12	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Hexachlorobutadiene	ND		250	13	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Hexachlorocyclopentadiene	ND		250	76	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Hexachloroethane	ND		250	19	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Indeno[1,2,3-cd]pyrene	ND		250	6.9	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Isophorone	ND		250	13	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Naphthalene	ND		250	4.2	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Nitrobenzene	ND		250	11	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
N-Nitrosodi-n-propylamine	ND		250	20	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
N-Nitrosodiphenylamine	ND		250	14	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Pentachlorophenol	ND		490	86	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Phenanthrene	ND		250	5.3	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Phenol	ND		250	26	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
Pyrene	ND		250	1.6	ug/kg dry	1.00	12/08/10 00:28	MKP	10L0180	8270C
2,4,6-Tribromophenol	*94 %*		*Surr Limits: (39-146%)*				*12/08/10 00:28*	*MKP*	*10L0180*	*8270C*
2-Fluorobiphenyl	*83 %*		*Surr Limits: (37-120%)*				*12/08/10 00:28*	*MKP*	*10L0180*	*8270C*
2-Fluorophenol	*69 %*		*Surr Limits: (18-120%)*				*12/08/10 00:28*	*MKP*	*10L0180*	*8270C*
Nitrobenzene-d5	*77 %*		*Surr Limits: (34-132%)*				*12/08/10 00:28*	*MKP*	*10L0180*	*8270C*
Phenol-d5	*79 %*		*Surr Limits: (11-120%)*				*12/08/10 00:28*	*MKP*	*10L0180*	*8270C*
p-Terphenyl-d14	*99 %*		*Surr Limits: (58-147%)*				*12/08/10 00:28*	*MKP*	*10L0180*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1600**	J	15.0	6.6	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Antimony	ND		22.5	0.8	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Arsenic	**1.0**	J	3.0	0.6	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Barium	**8.27**		0.751	0.165	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Beryllium	**0.051**	J	0.300	0.042	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Cadmium	0.300 ~~**0.113**~~	UB ~~J, B~~ J	0.300	0.045	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Calcium	**426**	~~B~~	75.1	5.0	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Chromium	**3.59**		0.751	0.300	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Cobalt	**1.14**		0.751	0.075	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Copper	**2.6**	J	1.5	0.3	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Iron	**2770**	J	15.0	1.7	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Lead	**1.8**	J	1.5	0.4	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Magnesium	**632**		30.0	1.4	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Manganese	**25.6**	J ~~B~~	0.3	0.05	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-3-3 (RTL0375-18 - Soil) - cont.						**Sampled: 12/01/10 11:02**		**Recvd: 12/02/10 09:00**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	3.04	J	7.51	0.345	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Potassium	479		45.0	30.0	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Selenium	ND		6.0	0.9	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Silver	ND		0.751	0.300	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Sodium	161	J	210	19.5	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Thallium	ND		9.0	0.5	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Vanadium	4.39		0.751	0.165	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Zinc	7.2	J ~~B~~	3.0	0.2	mg/kg dry	1.00	12/04/10 13:33	LMH	10L0208	6010B
Mercury	ND		0.0273	0.0111	mg/kg dry	1.00	12/06/10 13:21	JRK	10L0366	7471A
General Chemistry Parameters										
Percent Solids	66		0.010	NR	%	1.00	12/03/10 13:24	JRR	10L0204	Dry Weight
Ferrous Iron	~~ND~~		~~3.0~~	~~0.5~~	mg/kg dry	1.00	12/07/10 15:45	KLD	10L0572	3500FE
Sulfate	520		150	74.9	mg/kg dry	1.00	12/08/10 11:14	RJF	10L0655	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	1410		1280	1280	mg/Kg dry	1.00	12/06/10 23:57	MNT	10707	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	22.1		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	77.9		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: P-18R (0-2) (RTL0458-01 - Soil) — Sampled: 12/02/10 07:30 — Recvd: 12/03/10 09:30

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.6	0.40	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,1,2,2-Tetrachloroethane	ND		5.6	0.90	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,1,2-Trichloroethane	ND		5.6	0.72	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,1-Dichloroethane	ND		5.6	0.68	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,1-Dichloroethene	ND		5.6	0.68	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2-Dibromo-3-chloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2-Dibromoethane	ND		5.6	0.71	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2-Dichlorobenzene	ND		5.6	0.43	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2-Dichloroethane	ND		5.6	0.28	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2-Dichloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,3-Dichlorobenzene	ND		5.6	0.29	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,4-Dichlorobenzene	ND		5.6	0.78	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
2-Butanone	ND		28	2.0	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Acetone	ND		28	4.7	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Benzene	ND		5.6	0.27	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Bromodichloromethane	ND		5.6	0.74	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Bromoform	ND		5.6	2.8	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Bromomethane	ND		5.6	0.50	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Carbon disulfide	ND		5.6	2.8	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Carbon Tetrachloride	ND		5.6	0.54	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Chlorobenzene	ND		5.6	0.73	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Dibromochloromethane	ND		5.6	0.71	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Chloroethane	ND		5.6	1.3	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Chloroform	ND		5.6	0.34	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Chloromethane	ND		5.6	0.34	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
cis-1,2-Dichloroethene	ND		5.6	0.71	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
cis-1,3-Dichloropropene	ND		5.6	0.80	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Cyclohexane	ND		5.6	0.78	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Dichlorodifluoromethane	ND		5.6	0.46	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Ethylbenzene	ND		5.6	0.38	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Isopropylbenzene	ND		5.6	0.84	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Methyl Acetate	ND	L	5.6	1.0	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.6	0.55	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Methylcyclohexane	ND		5.6	0.84	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Methylene Chloride	7.7	U B	5.6	2.6	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Styrene	ND		5.6	0.28	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Tetrachloroethene	ND		5.6	0.75	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Toluene	ND		5.6	0.42	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
trans-1,2-Dichloroethene	ND		5.6	0.57	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
trans-1,3-Dichloropropene	ND		5.6	2.4	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Trichloroethene	ND		5.6	1.2	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Trichlorofluoromethane	ND		5.6	0.53	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
Vinyl chloride	ND		5.6	0.68	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: P-18R (0-2) (RTL0458-01 - Soil) - cont. **Sampled: 12/02/10 07:30** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.93	ug/kg dry	1.00	12/14/10 22:38	CDC	10L1199	8260B
1,2-Dichloroethane-d4	*120 %*		*Surr Limits: (64-126%)*				*12/14/10 22:38*	*CDC*	*10L1199*	*8260B*
4-Bromofluorobenzene	*106 %*		*Surr Limits: (72-126%)*				*12/14/10 22:38*	*CDC*	*10L1199*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/14/10 22:38*	*CDC*	*10L1199*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D08	960	210	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,4,6-Trichlorophenol	ND	D08	960	63	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,4-Dichlorophenol	ND	D08	960	50	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,4-Dimethylphenol	ND	D08	960	260	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,4-Dinitrophenol	ND	D08	1900	330	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,4-Dinitrotoluene	ND	D08	960	150	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,6-Dinitrotoluene	ND	D08	960	230	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2-Chloronaphthalene	ND	D08	960	64	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2-Chlorophenol	ND	D08	960	48	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2-Methylnaphthalene	ND	D08	960	11	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2-Methylphenol	ND	D08	960	29	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2-Nitroaniline	ND	D08	1900	300	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2-Nitrophenol	ND	D08	960	43	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
3,3'-Dichlorobenzidine	ND	D08	960	830	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
3-Nitroaniline	ND	D08	1900	220	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND	D08	1900	330	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Bromophenyl phenyl ether	ND	D08	960	300	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Chloro-3-methylphenol	ND	D08	960	39	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Chloroaniline	ND	D08	960	280	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Chlorophenyl phenyl ether	ND	D08	960	20	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Methylphenol	ND	D08	1900	53	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Nitroaniline	ND	D08	1900	110	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
4-Nitrophenol	ND	D08	1900	230	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Acenaphthene	**7100**	D08	960	11	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Acenaphthylene	**200**	D08,J	960	7.8	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Acetophenone	ND	D08,L	960	49	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Anthracene	**760**	D08,J	960	24	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Atrazine	ND	D08	960	42	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Benzaldehyde	ND	D08,L	960	100	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Benzo[a]anthracene	**2000**	D08	960	16	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Benzo[a]pyrene	**580**	D08,J	960	23	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Benzo[b]fluoranthene	**900**	D08,J	960	18	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Benzo[g,h,i]perylene	**170**	D08,J	960	11	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Benzo[k]fluoranthene	**340**	D08,J	960	10	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Biphenyl	ND	D08	960	59	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Bis(2-chloroethoxy)methane	ND	D08	960	52	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Bis(2-chloroethyl)ether	ND	D08	960	82	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D08	960	99	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Bis(2-ethylhexyl) phthalate	ND	D08	960	310	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: P-18R (0-2) (RTL0458-01 - Soil) - cont. **Sampled: 12/02/10 07:30** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D08	960	250	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Caprolactam	ND	D08	960	410	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Carbazole	82	D08,J	960	11	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Chrysene	1800	D08	960	9.5	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Dibenzo(a,h)anthracene	ND	D08,L	960	11	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Dibenzofuran	530	D08,J	960	9.9	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Diethyl phthalate	ND	D08	960	29	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Dimethyl phthalate	ND	D08	960	25	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Di-n-butyl phthalate	ND	D08	960	330	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Di-n-octyl phthalate	ND	D08	960	22	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Fluoranthene	16000	D08	960	14	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Fluorene	1600 J	D08	960	22	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Hexachlorobenzene	ND	D08	960	47	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Hexachlorobutadiene	ND	D08	960	49	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Hexachlorocyclopentadiene	ND	D08	960	290	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Hexachloroethane	ND	D08	960	73	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Indeno[1,2,3-cd]pyrene	170	D08,J	960	26	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Isophorone	ND	D08	960	47	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Naphthalene	ND	D08	960	16	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Nitrobenzene	ND	D08	960	42	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	D08,L	960	75	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
N-Nitrosodiphenylamine	ND	D08	960	52	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Pentachlorophenol	ND	D08	1900	330	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Phenanthrene	3800 J	D08	960	20	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Phenol	ND	D08	960	100	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
Pyrene	13000	D08	960	6.1	ug/kg dry	5.00	12/07/10 05:36	JLG	10L0358	8270C
2,4,6-Tribromophenol	*60 %*	*D08*	*Surr Limits: (39-146%)*				*12/07/10 05:36*	*JLG*	*10L0358*	*8270C*
2-Fluorobiphenyl	*85 %*	*D08*	*Surr Limits: (37-120%)*				*12/07/10 05:36*	*JLG*	*10L0358*	*8270C*
2-Fluorophenol	*74 %*	*D08*	*Surr Limits: (18-120%)*				*12/07/10 05:36*	*JLG*	*10L0358*	*8270C*
Nitrobenzene-d5	*84 %*	*D08*	*Surr Limits: (34-132%)*				*12/07/10 05:36*	*JLG*	*10L0358*	*8270C*
Phenol-d5	*84 %*	*D08*	*Surr Limits: (11-120%)*				*12/07/10 05:36*	*JLG*	*10L0358*	*8270C*
p-Terphenyl-d14	*85 %*	*D08*	*Surr Limits: (58-147%)*				*12/07/10 05:36*	*JLG*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	7410 J		11.3	5.0	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Antimony	ND J		16.9	0.6	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Arsenic	3.8 J		2.3	0.5	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Barium	21.7		0.563	0.124	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Beryllium	0.299 J		0.225	0.032	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Cadmium	0.123	J	0.225	0.034	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Calcium	2080 J	B	56.3	3.7	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Chromium	8.36		0.563	0.225	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Cobalt	3.45		0.563	0.056	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Copper	7.3		1.1	0.2	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Iron	9100 J	B	11.3	1.2	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Lead	28.5		1.1	0.3	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Magnesium	2060 J		22.5	1.0	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Manganese	138 J		0.2	0.04	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (0-2) (RTL0458-01 - Soil) - cont.						**Sampled: 12/02/10 07:30**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**6.33**		5.63	0.259	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Potassium	**347**		33.8	22.5	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Silver	ND		0.563	0.225	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Sodium	**49.9**	J	158	14.6	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Thallium	ND		6.8	0.3	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Vanadium	**12.7**		0.563	0.124	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Zinc	**22.1**		2.3	0.2	mg/kg dry	1.00	12/07/10 10:39	AMH	10L0372	6010B
Mercury	**0.0269**		0.0230	0.0093	mg/kg dry	1.00	12/07/10 13:07	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**88**		0.010	NR	%	1.00	12/07/10 08:20	MJM	10L0397	Dry Weight
Ferrous Iron	**2.6**	J ~~HFT~~	2.3	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**87.2**	J	113	56.7	mg/kg dry	1.00	12/10/10 12:33	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3800**		1090	1090	mg/Kg dry	1.00	12/06/10 18:45	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**8.3**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**91.7**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: P-18R (4-6) (RTL0458-02 - Soil) **Sampled: 12/02/10 08:10** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		6.2	0.45	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,1,2-Trichloroethane	ND		6.2	0.81	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,1-Dichloroethane	ND		6.2	0.76	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,1-Dichloroethene	ND		6.2	0.76	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2-Dibromo-3-chloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2-Dibromoethane	ND		6.2	0.80	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2-Dichlorobenzene	ND		6.2	0.49	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2-Dichloroethane	ND		6.2	0.31	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2-Dichloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,3-Dichlorobenzene	ND		6.2	0.32	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,4-Dichlorobenzene	ND		6.2	0.87	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
2-Butanone	ND		31	2.3	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Acetone	**38**		31	5.2	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Benzene	**5.6**	J	6.2	0.30	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Bromodichloromethane	ND		6.2	0.83	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Bromoform	ND		6.2	3.1	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Bromomethane	ND		6.2	0.56	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Carbon disulfide	ND		6.2	3.1	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Carbon Tetrachloride	ND		6.2	0.60	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Chlorobenzene	ND		6.2	0.82	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Dibromochloromethane	ND		6.2	0.80	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Chloroethane	ND		6.2	1.4	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Chloroform	ND		6.2	0.38	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Chloromethane	ND		6.2	0.38	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
cis-1,2-Dichloroethene	ND		6.2	0.80	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
cis-1,3-Dichloropropene	ND		6.2	0.90	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Cyclohexane	ND		6.2	0.87	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Dichlorodifluoromethane	ND		6.2	0.51	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Ethylbenzene	ND		6.2	0.43	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Isopropylbenzene	**5.8**	J	6.2	0.94	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Methyl Acetate	ND	L	6.2	1.2	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.2	0.61	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Methylcyclohexane	**6.5**		6.2	0.94	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Methylene Chloride	**13**	U B	6.2	2.9	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Styrene	ND		6.2	0.31	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Tetrachloroethene	ND		6.2	0.83	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Toluene	ND		6.2	0.47	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Trichloroethene	ND		6.2	1.4	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Trichlorofluoromethane	ND		6.2	0.59	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
Vinyl chloride	ND		6.2	0.76	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (4-6) (RTL0458-02 - Soil) - cont.						**Sampled: 12/02/10 08:10**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**2.2**	J	12	1.0	ug/kg dry	1.00	12/14/10 23:04	CDC	10L1199	8260B
1,2-Dichloroethane-d4	*114 %*		*Surr Limits: (64-126%)*				*12/14/10 23:04*	*CDC*	*10L1199*	*8260B*
4-Bromofluorobenzene	*104 %*		*Surr Limits: (72-126%)*				*12/14/10 23:04*	*CDC*	*10L1199*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-125%)*				*12/14/10 23:04*	*CDC*	*10L1199*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	45	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,4-Dimethylphenol	ND		210	56	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,4-Dinitrophenol	ND		400	72	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND		210	32	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND		210	51	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2-Methylnaphthalene	**31**	J	210	2.5	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2-Methylphenol	ND		210	6.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2-Nitroaniline	ND		400	66	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2-Nitrophenol	ND		210	9.5	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
3-Nitroaniline	ND		400	48	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		400	71	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND		210	66	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND		210	8.5	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Chloroaniline	ND		210	61	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		210	4.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Methylphenol	ND		400	12	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Nitroaniline	ND		400	23	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
4-Nitrophenol	ND		400	50	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Acenaphthene	**92**	J	210	2.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Acetophenone	ND		210	11	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Anthracene	**22**	J	210	5.3	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Atrazine	ND		210	9.2	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Benzo[a]anthracene	**38**	J	210	3.6	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Benzo[a]pyrene	**27**	J	210	5.0	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Benzo[b]fluoranthene	**34**	J	210	4.0	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Benzo[g,h,i]perylene	**22**	J	210	2.5	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Benzo[k]fluoranthene	ND		210	2.3	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Bis(2 ethylhexyl) phthalate	ND		210	67	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: P-18R (4-6) (RTL0458-02 - Soil) - cont. **Sampled: 12/02/10 08:10** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		210	56	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Caprolactam	ND		210	90	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Carbazole	ND		210	2.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Chrysene	40	J	210	2.1	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND		210	2.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Dibenzofuran	31	J	210	2.2	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Diethyl phthalate	ND		210	6.3	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Dimethyl phthalate	ND		210	5.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Di-n-butyl phthalate	ND		210	72	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Di-n-octyl phthalate	ND		210	4.8	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Fluoranthene	140	J	210	3.0	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Fluorene	81	J	210	4.8	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND		210	63	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND		210	5.7	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Isophorone	ND		210	10	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Naphthalene	ND		210	3.4	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Nitrobenzene	ND		210	9.2	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND		210	16	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND		210	11	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Pentachlorophenol	ND		400	71	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Phenanthrene	150	J	210	4.3	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Phenol	ND		210	22	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
Pyrene	130	J	210	1.3	ug/kg dry	1.00	12/28/10 12:35	MKP	10L0358	8270C
2,4,6-Tribromophenol	*99 %*		*Surr Limits: (39-146%)*				*12/28/10 12:35*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*92 %*		*Surr Limits: (37-120%)*				*12/28/10 12:35*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*70 %*		*Surr Limits: (18-120%)*				*12/28/10 12:35*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*81 %*		*Surr Limits: (34-132%)*				*12/28/10 12:35*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*75 %*		*Surr Limits: (11-120%)*				*12/28/10 12:35*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*103 %*		*Surr Limits: (58-147%)*				*12/28/10 12:35*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	505	J	11.9	5.2	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Antimony	ND	J	17.9	0.6	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Arsenic	ND	J	2.4	0.5	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Barium	2.37		0.596	0.131	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Beryllium	ND	J	0.238	0.033	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Cadmium	ND		0.238	0.036	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Calcium	91.1	J B	59.6	3.9	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Chromium	0.961		0.596	0.238	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Cobalt	0.329	J	0.596	0.060	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Copper	0.6	J	1.2	0.3	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Iron	805	J B	11.9	1.3	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Lead	1.3		1.2	0.3	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Magnesium	132	J	23.8	1.1	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Manganese	7.5	J	0.2	0.04	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (4-6) (RTL0458-02 - Soil) - cont.						**Sampled: 12/02/10 08:10**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**0.616**	J	5.96	0.274	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Potassium	**94.4**		35.7	23.8	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Selenium	ND		4.8	0.7	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Silver	ND		0.596	0.238	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Sodium	**16.8**	J	167	15.5	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Vanadium	**1.16**		0.596	0.131	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Zinc	**1.6**	J	2.4	0.2	mg/kg dry	1.00	12/07/10 10:49	AMH	10L0372	6010B
Mercury	ND		0.0250	0.0101	mg/kg dry	1.00	12/07/10 13:13	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	12/07/10 08:22	MJM	10L0397	Dry Weight
Ferrous Iron	**1.8**	~~HFT~~, J	2.5	0.4	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**66.9**	J	126	63.2	mg/kg dry	1.00	12/10/10 12:33	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2420**		1240	1240	mg/Kg dry	1.00	12/06/10 18:57	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**19.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**81.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (6-8) (RTL0458-03 - Soil)						**Sampled: 12/02/10 08:15**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.2	0.45	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		6.2	0.80	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		6.2	0.75	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		6.2	0.75	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		6.2	0.37	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		6.2	0.79	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		6.2	0.48	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		6.2	0.31	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		6.2	0.32	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		6.2	0.86	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
2-Butanone	ND		31	2.3	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Acetone	**30**	J	31	5.2	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Benzene	**11**		6.2	0.30	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Bromodichloromethane	ND		6.2	0.82	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Bromoform	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Bromomethane	ND		6.2	0.55	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Carbon disulfide	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		6.2	0.60	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Chlorobenzene	ND		6.2	0.81	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Dibromochloromethane	ND		6.2	0.79	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Chloroethane	ND		6.2	1.4	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Chloroform	ND		6.2	0.38	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Chloromethane	ND		6.2	0.37	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		6.2	0.79	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		6.2	0.89	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Cyclohexane	ND		6.2	0.86	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		6.2	0.51	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Ethylbenzene	ND		6.2	0.42	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Isopropylbenzene	**7.2**		6.2	0.93	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Methyl Acetate	ND		6.2	1.1	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.2	0.60	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Methylcyclohexane	**7.1**		6.2	0.94	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Methylene Chloride	**22**		6.2	2.8	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Styrene	ND		6.2	0.31	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Tetrachloroethene	ND		6.2	0.83	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Toluene	ND		6.2	0.47	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Trichloroethene	ND		6.2	1.4	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		6.2	0.58	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
Vinyl chloride	ND		6.2	0.75	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (6-8) (RTL0458-03 - Soil) - cont.						**Sampled: 12/02/10 08:15**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**2.5**	J	12	1.0	ug/kg dry	1.00	12/13/10 14:32	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/13/10 14:32*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*103 %*		*Surr Limits: (72-126%)*				*12/13/10 14:32*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-125%)*				*12/13/10 14:32*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,4-Dimethylphenol	ND		210	56	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,4-Dinitrophenol	ND		410	73	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND		210	32	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND		210	51	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2-Methylnaphthalene	**33**	J	210	2.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2-Methylphenol	ND		210	6.4	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2-Nitroaniline	ND		410	67	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2-Nitrophenol	ND		210	9.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
3-Nitroaniline	ND		410	48	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		410	72	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND		210	66	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND		210	8.6	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Chloroaniline	ND		210	61	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Nitroaniline	ND		410	23	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Acenaphthene	**150**	J	210	2.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Acetophenone	ND	J	210	11	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Anthracene	**38**	J	210	5.3	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Atrazine	ND		210	9.3	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Benzaldehyde	ND	J	210	23	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Benzo[a]anthracene	**63**	J	210	3.6	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Benzo[a]pyrene	**39**	J	210	5.0	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Benzo[b]fluoranthene	**50**	J	210	4.1	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Benzo[g,h,i]perylene	**24**	J	210	2.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Benzo[k]fluoranthene	ND		210	2.3	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Bis(2-ethylhexyl) phthalate	ND		210	67	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (6-8) (RTL0458-03 - Soil) - cont.						**Sampled: 12/02/10 08:15**		**Recvd: 12/03/10 09:30**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		210	56	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Caprolactam	ND		210	90	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Carbazole	ND		210	2.4	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Chrysene	**65**	J	210	2.1	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	J	210	2.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Dibenzofuran	**39**	J	210	2.2	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Diethyl phthalate	ND		210	6.3	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Dimethyl phthalate	ND		210	5.4	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Di-n-butyl phthalate	ND		210	72	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Fluoranthene	**300**		210	3.0	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Fluorene	**99**	J	210	4.8	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND		210	63	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND		210	5.8	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Isophorone	ND		210	10	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Nitrobenzene	ND		210	9.3	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	J	210	17	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND		210	11	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Pentachlorophenol	ND		410	72	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Phenanthrene	**260**		210	4.4	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Phenol	ND		210	22	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
Pyrene	**280**		210	1.4	ug/kg dry	1.00	12/28/10 12:59	MKP	10L0358	8270C
2,4,6-Tribromophenol	*99 %*		*Surr Limits: (39-146%)*				*12/28/10 12:59*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*100 %*		*Surr Limits: (37-120%)*				*12/28/10 12:59*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*78 %*		*Surr Limits: (18-120%)*				*12/28/10 12:59*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*92 %*		*Surr Limits: (34-132%)*				*12/28/10 12:59*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*84 %*		*Surr Limits: (11-120%)*				*12/28/10 12:59*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*106 %*		*Surr Limits: (58-147%)*				*12/28/10 12:59*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1770**	J	11.7	5.2	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Antimony	ND	J	17.6	0.6	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Arsenic	**0.9**	J	2.3	0.5	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Barium	**8.06**		0.586	0.129	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Beryllium	**0.089**	J	0.235	0.033	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Cadmium	**0.045**	J	0.235	0.035	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Calcium	**455**	J B	58.6	3.9	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Chromium	**3.62**		0.586	0.235	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Cobalt	**0.671**		0.586	0.059	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Copper	**2.3**		1.2	0.2	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Iron	**3130**	J B	11.7	1.3	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Lead	**8.9**		1.2	0.3	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Magnesium	**567**	J	23.5	1.1	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Manganese	**27.1**	J	0.2	0.04	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: P-18R (6-8) (RTL0458-03 - Soil) - cont.						**Sampled: 12/02/10 08:15**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**1.86**	J	5.86	0.270	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Potassium	**258**		35.2	23.5	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Silver	ND		0.586	0.235	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Sodium	**35.0**	J	164	15.2	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Thallium	ND		7.0	0.4	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Vanadium	**4.58**		0.586	0.129	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Zinc	**8.1**		2.3	0.2	mg/kg dry	1.00	12/07/10 10:51	AMH	10L0372	6010B
Mercury	ND		0.0239	0.0097	mg/kg dry	1.00	12/07/10 13:15	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	12/07/10 08:24	MJM	10L0397	Dry Weight
Ferrous Iron	**2.5**	J ~~HFT~~	2.5	0.4	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**139**		126	63.0	mg/kg dry	1.00	12/10/10 12:33	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**5560**		1220	1220	mg/Kg dry	1.00	12/06/10 19:10	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**18.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**81.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (0-2) (RTL0458-04 - Soil) **Sampled: 12/02/10 08:30** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.89	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,1,2-Trichloroethane	ND		5.5	0.72	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.3	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,1-Dichloroethene	ND		5.5	0.68	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.34	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2-Dibromo-3-chloropropane	ND	J	5.5	2.8	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2-Dibromoethane	ND		5.5	0.71	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2-Dichloroethane	ND		5.5	0.28	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2-Dichloropropane	ND		5.5	2.8	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,4-Dichlorobenzene	ND		5.5	0.77	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
2-Butanone	ND		28	2.0	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Acetone	ND		28	4.6	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Bromodichloromethane	ND		5.5	0.74	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Bromoform	ND		5.5	2.8	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Bromomethane	ND		5.5	0.50	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Carbon disulfide	ND		5.5	2.8	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Carbon Tetrachloride	ND		5.5	0.53	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Chlorobenzene	ND		5.5	0.73	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Dibromochloromethane	ND		5.5	0.71	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Chloroethane	ND		5.5	1.2	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
cis-1,2-Dichloroethene	ND		5.5	0.71	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Cyclohexane	ND		5.5	0.77	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Dichlorodifluoromethane	ND		5.5	0.46	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Isopropylbenzene	ND		5.5	0.83	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Methylcyclohexane	ND		5.5	0.84	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Methylene Chloride	19		5.5	2.5	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Styrene	ND		5.5	0.28	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Tetrachloroethene	ND		5.5	0.74	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Toluene	ND		5.5	0.42	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (0-2) (RTL0458-04 - Soil) - cont.							**Sampled: 12/02/10 08:30**		**Recvd: 12/03/10 09:30**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.93	ug/kg dry	1.00	12/10/10 13:42	PJQ	10L0873	8260B
1,2-Dichloroethane-d4	*104 %*		*Surr Limits: (64-126%)*				*12/10/10 13:42*	*PJQ*	*10L0873*	*8260B*
4-Bromofluorobenzene	*98 %*		*Surr Limits: (72-126%)*				*12/10/10 13:42*	*PJQ*	*10L0873*	*8260B*
Toluene-d8	*99 %*		*Surr Limits: (71-125%)*				*12/10/10 13:42*	*PJQ*	*10L0873*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	T10	940	200	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND	T10	940	61	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,4-Dichlorophenol	ND	T10	940	49	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,4-Dimethylphenol	ND	T10	940	250	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,4-Dinitrophenol	ND	T10	1800	320	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND	T10	940	140	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND	T10	940	230	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2-Chloronaphthalene	ND	T10	940	62	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2-Chlorophenol	ND	T10	940	47	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2-Methylnaphthalene	ND	T10	940	11	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2-Methylphenol	ND	T10	940	29	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2-Nitroaniline	ND	T10	1800	300	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2-Nitrophenol	ND	T10	940	42	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND	T10	940	810	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
3-Nitroaniline	ND	T10	1800	210	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND	T10	1800	320	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND	T10	940	300	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND	T10	940	38	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Chloroaniline	ND	T10	940	270	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND	T10	940	20	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Methylphenol	ND	T10	1800	52	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Nitroaniline	ND	T10	1800	100	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
4-Nitrophenol	ND	T10	1800	230	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Acenaphthene	ND	T10	940	11	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Acenaphthylene	ND	T10	940	7.6	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Acetophenone	ND	T10,L	940	48	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Anthracene	ND	T10	940	24	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Atrazine	ND	T10	940	41	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Benzaldehyde	ND	T10,L	940	100	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Benzo[a]anthracene	ND	T10	940	16	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Benzo[a]pyrene	ND	T10	940	22	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Benzo[b]fluoranthene	ND	T10	940	18	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Benzo[g,h,i]perylene	75	T10,J	940	11	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Benzo[k]fluoranthene	ND	T10	940	10	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Biphenyl	ND	T10	940	58	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND	T10	940	51	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND	T10	940	80	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND	T10	940	97	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Bis(2 ethylhexyl) phthalate	ND	T10	940	300	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (0-2) (RTL0458-04 - Soil) - cont. **Sampled: 12/02/10 08:30** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	T10	940	250	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Caprolactam	ND	T10	940	400	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Carbazole	ND	T10	940	11	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Chrysene	ND	T10	940	9.3	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	T10,L	940	11	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Dibenzofuran	ND	T10	940	9.7	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Diethyl phthalate	ND	T10	940	28	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Dimethyl phthalate	ND	T10	940	24	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Di-n-butyl phthalate	ND	T10	940	320	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Di-n-octyl phthalate	ND	T10	940	22	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Fluoranthene	ND	T10	940	13	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Fluorene	ND	T10	940	21	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Hexachlorobenzene	ND	T10	940	46	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Hexachlorobutadiene	ND	T10	940	48	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND	T10	940	280	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Hexachloroethane	ND	T10	940	72	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND	T10	940	26	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Isophorone	ND	T10	940	46	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Naphthalene	ND	T10	940	15	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Nitrobenzene	ND	T10	940	41	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	T10,L	940	74	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND	T10	940	51	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Pentachlorophenol	ND	T10	1800	320	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Phenanthrene	ND	T10	940	19	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Phenol	ND	T10	940	98	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
Pyrene	ND	T10	940	6.0	ug/kg dry	1.00	12/28/10 13:22	MKP	10L0358	8270C
2,4,6-Tribromophenol	*93 %*	*T10*	*Surr Limits: (39-146%)*				*12/28/10 13:22*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*106 %*	*T10*	*Surr Limits: (37-120%)*				*12/28/10 13:22*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*81 %*	*T10*	*Surr Limits: (18-120%)*				*12/28/10 13:22*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*103 %*	*T10*	*Surr Limits: (34-132%)*				*12/28/10 13:22*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*92 %*	*T10*	*Surr Limits: (11-120%)*				*12/28/10 13:22*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*109 %*	*T10*	*Surr Limits: (58-147%)*				*12/28/10 13:22*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2650**	J	10.9	4.8	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Antimony	ND	J	16.3	0.6	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Arsenic	**2.2**	J	2.2	0.4	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Barium	**11.5**		0.544	0.120	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Beryllium	**0.178**	J	0.217	0.030	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Cadmium	**0.200**	J	0.217	0.033	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Calcium	**6530**	J B	54.4	3.6	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Chromium	**5.13**		0.544	0.217	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Cobalt	**1.49**		0.544	0.054	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Copper	**9.1**		1.1	0.2	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Iron	**4820**	J B	10.9	1.2	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Lead	**23.6**		1.1	0.3	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Magnesium	**4010**	J	21.7	1.0	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Manganese	**42.1**	J	0.2	0.03	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (0-2) (RTL0458-04 - Soil) - cont.						**Sampled: 12/02/10 08:30**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**4.35**	J	5.44	0.250	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Potassium	**339**		32.6	21.7	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Selenium	ND		4.3	0.6	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Silver	ND		0.544	0.217	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Sodium	**37.5**	J	152	14.1	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Thallium	ND		6.5	0.3	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Vanadium	**7.04**		0.544	0.120	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Zinc	**15.1**		2.2	0.2	mg/kg dry	1.00	12/07/10 10:53	AMH	10L0372	6010B
Mercury	**0.0223**		0.0220	0.0089	mg/kg dry	1.00	12/07/10 13:17	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**90**		0.010	NR	%	1.00	12/07/10 08:26	MJM	10L0397	Dry Weight
Ferrous Iron	**1.8**	~~HFT~~, J	2.2	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	ND		111	55.7	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**4480**		1160	1160	mg/Kg dry	1.00	12/06/10 19:36	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**14.1**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**85.9**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (2-4) (RTL0458-05 - Soil) **Sampled: 12/02/10 08:35** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	120	32	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,1,2,2-Tetrachloroethane	ND	W1	120	19	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,1,2-Trichloroethane	ND	W1	120	24	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	120	58	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,1-Dichloroethane	ND	W1	120	36	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,1-Dichloroethene	ND	W1	120	40	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2,4-Trichlorobenzene	ND	W1	120	44	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2-Dibromo-3-chloropropane	ND	W1	120	58	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2-Dibromoethane	ND	W1	120	4.4	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2-Dichlorobenzene	ND	W1	120	30	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2-Dichloroethane	ND	W1	120	47	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2-Dichloropropane	ND	W1	120	19	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,3-Dichlorobenzene	ND	W1	120	31	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,4-Dichlorobenzene	ND	W1	120	16	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
2-Butanone	ND	W1	580	340	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
2-Hexanone	ND	W1	580	240	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
4-Methyl-2-pentanone	ND	W1	580	37	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Acetone	ND	W1	580	480	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Benzene	ND	W1	120	5.6	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Bromodichloromethane	ND	W1	120	23	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Bromoform	ND	W1	120	58	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Bromomethane	ND	W1	120	25	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Carbon disulfide	ND	W1	120	53	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Carbon Tetrachloride	ND	W1	120	30	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Chlorobenzene	ND	W1	120	15	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Dibromochloromethane	ND	W1	120	56	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Chloroethane	ND	W1	120	24	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Chloroform	ND	W1	120	79	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Chloromethane	ND	W1	120	28	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
cis-1,2-Dichloroethene	ND	W1	120	32	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
cis-1,3-Dichloropropene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Cyclohexane	ND	W1	120	26	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Dichlorodifluoromethane	ND	W1	120	51	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Ethylbenzene	**970**	W1	120	34	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Isopropylbenzene	**290**	W1	120	17	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Methyl Acetate	ND	W1	120	55	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	120	44	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Methylcyclohexane	**2400**	W1	120	54	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Methylene Chloride	ND	W1	120	23	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Styrene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Tetrachloroethene	ND	W1	120	16	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Toluene	**750**	W1	120	31	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
trans-1,2-Dichloroethene	ND	W1	120	27	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
trans-1,3-Dichloropropene	ND	W1	120	5.6	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Trichloroethene	ND	W1	120	32	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Trichlorofluoromethane	ND	W1	120	54	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
Vinyl chloride	ND	W1	120	39	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (2-4) (RTL0458-05 - Soil) - cont. **Sampled: 12/02/10 08:35** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**21000**	~~W1~~	230	19	ug/kg dry	1.00	12/10/10 17:08	DHC	10L0621	8260B
1,2-Dichloroethane-d4	*122 %*	*W1*	*Surr Limits: (53-146%)*				*12/10/10 17:08*	*DHC*	*10L0621*	*8260B*
4-Bromofluorobenzene	*100 %*	*W1*	*Surr Limits: (49-148%)*				*12/10/10 17:08*	*DHC*	*10L0621*	*8260B*
Toluene-d8	*114 %*	*W1*	*Surr Limits: (50-149%)*				*12/10/10 17:08*	*DHC*	*10L0621*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	T10	1000	220	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND	T10	1000	65	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,4-Dichlorophenol	ND	T10	1000	52	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,4-Dimethylphenol	ND	T10	1000	270	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,4-Dinitrophenol	ND	T10	1900	350	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND	T10	1000	150	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND	T10	1000	240	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2-Chloronaphthalene	ND	T10	1000	67	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2-Chlorophenol	ND	T10	1000	50	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2-Methylnaphthalene	**6200**	T10	1000	12	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2-Methylphenol	ND	T10	1000	31	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2-Nitroaniline	ND	T10	1900	320	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2-Nitrophenol	ND	T10	1000	45	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND	T10	1000	870	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
3-Nitroaniline	ND	T10	1900	230	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND	T10	1900	340	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND	~~T10~~	1000	320	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND	T10	1000	41	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Chloroaniline	ND	T10	1000	290	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND	T10	1000	21	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Methylphenol	ND	T10	1900	55	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Nitroaniline	ND	T10	1900	110	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
4-Nitrophenol	ND	T10	1900	240	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Acenaphthene	**5700**	T10	1000	12	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Acenaphthylene	**120**	~~T10~~,J	1000	8.1	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Acetophenone	ND	~~T10,L~~	1000	51	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Anthracene	**2900**	T10	1000	25	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Atrazine	ND	T10	1000	44	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Benzaldehyde	ND	~~T10,L~~	1000	110	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Benzo[a]anthracene	**1800**	~~T10~~	1000	17	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Benzo[a]pyrene	**830**	~~T10~~,J	1000	24	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Benzo[b]fluoranthene	**1100**	~~T10~~	1000	19	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Benzo[g,h,i]perylene	**370**	~~T10~~,J	1000	12	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Benzo[k]fluoranthene	**240**	~~T10~~,J	1000	11	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Biphenyl	**920**	~~T10~~,J	1000	62	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND	~~T10~~	1000	54	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND	T10	1000	86	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND	T10	1000	100	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Bis(2-ethylhexyl) phthalate	1300 ~~970~~ UB	~~T10,J,B~~	1000	320	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (2-4) (RTL0458-05 - Soil) - cont. **Sampled: 12/02/10 08:35** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	T10	1000	270	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Caprolactam	ND	T10	1000	430	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Carbazole	**1800**	T10	1000	11	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Chrysene	**1300**	T10	1000	9.9	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	T10,L	1000	12	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Dibenzofuran	**3600**	T10	1000	10	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Diethyl phthalate	ND	T10	1000	30	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Dimethyl phthalate	ND	T10	1000	26	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Di-n-butyl phthalate	ND	T10	1000	340	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Di-n-octyl phthalate	ND	T10	1000	23	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Fluoranthene	**8700**	T10	1000	14	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Fluorene	**4500**	T10	1000	23	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Hexachlorobenzene	**370**	T10,J	1000	49	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Hexachlorobutadiene	ND	T10	1000	51	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND	T10	1000	300	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Hexachloroethane	ND	T10	1000	77	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	**300**	T10,J	1000	27	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Isophorone	ND	T10	1000	50	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Naphthalene	**7400**	T10	1000	17	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Nitrobenzene	ND	T10	1000	44	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	T10,L	1000	79	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND	T10	1000	54	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Pentachlorophenol	ND	T10	1900	340	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Phenanthrene	**15000**	T10	1000	21	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Phenol	ND	T10	1000	100	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
Pyrene	**7200**	T10	1000	6.4	ug/kg dry	1.00	12/07/10 14:11	MKP	10L0358	8270C
2,4,6-Tribromophenol	*107 %*	T10	*Surr Limits: (39-146%)*				*12/07/10 14:11*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*103 %*	T10	*Surr Limits: (37-120%)*				*12/07/10 14:11*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*95 %*	T10	*Surr Limits: (18-120%)*				*12/07/10 14:11*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*103 %*	T10	*Surr Limits: (34-132%)*				*12/07/10 14:11*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*105 %*	T10	*Surr Limits: (11-120%)*				*12/07/10 14:11*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*101 %*	T10	*Surr Limits: (58-147%)*				*12/07/10 14:11*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3370**	J	11.8	5.2	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Antimony	ND	J	17.7	0.6	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Arsenic	**2.1**	J	2.4	0.5	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Barium	**14.8**		0.589	0.130	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Beryllium	**0.176**	J	0.236	0.033	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Cadmium	**0.222**	J	0.236	0.035	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Calcium	**8410**	J B	58.9	3.9	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Chromium	**5.55**		0.589	0.236	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Cobalt	**2.27**		0.589	0.059	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Copper	**9.5**		1.2	0.2	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Iron	**4550**	J B	11.8	1.3	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Lead	**39.6**		1.2	0.3	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Magnesium	**5240**	J	23.6	1.1	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Manganese	**46.8**	J	0.2	0.04	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (2-4) (RTL0458-05 - Soil) - cont.						**Sampled: 12/02/10 08:35**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.66**	J	5.89	0.271	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Potassium	**402**		35.4	23.6	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Silver	ND		0.589	0.236	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Sodium	**49.3**	J	165	15.3	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Vanadium	**8.63**		0.589	0.130	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Zinc	**18.6**		2.4	0.2	mg/kg dry	1.00	12/07/10 10:55	AMH	10L0372	6010B
Mercury	**0.0158**	J	0.0237	0.0096	mg/kg dry	1.00	12/07/10 13:18	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**84**		0.010	NR	%	1.00	12/07/10 08:28	MJM	10L0397	Dry Weight
Ferrous Iron	**0.6**	~~HFT~~, J	2.4	0.4	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**306**		119	59.4	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**10500**		1240	1240	mg/Kg dry	1.00	12/06/10 19:48	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**19.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**80.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (4-6) (RTL0458-06 - Soil) **Sampled: 12/02/10 08:45** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	120	33	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,1,2,2-Tetrachloroethane	ND	W1	120	19	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,1,2-Trichloroethane	ND	W1	120	25	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	120	60	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,1-Dichloroethane	ND	W1	120	37	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,1-Dichloroethene	ND	W1	120	41	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2,4-Trichlorobenzene	ND	W1	120	45	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2-Dibromo-3-chloropropane	ND	W1	120	60	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2-Dibromoethane	ND	W1	120	4.5	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2-Dichlorobenzene	ND	W1	120	30	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2-Dichloroethane	ND	W1	120	49	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2-Dichloropropane	ND	W1	120	19	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,3-Dichlorobenzene	ND	W1	120	32	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,4-Dichlorobenzene	ND	W1	120	17	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
2-Butanone	ND	W1	600	350	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
2-Hexanone	ND	W1	600	240	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
4-Methyl-2-pentanone	ND	W1	600	38	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Acetone	ND	W1	600	490	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Benzene	ND	W1	120	5.7	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Bromodichloromethane	ND	W1	120	24	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Bromoform	ND	W1	120	60	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Bromomethane	ND	W1	120	26	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Carbon disulfide	ND	W1	120	54	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Carbon Tetrachloride	ND	W1	120	30	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Chlorobenzene	ND	W1	120	16	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Dibromochloromethane	ND	W1	120	58	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Chloroethane	ND	W1	120	25	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Chloroform	ND	W1	120	82	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Chloromethane	ND	W1	120	28	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
cis-1,2-Dichloroethene	ND	W1	120	33	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
cis-1,3-Dichloropropene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Cyclohexane	ND	W1	120	26	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Dichlorodifluoromethane	ND	W1	120	52	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Ethylbenzene	**1400**	W1	120	35	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Isopropylbenzene	**320**	W1	120	18	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Methyl Acetate	ND	W1	120	57	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	120	45	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Methylcyclohexane	**1800**	W1	120	56	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Methylene Chloride	**210**	W1	120	24	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Styrene	ND	W1	120	29	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Tetrachloroethene	ND	W1	120	16	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Toluene	**210**	W1	120	32	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
trans-1,2-Dichloroethene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
trans-1,3-Dichloropropene	ND	W1	120	5.7	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Trichloroethene	ND	W1	120	33	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Trichlorofluoromethane	ND	W1	120	56	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
Vinyl chloride	ND	W1	120	40	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (4-6) (RTL0458-06 - Soil) - cont. **Sampled: 12/02/10 08:45** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**11000**	~~W1~~	240	20	ug/kg dry	1.00	12/10/10 17:29	DHC	10L0621	8260B
1,2-Dichloroethane-d4	*113 %*	*W1*	*Surr Limits: (53-146%)*				*12/10/10 17:29*	*DHC*	*10L0621*	*8260B*
4-Bromofluorobenzene	*108 %*	*W1*	*Surr Limits: (49-148%)*				*12/10/10 17:29*	*DHC*	*10L0621*	*8260B*
Toluene-d8	*114 %*	*W1*	*Surr Limits: (50-149%)*				*12/10/10 17:29*	*DHC*	*10L0621*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	T10	1000	220	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND	T10	1000	66	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,4-Dichlorophenol	ND	T10	1000	53	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,4-Dimethylphenol	ND	T10	1000	270	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,4-Dinitrophenol	ND	T10	2000	350	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND	T10	1000	160	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND	T10	1000	250	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2-Chloronaphthalene	ND	T10	1000	67	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2-Chlorophenol	ND	T10	1000	51	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2-Methylnaphthalene	**1700**	T10	1000	12	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2-Methylphenol	ND	T10	1000	31	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2-Nitroaniline	ND	T10	2000	320	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2-Nitrophenol	ND	T10	1000	46	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND	T10	1000	880	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
3-Nitroaniline	ND	T10	2000	230	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND	T10	2000	350	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND	~~T10~~	1000	320	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND	T10	1000	41	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Chloroaniline	ND	T10	1000	290	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND	T10	1000	21	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Methylphenol	ND	T10	2000	56	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Nitroaniline	ND	T10	2000	110	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
4-Nitrophenol	ND	T10	2000	240	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Acenaphthene	**1700**	T10	1000	12	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Acenaphthylene	ND	T10	1000	8.2	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Acetophenone	ND	~~T10,L~~	1000	51	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Anthracene	**990**	~~T10~~,J	1000	26	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Atrazine	ND	~~T10~~	1000	45	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Benzaldehyde	ND	~~T10,L~~	1000	110	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Benzo[a]anthracene	**700**	~~T10~~,J	1000	17	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Benzo[a]pyrene	**380**	~~T10~~,J	1000	24	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Benzo[b]fluoranthene	**410**	~~T10~~,J	1000	19	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Benzo[g,h,i]perylene	**150**	~~T10~~,J	1000	12	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Benzo[k]fluoranthene	**160**	~~T10~~,J	1000	11	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Biphenyl	**250**	~~T10~~,J	1000	62	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND	~~T10~~	1000	54	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND	T10	1000	86	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND	T10	1000	100	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Bis(2-ethylhexyl) phthalate	~~890~~	~~T10,J,B~~	1000	320	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (4-6) (RTL0458-06 - Soil) - cont. **Sampled: 12/02/10 08:45** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	~~T10~~	1000	270	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Caprolactam	ND	~~T10~~	1000	430	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Carbazole	**470**	~~T10~~,J	1000	12	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Chrysene	**550**	~~T10~~,J	1000	10	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	~~T10,L~~	1000	12	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Dibenzofuran	**1100**	~~T10~~	1000	10	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Diethyl phthalate	ND	~~T10~~	1000	30	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Dimethyl phthalate	ND	~~T10~~	1000	26	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Di-n-butyl phthalate	ND	~~T10~~	1000	350	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Di-n-octyl phthalate	ND	~~T10~~	1000	23	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Fluoranthene	**2800**	~~T10~~	1000	15	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Fluorene	**1400**	~~T10~~	1000	23	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Hexachlorobenzene	ND	~~T10~~	1000	50	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Hexachlorobutadiene	ND	~~T10~~	1000	51	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND	~~T10~~	1000	300	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Hexachloroethane	ND	~~T10~~	1000	78	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	**140**	~~T10~~,J	1000	28	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Isophorone	ND	~~T10~~	1000	50	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Naphthalene	**1400**	~~T10~~	1000	17	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Nitrobenzene	ND	~~T10~~	1000	44	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	~~T10,L~~	1000	79	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND	~~T10~~	1000	55	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Pentachlorophenol	ND	~~T10~~	2000	340	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Phenanthrene	**4600**	~~T10~~	1000	21	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Phenol	ND	~~T10~~	1000	110	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
Pyrene	**2600**	~~T10~~	1000	6.5	ug/kg dry	1.00	12/07/10 14:35	MKP	10L0358	8270C
2,4,6-Tribromophenol	*87 %*	~~T10~~	*Surr Limits: (39-146%)*				*12/07/10 14:35*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*103 %*	~~T10~~	*Surr Limits: (37-120%)*				*12/07/10 14:35*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*85 %*	~~T10~~	*Surr Limits: (18-120%)*				*12/07/10 14:35*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*97 %*	~~T10~~	*Surr Limits: (34-132%)*				*12/07/10 14:35*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*96 %*	~~T10~~	*Surr Limits: (11-120%)*				*12/07/10 14:35*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*109 %*	~~T10~~	*Surr Limits: (58-147%)*				*12/07/10 14:35*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2610**	J	11.9	5.2	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Antimony	ND	J	17.8	0.6	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Arsenic	**2.1**	J	2.4	0.5	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Barium	**11.6**		0.593	0.131	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Beryllium	**0.136**	J	0.237	0.033	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Cadmium	**0.172**	J	0.237	0.036	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Calcium	**8240**	J B	59.3	3.9	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Chromium	**4.42**		0.593	0.237	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Cobalt	**1.41**		0.593	0.059	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Copper	**5.9**		1.2	0.2	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Iron	**3880**	J B	11.9	1.3	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Lead	**20.6**		1.2	0.3	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Magnesium	**4510**	J	23.7	1.1	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Manganese	**39.6**	J	0.2	0.04	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (4-6) (RTL0458-06 - Soil) - cont.						**Sampled: 12/02/10 08:45**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**3.83**	J	5.93	0.273	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Potassium	**334**		35.6	23.7	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Silver	ND		0.593	0.237	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Sodium	**40.3**	J	166	15.4	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Vanadium	**7.14**		0.593	0.131	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Zinc	**13.6**		2.4	0.2	mg/kg dry	1.00	12/07/10 11:02	AMH	10L0372	6010B
Mercury	**0.0177**	J	0.0246	0.0100	mg/kg dry	1.00	12/07/10 13:20	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**82**		0.010	NR	%	1.00	12/07/10 08:30	MJM	10L0397	Dry Weight
Ferrous Iron	**1.1**	~~HFT~~, J	2.4	0.4	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	ND		122	61.1	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**4420**		1220	1220	mg/Kg dry	1.00	12/06/10 20:01	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**18.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**81.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-8-12-2-10 (RTL0458-07 - Water)						**Sampled: 12/02/10**			**Recvd: 12/03/10 09:30**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Methylene Chloride	1.2	N1	1.0	0.44	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-8-12-2-10 (RTL0458-07 - Water) - cont.						**Sampled: 12/02/10**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	2.0	0.66	ug/L	1.00	12/07/10 14:05	PJQ	10L0503	8260B
1,2-Dichloroethane-d4	*110 %*	*N1*	*Surr Limits: (66-137%)*				*12/07/10 14:05*	*PJQ*	*10L0503*	*8260B*
4-Bromofluorobenzene	*104 %*	*N1*	*Surr Limits: (73-120%)*				*12/07/10 14:05*	*PJQ*	*10L0503*	*8260B*
Toluene-d8	*105 %*	*N1*	*Surr Limits: (71-126%)*				*12/07/10 14:05*	*PJQ*	*10L0503*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-6-12-2-10 (RTL0458-08 - Water) **Sampled: 12/02/10 16:00** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Methylene Chloride	1.1	N1	1.0	0.44	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-6-12-2-10 (RTL0458-08 - Water) - cont.						**Sampled: 12/02/10 16:00**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	N1	2.0	0.66	ug/L	1.00	12/07/10 14:30	PJQ	10L0503	8260B
1,2-Dichloroethane-d4	*109 %*	*N1*	*Surr Limits: (66-137%)*				*12/07/10 14:30*	*PJQ*	*10L0503*	*8260B*
4-Bromofluorobenzene	*107 %*	*N1*	*Surr Limits: (73-120%)*				*12/07/10 14:30*	*PJQ*	*10L0503*	*8260B*
Toluene-d8	*111 %*	*N1*	*Surr Limits: (71-126%)*				*12/07/10 14:30*	*PJQ*	*10L0503*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		5.3	0.51	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,4,6-Trichlorophenol	ND		5.3	0.64	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,4-Dichlorophenol	ND		5.3	0.54	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,4-Dimethylphenol	ND		5.3	0.53	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,4-Dinitrophenol	ND		11	2.3	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,4-Dinitrotoluene	ND		5.3	0.47	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,6-Dinitrotoluene	ND		5.3	0.42	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2-Chloronaphthalene	ND		5.3	0.48	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2-Chlorophenol	ND		5.3	0.56	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2-Methylnaphthalene	ND		5.3	0.63	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2-Methylphenol	ND		5.3	0.42	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2-Nitroaniline	ND		11	0.44	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2-Nitrophenol	ND		5.3	0.51	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
3,3'-Dichlorobenzidine	ND		5.3	0.42	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
3-Nitroaniline	ND		11	0.51	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4,6-Dinitro-2-methylphenol	ND		11	2.3	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Bromophenyl phenyl ether	ND		5.3	0.47	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Chloro-3-methylphenol	ND		5.3	0.47	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Chloroaniline	ND		5.3	0.62	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Chlorophenyl phenyl ether	ND		5.3	0.37	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Methylphenol	ND		11	0.38	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Nitroaniline	ND		11	0.26	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
4-Nitrophenol	ND		11	1.6	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Acenaphthene	ND		5.3	0.43	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Acenaphthylene	ND		5.3	0.40	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Acetophenone	ND		5.3	0.57	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Anthracene	ND		5.3	0.29	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Atrazine	ND		5.3	0.48	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Benzaldehyde	ND		5.3	0.28	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Benzo(a)anthracene	ND		5.3	0.38	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Benzo(a)pyrene	ND		5.3	0.49	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Benzo(b)fluoranthene	ND		5.3	0.36	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Benzo(ghi)perylene	ND		5.3	0.37	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Benzo(k)fluoranthene	ND		5.3	0.77	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Biphenyl	ND		5.3	0.69	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Bis(2-chloroethoxy)methane	ND		5.3	0.37	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Bis(2-chloroethyl)ether	ND		5.3	0.42	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.3	0.55	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Bis(2-ethylhexyl) phthalate	3.7	J, B	5.3	1.9	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-6-12-2-10 (RTL0458-08 - Water) - cont.						**Sampled: 12/02/10 16:00**		**Recvd: 12/03/10 09:30**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		5.3	0.44	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Caprolactam	ND		5.3	2.3	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Carbazole	ND		5.3	0.32	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Chrysene	ND		5.3	0.35	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Dibenzo(a,h)anthracene	ND		5.3	0.44	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Dibenzofuran	ND		5.3	0.54	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Diethyl phthalate	ND		5.3	0.23	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Dimethyl phthalate	ND		5.3	0.38	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Di-n-butyl phthalate	ND		5.3	0.33	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Di-n-octyl phthalate	ND		5.3	0.49	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Fluoranthene	ND		5.3	0.42	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Fluorene	ND		5.3	0.38	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Hexachlorobenzene	ND		5.3	0.54	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Hexachlorobutadiene	ND		5.3	0.72	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Hexachlorocyclopentadiene	ND		5.3	0.62	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Hexachloroethane	ND		5.3	0.62	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Indeno(1,2,3-cd)pyrene	ND		5.3	0.49	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Isophorone	ND		5.3	0.45	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Naphthalene	ND		5.3	0.80	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Nitrobenzene	ND		5.3	0.31	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
N-Nitrosodi-n-propylamine	ND		5.3	0.57	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
N-Nitrosodiphenylamine	ND		5.3	0.54	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Pentachlorophenol	ND		11	2.3	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Phenanthrene	ND		5.3	0.46	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Phenol	ND		5.3	0.41	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
Pyrene	ND		5.3	0.36	ug/L	1.00	12/06/10 16:51	MKP	10L0274	8270C
2,4,6-Tribromophenol	*91 %*		*Surr Limits: (52-132%)*				*12/06/10 16:51*	*MKP*	*10L0274*	*8270C*
2-Fluorobiphenyl	*82 %*		*Surr Limits: (48-120%)*				*12/06/10 16:51*	*MKP*	*10L0274*	*8270C*
2-Fluorophenol	*49 %*		*Surr Limits: (20-120%)*				*12/06/10 16:51*	*MKP*	*10L0274*	*8270C*
Nitrobenzene-d5	*80 %*		*Surr Limits: (46-120%)*				*12/06/10 16:51*	*MKP*	*10L0274*	*8270C*
Phenol-d5	*34 %*		*Surr Limits: (16-120%)*				*12/06/10 16:51*	*MKP*	*10L0274*	*8270C*
p-Terphenyl-d14	*102 %*		*Surr Limits: (24-136%)*				*12/06/10 16:51*	*MKP*	*10L0274*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	ND		0.200	0.045	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Barium	ND		0.0020	0.0005	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Calcium	**0.1**	J, B	0.5	0.1	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Copper	ND		0.0100	0.0015	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Iron	ND		0.050	0.019	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Magnesium	ND		0.200	0.043	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Manganese	**0.0002**	J, B	0.0030	0.0002	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-6-12-2-10 (RTL0458-08 - Water) - cont.						**Sampled: 12/02/10 16:00**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	ND		0.500	0.200	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Sodium	ND		1.0	0.3	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Vanadium	ND		0.0050	0.0011	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Zinc	ND		0.0100	0.0017	mg/L	1.00	12/07/10 19:18	LMH	10L0425	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/09/10 12:25	JRK	10L0720	7470A
General Chemistry Parameters										
Ferrous Iron	ND	J ~~HFT~~	0.100	0.0750	mg/L	1.00	12/04/10 14:35	RJF	10L0336	3500FE
Sulfate	**27.4**		5.0	1.5	mg/L	1.00	12/10/10 15:45	RJF	10L0900	D-516-90
Total Organic Carbon	**0.6**	J	1.0	0.4	mg/L	1.00	12/07/10 00:13	KLD	10L0430	9060

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-9-12-2-10 (RTL0458-09 - Water) **Sampled: 12/02/10** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Methylene Chloride	1.0	N1	1.0	0.44	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-9-12-2-10 (RTL0458-09 - Water) - cont.						**Sampled: 12/02/10**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	2.0	0.66	ug/L	1.00	12/07/10 14:56	PJQ	10L0503	8260B
1,2-Dichloroethane-d4	*107 %*	*N1*	*Surr Limits: (66-137%)*				*12/07/10 14:56*	*PJQ*	*10L0503*	*8260B*
4-Bromofluorobenzene	*105 %*	*N1*	*Surr Limits: (73-120%)*				*12/07/10 14:56*	*PJQ*	*10L0503*	*8260B*
Toluene-d8	*106 %*	*N1*	*Surr Limits: (71-126%)*				*12/07/10 14:56*	*PJQ*	*10L0503*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-4-B-1 (RTL0458-10 - Soil) **Sampled: 12/02/10 08:37** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.90	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,1,2-Trichloroethane	ND		5.5	0.72	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.3	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,1-Dichloroethene	ND		5.5	0.68	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.34	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2-Dibromo-3-chloropropane	ND	J	5.5	2.8	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2-Dibromoethane	ND		5.5	0.71	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2-Dichloroethane	ND		5.5	0.28	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2-Dichloropropane	ND		5.5	2.8	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,4-Dichlorobenzene	ND		5.5	0.77	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
2-Butanone	ND		28	2.0	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Acetone	6.2	J	28	4.7	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Bromodichloromethane	ND		5.5	0.74	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Bromoform	ND		5.5	2.8	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Bromomethane	ND		5.5	0.50	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Carbon disulfide	ND		5.5	2.8	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Carbon Tetrachloride	ND		5.5	0.54	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Chlorobenzene	ND		5.5	0.73	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Dibromochloromethane	ND		5.5	0.71	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Chloroethane	ND		5.5	1.2	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
cis-1,2-Dichloroethene	ND		5.5	0.71	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
cis-1,3-Dichloropropene	ND		5.5	0.80	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Cyclohexane	ND		5.5	0.77	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Dichlorodifluoromethane	ND		5.5	0.46	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Isopropylbenzene	ND		5.5	0.83	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Methylcyclohexane	ND		5.5	0.84	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Methylene Chloride	13		5.5	2.5	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Styrene	ND		5.5	0.28	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Tetrachloroethene	ND		5.5	0.74	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Toluene	ND		5.5	0.42	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
trans-1,2-Dichloroethene	ND		5.5	0.57	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-4-B-1 (RTL0458-10 - Soil) - cont.							**Sampled: 12/02/10 08:37**		**Recvd: 12/03/10 09:30**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.93	ug/kg dry	1.00	12/10/10 14:07	PJQ	10L0873	8260B
1,2-Dichloroethane-d4	*105 %*		*Surr Limits: (64-126%)*				*12/10/10 14:07*	*PJQ*	*10L0873*	*8260B*
4-Bromofluorobenzene	*99 %*		*Surr Limits: (72-126%)*				*12/10/10 14:07*	*PJQ*	*10L0873*	*8260B*
Toluene-d8	*100 %*		*Surr Limits: (71-125%)*				*12/10/10 14:07*	*PJQ*	*10L0873*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		190	41	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND		190	12	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,4-Dichlorophenol	ND		190	9.8	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,4-Dimethylphenol	ND		190	50	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,4-Dinitrophenol	ND		360	65	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND		190	29	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND		190	46	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2-Chloronaphthalene	ND		190	12	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2-Chlorophenol	ND		190	9.5	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2-Methylnaphthalene	ND		190	2.3	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2-Methylphenol	ND		190	5.7	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2-Nitroaniline	ND		360	60	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2-Nitrophenol	ND		190	8.5	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND		190	160	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
3-Nitroaniline	ND		360	43	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		360	64	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND		190	59	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND		190	7.7	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Chloroaniline	ND		190	55	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		190	4.0	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Methylphenol	ND		360	10	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Nitroaniline	ND		360	21	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
4-Nitrophenol	ND		360	45	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Acenaphthene	**57**	J	190	2.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Acenaphthylene	**31**	J	190	1.5	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Acetophenone	ND	L	190	9.6	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Anthracene	**100**	J	190	4.8	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Atrazine	ND		190	8.3	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Benzaldehyde	ND	L	190	20	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Benzo[a]anthracene	**340**		190	3.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Benzo[a]pyrene	**410**		190	4.5	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Benzo[b]fluoranthene	**500**		190	3.6	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Benzo[g,h,i]perylene	**240**		190	2.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Benzo[k]fluoranthene	**170**	J	190	2.1	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND		190	16	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	19	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Bis(2 ethylhexyl) phthalate	**210**	B	190	60	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-4-B-1 (RTL0458-10 - Soil) - cont. **Sampled: 12/02/10 08:37** **Recvd: 12/03/10 09:30**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Butyl benzyl phthalate	ND		190	50	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Caprolactam	ND		190	81	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Carbazole	**42**	J	190	2.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Chrysene	**350**		190	1.9	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	L	190	2.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Dibenzofuran	ND		190	1.9	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Diethyl phthalate	ND		190	5.6	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Dimethyl phthalate	ND		190	4.9	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Di-n-butyl phthalate	ND		190	64	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Di-n-octyl phthalate	ND		190	4.4	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Fluoranthene	**710**		190	2.7	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Fluorene	**31**	J	190	4.3	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Hexachlorobenzene	ND		190	9.3	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Hexachlorobutadiene	ND		190	9.5	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND		190	56	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Hexachloroethane	ND		190	14	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	**210**		190	5.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Isophorone	ND		190	9.3	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Naphthalene	ND		190	3.1	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Nitrobenzene	ND		190	8.3	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	L	190	15	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND		190	10	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Pentachlorophenol	ND		360	64	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Phenanthrene	**290**		190	3.9	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Phenol	ND		190	20	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
Pyrene	**700**		190	1.2	ug/kg dry	1.00	12/07/10 14:58	MKP	10L0358	8270C
2,4,6-Tribromophenol	*133 %*		*Surr Limits: (39-146%)*				*12/07/10 14:58*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*103 %*		*Surr Limits: (37-120%)*				*12/07/10 14:58*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*70 %*		*Surr Limits: (18-120%)*				*12/07/10 14:58*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*89 %*		*Surr Limits: (34-132%)*				*12/07/10 14:58*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*90 %*		*Surr Limits: (11-120%)*				*12/07/10 14:58*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*127 %*		*Surr Limits: (58-147%)*				*12/07/10 14:58*	*MKP*	*10L0358*	*8270C*

Total Metals by SW 846 Series Methods

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	**3710**	J	10.6	4.7	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Antimony	ND	J	15.9	0.6	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Arsenic	**4.1**	J	2.1	0.4	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Barium	**17.6**		0.529	0.116	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Beryllium	**0.278**	J	0.212	0.030	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Cadmium	**0.284**		0.212	0.032	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Calcium	**4140**	J B	52.9	3.5	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Chromium	**7.72**		0.529	0.212	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Cobalt	**2.42**		0.529	0.053	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Copper	**14.2**		1.1	0.2	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Iron	**6560**	J B	10.6	1.2	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Lead	**28.7**		1.1	0.3	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Magnesium	**2230**	J	21.2	1.0	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Manganese	**77.9**	J	0.2	0.03	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-4-B-1 (RTL0458-10 - Soil) - cont.						**Sampled: 12/02/10 08:37**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.97**		5.29	0.244	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Potassium	**456**		31.8	21.2	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Selenium	ND		4.2	0.6	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Silver	**3.32**		0.529	0.212	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Sodium	**121**	J	148	13.8	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Thallium	ND		6.4	0.3	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Vanadium	**11.1**		0.529	0.116	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Zinc	**62.8**		2.1	0.2	mg/kg dry	1.00	12/07/10 11:04	AMH	10L0372	6010B
Mercury	**0.606**		0.0217	0.0088	mg/kg dry	1.00	12/07/10 13:22	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**89**		0.010	NR	%	1.00	12/07/10 08:32	MJM	10L0397	Dry Weight
Ferrous Iron	**1.9**	HFT, J	2.2	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**221**		112	55.9	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2740**		1260	1260	mg/Kg dry	1.00	12/06/10 20:14	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**20.6**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**79.4**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-4-D-1 (RTL0458-11 - Soil) — **Sampled: 12/02/10 10:57** — **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.3	0.38	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,1,2,2-Tetrachloroethane	ND		5.3	0.86	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,1,2-Trichloroethane	ND		5.3	0.69	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,1-Dichloroethane	ND		5.3	0.64	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,1-Dichloroethene	ND		5.3	0.65	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2-Dibromo-3-chloropropane	ND	J	5.3	2.6	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2-Dibromoethane	ND		5.3	0.68	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2-Dichlorobenzene	ND		5.3	0.41	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2-Dichloroethane	ND		5.3	0.27	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2-Dichloropropane	ND		5.3	2.6	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,3-Dichlorobenzene	ND		5.3	0.27	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,4-Dichlorobenzene	ND		5.3	0.74	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
2-Butanone	ND		26	1.9	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
2-Hexanone	ND		26	2.6	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
4-Methyl-2-pentanone	ND		26	1.7	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Acetone	6.7	J	26	4.4	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Benzene	ND		5.3	0.26	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Bromodichloromethane	ND		5.3	0.71	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Bromoform	ND		5.3	2.6	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Bromomethane	ND		5.3	0.48	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Carbon disulfide	ND		5.3	2.6	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Carbon Tetrachloride	ND		5.3	0.51	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Chlorobenzene	ND		5.3	0.70	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Dibromochloromethane	ND		5.3	0.68	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Chloroethane	ND		5.3	1.2	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Chloroform	ND		5.3	0.33	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Chloromethane	ND		5.3	0.32	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
cis-1,2-Dichloroethene	ND		5.3	0.68	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Cyclohexane	ND		5.3	0.74	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Dichlorodifluoromethane	ND		5.3	0.44	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Ethylbenzene	ND		5.3	0.36	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Isopropylbenzene	ND		5.3	0.80	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Methyl Acetate	ND		5.3	0.98	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.3	0.52	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Methylcyclohexane	ND		5.3	0.80	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Methylene Chloride	9.7		5.3	2.4	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Styrene	ND		5.3	0.26	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Tetrachloroethene	ND		5.3	0.71	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Toluene	ND		5.3	0.40	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
trans-1,2-Dichloroethene	ND		5.3	0.55	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Trichloroethene	ND		5.3	1.2	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Trichlorofluoromethane	ND		5.3	0.50	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
Vinyl chloride	ND		5.3	0.64	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-4-D-1 (RTL0458-11 - Soil) - cont. **Sampled: 12/02/10 10:57** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.89	ug/kg dry	1.00	12/10/10 14:33	PJQ	10L0873	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/10/10 14:33*	*PJQ*	*10L0873*	*8260B*
4-Bromofluorobenzene	*102 %*		*Surr Limits: (72-126%)*				*12/10/10 14:33*	*PJQ*	*10L0873*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/10/10 14:33*	*PJQ*	*10L0873*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		180	38	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,4,6-Trichlorophenol	ND		180	11	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,4-Dichlorophenol	ND		180	9.1	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,4-Dimethylphenol	ND		180	47	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,4-Dinitrophenol	ND		340	61	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,4-Dinitrotoluene	ND		180	27	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,6-Dinitrotoluene	ND		180	43	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2-Chloronaphthalene	ND		180	12	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2-Chlorophenol	ND		180	8.8	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2-Methylnaphthalene	ND		180	2.1	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2-Methylphenol	ND		180	5.3	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2-Nitroaniline	ND		340	56	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2-Nitrophenol	ND		180	7.9	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
3,3'-Dichlorobenzidine	ND		180	150	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
3-Nitroaniline	ND		340	40	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		340	60	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Bromophenyl phenyl ether	ND		180	55	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Chloro-3-methylphenol	ND		180	7.2	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Chloroaniline	ND		180	51	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		180	3.7	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Methylphenol	ND		340	9.7	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Nitroaniline	ND		340	19	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
4-Nitrophenol	ND		340	42	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Acenaphthene	ND		180	2.0	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Acenaphthylene	ND		180	1.4	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Acetophenone	ND	L	180	8.9	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Anthracene	ND		180	4.5	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Atrazine	ND		180	7.7	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Benzaldehyde	ND	L	180	19	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Benzo[a]anthracene	ND		180	3.0	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Benzo[a]pyrene	ND		180	4.2	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Benzo[b]fluoranthene	ND		180	3.4	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Benzo[g,h,i]perylene	ND		180	2.1	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Benzo[k]fluoranthene	ND		180	1.9	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Biphenyl	ND		180	11	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		180	9.5	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Bis(2-chloroethyl)ether	ND		180	15	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		180	18	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Bis(2-ethylhexyl) phthalate	180 ~~130~~	UB ~~J, B~~	180	56	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-4-D-1 (RTL0458-11 - Soil) - cont.						**Sampled: 12/02/10 10:57**		**Recvd: 12/03/10 09:30**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		180	47	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Caprolactam	ND		180	75	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Carbazole	ND		180	2.0	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Chrysene	ND		180	1.7	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Dibenzo(a,h)anthracene	ND		180	2.0	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Dibenzofuran	ND		180	1.8	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Diethyl phthalate	ND		180	5.3	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Dimethyl phthalate	ND		180	4.5	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Di-n-butyl phthalate	ND		180	60	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Di-n-octyl phthalate	ND		180	4.1	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Fluoranthene	ND		180	2.5	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Fluorene	ND		180	4.0	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Hexachlorobenzene	ND		180	8.6	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Hexachlorobutadiene	ND		180	8.9	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Hexachlorocyclopentadiene	ND		180	53	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Hexachloroethane	ND		180	13	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND		180	4.8	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Isophorone	ND		180	8.7	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Naphthalene	ND		180	2.9	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Nitrobenzene	ND		180	7.7	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
N-Nitrosodi-n-propylamine	ND		180	14	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
N-Nitrosodiphenylamine	ND		180	9.5	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Pentachlorophenol	ND		340	60	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Phenanthrene	**37**	J	180	3.6	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Phenol	ND		180	18	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
Pyrene	ND		180	1.1	ug/kg dry	1.00	12/07/10 08:45	JLG	10L0358	8270C
2,4,6-Tribromophenol	*119 %*		*Surr Limits: (39-146%)*				*12/07/10 08:45*	*JLG*	*10L0358*	*8270C*
2-Fluorobiphenyl	*87 %*		*Surr Limits: (37-120%)*				*12/07/10 08:45*	*JLG*	*10L0358*	*8270C*
2-Fluorophenol	*64 %*		*Surr Limits: (18-120%)*				*12/07/10 08:45*	*JLG*	*10L0358*	*8270C*
Nitrobenzene-d5	*77 %*		*Surr Limits: (34-132%)*				*12/07/10 08:45*	*JLG*	*10L0358*	*8270C*
Phenol-d5	*76 %*		*Surr Limits: (11-120%)*				*12/07/10 08:45*	*JLG*	*10L0358*	*8270C*
p-Terphenyl-d14	*118 %*		*Surr Limits: (58-147%)*				*12/07/10 08:45*	*JLG*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**404**	J	9.8	4.3	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Antimony	ND	J	14.7	0.5	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Arsenic	**0.4**	J	2.0	0.4	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Barium	**1.28**		0.489	0.107	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Beryllium	ND		0.195	0.027	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Cadmium	**0.030**	J	0.195	0.029	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Calcium	**65.8**	J B	48.9	3.2	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Chromium	**0.701**		0.489	0.195	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Cobalt	**0.142**	J	0.489	0.049	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Copper	**0.6**	J	1.0	0.2	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Iron	**764**	J B	9.8	1.1	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Lead	**0.6**	J	1.0	0.2	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Magnesium	**56.2**	J	19.5	0.9	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Manganese	**3.8**	J	0.2	0.03	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-4-D-1 (RTL0458-11 - Soil) - cont.						**Sampled: 12/02/10 10:57**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**0.531**	J	4.89	0.225	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Potassium	**59.5**		29.3	19.5	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Selenium	ND		3.9	0.6	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Silver	ND		0.489	0.195	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Sodium	**15.6**	J	137	12.7	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Thallium	ND		5.9	0.3	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Vanadium	**0.704**		0.489	0.107	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Zinc	**1.4**	J	2.0	0.1	mg/kg dry	1.00	12/07/10 11:06	AMH	10L0372	6010B
Mercury	ND		0.0198	0.0080	mg/kg dry	1.00	12/07/10 13:28	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**95**		0.010	NR	%	1.00	12/07/10 08:34	MJM	10L0397	Dry Weight
Ferrous Iron	**1.4**	HFT, J	2.1	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	ND		106	52.8	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1100	1100	mg/Kg dry	1.00	12/06/10 20:27	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**9.1**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**90.9**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-4-F-1 (RTL0458-12 - Soil) — **Sampled: 12/02/10 13:48** — **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.9	0.43	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,1,2,2-Tetrachloroethane	ND		5.9	0.96	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,1,2-Trichloroethane	ND		5.9	0.77	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.9	1.3	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,1-Dichloroethane	ND		5.9	0.72	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,1-Dichloroethene	ND		5.9	0.72	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2,4-Trichlorobenzene	ND		5.9	0.36	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2-Dibromo-3-chloropropane	ND	J	5.9	2.9	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2-Dibromoethane	ND		5.9	0.76	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2-Dichlorobenzene	ND		5.9	0.46	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2-Dichloroethane	ND		5.9	0.30	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2-Dichloropropane	ND		5.9	2.9	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,3-Dichlorobenzene	ND		5.9	0.30	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,4-Dichlorobenzene	ND		5.9	0.83	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
2-Butanone	ND		29	2.2	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
2-Hexanone	ND		29	2.9	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
4-Methyl-2-pentanone	ND		29	1.9	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Acetone	**22**	J	29	5.0	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Benzene	ND		5.9	0.29	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Bromodichloromethane	ND		5.9	0.79	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Bromoform	ND		5.9	2.9	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Bromomethane	ND		5.9	0.53	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Carbon disulfide	**3.4**	J	5.9	2.9	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Carbon Tetrachloride	ND		5.9	0.57	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Chlorobenzene	ND		5.9	0.78	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Dibromochloromethane	ND		5.9	0.75	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Chloroethane	ND		5.9	1.3	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Chloroform	ND		5.9	0.36	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Chloromethane	ND		5.9	0.36	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
cis-1,2-Dichloroethene	ND		5.9	0.75	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
cis-1,3-Dichloropropene	ND		5.9	0.85	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Cyclohexane	ND		5.9	0.83	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Dichlorodifluoromethane	ND		5.9	0.49	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Ethylbenzene	ND		5.9	0.41	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Isopropylbenzene	ND		5.9	0.89	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Methyl Acetate	ND		5.9	1.1	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.9	0.58	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Methylcyclohexane	**1.3**	J	5.9	0.90	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Methylene Chloride	**17**		5.9	2.7	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Styrene	ND		5.9	0.29	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Tetrachloroethene	ND		5.9	0.79	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Toluene	ND		5.9	0.45	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
trans-1,2-Dichloroethene	ND		5.9	0.61	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
trans-1,3-Dichloropropene	ND		5.9	2.6	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Trichloroethene	ND		5.9	1.3	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Trichlorofluoromethane	ND		5.9	0.56	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
Vinyl chloride	ND		5.9	0.72	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-4-F-1 (RTL0458-12 - Soil) - cont.							**Sampled: 12/02/10 13:48**		**Recvd: 12/03/10 09:30**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		12	0.99	ug/kg dry	1.00	12/10/10 14:58	PJQ	10L0873	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/10/10 14:58*	*PJQ*	*10L0873*	*8260B*
4-Bromofluorobenzene	*103 %*		*Surr Limits: (72-126%)*				*12/10/10 14:58*	*PJQ*	*10L0873*	*8260B*
Toluene-d8	*103 %*		*Surr Limits: (71-125%)*				*12/10/10 14:58*	*PJQ*	*10L0873*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	43	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,4-Dimethylphenol	ND		200	53	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,4-Dinitrophenol	ND		380	68	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,4-Dinitrotoluene	ND		200	30	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,6-Dinitrotoluene	ND		200	48	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2-Methylnaphthalene	ND		200	2.4	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2-Methylphenol	ND		200	6.0	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2-Nitroaniline	ND		380	63	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2-Nitrophenol	ND		200	8.9	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
3,3'-Dichlorobenzidine	ND		200	170	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
3-Nitroaniline	ND		380	45	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		380	68	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Bromophenyl phenyl ether	ND		200	62	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Chloro-3-methylphenol	ND		200	8.0	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Chloroaniline	ND		200	57	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Methylphenol	ND		380	11	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Nitroaniline	ND		380	22	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
4-Nitrophenol	ND		380	47	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Acenaphthene	ND		200	2.3	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Acetophenone	ND	✓	200	10	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Anthracene	ND		200	5.0	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Atrazine	ND		200	8.7	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Benzaldehyde	ND	✓	200	21	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Benzo[a]anthracene	ND		200	3.4	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Benzo[a]pyrene	ND		200	4.7	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Benzo[b]fluoranthene	ND		200	3.8	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Benzo[g,h,i]perylene	ND		200	2.3	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Biphenyl	ND		200	12	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	20	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Bis(2-ethylhexyl) phthalate	200 ~~140~~	UB ~~J,B~~	200	63	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-4-F-1 (RTL0458-12 - Soil) - cont. **Sampled: 12/02/10 13:48** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		200	53	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Caprolactam	ND		200	85	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Carbazole	ND		200	2.3	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Chrysene	ND		200	2.0	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Dibenzo(a,h)anthracene	ND	L	200	2.3	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Dibenzofuran	ND		200	2.0	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Diethyl phthalate	ND		200	5.9	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Dimethyl phthalate	ND		200	5.1	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Di-n-butyl phthalate	ND		200	68	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Di-n-octyl phthalate	ND		200	4.6	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Fluoranthene	ND		200	2.8	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Fluorene	ND		200	4.5	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Hexachlorobenzene	ND		200	9.7	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Hexachlorocyclopentadiene	ND		200	59	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND		200	5.4	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Isophorone	ND		200	9.8	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Naphthalene	ND		200	3.3	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Nitrobenzene	ND		200	8.7	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	L	200	15	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Pentachlorophenol	ND		380	67	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Phenanthrene	**19**	J	200	4.1	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
Pyrene	ND		200	1.3	ug/kg dry	1.00	12/07/10 09:08	JLG	10L0358	8270C
2,4,6-Tribromophenol	*98 %*		*Surr Limits: (39-146%)*				*12/07/10 09:08*	*JLG*	*10L0358*	*8270C*
2-Fluorobiphenyl	*72 %*		*Surr Limits: (37-120%)*				*12/07/10 09:08*	*JLG*	*10L0358*	*8270C*
2-Fluorophenol	*52 %*		*Surr Limits: (18-120%)*				*12/07/10 09:08*	*JLG*	*10L0358*	*8270C*
Nitrobenzene-d5	*62 %*		*Surr Limits: (34-132%)*				*12/07/10 09:08*	*JLG*	*10L0358*	*8270C*
Phenol-d5	*63 %*		*Surr Limits: (11-120%)*				*12/07/10 09:08*	*JLG*	*10L0358*	*8270C*
p-Terphenyl-d14	*110 %*		*Surr Limits: (58-147%)*				*12/07/10 09:08*	*JLG*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**745**	J	11.5	5.0	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Antimony	ND	J	17.2	0.6	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Arsenic	ND	J	2.3	0.5	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Barium	**2.18**		0.574	0.126	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Beryllium	ND	J	0.229	0.032	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Cadmium	ND		0.229	0.034	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Calcium	**165**	J B	57.4	3.8	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Chromium	**1.26**		0.574	0.229	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Cobalt	**0.468**	J	0.574	0.057	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Copper	**1.1**		1.1	0.2	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Iron	**1070**	J B	11.5	1.3	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Lead	**1.9**		1.1	0.3	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Magnesium	**122**	J	22.9	1.1	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Manganese	**7.6**	J	0.2	0.04	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Nickel	**1.20**	J	5.74	0.264	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-4-F-1 (RTL0458-12 - Soil) - cont.						**Sampled: 12/02/10 13:48**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	**115**		34.4	22.9	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Selenium	ND		4.6	0.7	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Silver	ND		0.574	0.229	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Sodium	**19.2**	J	161	14.9	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Thallium	ND		6.9	0.3	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Vanadium	**1.33**		0.574	0.126	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Zinc	**2.1**	J	2.3	0.2	mg/kg dry	1.00	12/07/10 11:08	AMH	10L0372	6010B
Mercury	ND		0.0226	0.0092	mg/kg dry	1.00	12/07/10 13:30	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**84**		0.010	NR	%	1.00	12/07/10 08:36	MJM	10L0397	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~2.4~~	~~0.4~~	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**136**		118	59.2	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1160	1160	mg/Kg dry	1.00	12/06/10 20:39	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**13.5**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**86.5**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-5-1 (RTL0458-13 - Soil) — **Sampled: 12/02/10 15:05** — **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		150	42	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,1,2,2-Tetrachloroethane	ND		150	25	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,1,2-Trichloroethane	ND		150	32	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		150	77	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,1-Dichloroethane	ND		150	47	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,1-Dichloroethene	ND		150	53	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2,4-Trichlorobenzene	ND		150	58	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2-Dibromo-3-chloropropane	ND		150	77	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2-Dibromoethane	ND		150	5.8	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2-Dichlorobenzene	ND		150	39	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2-Dichloroethane	ND		150	63	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2-Dichloropropane	ND		150	25	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,3-Dichlorobenzene	ND		150	41	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,4-Dichlorobenzene	ND		150	21	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
2-Butanone	ND		770	450	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
2-Hexanone	ND		770	310	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
4-Methyl-2-pentanone	ND		770	49	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Acetone	ND		770	630	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Benzene	ND		150	7.4	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Bromodichloromethane	ND		150	31	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Bromoform	ND		150	77	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Bromomethane	ND		150	34	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Carbon disulfide	ND		150	70	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Carbon Tetrachloride	ND		150	39	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Chlorobenzene	ND		150	20	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Dibromochloromethane	ND		150	74	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Chloroethane	ND		150	32	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Chloroform	ND		150	110	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Chloromethane	ND		150	36	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
cis-1,2-Dichloroethene	ND		150	42	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
cis-1,3-Dichloropropene	ND		150	37	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Cyclohexane	**170**		150	34	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Dichlorodifluoromethane	ND		150	67	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Ethylbenzene	ND		150	45	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Isopropylbenzene	**170**		150	23	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Methyl Acetate	**280**		150	73	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Methyl-t-Butyl Ether (MTBE)	ND		150	58	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Methylcyclohexane	**870**		150	72	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Methylene Chloride	ND		150	30	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Styrene	ND		150	37	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Tetrachloroethene	ND		150	21	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Toluene	ND		150	41	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
trans-1,2-Dichloroethene	ND		150	36	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
trans-1,3-Dichloropropene	ND		150	7.4	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Trichloroethene	ND		150	43	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Trichlorofluoromethane	ND		150	72	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
Vinyl chloride	ND		150	51	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-1 (RTL0458-13 - Soil) - cont.						**Sampled: 12/02/10 15:05**		**Recvd: 12/03/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	**210**	J	310	26	ug/kg dry	1.00	12/10/10 17:51	DHC	10L0621	8260B
1,2-Dichloroethane-d4	*103 %*		*Surr Limits: (53-146%)*				*12/10/10 17:51*	*DHC*	*10L0621*	*8260B*
4-Bromofluorobenzene	*98 %*		*Surr Limits: (49-148%)*				*12/10/10 17:51*	*DHC*	*10L0621*	*8260B*
Toluene-d8	*110 %*		*Surr Limits: (50-149%)*				*12/10/10 17:51*	*DHC*	*10L0621*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		270	58	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND		270	17	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,4-Dichlorophenol	ND		270	14	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,4-Dimethylphenol	ND		270	72	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,4-Dinitrophenol	ND		520	93	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND		270	41	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND		270	65	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2-Chloronaphthalene	ND		270	18	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2-Chlorophenol	ND		270	13	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2-Methylnaphthalene	**92**	J	270	3.2	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2-Methylphenol	ND		270	8.1	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2-Nitroaniline	ND		520	85	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2-Nitrophenol	ND		270	12	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND		270	230	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
3-Nitroaniline	ND		520	61	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		520	91	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND		270	84	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND		270	11	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Chloroaniline	ND		270	78	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		270	5.6	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Methylphenol	ND		520	15	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Nitroaniline	ND		520	30	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
4-Nitrophenol	ND		520	64	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Acenaphthene	ND		270	3.1	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Acenaphthylene	ND		270	2.2	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Acetophenone	ND		270	14	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Anthracene	ND		270	6.8	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Atrazine	ND		270	12	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Benzaldehyde	ND		270	29	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Benzo[a]anthracene	ND		270	4.6	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Benzo[a]pyrene	ND		270	6.4	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Benzo[b]fluoranthene	ND		270	5.1	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Benzo[g,h,i]perylene	ND		270	3.2	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Benzo[k]fluoranthene	ND		270	2.9	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Biphenyl	ND		270	16	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		270	14	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND		270	23	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		270	28	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Bis(2-ethylhexyl) phthalate	**270**	B	270	85	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-1 (RTL0458-13 - Soil) - cont.						**Sampled: 12/02/10 15:05**		**Recvd: 12/03/10 09:30**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		270	71	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Caprolactam	ND		270	110	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Carbazole	ND		270	3.1	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Chrysene	ND		270	2.6	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	L	270	3.1	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Dibenzofuran	ND		270	2.8	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Diethyl phthalate	ND		270	8.0	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Dimethyl phthalate	ND		270	6.9	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Di-n-butyl phthalate	ND		270	92	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Di-n-octyl phthalate	ND		270	6.2	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Fluoranthene	ND		270	3.8	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Fluorene	ND		270	6.1	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Hexachlorobenzene	ND		270	13	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Hexachlorobutadiene	ND		270	14	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND		270	80	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Hexachloroethane	ND		270	20	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND		270	7.3	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Isophorone	ND		270	13	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Naphthalene	**190**	J	270	4.4	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Nitrobenzene	ND		270	12	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	L	270	21	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND		270	14	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Pentachlorophenol	ND		520	91	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Phenanthrene	**39**	J	270	5.6	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Phenol	ND		270	28	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
Pyrene	ND		270	1.7	ug/kg dry	1.00	12/07/10 15:22	MKP	10L0358	8270C
2,4,6-Tribromophenol	*120 %*		*Surr Limits: (39-146%)*				*12/07/10 15:22*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*91 %*		*Surr Limits: (37-120%)*				*12/07/10 15:22*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*59 %*		*Surr Limits: (18-120%)*				*12/07/10 15:22*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits: (34-132%)*				*12/07/10 15:22*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*78 %*		*Surr Limits: (11-120%)*				*12/07/10 15:22*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*112 %*		*Surr Limits: (58-147%)*				*12/07/10 15:22*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**9740**	J	15.3	6.7	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Antimony	ND	J	23.0	0.8	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Arsenic	**11.0**	J	3.1	0.6	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Barium	**34.4**		0.767	0.169	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Beryllium	**0.595**	J	0.307	0.043	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Cadmium	**0.366**		0.307	0.046	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Calcium	**3570**	J B	76.7	5.1	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Chromium	**26.4**		0.767	0.307	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Cobalt	**6.33**		0.767	0.077	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Copper	**11.3**		1.5	0.3	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Iron	**25100**	J B	15.3	1.7	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Lead	**13.1**		1.5	0.4	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Magnesium	**3850**	J	30.7	1.4	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Manganese	**240**	J	0.3	0.05	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-1 (RTL0458-13 - Soil) - cont.						**Sampled: 12/02/10 15:05**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**15.7**		7.67	0.353	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Potassium	**2170**		46.0	30.7	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Selenium	ND		6.1	0.9	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Silver	ND		0.767	0.307	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Sodium	**171**	J	215	19.9	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Thallium	ND		9.2	0.5	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Vanadium	**31.4**		0.767	0.169	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Zinc	**48.6**		3.1	0.2	mg/kg dry	1.00	12/07/10 11:10	AMH	10L0372	6010B
Mercury	ND		0.0306	0.0124	mg/kg dry	1.00	12/07/10 13:31	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**63**		0.010	NR	%	1.00	12/07/10 08:38	MJM	10L0397	Dry Weight
Ferrous Iron	**1.7**	HFT, J	3.2	0.5	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**620**		158	79.2	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**19100**		1580	1580	mg/Kg dry	1.00	12/06/10 20:52	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**36.5**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**63.5**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-5-2 (RTL0458-14 - Soil) — **Sampled: 12/02/10 16:08** — **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		32	2.3	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		32	5.2	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		32	4.2	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		32	7.3	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		32	3.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		32	3.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		32	1.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		32	16	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		32	4.1	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		32	2.5	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		32	1.6	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		32	16	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		32	1.6	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		32	4.5	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
2-Butanone	ND		160	12	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
2-Hexanone	ND		160	16	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		160	11	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Acetone	ND		160	27	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Benzene	ND		32	1.6	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Bromodichloromethane	ND		32	4.3	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Bromoform	ND		32	16	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Bromomethane	ND		32	2.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Carbon disulfide	ND		32	16	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		32	3.1	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Chlorobenzene	ND		32	4.2	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Dibromochloromethane	ND		32	4.1	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Chloroethane	ND		32	7.2	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Chloroform	ND		32	2.0	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Chloromethane	ND		32	1.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		32	4.1	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		32	4.6	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Cyclohexane	ND		32	4.5	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		32	2.6	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Ethylbenzene	ND		32	2.2	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Isopropylbenzene	ND		32	4.8	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Methyl Acetate	ND		32	6.0	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		32	3.1	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Methylcyclohexane	14	J	32	4.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Methylene Chloride	110		32	15	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Styrene	ND		32	1.6	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Tetrachloroethene	ND		32	4.3	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Toluene	ND		32	2.4	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		32	3.3	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		32	14	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Trichloroethene	ND		32	7.1	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		32	3.0	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
Vinyl chloride	ND		32	3.9	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-5-2 (RTL0458-14 - Soil) - cont. **Sampled: 12/02/10 16:08** **Recvd: 12/03/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		64	5.4	ug/kg dry	1.00	12/13/10 14:57	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*108 %*		*Surr Limits: (64-126%)*				*12/13/10 14:57*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*99 %*		*Surr Limits: (72-126%)*				*12/13/10 14:57*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/13/10 14:57*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	43	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,4-Dimethylphenol	ND		200	53	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,4-Dinitrophenol	ND		380	68	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,4-Dinitrotoluene	ND		200	30	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,6-Dinitrotoluene	ND		200	48	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2-Methylnaphthalene	**140**	J	200	2.4	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2-Methylphenol	ND		200	6.0	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2-Nitroaniline	ND		380	63	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2-Nitrophenol	ND		200	8.9	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
3,3'-Dichlorobenzidine	ND		200	170	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
3-Nitroaniline	ND		380	45	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND		380	68	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Bromophenyl phenyl ether	ND		200	62	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Chloro-3-methylphenol	ND		200	8.0	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Chloroaniline	ND		200	57	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Methylphenol	ND		380	11	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Nitroaniline	ND		380	22	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
4-Nitrophenol	ND		380	47	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Acenaphthene	**110**	J	200	2.3	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Acetophenone	ND	J	200	10	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Anthracene	**86**	J	200	5.0	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Atrazine	ND		200	8.7	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Benzaldehyde	ND	J	200	21	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Benzo[a]anthracene	**270**		200	3.4	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Benzo[a]pyrene	**270**		200	4.7	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Benzo[b]fluoranthene	**340**		200	3.8	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Benzo[g,h,i]perylene	**130**	J	200	2.3	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Benzo[k]fluoranthene	**110**	J	200	2.2	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Biphenyl	ND		200	12	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	20	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Bis(2-ethylhexyl) phthalate	200 ~~180~~	UB ~~J, B~~	200	63	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-2 (RTL0458-14 - Soil) - cont.							**Sampled: 12/02/10 16:08**		**Recvd: 12/03/10 09:30**	
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		200	52	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Caprolactam	ND		200	85	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Carbazole	**46**	J	200	2.3	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Chrysene	**270**		200	2.0	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Dibenzo(a,h)anthracene	ND	~~J~~	200	2.3	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Dibenzofuran	**81**	J	200	2.0	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Diethyl phthalate	ND		200	5.9	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Dimethyl phthalate	ND		200	5.1	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Di-n-butyl phthalate	ND		200	68	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Di-n-octyl phthalate	ND		200	4.6	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Fluoranthene	**660**		200	2.8	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Fluorene	**130**	J	200	4.5	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Hexachlorobenzene	ND		200	9.7	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Hexachlorocyclopentadiene	ND		200	59	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Indeno[1,2,3-cd]pyrene	**120**	J	200	5.4	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Isophorone	ND		200	9.8	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Naphthalene	ND		200	3.3	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Nitrobenzene	ND		200	8.7	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	~~J~~	200	15	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Pentachlorophenol	ND		380	67	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Phenanthrene	**630**		200	4.1	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
Pyrene	**690**		200	1.3	ug/kg dry	1.00	12/07/10 15:46	MKP	10L0358	8270C
2,4,6-Tribromophenol	*129 %*		*Surr Limits: (39-146%)*				*12/07/10 15:46*	*MKP*	*10L0358*	*8270C*
2-Fluorobiphenyl	*95 %*		*Surr Limits: (37-120%)*				*12/07/10 15:46*	*MKP*	*10L0358*	*8270C*
2-Fluorophenol	*70 %*		*Surr Limits: (18-120%)*				*12/07/10 15:46*	*MKP*	*10L0358*	*8270C*
Nitrobenzene-d5	*88 %*		*Surr Limits: (34-132%)*				*12/07/10 15:46*	*MKP*	*10L0358*	*8270C*
Phenol-d5	*85 %*		*Surr Limits: (11-120%)*				*12/07/10 15:46*	*MKP*	*10L0358*	*8270C*
p-Terphenyl-d14	*118 %*		*Surr Limits: (58-147%)*				*12/07/10 15:46*	*MKP*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3430**	J	11.4	5.0	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Antimony	ND	J	17.0	0.6	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Arsenic	**2.7**	J	2.3	0.5	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Barium	**113**		0.568	0.125	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Beryllium	**0.228**	J	0.227	0.032	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Cadmium	**0.218**	J	0.227	0.034	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Calcium	**5800**	J ~~B~~	56.8	3.7	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Chromium	**7.41**		0.568	0.227	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Cobalt	**2.08**		0.568	0.057	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Copper	**6.1**		1.1	0.2	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Iron	**6100**	J ~~B~~	11.4	1.2	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Lead	**28.3**		1.1	0.3	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Magnesium	**1870**	J	22.7	1.1	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Manganese	**76.0**	J	0.2	0.04	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-2 (RTL0458-14 - Soil) - cont.						**Sampled: 12/02/10 16:08**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**4.59**	J	5.68	0.261	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Potassium	**521**		34.1	22.7	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Silver	ND		0.568	0.227	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Sodium	**107**	J	159	14.8	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Thallium	ND		6.8	0.3	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Vanadium	**9.55**		0.568	0.125	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Zinc	**68.6**		2.3	0.2	mg/kg dry	1.00	12/07/10 11:12	AMH	10L0372	6010B
Mercury	**0.0155**	J	0.0218	0.0088	mg/kg dry	1.00	12/07/10 13:33	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**84**		0.010	NR	%	1.00	12/07/10 08:40	MJM	10L0397	Dry Weight
Ferrous Iron	**1.3**	~~HFT~~, J	2.4	0.4	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**64.7**	J	119	59.6	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**26100**		1190	1190	mg/Kg dry	1.00	12/06/10 21:05	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**16.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**84.0**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-5-3 (RTL0458-15 - Soil) — **Sampled: 12/02/10 16:16** — **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	100	29	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,1,2,2-Tetrachloroethane	ND	W1	100	17	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,1,2-Trichloroethane	ND	W1	100	22	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	100	52	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,1-Dichloroethane	ND	W1	100	32	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,1-Dichloroethene	ND	W1	100	36	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2,4-Trichlorobenzene	ND	W1	100	39	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2-Dibromo-3-chloropropane	ND	W1	100	52	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2-Dibromoethane	ND	W1	100	4.0	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2-Dichlorobenzene	ND	W1	100	27	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2-Dichloroethane	ND	W1	100	43	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2-Dichloropropane	ND	W1	100	17	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,3-Dichlorobenzene	ND	W1	100	28	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,4-Dichlorobenzene	ND	W1	100	15	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
2-Butanone	ND	W1	520	310	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
2-Hexanone	ND	W1	520	210	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
4-Methyl-2-pentanone	ND	W1	520	33	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Acetone	ND	W1	520	430	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Benzene	ND	W1	100	5.0	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Bromodichloromethane	ND	W1	100	21	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Bromoform	ND	W1	100	52	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Bromomethane	ND	W1	100	23	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Carbon disulfide	ND	W1	100	47	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Carbon Tetrachloride	ND	W1	100	27	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Chlorobenzene	ND	W1	100	14	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Dibromochloromethane	ND	W1	100	50	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Chloroethane	ND	W1	100	22	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Chloroform	ND	W1	100	71	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Chloromethane	ND	W1	100	25	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
cis-1,2-Dichloroethene	ND	W1	100	29	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
cis-1,3-Dichloropropene	ND	W1	100	25	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Cyclohexane	ND	W1	100	23	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Dichlorodifluoromethane	ND	W1	100	45	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Ethylbenzene	ND	W1	100	30	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Isopropylbenzene	57	W1,J	100	16	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Methyl Acetate	ND	W1	100	49	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	100	39	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Methylcyclohexane	71	W1,J	100	49	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Methylene Chloride	ND	W1	100	21	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Styrene	ND	W1	100	25	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Tetrachloroethene	ND	W1	100	14	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Toluene	ND	W1	100	28	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
trans-1,2-Dichloroethene	ND	W1	100	25	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
trans-1,3-Dichloropropene	ND	W1	100	5.0	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Trichloroethene	ND	W1	100	29	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Trichlorofluoromethane	ND	W1	100	49	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
Vinyl chloride	ND	W1	100	35	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-5-3 (RTL0458-15 - Soil) - cont. **Sampled: 12/02/10 16:16** **Recvd: 12/03/10 09:30**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Xylenes, total	ND	~~W1~~	210	17	ug/kg dry	1.00	12/10/10 18:34	DHC	10L0621	8260B
1,2-Dichloroethane-d4	*115 %*	*W1*	*Surr Limits: (53-146%)*				*12/10/10 18:34*	*DHC*	*10L0621*	*8260B*
4-Bromofluorobenzene	*103 %*	*W1*	*Surr Limits: (49-148%)*				*12/10/10 18:34*	*DHC*	*10L0621*	*8260B*
Toluene-d8	*117 %*	*W1*	*Surr Limits: (50-149%)*				*12/10/10 18:34*	*DHC*	*10L0621*	*8260B*

Semivolatile Organics by GC/MS

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	D02	1800	390	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,4,6-Trichlorophenol	ND	D02	1800	120	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,4-Dichlorophenol	ND	D02	1800	94	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,4-Dimethylphenol	ND	D02	1800	480	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,4-Dinitrophenol	ND	D02	3500	620	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,4-Dinitrotoluene	ND	D02	1800	280	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,6-Dinitrotoluene	ND	D02	1800	440	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2-Chloronaphthalene	ND	D02	1800	120	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2-Chlorophenol	ND	D02	1800	91	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2-Methylnaphthalene	ND	D02	1800	22	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2-Methylphenol	ND	D02	1800	55	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2-Nitroaniline	ND	D02	3500	570	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2-Nitrophenol	ND	D02	1800	82	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
3,3'-Dichlorobenzidine	ND	D02	1800	1600	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
3-Nitroaniline	ND	D02	3500	410	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4,6-Dinitro-2-methylphenol	ND	D02	3500	620	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Bromophenyl phenyl ether	ND	~~D02~~	1800	570	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Chloro-3-methylphenol	ND	D02	1800	73	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Chloroaniline	ND	D02	1800	520	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Chlorophenyl phenyl ether	ND	D02	1800	38	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Methylphenol	ND	D02	3500	99	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Nitroaniline	ND	D02	3500	200	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
4-Nitrophenol	ND	D02	3500	430	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Acenaphthene	**220**	D02,J	1800	21	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Acenaphthylene	ND	~~D02~~	1800	15	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Acetophenone	ND	~~D02,L~~	1800	92	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Anthracene	ND	D02	1800	46	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Atrazine	ND	D02	1800	79	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Benzaldehyde	ND	~~D02,L~~	1800	200	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Benzo[a]anthracene	ND	D02	1800	31	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Benzo[a]pyrene	ND	D02	1800	43	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Benzo[b]fluoranthene	ND	D02	1800	35	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Benzo[g,h,i]perylene	ND	D02	1800	21	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Benzo[k]fluoranthene	ND	D02	1800	20	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Biphenyl	ND	D02	1800	110	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Bis(2-chloroethoxy)methane	ND	D02	1800	97	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Bis(2-chloroethyl)ether	ND	D02	1800	150	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	1800	190	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Bis(2-ethylhexyl) phthalate	~~1500~~	~~D02,J,B~~	1800	580	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-3 (RTL0458-15 - Soil) - cont.						**Sampled: 12/02/10 16:16**		**Recvd: 12/03/10 09:30**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D02	1800	480	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Caprolactam	ND	D02	1800	770	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Carbazole	ND	D02	1800	21	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Chrysene	ND	D02	1800	18	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Dibenzo(a,h)anthracene	ND	~~D02~~,L	1800	21	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Dibenzofuran	ND	D02	1800	19	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Diethyl phthalate	ND	D02	1800	54	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Dimethyl phthalate	ND	D02	1800	47	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Di-n-butyl phthalate	ND	D02	1800	620	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Di-n-octyl phthalate	ND	D02	1800	42	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Fluoranthene	**200**	~~D02~~,J	1800	26	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Fluorene	**210**	~~D02~~,J	1800	41	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Hexachlorobenzene	ND	D02	1800	89	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Hexachlorobutadiene	ND	D02	1800	91	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Hexachlorocyclopentadiene	ND	D02	1800	540	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Hexachloroethane	ND	D02	1800	140	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Indeno[1,2,3-cd]pyrene	ND	D02	1800	49	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Isophorone	ND	D02	1800	89	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Naphthalene	ND	D02	1800	30	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Nitrobenzene	ND	D02	1800	79	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
N-Nitrosodi-n-propylamine	ND	~~D02~~,L	1800	140	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
N-Nitrosodiphenylamine	ND	D02	1800	98	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Pentachlorophenol	ND	D02	3500	610	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Phenanthrene	**400**	~~D02~~,J	1800	37	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Phenol	ND	~~D02~~	1800	190	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
Pyrene	**230**	~~D02~~,J	1800	12	ug/kg dry	10.0	12/07/10 10:19	JLG	10L0358	8270C
2,4,6-Tribromophenol	*108 %*	*D02*	*Surr Limits: (39-146%)*				*12/07/10 10:19*	*JLG*	*10L0358*	*8270C*
2-Fluorobiphenyl	*117 %*	*D02*	*Surr Limits: (37-120%)*				*12/07/10 10:19*	*JLG*	*10L0358*	*8270C*
2-Fluorophenol	*91 %*	*D02*	*Surr Limits: (18-120%)*				*12/07/10 10:19*	*JLG*	*10L0358*	*8270C*
Nitrobenzene-d5	*119 %*	*D02*	*Surr Limits: (34-132%)*				*12/07/10 10:19*	*JLG*	*10L0358*	*8270C*
Phenol-d5	*112 %*	*D02*	*Surr Limits: (11-120%)*				*12/07/10 10:19*	*JLG*	*10L0358*	*8270C*
p-Terphenyl-d14	*108 %*	*D02*	*Surr Limits: (58-147%)*				*12/07/10 10:19*	*JLG*	*10L0358*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4230**	J	10.4	4.6	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Antimony	ND	J	15.5	0.6	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Arsenic	**1.5**	J	2.1	0.4	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Barium	**16.8**		0.518	0.114	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Beryllium	**0.225**	J	0.207	0.029	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Cadmium	**0.115**	J	0.207	0.031	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Calcium	**140**	J B	51.8	3.4	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Chromium	**6.06**		0.518	0.207	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Cobalt	**3.48**		0.518	0.052	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Copper	**4.5**		1.0	0.2	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Iron	**6640**	J B	10.4	1.1	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Lead	**3.6**		1.0	0.2	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Magnesium	**694**	J	20.7	1.0	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Manganese	**49.2**	J	0.2	0.03	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-5-3 (RTL0458-15 - Soil) - cont.						**Sampled: 12/02/10 16:16**		**Recvd: 12/03/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**4.67**	J	5.18	0.238	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Potassium	**299**		31.1	20.7	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Selenium	ND		4.1	0.6	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Silver	ND		0.518	0.207	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Sodium	**60.9**	J	145	13.5	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Thallium	ND		6.2	0.3	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Vanadium	**8.11**		0.518	0.114	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Zinc	**10.5**		2.1	0.2	mg/kg dry	1.00	12/07/10 11:14	AMH	10L0372	6010B
Mercury	ND		0.0209	0.0084	mg/kg dry	1.00	12/07/10 13:35	JRK	10L0404	7471A
General Chemistry Parameters										
Percent Solids	**94**		0.010	NR	%	1.00	12/07/10 08:42	MJM	10L0397	Dry Weight
Ferrous Iron	**4.4**	J ~~HFT~~	2.1	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**369**		106	53.1	mg/kg dry	1.00	12/10/10 12:37	RJF	10L0901	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**6310**		1090	1090	mg/Kg dry	1.00	12/06/10 21:18	MNT	10708	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**8.2**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture
Percent Solids	**91.8**		0.25	0.25	%	1.00	12/06/10 13:54	ZMS	10654	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-9-12-3-10 (RTL0505-01 - Water) — **Sampled: 12/03/10** — **Recvd: 12/04/10 09:40**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Methylene Chloride	ND	N1	1.0	0.44	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-9-12-3-10 (RTL0505-01 - Water) - cont.						**Sampled: 12/03/10**		**Recvd: 12/04/10 09:40**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	N1	2.0	0.66	ug/L	1.00	12/07/10 15:21	PJQ	10L0503	8260B
1,2-Dichloroethane-d4	*111 %*	*N1*	*Surr Limits: (66-137%)*				*12/07/10 15:21*	*PJQ*	*10L0503*	*8260B*
4-Bromofluorobenzene	*106 %*	*N1*	*Surr Limits: (73-120%)*				*12/07/10 15:21*	*PJQ*	*10L0503*	*8260B*
Toluene-d8	*109 %*	*N1*	*Surr Limits: (71-126%)*				*12/07/10 15:21*	*PJQ*	*10L0503*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-7-12-3-10 (RTL0505-02 - Water)						**Sampled: 12/03/10 12:00**		**Recvd: 12/04/10 09:40**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Methyl Acetate	ND	N1	1.0	0.50	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Methylene Chloride	1.1	N1	1.0	0.44	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-7-12-3-10 (RTL0505-02 - Water) - cont.						**Sampled: 12/03/10 12:00**		**Recvd: 12/04/10 09:40**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	2.0	0.66	ug/L	1.00	12/07/10 15:46	PJQ	10L0503	8260B
1,2-Dichloroethane-d4	*107 %*	*N1*	*Surr Limits: (66-137%)*				*12/07/10 15:46*	*PJQ*	*10L0503*	*8260B*
4-Bromofluorobenzene	*104 %*	*N1*	*Surr Limits: (73-120%)*				*12/07/10 15:46*	*PJQ*	*10L0503*	*8260B*
Toluene-d8	*106 %*	*N1*	*Surr Limits: (71-126%)*				*12/07/10 15:46*	*PJQ*	*10L0503*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		5.1	0.49	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,4,6-Trichlorophenol	ND		5.1	0.62	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,4-Dichlorophenol	ND		5.1	0.52	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,4-Dimethylphenol	ND		5.1	0.51	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,4-Dinitrophenol	ND		10	2.3	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,4-Dinitrotoluene	ND		5.1	0.46	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,6-Dinitrotoluene	ND		5.1	0.41	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2-Chloronaphthalene	ND		5.1	0.47	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2-Chlorophenol	ND		5.1	0.54	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2-Methylnaphthalene	ND		5.1	0.61	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2-Methylphenol	ND		5.1	0.41	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2-Nitroaniline	ND		10	0.43	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2-Nitrophenol	ND		5.1	0.49	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
3,3'-Dichlorobenzidine	ND		5.1	0.41	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
3-Nitroaniline	ND		10	0.49	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Bromophenyl phenyl ether	ND		5.1	0.46	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Chloro-3-methylphenol	ND		5.1	0.46	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Chloroaniline	ND		5.1	0.60	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Chlorophenyl phenyl ether	ND		5.1	0.36	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Methylphenol	ND		10	0.37	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Nitroaniline	ND		10	0.26	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
4-Nitrophenol	ND		10	1.6	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Acenaphthene	ND		5.1	0.42	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Acenaphthylene	ND		5.1	0.39	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Acetophenone	ND		5.1	0.55	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Anthracene	ND		5.1	0.29	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Atrazine	ND		5.1	0.47	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Benzaldehyde	ND		5.1	0.27	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Benzo(a)anthracene	ND		5.1	0.37	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Benzo(a)pyrene	ND		5.1	0.48	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Benzo(b)fluoranthene	ND		5.1	0.35	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Benzo(ghi)perylene	ND		5.1	0.36	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Benzo(k)fluoranthene	ND		5.1	0.74	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Biphenyl	ND		5.1	0.67	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Bis(2-chloroethoxy)methane	ND		5.1	0.36	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Bis(2-chloroethyl)ether	ND		5.1	0.41	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.1	0.53	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Bis(2-ethylhexyl) phthalate	ND		5.1	1.8	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-7-12-3-10 (RTL0505-02 - Water) - cont. **Sampled: 12/03/10 12:00** **Recvd: 12/04/10 09:40**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		5.1	0.43	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Caprolactam	ND		5.1	2.2	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Carbazole	ND		5.1	0.31	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Chrysene	ND		5.1	0.34	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Dibenzo(a,h)anthracene	ND		5.1	0.43	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Dibenzofuran	ND		5.1	0.52	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Diethyl phthalate	ND		5.1	0.22	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Dimethyl phthalate	ND		5.1	0.37	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Di-n-butyl phthalate	ND		5.1	0.32	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Di-n-octyl phthalate	ND		5.1	0.48	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Fluoranthene	ND		5.1	0.41	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Fluorene	ND		5.1	0.37	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Hexachlorobenzene	ND		5.1	0.52	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Hexachlorobutadiene	ND		5.1	0.69	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Hexachlorocyclopentadiene	ND		5.1	0.60	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Hexachloroethane	ND		5.1	0.60	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Indeno(1,2,3-cd)pyrene	ND		5.1	0.48	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Isophorone	ND		5.1	0.44	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Naphthalene	ND		5.1	0.78	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Nitrobenzene	ND		5.1	0.30	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
N-Nitrosodi-n-propylamine	ND		5.1	0.55	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
N-Nitrosodiphenylamine	ND		5.1	0.52	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Pentachlorophenol	ND		10	2.2	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Phenanthrene	ND		5.1	0.45	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Phenol	ND		5.1	0.40	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
Pyrene	ND		5.1	0.35	ug/L	1.00	12/07/10 12:43	MKP	10L0392	8270C
2,4,6-Tribromophenol	*118 %*		*Surr Limits: (52-132%)*				*12/07/10 12:43*	*MKP*	*10L0392*	*8270C*
2-Fluorobiphenyl	*74 %*		*Surr Limits: (48-120%)*				*12/07/10 12:43*	*MKP*	*10L0392*	*8270C*
2-Fluorophenol	*37 %*		*Surr Limits: (20-120%)*				*12/07/10 12:43*	*MKP*	*10L0392*	*8270C*
Nitrobenzene-d5	*67 %*		*Surr Limits: (46-120%)*				*12/07/10 12:43*	*MKP*	*10L0392*	*8270C*
Phenol-d5	*29 %*		*Surr Limits: (16-120%)*				*12/07/10 12:43*	*MKP*	*10L0392*	*8270C*
p-Terphenyl-d14	*92 %*		*Surr Limits: (24-136%)*				*12/07/10 12:43*	*MKP*	*10L0392*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	ND		0.200	0.045	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Barium	**0.0183**	~~CF6~~	0.0020	0.0005	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Calcium	**30.9**	~~CF6~~, B	0.5	0.1	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Copper	**0.0017**	~~CF6~~, J	0.0100	0.0015	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Iron	ND		0.050	0.019	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Magnesium	**8.63**	~~CF6~~	0.200	0.043	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Manganese	**0.0013**	~~CF6~~, J, B	0.0030	0.0002	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-7-12-3-10 (RTL0505-02 - Water) - cont.						**Sampled: 12/03/10 12:00**		**Recvd: 12/04/10 09:40**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	1.66	~~CF6~~	0.500	0.200	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Sodium	12.7	~~CF6~~	1.0	0.3	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Vanadium	ND		0.0050	0.0011	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Zinc	0.0051	~~CF6~~, J	0.0100	0.0017	mg/L	1.00	12/07/10 19:44	LMH	10L0425	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/10/10 12:38	JRK	10L0823	7470A
General Chemistry Parameters										
Ferrous Iron	ND	J ~~HFT~~	0.100	0.0750	mg/L	1.00	12/04/10 14:35	RJF	10L0336	3500FE
Sulfate	25.8	B	5.0	1.5	mg/L	1.00	12/13/10 13:55	KLD	10L1115	D-516-90
Total Organic Carbon	0.4	J	1.0	0.4	mg/L	1.00	12/07/10 05:10	KLD	10L0430	9060

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-1 (RTL0505-03 - Soil) — **Sampled: 12/03/10 08:24** — **Recvd: 12/04/10 09:40**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.3	0.38	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,1,2,2-Tetrachloroethane	ND		5.3	0.85	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,1,2-Trichloroethane	ND		5.3	0.68	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,1-Dichloroethane	ND		5.3	0.64	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,1-Dichloroethene	ND		5.3	0.64	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2-Dibromo-3-chloropropane	ND		5.3	2.6	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2-Dibromoethane	ND		5.3	0.68	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2-Dichlorobenzene	ND		5.3	0.41	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2-Dichloroethane	ND		5.3	0.26	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2-Dichloropropane	ND		5.3	2.6	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,3-Dichlorobenzene	ND		5.3	0.27	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,4-Dichlorobenzene	ND		5.3	0.74	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
2-Butanone	**7.9**	J	26	1.9	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
2-Hexanone	ND		26	2.6	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
4-Methyl-2-pentanone	ND		26	1.7	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Acetone	**80**		26	4.4	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Benzene	ND		5.3	0.26	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Bromodichloromethane	ND		5.3	0.70	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Bromoform	ND		5.3	2.6	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Bromomethane	ND		5.3	0.47	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Carbon disulfide	ND		5.3	2.6	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Carbon Tetrachloride	ND		5.3	0.51	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Chlorobenzene	ND		5.3	0.69	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Dibromochloromethane	ND		5.3	0.67	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Chloroethane	ND		5.3	1.2	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Chloroform	ND		5.3	0.32	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Chloromethane	ND		5.3	0.32	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
cis-1,2-Dichloroethene	ND		5.3	0.67	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Cyclohexane	ND		5.3	0.74	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Dichlorodifluoromethane	ND		5.3	0.43	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Ethylbenzene	ND		5.3	0.36	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Isopropylbenzene	ND		5.3	0.79	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Methyl Acetate	ND		5.3	0.98	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.3	0.52	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Methylcyclohexane	ND		5.3	0.80	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Methylene Chloride	**38**	J	5.3	2.4	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Styrene	ND		5.3	0.26	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Tetrachloroethene	ND		5.3	0.71	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Toluene	ND		5.3	0.40	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
trans-1,2-Dichloroethene	ND		5.3	0.54	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Trichloroethene	ND		5.3	1.2	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Trichlorofluoromethane	ND		5.3	0.50	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
Vinyl chloride	ND		5.3	0.64	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-1 (RTL0505-03 - Soil) - cont. **Sampled: 12/03/10 08:24** **Recvd: 12/04/10 09:40**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.88	ug/kg dry	1.00	12/06/10 20:55	CDC	10L0423	8260B
1,2-Dichloroethane-d4	*107 %*		*Surr Limits: (64-126%)*				*12/06/10 20:55*	*CDC*	*10L0423*	*8260B*
4-Bromofluorobenzene	*98 %*		*Surr Limits: (72-126%)*				*12/06/10 20:55*	*CDC*	*10L0423*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-125%)*				*12/06/10 20:55*	*CDC*	*10L0423*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D12	1800	390	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D12	1800	120	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D12	1800	93	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D12	1800	480	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D12	3500	620	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D12	1800	270	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	~~D12,L~~	1800	430	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D12	1800	120	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2-Chlorophenol	ND	D12	1800	90	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D12	1800	21	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2-Methylphenol	ND	D12	1800	54	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2-Nitroaniline	ND	D12	3500	570	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2-Nitrophenol	ND	D12	1800	81	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D12	1800	1600	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
3-Nitroaniline	ND	D12	3500	410	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D12	3500	610	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	~~D12~~	1800	560	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D12	1800	73	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Chloroaniline	ND	D12	1800	520	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D12,L	1800	38	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Methylphenol	ND	D12	3500	99	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Nitroaniline	ND	D12	3500	200	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
4-Nitrophenol	ND	D12	3500	430	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Acenaphthene	ND	D12	1800	21	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Acenaphthylene	ND	D12	1800	14	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Acetophenone	ND	~~D12,L~~	1800	91	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Anthracene	**170**	D12,J	1800	45	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Atrazine	ND	~~D12,L~~	1800	79	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Benzaldehyde	ND	~~D12~~	1800	190	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Benzo[a]anthracene	**500**	~~D12~~,J	1800	31	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Benzo[a]pyrene	**480**	~~D12~~,J	1800	43	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Benzo[b]fluoranthene	**500**	~~D12~~,J	1800	34	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Benzo[g,h,i]perylene	**440**	~~D12~~,J	1800	21	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D12	1800	19	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Biphenyl	ND	D12	1800	110	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D12	1800	96	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D12	1800	150	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D12	1800	180	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
~~Bis(2-ethylhexyl) phthalate~~	~~1300~~	~~D12,J,B~~	1800	570	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-1 (RTL0505-03 - Soil) - cont. **Sampled: 12/03/10 08:24** **Recvd: 12/04/10 09:40**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D12	1800	480	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Caprolactam	ND	D12,L	1800	770	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Carbazole	ND	D12	1800	20	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Chrysene	**520**	D12,J	1800	18	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D12	1800	21	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Dibenzofuran	ND	D12	1800	18	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Diethyl phthalate	ND	D12,L	1800	53	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Dimethyl phthalate	ND	D12	1800	46	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D12,L	1800	610	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D12,L	1800	41	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Fluoranthene	**1200**	D12,J	1800	26	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Fluorene	ND	D12,L	1800	41	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Hexachlorobenzene	ND	D12	1800	88	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D12	1800	91	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D12	1800	530	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Hexachloroethane	ND	D12	1800	140	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	**310**	D12,J	1800	49	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Isophorone	ND	D12	1800	88	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Naphthalene	ND	D12	1800	29	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Nitrobenzene	ND	D12	1800	78	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D12	1800	140	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D12,L	1800	97	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Pentachlorophenol	ND	D12	3500	610	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Phenanthrene	**1200**	D12,J	1800	37	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Phenol	ND	D12	1800	190	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
Pyrene	**1100**	D12,J	1800	11	ug/kg dry	10.0	12/13/10 14:16	MKP	10L0689	8270C
2,4,6-Tribromophenol	*42 %*	*D12*	*Surr Limits: (39-146%)*				*12/13/10 14:16*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*99 %*	*D12*	*Surr Limits: (37-120%)*				*12/13/10 14:16*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*77 %*	*D12*	*Surr Limits: (18-120%)*				*12/13/10 14:16*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*85 %*	*D12*	*Surr Limits: (34-132%)*				*12/13/10 14:16*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*89 %*	*D12*	*Surr Limits: (11-120%)*				*12/13/10 14:16*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*95 %*	*D12*	*Surr Limits: (58-147%)*				*12/13/10 14:16*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4640**		10.5	4.6	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Antimony	ND		15.7	0.6	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Arsenic	**28.1**		2.1	0.4	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Barium	**43.2**		0.524	0.115	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Beryllium	**0.241**		0.210	0.029	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Cadmium	**0.660**		0.210	0.031	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Calcium	**10800**	B	52.4	3.5	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Chromium	**9.72**		0.524	0.210	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Cobalt	**2.68**		0.524	0.052	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Copper	**11.9**		1.0	0.2	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Iron	**8290**	B	10.5	1.2	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Lead	**57.9**		1.0	0.3	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Magnesium	**2270**		21.0	1.0	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Manganese	**110**		0.2	0.03	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-6-1 (RTL0505-03 - Soil) - cont.						**Sampled: 12/03/10 08:24**		**Recvd: 12/04/10 09:40**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.61**		5.24	0.241	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Potassium	**436**		31.5	21.0	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Selenium	ND		4.2	0.6	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Silver	ND		0.524	0.210	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Sodium	**303**		147	13.6	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Thallium	ND		6.3	0.3	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Vanadium	**12.1**		0.524	0.115	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Zinc	**67.6**		2.1	0.2	mg/kg dry	1.00	12/07/10 11:16	AMH	10L0372	6010B
Mercury	**0.0732**		0.0204	0.0083	mg/kg dry	1.00	12/06/10 12:38	JRK	10L0365	7471A
General Chemistry Parameters										
Percent Solids	**93**		0.010	NR	%	1.00	12/07/10 08:36	MJM	10L0405	Dry Weight
Ferrous Iron	**22.1**	J ~~HFT~~	2.1	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	**375**		107	53.5	mg/kg dry	1.00	12/13/10 13:55	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**12800**		1160	1160	mg/Kg dry	1.00	12/08/10 18:18	MNT	10829	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**13.6**		0.25	0.25	%	1.00	12/07/10 19:40	MNT	10733	Moisture
Percent Solids	**86.4**		0.25	0.25	%	1.00	12/07/10 19:40	MNT	10733	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-2 (RTL0505-04 - Soil) — **Sampled: 12/03/10 09:56** — **Recvd: 12/04/10 09:40**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.6	0.40	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,1,2,2-Tetrachloroethane	ND		5.6	0.90	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,1,2-Trichloroethane	ND		5.6	0.72	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,1-Dichloroethane	ND		5.6	0.68	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,1-Dichloroethene	ND		5.6	0.68	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2-Dibromo-3-chloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2-Dibromoethane	ND		5.6	0.71	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2-Dichlorobenzene	ND		5.6	0.43	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2-Dichloroethane	ND		5.6	0.28	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2-Dichloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,3-Dichlorobenzene	ND		5.6	0.29	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,4-Dichlorobenzene	ND		5.6	0.78	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
2-Butanone	ND		28	2.0	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Acetone	**18**	J	28	4.7	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Benzene	ND		5.6	0.27	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Bromodichloromethane	ND		5.6	0.74	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Bromoform	ND		5.6	2.8	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Bromomethane	ND		5.6	0.50	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Carbon disulfide	ND		5.6	2.8	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Carbon Tetrachloride	ND		5.6	0.54	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Chlorobenzene	ND		5.6	0.73	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Dibromochloromethane	ND		5.6	0.71	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Chloroethane	ND		5.6	1.3	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Chloroform	ND		5.6	0.34	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Chloromethane	ND		5.6	0.34	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
cis-1,2-Dichloroethene	ND		5.6	0.71	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
cis-1,3-Dichloropropene	ND		5.6	0.80	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Cyclohexane	ND		5.6	0.78	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Dichlorodifluoromethane	ND		5.6	0.46	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Ethylbenzene	ND		5.6	0.38	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Isopropylbenzene	ND		5.6	0.84	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Methyl Acetate	ND		5.6	1.0	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.6	0.55	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Methylcyclohexane	ND		5.6	0.84	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Methylene Chloride	**41**	J	5.6	2.6	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Styrene	ND		5.6	0.28	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Tetrachloroethene	ND		5.6	0.74	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Toluene	ND		5.6	0.42	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
trans-1,2-Dichloroethene	ND		5.6	0.57	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
trans-1,3-Dichloropropene	ND		5.6	2.4	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Trichloroethene	ND		5.6	1.2	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Trichlorofluoromethane	ND		5.6	0.53	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
Vinyl chloride	ND		5.6	0.68	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-2 (RTL0505-04 - Soil) - cont. **Sampled: 12/03/10 09:56** **Recvd: 12/04/10 09:40**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.93	ug/kg dry	1.00	12/06/10 21:21	CDC	10L0423	8260B
1,2-Dichloroethane-d4	*110 %*		*Surr Limits: (64-126%)*				*12/06/10 21:21*	*CDC*	*10L0423*	*8260B*
4-Bromofluorobenzene	*104 %*		*Surr Limits: (72-126%)*				*12/06/10 21:21*	*CDC*	*10L0423*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/06/10 21:21*	*CDC*	*10L0423*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		190	41	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND		190	12	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,4-Dichlorophenol	ND		190	9.8	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,4-Dimethylphenol	ND		190	50	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,4-Dinitrophenol	ND	J	360	65	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND		190	29	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	L	190	46	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2-Chloronaphthalene	ND		190	12	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2-Chlorophenol	ND		190	9.5	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2-Methylnaphthalene	ND		190	2.3	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2-Methylphenol	ND		190	5.7	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2-Nitroaniline	ND		360	60	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2-Nitrophenol	ND		190	8.5	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND		190	160	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
3-Nitroaniline	ND		360	43	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		360	64	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND		190	59	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND		190	7.7	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Chloroaniline	ND		190	55	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	L	190	4.0	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Methylphenol	ND		360	10	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Nitroaniline	ND		360	21	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
4-Nitrophenol	ND		360	45	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Acenaphthene	ND		190	2.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Acenaphthylene	ND		190	1.5	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Acetophenone	ND	L	190	9.5	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Anthracene	ND		190	4.8	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Atrazine	ND	L	190	8.3	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Benzaldehyde	ND		190	20	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Benzo[a]anthracene	**19**	J	190	3.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Benzo[a]pyrene	**19**	J	190	4.5	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Benzo[b]fluoranthene	**23**	J	190	3.6	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Benzo[g,h,i]perylene	**17**	J	190	2.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND		190	2.0	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND		190	16	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	19	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	~~150~~ 190	~~J~~ B	190	60	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-6-2 (RTL0505-04 - Soil) - cont.						**Sampled: 12/03/10 09:56**		**Recvd: 12/04/10 09:40**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		190	50	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Caprolactam	ND	L	190	80	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Carbazole	ND		190	2.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Chrysene	**24**	J	190	1.9	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND		190	2.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Dibenzofuran	ND		190	1.9	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Diethyl phthalate	140 **17**	UB L,J,B	190	5.6	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Dimethyl phthalate	ND		190	4.9	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	L	190	64	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	L	190	4.4	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Fluoranthene	**46**	J	190	2.7	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Fluorene	ND	L	190	4.3	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Hexachlorobenzene	ND		190	9.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Hexachlorobutadiene	ND		190	9.5	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND		190	56	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Hexachloroethane	ND		190	14	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND		190	5.1	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Isophorone	ND		190	9.3	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Naphthalene	ND		190	3.1	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Nitrobenzene	ND		190	8.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		190	15	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	190	10	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Pentachlorophenol	ND		360	64	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Phenanthrene	**42**	J	190	3.9	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Phenol	ND		190	20	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
Pyrene	**39**	J	190	1.2	ug/kg dry	1.00	12/13/10 14:40	MKP	10L0689	8270C
2,4,6-Tribromophenol	*112 %*		*Surr Limits: (39-146%)*				*12/13/10 14:40*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*104 %*		*Surr Limits: (37-120%)*				*12/13/10 14:40*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*83 %*		*Surr Limits: (18-120%)*				*12/13/10 14:40*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*90 %*		*Surr Limits: (34-132%)*				*12/13/10 14:40*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*92 %*		*Surr Limits: (11-120%)*				*12/13/10 14:40*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*119 %*		*Surr Limits: (58-147%)*				*12/13/10 14:40*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**637**		11.1	4.9	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Antimony	ND		16.7	0.6	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Arsenic	**0.5**	J	2.2	0.4	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Barium	**6.25**		0.556	0.122	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Beryllium	ND		0.223	0.031	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Cadmium	ND		0.223	0.033	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Calcium	**490**	B	55.6	3.7	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Chromium	**1.57**		0.556	0.223	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Cobalt	**0.285**	J	0.556	0.056	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Copper	**0.7**	J	1.1	0.2	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Iron	**917**	B	11.1	1.2	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Lead	**0.6**	J	1.1	0.3	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Magnesium	**230**		22.3	1.0	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Manganese	**8.3**		0.2	0.04	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-6-2 (RTL0505-04 - Soil) - cont.						**Sampled: 12/03/10 09:56**		**Recvd: 12/04/10 09:40**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**0.810**	J	5.56	0.256	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Potassium	**259**		33.4	22.3	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Silver	ND		0.556	0.223	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Sodium	**44.3**	J	156	14.5	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Thallium	ND		6.7	0.3	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Vanadium	**1.75**		0.556	0.122	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Zinc	**2.0**	J	2.2	0.2	mg/kg dry	1.00	12/07/10 11:18	AMH	10L0372	6010B
Mercury	ND		0.0220	0.0089	mg/kg dry	1.00	12/06/10 12:39	JRK	10L0365	7471A
General Chemistry Parameters										
Percent Solids	**89**		0.010	NR	%	1.00	12/07/10 08:38	MJM	10L0405	Dry Weight
Ferrous Iron	~~ND~~ R	~~HFT~~	~~2.2~~	~~0.3~~	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	ND		112	56.1	mg/kg dry	1.00	12/13/10 13:55	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1210	1210	mg/Kg dry	1.00	12/08/10 18:30	MNT	10829	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**17.1**		0.25	0.25	%	1.00	12/07/10 19:40	MNT	10733	Moisture
Percent Solids	**82.9**		0.25	0.25	%	1.00	12/07/10 19:40	MNT	10733	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-3 (RTL0505-05 - Soil) **Sampled: 12/03/10 11:06** **Recvd: 12/04/10 09:40**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	D08, W1	570	160	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,1,2,2-Tetrachloroethane	ND	D08, W1	570	93	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,1,2-Trichloroethane	ND	D08, W1	570	120	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D08, W1	570	290	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,1-Dichloroethane	ND	D08, W1	570	180	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,1-Dichloroethene	ND	D08, W1	570	200	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2,4-Trichlorobenzene	ND	D08, W1	570	220	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2-Dibromo-3-chloropropane	ND J	D08, W1	570	290	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2-Dibromoethane	ND	D08, W1	570	22	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2-Dichlorobenzene	ND	D08, W1	570	150	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2-Dichloroethane	ND	D08, W1	570	230	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2-Dichloropropane	ND	D08, W1	570	93	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,3-Dichlorobenzene	ND	D08, W1	570	150	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,4-Dichlorobenzene	ND	D08, W1	570	80	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
2-Butanone	ND	D08, W1	2900	1700	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
2-Hexanone	ND	D08, W1	2900	1200	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
4-Methyl-2-pentanone	ND	D08, W1	2900	180	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Acetone	ND	D08, W1	2900	2400	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Benzene	ND	D08, W1	570	27	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Bromodichloromethane	ND	D08, W1	570	110	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Bromoform	ND J	D08, W1	570	290	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Bromomethane	ND	D08, W1	570	130	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Carbon disulfide	ND J	D08, W1	570	260	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Carbon Tetrachloride	ND J	D08, W1	570	150	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Chlorobenzene	ND	D08, W1	570	75	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Dibromochloromethane	ND J	D08, W1	570	280	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Chloroethane	ND	D08, W1	570	120	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Chloroform	ND	D08, W1	570	390	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Chloromethane	ND	D08, W1	570	140	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
cis-1,2-Dichloroethene	ND	D08, W1	570	160	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
cis-1,3-Dichloropropene	ND	D08, W1	570	140	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Cyclohexane	4000 J	D08, W1	570	130	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Dichlorodifluoromethane	ND J	D08, W1	570	250	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Ethylbenzene	ND	D08, W1	570	170	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Isopropylbenzene	1800	D08, W1	570	86	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Methyl Acetate	ND	D08, W1	570	270	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Methyl-t-Butyl Ether (MTBE)	ND	D08, W1	570	220	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Methylcyclohexane	25000 J	D08, W1	570	270	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Methylene Chloride	ND	D08, W1	570	110	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Styrene	ND	D08, W1	570	140	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Tetrachloroethene	ND	D08, W1	570	77	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Toluene	ND	D08, W1	570	150	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
trans-1,2-Dichloroethene	ND	D08, W1	570	130	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
trans-1,3-Dichloropropene	ND	D08, W1	570	27	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Trichloroethene	ND	D08, W1	570	160	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Trichlorofluoromethane	ND	D08, W1	570	270	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
Vinyl chloride	ND	D08, W1	570	190	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-6-3 (RTL0505-05 - Soil) - cont.						**Sampled: 12/03/10 11:06**		**Recvd: 12/04/10 09:40**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	D08, W1	1100	96	ug/kg dry	5.00	12/10/10 13:53	LH	10L0861	8260B
1,2-Dichloroethane-d4	*115 %*	*D08, W1*	*Surr Limits: (53-146%)*				*12/10/10 13:53*	*LH*	*10L0861*	*8260B*
4-Bromofluorobenzene	*95 %*	*D08, W1*	*Surr Limits: (49-148%)*				*12/10/10 13:53*	*LH*	*10L0861*	*8260B*
Toluene-d8	*108 %*	*D08, W1*	*Surr Limits: (50-149%)*				*12/10/10 13:53*	*LH*	*10L0861*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D02, T10	4800	1000	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D02, T10	4800	320	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D02, T10	4800	250	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D02, T10	4800	1300	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D02, T10	9400	1700	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D02, T10	4800	740	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	D02, T10,L	4800	1200	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D02, T10	4800	320	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2-Chlorophenol	ND	D02, T10	4800	240	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D02, T10	4800	58	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2-Methylphenol	ND	D02, T10	4800	150	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2-Nitroaniline	ND	D02, T10	9400	1500	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2-Nitrophenol	ND	D02, T10	4800	220	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D02, T10	4800	4200	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
3-Nitroaniline	ND	D02, T10	9400	1100	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D02, T10	9400	1700	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	D02, T10	4800	1500	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D02, T10	4800	200	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Chloroaniline	ND	D02, T10	4800	1400	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D02, T10,L	4800	100	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Methylphenol	ND	D02, T10	9400	270	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Nitroaniline	ND	D02, T10	9400	540	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
4-Nitrophenol	ND	D02, T10	9400	1200	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Acenaphthene	**940**	D02, T10,J	4800	56	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Acenaphthylene	ND	D02, T10	4800	39	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Acetophenone	ND	D02, T10,L	4800	250	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Anthracene	**820**	D02, T10,J	4800	120	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Atrazine	ND	D02, T10,L	4800	210	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Benzaldehyde	ND	D02, T10	4800	530	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Benzo[a]anthracene	**2700**	D02, T10,J	4800	83	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Benzo[a]pyrene	**2700**	D02, T10,J	4800	120	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Benzo[b]fluoranthene	**2800**	D02, T10,J	4800	93	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Benzo[g,h,i]perylene	**1500**	D02, T10,J	4800	58	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Benzo[k]fluoranthene	**1200**	D02, T10,J	4800	53	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Biphenyl	ND	D02, T10	4800	300	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D02, T10	4800	260	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D02, T10	4800	410	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02, T10	4800	500	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	ND	D02, T10	4800	1500	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-3 (RTL0505-05 - Soil) - cont. **Sampled: 12/03/10 11:06** **Recvd: 12/04/10 09:40**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D02, T10	4800	1300	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Caprolactam	ND	D02, T10,L	4800	2100	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Carbazole	ND	D02, T10	4800	56	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Chrysene	**2300**	D02, T10,J	4800	48	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D02, T10	4800	57	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Dibenzofuran	ND	D02, T10	4800	50	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Diethyl phthalate	ND	D02, T10,L	4800	150	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Dimethyl phthalate	ND	D02, T10	4800	130	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D02, T10,L	4800	1700	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D02, T10,L	4800	110	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Fluoranthene	**4800**	D02, T10	4800	70	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Fluorene	**1100**	D02, T10,L, J	4800	110	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Hexachlorobenzene	ND	D02, T10	4800	240	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D02, T10	4800	250	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D02, T10	4800	1500	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Hexachloroethane	ND	D02, T10	4800	370	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	**1100**	D02, T10,J	4800	130	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Isophorone	ND	D02, T10	4800	240	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Naphthalene	ND	D02, T10	4800	80	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Nitrobenzene	ND	D02, T10	4800	210	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D02, T10	4800	380	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D02, T10,L	4800	260	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Pentachlorophenol	ND	D02, T10	9400	1600	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Phenanthrene	**1700**	D02, T10,J	4800	100	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Phenol	ND	D02, T10	4800	510	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
Pyrene	**4800**	D02, T10	4800	31	ug/kg dry	5.00	12/13/10 15:04	MKP	10L0689	8270C
2,4,6-Tribromophenol	*70 %*	*D02, T10,Z3*	*Surr Limits: (39-146%)*				*12/13/10 15:04*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*86 %*	*D02, T10,Z3*	*Surr Limits: (37-120%)*				*12/13/10 15:04*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*50 %*	*D02, T10,Z3*	*Surr Limits: (18-120%)*				*12/13/10 15:04*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*92 %*	*D02, T10,Z3*	*Surr Limits: (34-132%)*				*12/13/10 15:04*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*65 %*	*D02, T10,Z3*	*Surr Limits: (11-120%)*				*12/13/10 15:04*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*88 %*	*D02, T10,Z3*	*Surr Limits: (58-147%)*				*12/13/10 15:04*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3000**		10.9	4.8	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Antimony	ND		16.4	0.6	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Arsenic	**1.9**	J	2.2	0.4	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Barium	**14.0**		0.546	0.120	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Beryllium	**0.157**	J	0.218	0.031	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Cadmium	**0.079**	J	0.218	0.033	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Calcium	**1040**	B	54.6	3.6	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Chromium	**6.88**		0.546	0.218	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-6-3 (RTL0505-05 - Soil) - cont. **Sampled: 12/03/10 11:06** **Recvd: 12/04/10 09:40**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Total Metals by SW 846 Series Methods - cont.										
Cobalt	2.26		0.546	0.055	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Copper	4.0		1.1	0.2	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Iron	4740	B	10.9	1.2	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Lead	9.7		1.1	0.3	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Magnesium	1170		21.8	1.0	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Manganese	36.9		0.2	0.03	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Nickel	5.40	J	5.46	0.251	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Potassium	705		32.8	21.8	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Selenium	ND		4.4	0.6	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Silver	ND		0.546	0.218	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Sodium	107	J	153	14.2	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Thallium	ND		6.6	0.3	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Vanadium	7.97		0.546	0.120	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Zinc	15.9		2.2	0.2	mg/kg dry	1.00	12/07/10 11:20	AMH	10L0372	6010B
Mercury	ND		0.0224	0.0091	mg/kg dry	1.00	12/06/10 12:46	JRK	10L0365	7471A
General Chemistry Parameters										
Percent Solids	87		0.010	NR	%	1.00	12/07/10 08:40	MJM	10L0405	Dry Weight
Ferrous Iron	0.7	HFT, J	2.3	0.3	mg/kg dry	1.00	12/09/10 22:20	LRM	10L0849	3500FE
Sulfate	69.6	J	115	57.4	mg/kg dry	1.00	12/13/10 13:55	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	14000		1120	1120	mg/Kg dry	1.00	12/08/10 18:43	MNT	10829	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	10.9		0.25	0.25	%	1.00	12/07/10 19:40	MNT	10733	Moisture
Percent Solids	89.1		0.25	0.25	%	1.00	12/07/10 19:40	MNT	10733	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-7-1 (RTL0689-01 - Soil) — **Sampled: 12/06/10 14:09** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.89	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		5.5	0.71	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.2	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		5.5	0.67	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.33	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		5.5	0.70	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		5.5	0.27	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		5.5	0.77	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Acetone	**26**	J	27	4.6	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Bromodichloromethane	ND		5.5	0.73	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Bromoform	ND		5.5	2.7	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Bromomethane	ND		5.5	0.49	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Carbon disulfide	ND		5.5	2.7	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		5.5	0.53	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Chlorobenzene	ND		5.5	0.72	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Dibromochloromethane	ND		5.5	0.70	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Chloroethane	ND		5.5	1.2	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		5.5	0.70	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Cyclohexane	ND		5.5	0.77	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		5.5	0.45	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Isopropylbenzene	ND		5.5	0.82	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Methylcyclohexane	**2.0**	J	5.5	0.83	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Methylene Chloride	**17**		5.5	2.5	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Styrene	ND		5.5	0.27	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Tetrachloroethene	ND		5.5	0.73	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Toluene	ND		5.5	0.41	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		5.5	0.56	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-7-1 (RTL0689-01 - Soil) - cont.						**Sampled: 12/06/10 14:09**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	3.1	J	11	0.92	ug/kg dry	1.00	12/13/10 16:39	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*115 %*		*Surr Limits: (64-126%)*				*12/13/10 16:39*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*96 %*		*Surr Limits: (72-126%)*				*12/13/10 16:39*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*95 %*		*Surr Limits: (71-125%)*				*12/13/10 16:39*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		190	40	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND		190	12	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,4-Dichlorophenol	ND		190	9.7	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,4-Dimethylphenol	ND		190	50	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,4-Dinitrophenol	ND	J	360	65	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND		190	29	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	J	190	45	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2-Chloronaphthalene	ND		190	12	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2-Chlorophenol	ND		190	9.4	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2-Methylnaphthalene	25	J	190	2.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2-Methylphenol	ND		190	5.7	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2-Nitroaniline	ND		360	60	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2-Nitrophenol	ND		190	8.5	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND		190	160	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
3-Nitroaniline	ND		360	43	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		360	64	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND		190	59	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND		190	7.6	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Chloroaniline	ND		190	54	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	J	190	4.0	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Methylphenol	ND		360	10	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Nitroaniline	ND		360	21	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
4-Nitrophenol	ND		360	45	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Acenaphthene	20	J	190	2.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Acenaphthylene	21	J	190	1.5	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Acetophenone	ND	J	190	9.5	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Anthracene	35	J	190	4.8	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Atrazine	ND	J	190	8.3	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Benzaldehyde	ND		190	20	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Benzo[a]anthracene	99	J	190	3.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Benzo[a]pyrene	100	J	190	4.5	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Benzo[b]fluoranthene	120	J	190	3.6	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Benzo[g,h,i]perylene	81	J	190	2.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Benzo[k]fluoranthene	34	J	190	2.0	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND		190	16	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	19	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	~~180~~	~~J, B~~	190	60	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-7-1 (RTL0689-01 - Soil) - cont. **Sampled: 12/06/10 14:09** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		190	50	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Caprolactam	ND	L	190	80	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Carbazole	ND		190	2.1	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Chrysene	110	J	190	1.9	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND		190	2.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Dibenzofuran	21	J	190	1.9	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Diethyl phthalate	38	UB, L, J, B	190	5.6	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Dimethyl phthalate	ND		190	4.8	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	L	190	64	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	L	190	4.3	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Fluoranthene	190		190	2.7	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Fluorene	25	L, J	190	4.3	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Hexachlorobenzene	ND		190	9.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Hexachlorobutadiene	ND		190	9.5	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND		190	56	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Hexachloroethane	ND		190	14	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	59	J	190	5.1	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Isophorone	ND		190	9.3	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Naphthalene	ND		190	3.1	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Nitrobenzene	ND		190	8.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		190	15	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	190	10	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Pentachlorophenol	ND		360	64	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Phenanthrene	140	J	190	3.9	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Phenol	35	J	190	20	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
Pyrene	190		190	1.2	ug/kg dry	1.00	12/13/10 15:28	MKP	10L0689	8270C
2,4,6-Tribromophenol	*86 %*		*Surr Limits: (39-146%)*				*12/13/10 15:28*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*95 %*		*Surr Limits: (37-120%)*				*12/13/10 15:28*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*12/13/10 15:28*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits: (34-132%)*				*12/13/10 15:28*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*83 %*		*Surr Limits: (11-120%)*				*12/13/10 15:28*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*112 %*		*Surr Limits: (58-147%)*				*12/13/10 15:28*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	3500		10.8	4.8	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Antimony	ND		16.2	0.6	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Arsenic	6.5		2.2	0.4	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Barium	22.7		0.541	0.119	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Beryllium	0.278		0.216	0.030	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Cadmium	0.076	J	0.216	0.032	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Calcium	3010	B	54.1	3.6	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Chromium	4.99		0.541	0.216	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Cobalt	2.62		0.541	0.054	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Copper	5.7		1.1	0.2	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Iron	6380		10.8	1.2	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Lead	17.8	J	1.1	0.3	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Magnesium	714	B	21.6	1.0	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Manganese	91.7	B	0.2	0.03	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-7-1 (RTL0689-01 - Soil) - cont.						**Sampled: 12/06/10 14:09**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**3.98**	J	5.41	0.249	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Potassium	**436**		32.4	21.6	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Selenium	ND		4.3	0.6	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Silver	ND		0.541	0.216	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Sodium	**132**	J	151	14.1	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Thallium	ND		6.5	0.3	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Vanadium	**7.37**		0.541	0.119	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Zinc	**31.4**	B	2.2	0.2	mg/kg dry	1.00	12/10/10 19:31	AMH	10L0810	6010B
Mercury	**0.0256**		0.0219	0.0089	mg/kg dry	1.00	12/10/10 12:15	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**90**		0.010	NR	%	1.00	12/10/10 17:08	MJM	10L0847	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~2.2~~	~~0.3~~	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		112	55.8	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1700**		1110	1110	mg/Kg dry	1.00	12/13/10 20:04	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**10.1**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**89.9**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-7-2 (RTL0689-02 - Soil)						**Sampled: 12/06/10 14:58**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1, D08, N1	540	150	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,1,2,2-Tetrachloroethane	ND	W1, D08, N1	540	88	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,1,2-Trichloroethane	ND	W1, D08, N1	540	110	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1, D08, N1	540	270	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,1-Dichloroethane	ND	W1, D08, N1	540	170	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,1-Dichloroethene	ND	W1, D08, N1	540	190	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2,4-Trichlorobenzene	330	W1, D08, N1,J	540	200	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2-Dibromo-3-chloropropane	ND J	W1, D08, N1	540	270	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2-Dibromoethane	ND	W1, D08, N1	540	20	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2-Dichlorobenzene	ND	W1, D08, N1	540	140	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2-Dichloroethane	ND	W1, D08, N1	540	220	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2-Dichloropropane	ND	W1, D08, N1	540	87	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,3-Dichlorobenzene	ND	W1, D08, N1	540	140	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,4-Dichlorobenzene	ND	W1, D08, N1	540	76	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
2-Butanone	ND	W1, D08, N1	2700	1600	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
2-Hexanone	ND	W1, D08, N1	2700	1100	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
4-Methyl-2-pentanone	ND	W1, D08, N1	2700	170	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Acetone	ND	W1, D08, N1	2700	2200	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Benzene	ND	W1, D08, N1	540	26	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Bromodichloromethane	ND	W1, D08, N1	540	110	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Bromoform	ND J	W1, D08, N1	540	270	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Bromomethane	ND	W1, D08, N1	540	120	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Carbon disulfide	ND J	W1, D08, N1	540	250	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Carbon Tetrachloride	ND J	W1, D08, N1	540	140	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Chlorobenzene	ND	W1, D08, N1	540	71	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Dibromochloromethane	ND J	W1, D08, N1	540	260	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-7-2 (RTL0689-02 - Soil) - cont. **Sampled: 12/06/10 14:58** **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Chloroethane	ND	W1, D08, N1	540	110	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Chloroform	ND	W1, D08, N1	540	370	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Chloromethane	ND	W1, D08, N1	540	130	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
cis-1,2-Dichloroethene	ND	W1, D08, N1	540	150	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
cis-1,3-Dichloropropene	ND	W1, D08, N1	540	130	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Cyclohexane	1900	W1, D08, N1	540	120	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Dichlorodifluoromethane	ND J	W1, D08, N1	540	240	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Ethylbenzene	ND	W1, D08, N1	540	160	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Isopropylbenzene	350	W1, D08, N1,J	540	81	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Methyl Acetate	ND	W1, D08, N1	540	260	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1, D08, N1	540	200	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Methylcyclohexane	17000	W1, D08, N1	540	250	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Methylene Chloride	ND	W1, D08, N1	540	110	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Styrene	ND	W1, D08, N1	540	130	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Tetrachloroethene	ND	W1, D08, N1	540	72	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Toluene	ND	W1, D08, N1	540	140	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
trans-1,2-Dichloroethene	ND	W1, D08, N1	540	130	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
trans-1,3-Dichloropropene	ND	W1, D08, N1	540	26	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Trichloroethene	ND	W1, D08, N1	540	150	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Trichlorofluoromethane	ND	W1, D08, N1	540	250	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Vinyl chloride	ND	W1, D08, N1	540	180	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
Xylenes, total	ND	W1, D08, N1	1100	91	ug/kg dry	5.00	12/12/10 23:04	NMD	10L0923	8260B
1,2-Dichloroethane-d4	*117 %*	*W1, D08, N1*	*Surr Limits: (53-146%)*				*12/12/10 23:04*	*NMD*	*10L0923*	*8260B*
4-Bromofluorobenzene	*97 %*	*W1, D08, N1*	*Surr Limits: (49-148%)*				*12/12/10 23:04*	*NMD*	*10L0923*	*8260B*
Toluene-d8	*109 %*	*W1, D08, N1*	*Surr Limits: (50-149%)*				*12/12/10 23:04*	*NMD*	*10L0923*	*8260B*

Semivolatile Organics by GC/MS

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-7-2 (RTL0689-02 - Soil) - cont. **Sampled: 12/06/10 14:58** **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	T10, D02	4700	1000	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	T10, D02	4700	310	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	T10, D02	4700	240	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	T10, D02	4700	1300	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	T10, D02	9100	1600	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	T10, D02	4700	720	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	T10, D02,L	4700	1100	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2-Chloronaphthalene	ND	T10, D02	4700	310	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2-Chlorophenol	ND	T10, D02	4700	240	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2-Methylnaphthalene	ND	T10, D02	4700	56	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2-Methylphenol	ND	T10, D02	4700	140	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2-Nitroaniline	ND	T10, D02	9100	1500	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2-Nitrophenol	ND	T10, D02	4700	210	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	T10, D02	4700	4100	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
3-Nitroaniline	ND	T10, D02	9100	1100	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	T10, D02	9100	1600	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	T10, D02	4700	1500	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	T10, D02	4700	190	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Chloroaniline	ND	T10, D02	4700	1400	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	T10, D02,L	4700	99	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Methylphenol	ND	T10, D02	9100	260	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Nitroaniline	ND	T10, D02	9100	520	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
4-Nitrophenol	ND	T10, D02	9100	1100	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Acenaphthene	1700	T10, D02,J	4700	55	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Acenaphthylene	ND	T10, D02	4700	38	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Acetophenone	ND	T10, D02,L	4700	240	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Anthracene	1500	T10, D02,J	4700	120	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Atrazine	ND	T10, D02,L	4700	210	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Benzaldehyde	ND	T10, D02	4700	510	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Benzo[a]anthracene	3700	T10, D02,J	4700	80	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Benzo[a]pyrene	3700	T10, D02,J	4700	110	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Benzo[b]fluoranthene	4100	T10, D02,J	4700	90	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Benzo[g,h,i]perylene	2100	T10, D02,J	4700	56	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Benzo[k]fluoranthene	1100	T10, D02,J	4700	51	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Biphenyl	ND	T10, D02	4700	290	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	T10, D02	4700	250	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	T10, D02	4700	400	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	T10, D02	4700	480	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	4700 3500 UB	T10, D02,J, B	4700	1500	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Butyl benzyl phthalate	ND	T10, D02	4700	1200	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Caprolactam	ND	T10, D02,L	4700	2000	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Carbazole	ND	T10, D02	4700	54	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Chrysene	3500	T10, D02,J	4700	46	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	T10, D02	4700	55	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Dibenzofuran	1100	T10, D02,J	4700	48	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-7-2 (RTL0689-02 - Soil) - cont.						**Sampled: 12/06/10 14:58**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Diethyl phthalate	ND	T10, D02,L	4700	140	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Dimethyl phthalate	ND	T10, D02	4700	120	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	T10, D02,L	4700	1600	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	T10, D02,L	4700	110	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Fluoranthene	**7000**	T10, D02	4700	67	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Fluorene	**1900**	T10, D02,L, J	4700	110	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Hexachlorobenzene	ND	T10, D02	4700	230	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Hexachlorobutadiene	ND	T10, D02	4700	240	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	T10, D02	4700	1400	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Hexachloroethane	ND	T10, D02	4700	360	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	**1800**	T10, D02,J	4700	130	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Isophorone	ND	T10, D02	4700	230	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Naphthalene	ND	T10, D02	4700	77	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Nitrobenzene	ND	T10, D02	4700	210	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	T10, D02	4700	370	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	T10, D02,L	4700	250	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Pentachlorophenol	ND	T10, D02	9100	1600	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Phenanthrene	**4200**	T10, D02,J	4700	97	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Phenol	ND	T10, D02	4700	490	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
Pyrene	**7700**	T10, D02	4700	30	ug/kg dry	5.00	12/13/10 15:51	MKP	10L0689	8270C
2,4,6-Tribromophenol	*67 %*	*T10, D02,Z3*	*Surr Limits: (39-146%)*				*12/13/10 15:51*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*90 %*	*T10, D02,Z3*	*Surr Limits: (37-120%)*				*12/13/10 15:51*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*49 %*	*T10, D02,Z3*	*Surr Limits: (18-120%)*				*12/13/10 15:51*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*102 %*	*T10, D02,Z3*	*Surr Limits: (34-132%)*				*12/13/10 15:51*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*65 %*	*T10, D02,Z3*	*Surr Limits: (11-120%)*				*12/13/10 15:51*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*88 %*	*T10, D02,Z3*	*Surr Limits: (58-147%)*				*12/13/10 15:51*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2280**		10.7	4.7	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Antimony	ND		16.1	0.6	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Arsenic	**3.6**		2.1	0.4	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Barium	**21.4**		0.537	0.118	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Beryllium	**0.218**		0.215	0.030	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Cadmium	**0.258**		0.215	0.032	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Calcium	**9740**	B	53.7	3.5	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Chromium	**5.83**		0.537	0.215	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Cobalt	**1.36**		0.537	0.054	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Copper	**13.4**		1.1	0.2	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Iron	**3860**		10.7	1.2	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Lead	**35.0**	J	1.1	0.3	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Magnesium	**2320**	B	21.5	1.0	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Manganese	**49.7**	B	0.2	0.03	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-7-2 (RTL0689-02 - Soil) - cont.						**Sampled: 12/06/10 14:58**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.85**		5.37	0.247	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Potassium	**359**		32.2	21.5	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Selenium	ND		4.3	0.6	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Silver	ND		0.537	0.215	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Sodium	**115**	J	150	14.0	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Thallium	ND		6.4	0.3	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Vanadium	**7.57**		0.537	0.118	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Zinc	**75.1**	B	2.1	0.2	mg/kg dry	1.00	12/10/10 19:33	AMH	10L0810	6010B
Mercury	**0.104**		0.0211	0.0086	mg/kg dry	1.00	12/10/10 12:17	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**91**		0.010	NR	%	1.00	12/10/10 17:10	MJM	10L0847	Dry Weight
Ferrous Iron	**8.3**	J ~~HFT~~	2.2	0.3	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		110	55.1	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**8210**		1110	1110	mg/Kg dry	1.00	12/13/10 20:16	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**9.5**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**90.5**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-8-1 (RTL0689-03 - Soil) — **Sampled: 12/06/10 15:28** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	100	28	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,1,2,2-Tetrachloroethane	ND	W1	100	17	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,1,2-Trichloroethane	ND	W1	100	22	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND J	W1	100	51	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,1-Dichloroethane	ND	W1	100	32	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,1-Dichloroethene	ND	W1	100	36	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2,4-Trichlorobenzene	ND	W1	100	39	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2-Dibromo-3-chloropropane	ND J	W1	100	51	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2-Dibromoethane	ND	W1	100	3.9	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2-Dichlorobenzene	ND	W1	100	26	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2-Dichloroethane	ND	W1	100	42	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2-Dichloropropane	ND	W1	100	17	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,3-Dichlorobenzene	ND	W1	100	27	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,4-Dichlorobenzene	ND	W1	100	14	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
2-Butanone	ND	W1	510	310	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
2-Hexanone	ND	W1	510	210	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
4-Methyl-2-pentanone	ND	W1	510	33	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Acetone	ND	W1	510	420	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Benzene	ND	W1	100	4.9	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Bromodichloromethane	ND	W1	100	21	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Bromoform	ND J	W1	100	51	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Bromomethane	ND	W1	100	23	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Carbon disulfide	ND J	W1	100	47	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Carbon Tetrachloride	ND J	W1	100	26	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Chlorobenzene	ND	W1	100	14	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Dibromochloromethane	ND J	W1	100	50	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Chloroethane	ND	W1	100	21	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Chloroform	ND	W1	100	71	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Chloromethane	ND	W1	100	24	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
cis-1,2-Dichloroethene	ND	W1	100	28	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
cis-1,3-Dichloropropene	ND	W1	100	25	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Cyclohexane	ND J	W1	100	23	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Dichlorodifluoromethane	ND J	W1	100	45	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Ethylbenzene	ND	W1	100	30	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Isopropylbenzene	870	W1	100	15	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Methyl Acetate	ND	W1	100	49	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	100	39	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Methylcyclohexane	2800	W1 J	100	48	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Methylene Chloride	82	W1,J	100	20	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Styrene	ND	W1	100	25	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Tetrachloroethene	ND	W1	100	14	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Toluene	ND	W1	100	28	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
trans-1,2-Dichloroethene	ND	W1	100	24	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
trans-1,3-Dichloropropene	ND	W1	100	4.9	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Trichloroethene	ND	W1	100	29	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Trichlorofluoromethane	ND	W1	100	48	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
Vinyl chloride	ND	W1	100	34	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-8-1 (RTL0689-03 - Soil) - cont. **Sampled: 12/06/10 15:28** **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Xylenes, total	ND	W1	210	17	ug/kg dry	1.00	12/13/10 21:53	RJ	10L0923	8260B
1,2-Dichloroethane-d4	*169 %*	*W1,ZX*	*Surr Limits: (53-146%)*				*12/13/10 21:53*	*RJ*	*10L0923*	*8260B*
4-Bromofluorobenzene	*89 %*	*W1*	*Surr Limits: (49-148%)*				*12/13/10 21:53*	*RJ*	*10L0923*	*8260B*
Toluene-d8	*102 %*	*W1*	*Surr Limits: (50-149%)*				*12/13/10 21:53*	*RJ*	*10L0923*	*8260B*

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND	D02	950	200	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D02	950	62	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D02	950	49	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D02	950	250	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D02	1800	330	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D02	950	150	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	D02,L	950	230	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D02	950	63	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2-Chlorophenol	ND	D02	950	48	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D02	950	11	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2-Methylphenol	ND	D02	950	29	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2-Nitroaniline	ND	D02	1800	300	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2-Nitrophenol	ND	D02	950	43	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D02	950	820	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
3-Nitroaniline	ND	D02	1800	220	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D02	1800	320	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	D02	950	300	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D02	950	39	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Chloroaniline	ND	D02	950	280	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D02,L	950	20	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Methylphenol	ND	D02	1800	52	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Nitroaniline	ND	D02	1800	100	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
4-Nitrophenol	ND	D02	1800	230	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Acenaphthene	ND	D02	950	11	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Acenaphthylene	ND	D02	950	7.7	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Acetophenone	ND	D02,L	950	48	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Anthracene	ND	D02	950	24	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Atrazine	ND	D02,L	950	42	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Benzaldehyde	ND	D02	950	100	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Benzo[a]anthracene	ND	D02	950	16	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Benzo[a]pyrene	ND	D02	950	23	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Benzo[b]fluoranthene	72	D02,J	950	18	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Benzo[g,h,i]perylene	ND	D02	950	11	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D02	950	10	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Biphenyl	ND	D02	950	59	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D02	950	51	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D02	950	81	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	950	98	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	680	D02,J,B	950	300	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-8-1 (RTL0689-03 - Soil) - cont.						**Sampled: 12/06/10 15:28**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D02	950	250	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Caprolactam	ND	D02,L	950	410	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Carbazole	ND	D02	950	11	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Chrysene	ND	D02	950	9.4	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D02	950	11	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Dibenzofuran	ND	D02	950	9.8	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Diethyl phthalate	ND	D02,L	950	28	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Dimethyl phthalate	ND	D02	950	25	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D02,L	950	320	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D02,L	950	22	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Fluoranthene	ND	D02	950	14	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Fluorene	ND	D02,L	950	22	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Hexachlorobenzene	ND	D02	950	47	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D02	950	48	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D02	950	280	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Hexachloroethane	ND	D02	950	73	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND	D02	950	26	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Isophorone	ND	D02	950	47	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Naphthalene	ND	D02	950	16	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Nitrobenzene	ND	D02	950	42	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D02	950	74	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D02,L	950	51	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Pentachlorophenol	ND	D02	1800	320	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Phenanthrene	ND	D02	950	20	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Phenol	ND	D02	950	99	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
Pyrene	**110**	D02,J	950	6.1	ug/kg dry	5.00	12/13/10 16:15	MKP	10L0689	8270C
2,4,6-Tribromophenol	*74 %*	*D02*	*Surr Limits: (39-146%)*				*12/13/10 16:15*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*78 %*	*D02*	*Surr Limits: (37-120%)*				*12/13/10 16:15*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*62 %*	*D02*	*Surr Limits: (18-120%)*				*12/13/10 16:15*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*72 %*	*D02*	*Surr Limits: (34-132%)*				*12/13/10 16:15*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*72 %*	*D02*	*Surr Limits: (11-120%)*				*12/13/10 16:15*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*77 %*	*D02*	*Surr Limits: (58-147%)*				*12/13/10 16:15*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**728**		11.8	5.2	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Antimony	ND		17.7	0.6	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Arsenic	ND		2.4	0.5	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Barium	**3.31**		0.589	0.129	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Beryllium	**0.047**	J	0.235	0.033	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Cadmium	ND		0.235	0.035	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Calcium	**229**	B	58.9	3.9	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Chromium	**1.82**		0.589	0.235	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Cobalt	**0.406**	J	0.589	0.059	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Copper	**1.0**	J	1.2	0.2	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Iron	**973**		11.8	1.3	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Lead	**2.8**		1.2	0.3	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Magnesium	**214**	B	23.5	1.1	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Manganese	**9.5**	B	0.2	0.04	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-8-1 (RTL0689-03 - Soil) - cont.						**Sampled: 12/06/10 15:28**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**1.08**	J	5.89	0.271	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Potassium	**196**		35.3	23.5	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Silver	ND		0.589	0.235	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Sodium	**41.6**	J	165	15.3	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Vanadium	**2.72**		0.589	0.129	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Zinc	**2.4**	B	2.4	0.2	mg/kg dry	1.00	12/10/10 19:35	AMH	10L0810	6010B
Mercury	ND		0.0220	0.0089	mg/kg dry	1.00	12/10/10 12:19	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**87**		0.010	NR	%	1.00	12/10/10 17:12	MJM	10L0847	Dry Weight
Ferrous Iron	**0.9**	HFT, J	2.3	0.3	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**94.2**	J	114	57.1	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1160	1160	mg/Kg dry	1.00	12/13/10 20:29	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**13.8**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**86.2**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-8-2 (RTL0689-04 - Soil)						**Sampled: 12/06/10 16:03**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.4	0.39	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		5.4	0.87	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		5.4	0.70	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.4	1.2	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		5.4	0.66	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		5.4	0.66	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		5.4	0.33	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		5.4	2.7	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		5.4	0.69	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		5.4	0.42	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		5.4	0.27	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		5.4	2.7	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		5.4	0.28	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		5.4	0.75	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Acetone	10	J	27	4.5	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Benzene	ND		5.4	0.26	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Bromodichloromethane	ND		5.4	0.72	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Bromoform	ND		5.4	2.7	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Bromomethane	ND		5.4	0.48	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Carbon disulfide	ND		5.4	2.7	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		5.4	0.52	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Chlorobenzene	ND		5.4	0.71	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Dibromochloromethane	ND		5.4	0.69	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Chloroethane	ND		5.4	1.2	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Chloroform	ND		5.4	0.33	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Chloromethane	ND		5.4	0.32	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		5.4	0.69	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		5.4	0.77	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Cyclohexane	ND		5.4	0.75	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		5.4	0.44	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Ethylbenzene	ND		5.4	0.37	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Isopropylbenzene	ND		5.4	0.81	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Methyl Acetate	ND		5.4	1.0	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.4	0.53	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Methylcyclohexane	ND		5.4	0.82	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Methylene Chloride	16		5.4	2.5	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Styrene	ND		5.4	0.27	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Tetrachloroethene	ND		5.4	0.72	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Toluene	ND		5.4	0.41	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		5.4	0.55	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		5.4	2.4	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Trichloroethene	ND		5.4	1.2	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		5.4	0.51	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
Vinyl chloride	ND		5.4	0.66	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-8-2 (RTL0689-04 - Soil) - cont.						**Sampled: 12/06/10 16:03**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.90	ug/kg dry	1.00	12/13/10 17:05	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*104 %*		*Surr Limits: (64-126%)*				*12/13/10 17:05*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*100 %*		*Surr Limits: (72-126%)*				*12/13/10 17:05*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/13/10 17:05*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		180	40	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND		180	12	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,4-Dichlorophenol	ND		180	9.6	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,4-Dimethylphenol	ND		180	49	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,4-Dinitrophenol	ND	J	360	64	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND		180	28	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	↙	180	45	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2-Chloronaphthalene	ND		180	12	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2-Chlorophenol	ND		180	9.3	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2-Methylnaphthalene	ND		180	2.2	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2-Methylphenol	ND		180	5.6	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2-Nitroaniline	ND		360	59	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2-Nitrophenol	ND		180	8.4	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND		180	160	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
3-Nitroaniline	ND		360	42	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		360	63	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND		180	58	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND		180	7.5	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Chloroaniline	ND		180	54	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	↙	180	3.9	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Methylphenol	ND		360	10	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Nitroaniline	ND		360	20	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
4-Nitrophenol	ND		360	44	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Acenaphthene	ND		180	2.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Acenaphthylene	ND		180	1.5	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Acetophenone	ND	↙	180	9.4	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Anthracene	ND		180	4.7	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Atrazine	ND	↙	180	8.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Benzaldehyde	ND		180	20	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Benzo[a]anthracene	ND		180	3.2	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Benzo[a]pyrene	ND		180	4.4	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Benzo[b]fluoranthene	ND		180	3.5	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Benzo[g,h,i]perylene	ND		180	2.2	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND		180	2.0	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Biphenyl	ND		180	11	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		180	9.9	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND		180	16	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		180	19	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	~~140~~	~~B~~	180	59	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-8-2 (RTL0689-04 - Soil) - cont. **Sampled: 12/06/10 16:03** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		180	49	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Caprolactam	ND	L	180	79	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Carbazole	ND		180	2.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Chrysene	ND		180	1.8	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND		180	2.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Dibenzofuran	ND		180	1.9	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Diethyl phthalate	12	UB L, J, B	180	5.5	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Dimethyl phthalate	ND		180	4.8	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	L	180	63	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	L	180	4.3	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Fluoranthene	ND		180	2.6	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Fluorene	ND	L	180	4.2	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Hexachlorobenzene	ND		180	9.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Hexachlorobutadiene	ND		180	9.3	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND		180	55	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Hexachloroethane	ND		180	14	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND		180	5.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Isophorone	ND		180	9.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Naphthalene	ND		180	3.0	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Nitrobenzene	ND		180	8.1	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		180	14	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	180	10	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Pentachlorophenol	ND		360	63	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Phenanthrene	ND		180	3.8	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Phenol	ND		180	19	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
Pyrene	ND		180	1.2	ug/kg dry	1.00	12/13/10 16:39	MKP	10L0689	8270C
2,4,6-Tribromophenol	*102 %*		*Surr Limits: (39-146%)*				*12/13/10 16:39*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*84 %*		*Surr Limits: (37-120%)*				*12/13/10 16:39*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*12/13/10 16:39*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*73 %*		*Surr Limits: (34-132%)*				*12/13/10 16:39*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*74 %*		*Surr Limits: (11-120%)*				*12/13/10 16:39*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*105 %*		*Surr Limits: (58-147%)*				*12/13/10 16:39*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**545**		11.0	4.8	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Antimony	ND		16.5	0.6	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Arsenic	ND		2.2	0.4	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Barium	**2.64**		0.549	0.121	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Beryllium	**0.043**	J	0.220	0.031	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Cadmium	ND		0.220	0.033	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Calcium	**150**	B	54.9	3.6	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Chromium	**1.27**		0.549	0.220	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Cobalt	**0.247**	J	0.549	0.055	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Copper	**0.7**	J	1.1	0.2	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Iron	**628**		11.0	1.2	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Lead	**0.7**	J	1.1	0.3	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Magnesium	**165**	B	22.0	1.0	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Manganese	**0.6**	B	0.2	0.04	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-8-2 (RTL0689-04 - Soil) - cont.						**Sampled: 12/06/10 16:03**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**0.792**	J	5.49	0.253	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Potassium	**148**		33.0	22.0	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Selenium	ND		4.4	0.6	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Silver	ND		0.549	0.220	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Sodium	**48.9**	J	154	14.3	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Thallium	ND		6.6	0.3	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Vanadium	**1.40**		0.549	0.121	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Zinc	**1.8**	J, B	2.2	0.2	mg/kg dry	1.00	12/10/10 19:37	AMH	10L0810	6010B
Mercury	ND		0.0216	0.0087	mg/kg dry	1.00	12/10/10 12:21	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**92**		0.010	NR	%	1.00	12/10/10 17:14	MJM	10L0847	Dry Weight
Ferrous Iron	~~ND~~	~~HFT~~	~~2.2~~	~~0.3~~	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		109	54.4	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1100	1100	mg/Kg dry	1.00	12/13/10 20:42	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**9.1**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**90.9**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-9-1 (RTL0689-05 - Soil) — **Sampled: 12/07/10 07:51** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1, D04, N1	220	61	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,1,2,2-Tetrachloroethane	ND	W1, D04, N1	220	36	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,1,2-Trichloroethane	ND	W1, D04, N1	220	47	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1, D04, N1	220	110	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,1-Dichloroethane	ND	W1, D04, N1	220	68	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,1-Dichloroethene	ND	W1, D04, N1	220	77	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2,4-Trichlorobenzene	ND	W1, D04, N1	220	84	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2-Dibromo-3-chloropropane	ND J	W1, D04, N1	220	110	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2-Dibromoethane	ND	W1, D04, N1	220	8.4	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2-Dichlorobenzene	ND	W1, D04, N1	220	57	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2-Dichloroethane	ND	W1, D04, N1	220	91	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2-Dichloropropane	ND	W1, D04, N1	220	36	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,3-Dichlorobenzene	ND	W1, D04, N1	220	59	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,4-Dichlorobenzene	ND	W1, D04, N1	220	31	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
2-Butanone	ND	W1, D04, N1	1100	660	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
2-Hexanone	ND	W1, D04, N1	1100	450	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
4-Methyl-2-pentanone	ND	W1, D04, N1	1100	71	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Acetone	ND	W1, D04, N1	1100	910	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Benzene	ND	W1, D04, N1	220	11	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Bromodichloromethane	ND	W1, D04, N1	220	44	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Bromoform	ND J	W1, D04, N1	220	110	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Bromomethane	ND	W1, D04, N1	220	49	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Carbon disulfide	ND J	W1, D04, N1	220	100	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Carbon Tetrachloride	ND J	W1, D04, N1	220	57	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Chlorobenzene	ND	W1, D04, N1	220	29	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Dibromochloromethane	ND J	W1, D04, N1	220	110	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-1 (RTL0689-05 - Soil) - cont.						**Sampled: 12/07/10 07:51**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B - cont.										
Chloroethane	ND	W1, D04, N1	220	46	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Chloroform	ND	W1, D04, N1	220	150	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Chloromethane	ND	W1, D04, N1	220	53	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
cis-1,2-Dichloroethene	ND	W1, D04, N1	220	61	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
cis-1,3-Dichloropropene	ND	W1, D04, N1	220	53	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Cyclohexane	ND	W1, D04, N1	220	49	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Dichlorodifluoromethane	ND J	W1, D04, N1	220	97	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Ethylbenzene	ND	W1, D04, N1	220	64	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Isopropylbenzene	ND	W1, D04, N1	220	33	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Methyl Acetate	ND	W1, D04, N1	220	110	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1, D04, N1	220	84	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Methylcyclohexane	170	W1, D04, N1,J	220	100	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Methylene Chloride	ND	W1, D04, N1	220	44	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Styrene	ND	W1, D04, N1	220	53	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Tetrachloroethene	ND	W1, D04, N1	220	30	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Toluene	ND	W1, D04, N1	220	59	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
trans-1,2-Dichloroethene	ND	W1, D04, N1	220	52	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
trans-1,3-Dichloropropene	ND	W1, D04, N1	220	11	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Trichloroethene	ND	W1, D04, N1	220	62	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Trichlorofluoromethane	ND	W1, D04, N1	220	100	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Vinyl chloride	ND	W1, D04, N1	220	74	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
Xylenes, total	ND	W1, D04, N1	440	37	ug/kg dry	2.00	12/12/10 23:50	NMD	10L0923	8260B
1,2-Dichloroethane-d4	*96 %*	*W1, D04, N1*	*Surr Limits: (53-146%)*				*12/12/10 23:50*	*NMD*	*10L0923*	*8260B*
4-Bromofluorobenzene	*87 %*	*W1, D04, N1*	*Surr Limits: (49-148%)*				*12/12/10 23:50*	*NMD*	*10L0923*	*8260B*
Toluene-d8	*102 %*	*W1, D04, N1*	*Surr Limits: (50-149%)*				*12/12/10 23:50*	*NMD*	*10L0923*	*8260B*

Semivolatile Organics by GC/MS

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-9-1 (RTL0689-05 - Soil) - cont. **Sampled: 12/07/10 07:51** **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	D02	990	210	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D02	990	65	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D02	990	51	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D02	990	260	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D02	1900	340	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D02	990	150	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	D02,L	990	240	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D02	990	66	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2-Chlorophenol	ND	D02	990	50	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D02	990	12	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2-Methylphenol	ND	D02	990	30	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2-Nitroaniline	ND	D02	1900	310	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2-Nitrophenol	ND	D02	990	45	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D02	990	860	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
3-Nitroaniline	ND	D02	1900	230	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D02	1900	340	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	D02	990	310	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D02	990	40	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Chloroaniline	ND	D02	990	290	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D02,L	990	21	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Methylphenol	ND	D02	1900	55	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Nitroaniline	ND	D02	1900	110	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
4-Nitrophenol	ND	D02	1900	240	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Acenaphthene	ND	D02	990	12	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Acenaphthylene	ND	D02	990	8.0	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Acetophenone	ND	D02,L	990	50	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Anthracene	ND	D02	990	25	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Atrazine	ND	D02,L	990	44	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Benzaldehyde	ND	D02	990	110	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Benzo[a]anthracene	ND	D02	990	17	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Benzo[a]pyrene	ND	D02	990	24	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Benzo[b]fluoranthene	ND	D02	990	19	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Benzo[g,h,i]perylene	ND	D02	990	12	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D02	990	11	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Biphenyl	ND	D02	990	61	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D02	990	53	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D02	990	85	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	990	100	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	990 ~~710~~ UB	D02,J,B	990	320	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Butyl benzyl phthalate	ND	D02	990	260	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Caprolactam	ND	D02,L	990	420	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Carbazole	ND	D02	990	11	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Chrysene	ND	D02	990	9.8	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D02	990	12	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Dibenzofuran	ND	D02	990	10	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Diethyl phthalate	ND	D02,L	990	30	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-1 (RTL0689-05 - Soil) - cont.						**Sampled: 12/07/10 07:51**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Dimethyl phthalate	ND	D02	990	26	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D02,L	990	340	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D02,L	990	23	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Fluoranthene	ND	D02	990	14	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Fluorene	ND	D02,L	990	23	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Hexachlorobenzene	ND	D02	990	49	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D02	990	50	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D02	990	300	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Hexachloroethane	ND	D02	990	76	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND	D02	990	27	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Isophorone	ND	D02	990	49	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Naphthalene	ND	D02	990	16	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Nitrobenzene	ND	D02	990	43	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D02	990	78	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D02,L	990	54	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Pentachlorophenol	ND	D02	1900	340	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Phenanthrene	ND	D02	990	21	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Phenol	ND	D02	990	100	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
Pyrene	**77**	J D02,J	990	6.3	ug/kg dry	5.00	12/13/10 17:03	MKP	10L0689	8270C
2,4,6-Tribromophenol	*76 %*	*D02*	*Surr Limits: (39-146%)*				*12/13/10 17:03*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*86 %*	*D02*	*Surr Limits: (37-120%)*				*12/13/10 17:03*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*71 %*	*D02*	*Surr Limits: (18-120%)*				*12/13/10 17:03*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*84 %*	*D02*	*Surr Limits: (34-132%)*				*12/13/10 17:03*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*78 %*	*D02*	*Surr Limits: (11-120%)*				*12/13/10 17:03*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*86 %*	*D02*	*Surr Limits: (58-147%)*				*12/13/10 17:03*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4520**		11.7	5.1	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Antimony	ND		17.5	0.6	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Arsenic	**2.4**		2.3	0.5	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Barium	**19.5**		0.584	0.129	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Beryllium	**0.283**		0.234	0.033	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Cadmium	ND		0.234	0.035	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Calcium	**800**	B	58.4	3.9	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Chromium	**13.4**		0.584	0.234	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Cobalt	**1.95**		0.584	0.058	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Copper	**22.3**		1.2	0.2	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Iron	**6920**		11.7	1.3	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Lead	**4.7**	J	1.2	0.3	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Magnesium	**1610**	B	23.4	1.1	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Manganese	**61.6**	B	0.2	0.04	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Nickel	**5.55**	J	5.84	0.269	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Potassium	**1170**		35.1	23.4	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Silver	ND		0.584	0.234	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Sodium	**148**	J	164	15.2	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Thallium	ND		7.0	0.4	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Vanadium	**14.4**		0.584	0.129	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-1 (RTL0689-05 - Soil) - cont.						**Sampled: 12/07/10 07:51**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Zinc	**24.0**	B	2.3	0.2	mg/kg dry	1.00	12/10/10 19:40	AMH	10L0810	6010B
Mercury	ND		0.0213	0.0086	mg/kg dry	1.00	12/10/10 12:22	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**86**		0.010	NR	%	1.00	12/10/10 17:16	MJM	10L0847	Dry Weight
Ferrous Iron	**1.1**	HFT, J	2.3	0.3	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		116	58.0	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1120	1120	mg/Kg dry	1.00	12/13/10 20:54	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**10.6**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**89.4**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-2 (RTL0689-06 - Soil)						**Sampled: 12/07/10 08:40**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1, D04, N1	230	62	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,1,2,2-Tetrachloroethane	ND	W1, D04, N1	230	37	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,1,2-Trichloroethane	ND	W1, D04, N1	230	47	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,1-Dichloroethane	ND	W1, D04, N1	230	70	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,1-Dichloroethene	ND	W1, D04, N1	230	78	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2,4-Trichlorobenzene	ND	W1, D04, N1	230	86	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2-Dibromo-3-chloropropane	ND J	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2-Dibromoethane	ND	W1, D04, N1	230	8.6	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2-Dichlorobenzene	ND	W1, D04, N1	230	58	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2-Dichloroethane	ND	W1, D04, N1	230	92	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2-Dichloropropane	ND	W1, D04, N1	230	37	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,3-Dichlorobenzene	ND	W1, D04, N1	230	60	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,4-Dichlorobenzene	ND	W1, D04, N1	230	32	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
2-Butanone	ND	W1, D04, N1	1100	670	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
2-Hexanone	ND	W1, D04, N1	1100	460	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
4-Methyl-2-pentanone	ND	W1, D04, N1	1100	72	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Acetone	ND	W1, D04, N1	1100	930	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Benzene	ND	W1, D04, N1	230	11	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Bromodichloromethane	ND	W1, D04, N1	230	45	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Bromoform	ND J	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Bromomethane	ND	W1, D04, N1	230	50	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Carbon disulfide	ND J	W1, D04, N1	230	100	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Carbon Tetrachloride	ND J	W1, D04, N1	230	58	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Chlorobenzene	ND	W1, D04, N1	230	30	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Dibromochloromethane	ND J	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-2 (RTL0689-06 - Soil) - cont.						**Sampled: 12/07/10 08:40**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B - cont.										
Chloroethane	ND	W1, D04, N1	230	47	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Chloroform	ND	W1, D04, N1	230	150	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Chloromethane	ND	W1, D04, N1	230	54	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
cis-1,2-Dichloroethene	ND	W1, D04, N1	230	62	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
cis-1,3-Dichloropropene	ND	W1, D04, N1	230	54	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Cyclohexane	120 J	W1, D04, N1,3	230	50	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Dichlorodifluoromethane	ND J	W1, D04, N1	230	98	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Ethylbenzene	ND	W1, D04, N1	230	66	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Isopropylbenzene	370	W1, D04, N1	230	34	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Methyl Acetate	ND	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1, D04, N1	230	85	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Methylcyclohexane	600 J	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Methylene Chloride	ND	W1, D04, N1	230	45	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Styrene	ND	W1, D04, N1	230	54	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Tetrachloroethene	ND	W1, D04, N1	230	30	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Toluene	ND	W1, D04, N1	230	60	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
trans-1,2-Dichloroethene	ND	W1, D04, N1	230	53	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
trans-1,3-Dichloropropene	ND	W1, D04, N1	230	11	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Trichloroethene	ND	W1, D04, N1	230	63	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Trichlorofluoromethane	ND	W1, D04, N1	230	110	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Vinyl chloride	ND	W1, D04, N1	230	76	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
Xylenes, total	ND	W1, D04, N1	450	38	ug/kg dry	2.00	12/13/10 00:14	NMD	10L0923	8260B
1,2-Dichloroethane-d4	*96 %*	*W1, D04, N1*	*Surr Limits: (53-146%)*				*12/13/10 00:14*	*NMD*	*10L0923*	*8260B*
4-Bromofluorobenzene	*89 %*	*W1, D04, N1*	*Surr Limits: (49-148%)*				*12/13/10 00:14*	*NMD*	*10L0923*	*8260B*
Toluene-d8	*105 %*	*W1, D04, N1*	*Surr Limits: (50-149%)*				*12/13/10 00:14*	*NMD*	*10L0923*	*8260B*

Semivolatile Organics by GC/MS

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-9-2 (RTL0689-06 - Soil) - cont. **Sampled: 12/07/10 08:40** **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	D02	940	200	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D02	940	62	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D02	940	49	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D02	940	250	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D02	1800	330	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D02	940	140	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	D02,L	940	230	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D02	940	63	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2-Chlorophenol	ND	D02	940	48	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D02	940	11	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2-Methylphenol	ND	D02	940	29	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2-Nitroaniline	ND	D02	1800	300	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2-Nitrophenol	ND	D02	940	43	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D02	940	820	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
3-Nitroaniline	ND	D02	1800	210	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D02	1800	320	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	D02	940	300	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D02	940	38	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Chloroaniline	ND	D02	940	270	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D02,L	940	20	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Methylphenol	ND	D02	1800	52	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Nitroaniline	ND	D02	1800	100	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
4-Nitrophenol	ND	D02	1800	230	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Acenaphthene	ND	D02	940	11	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Acenaphthylene	ND	D02	940	7.6	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Acetophenone	ND	D02,L	940	48	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Anthracene	ND	D02	940	24	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Atrazine	ND	D02,L	940	42	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Benzaldehyde	ND	D02	940	100	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Benzo[a]anthracene	ND	D02	940	16	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Benzo[a]pyrene	ND	D02	940	23	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Benzo[b]fluoranthene	ND	D02	940	18	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Benzo[g,h,i]perylene	ND	D02	940	11	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D02	940	10	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Biphenyl	ND	D02	940	58	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D02	940	51	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D02	940	81	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	940	98	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	ND	D02	940	300	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Butyl benzyl phthalate	ND	D02	940	250	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Caprolactam	ND	D02,L	940	400	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Carbazole	ND	D02	940	11	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Chrysene	ND	D02	940	9.3	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D02	940	11	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Dibenzofuran	660	D02,J	940	9.7	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Diethyl phthalate	ND	D02,L	940	28	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-2 (RTL0689-06 - Soil) - cont.						**Sampled: 12/07/10 08:40**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Dimethyl phthalate	ND	D02	940	24	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D02,L	940	320	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D02,L	940	22	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Fluoranthene	ND	D02	940	14	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Fluorene	ND	D02,L	940	22	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Hexachlorobenzene	ND	D02	940	46	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D02	940	48	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D02	940	280	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Hexachloroethane	ND	D02	940	72	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND	D02	940	26	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Isophorone	ND	D02	940	47	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Naphthalene	ND	D02	940	16	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Nitrobenzene	ND	D02	940	41	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D02	940	74	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D02,L	940	51	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Pentachlorophenol	ND	D02	1800	320	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Phenanthrene	**1500**	D02	940	20	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Phenol	ND	D02	940	98	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
Pyrene	ND	D02	940	6.0	ug/kg dry	5.00	12/13/10 17:26	MKP	10L0689	8270C
2,4,6-Tribromophenol	*65 %*	*D02*	*Surr Limits: (39-146%)*				*12/13/10 17:26*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*89 %*	*D02*	*Surr Limits: (37-120%)*				*12/13/10 17:26*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*67 %*	*D02*	*Surr Limits: (18-120%)*				*12/13/10 17:26*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*81 %*	*D02*	*Surr Limits: (34-132%)*				*12/13/10 17:26*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*75 %*	*D02*	*Surr Limits: (11-120%)*				*12/13/10 17:26*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*79 %*	*D02*	*Surr Limits: (58-147%)*				*12/13/10 17:26*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**564**		10.7	4.7	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Antimony	ND		16.0	0.6	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Arsenic	ND		2.1	0.4	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Barium	**2.12**		0.533	0.117	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Beryllium	**0.044**	J	0.213	0.030	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Cadmium	ND		0.213	0.032	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Calcium	**106**	B	53.3	3.5	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Chromium	**1.35**		0.533	0.213	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Cobalt	**0.411**	J	0.533	0.053	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Copper	**0.7**	J	1.1	0.2	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Iron	**778**		10.7	1.2	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Lead	**0.7**	J	1.1	0.3	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Magnesium	**108**	B	21.3	1.0	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Manganese	**6.7**	B	0.2	0.03	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Nickel	**0.964**	J	5.33	0.245	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Potassium	**110**		32.0	21.3	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Selenium	ND		4.3	0.6	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Silver	ND		0.533	0.213	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Sodium	**32.3**	J	149	13.8	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Thallium	ND		6.4	0.3	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Vanadium	**1.42**		0.533	0.117	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-2 (RTL0689-06 - Soil) - cont.						**Sampled: 12/07/10 08:40**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Zinc	1.5	J, B	2.1	0.2	mg/kg dry	1.00	12/10/10 19:42	AMH	10L0810	6010B
Mercury	ND		0.0230	0.0093	mg/kg dry	1.00	12/10/10 12:27	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	88		0.010	NR	%	1.00	12/10/10 17:18	MJM	10L0847	Dry Weight
Ferrous Iron	0.4	HFT, J	2.3	0.3	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		113	56.7	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1090	1090	mg/Kg dry	1.00	12/13/10 21:07	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	8.2		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	91.8		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-9-3 (RTL0689-07 - Soil) — Sampled: 12/07/10 09:25 — Recvd: 12/08/10 10:15

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		7.9	0.58	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		7.9	1.3	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		7.9	1.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.9	1.8	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		7.9	0.97	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		7.9	0.97	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		7.9	0.48	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		7.9	4.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		7.9	1.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		7.9	0.62	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		7.9	0.40	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		7.9	4.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		7.9	0.41	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		7.9	1.1	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
2-Butanone	**11**	J	40	2.9	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
2-Hexanone	ND		40	4.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		40	2.6	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Acetone	**55**		40	6.7	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Benzene	ND		7.9	0.39	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Bromodichloromethane	ND		7.9	1.1	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Bromoform	ND		7.9	4.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Bromomethane	ND		7.9	0.71	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Carbon disulfide	ND		7.9	4.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		7.9	0.77	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Chlorobenzene	ND		7.9	1.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Dibromochloromethane	ND		7.9	1.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Chloroethane	ND		7.9	1.8	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Chloroform	ND		7.9	0.49	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Chloromethane	ND		7.9	0.48	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		7.9	1.0	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		7.9	1.1	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Cyclohexane	ND		7.9	1.1	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		7.9	0.66	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Ethylbenzene	ND		7.9	0.55	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Isopropylbenzene	ND		7.9	1.2	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Methyl Acetate	ND		7.9	1.5	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		7.9	0.78	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Methylcyclohexane	**1.8**	J	7.9	1.2	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Methylene Chloride	**20**		7.9	3.6	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Styrene	ND		7.9	0.40	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Tetrachloroethene	ND		7.9	1.1	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Toluene	ND		7.9	0.60	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		7.9	0.82	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		7.9	3.5	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Trichloroethene	ND		7.9	1.7	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		7.9	0.75	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
Vinyl chloride	ND		7.9	0.97	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-3 (RTL0689-07 - Soil) - cont.							**Sampled: 12/07/10 09:25**		**Recvd: 12/08/10 10:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		16	1.3	ug/kg dry	1.00	12/13/10 17:30	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*118 %*		*Surr Limits: (64-126%)*				*12/13/10 17:30*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*102 %*		*Surr Limits: (72-126%)*				*12/13/10 17:30*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*104 %*		*Surr Limits: (71-125%)*				*12/13/10 17:30*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		260	57	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND		260	17	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,4-Dichlorophenol	ND		260	14	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,4-Dimethylphenol	ND		260	71	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,4-Dinitrophenol	ND	J	510	92	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND		260	41	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	L	260	64	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2-Chloronaphthalene	ND		260	18	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2-Chlorophenol	ND		260	13	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2-Methylnaphthalene	ND		260	3.2	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2-Methylphenol	ND		260	8.1	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2-Nitroaniline	ND		510	84	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2-Nitrophenol	ND		260	12	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND		260	230	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
3-Nitroaniline	ND		510	60	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		510	91	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND		260	84	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND		260	11	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Chloroaniline	ND		260	77	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	L	260	5.6	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Methylphenol	ND		510	15	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Nitroaniline	ND		510	29	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
4-Nitrophenol	ND		510	64	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Acenaphthene	ND		260	3.1	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Acenaphthylene	ND		260	2.1	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Acetophenone	ND	L	260	13	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Anthracene	ND		260	6.7	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Atrazine	ND	L	260	12	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Benzaldehyde	ND		260	29	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Benzo[a]anthracene	ND		260	4.5	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Benzo[a]pyrene	ND		260	6.3	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Benzo[b]fluoranthene	ND		260	5.1	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Benzo[g,h,i]perylene	ND		260	3.2	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND		260	2.9	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Biphenyl	ND		260	16	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		260	14	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND		260	23	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		260	27	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	240 ~~200~~	UB J,B	260	85	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-9-3 (RTL0689-07 - Soil) - cont. **Sampled: 12/07/10 09:25** **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Butyl benzyl phthalate	ND		260	71	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Caprolactam	ND	L	260	110	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Carbazole	ND		260	3.0	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Chrysene	ND		260	2.6	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND		260	3.1	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Dibenzofuran	ND		260	2.7	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Diethyl phthalate	~~19~~	~~L, J, B~~	260	7.9	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Dimethyl phthalate	ND		260	6.8	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	L	260	91	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	L	260	6.1	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Fluoranthene	ND		260	3.8	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Fluorene	ND	L	260	6.0	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Hexachlorobenzene	ND		260	13	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Hexachlorobutadiene	ND		260	13	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND		260	79	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Hexachloroethane	ND		260	20	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND		260	7.3	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Isophorone	ND		260	13	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Naphthalene	ND		260	4.4	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Nitrobenzene	ND		260	12	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		260	21	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	260	14	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Pentachlorophenol	ND		510	90	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Phenanthrene	ND		260	5.5	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Phenol	ND		260	28	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
Pyrene	ND		260	1.7	ug/kg dry	1.00	12/13/10 17:50	MKP	10L0689	8270C
2,4,6-Tribromophenol	*93 %*		*Surr Limits: (39-146%)*				*12/13/10 17:50*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (37-120%)*				*12/13/10 17:50*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*69 %*		*Surr Limits: (18-120%)*				*12/13/10 17:50*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*73 %*		*Surr Limits: (34-132%)*				*12/13/10 17:50*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*75 %*		*Surr Limits: (11-120%)*				*12/13/10 17:50*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*85 %*		*Surr Limits: (58-147%)*				*12/13/10 17:50*	*MKP*	*10L0689*	*8270C*

Total Metals by SW 846 Series Methods

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Aluminum	**11200**		15.5	6.8	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Antimony	ND		23.2	0.8	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Arsenic	**10.3**		3.1	0.6	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Barium	**32.4**		0.774	0.170	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Beryllium	**0.822**		0.310	0.043	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Cadmium	**0.362**		0.310	0.046	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Calcium	**2480**	B	77.4	5.1	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Chromium	**31.9**		0.774	0.310	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Cobalt	**5.96**		0.774	0.077	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Copper	**11.4**		1.5	0.3	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Iron	**27900**		15.5	1.7	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Lead	**7.7**	J	1.5	0.4	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Magnesium	**4700**	B	31.0	1.4	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Manganese	**361**	B	0.3	0.05	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-9-3 (RTL0689-07 - Soil) - cont.						**Sampled: 12/07/10 09:25**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**18.5**		7.74	0.356	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Potassium	**2680**		46.5	31.0	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Selenium	ND		6.2	0.9	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Silver	ND		0.774	0.310	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Sodium	**351**		217	20.1	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Thallium	ND		9.3	0.5	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Vanadium	**38.4**		0.774	0.170	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Zinc	**47.1**	B	3.1	0.2	mg/kg dry	1.00	12/10/10 19:44	AMH	10L0810	6010B
Mercury	ND		0.0313	0.0127	mg/kg dry	1.00	12/10/10 12:29	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**63**		0.010	NR	%	1.00	12/10/10 17:20	MJM	10L0847	Dry Weight
Ferrous Iron	**2.2**	HFT, J	3.2	0.5	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**805**		159	79.5	mg/kg dry	1.00	12/13/10 14:21	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**21200**		1490	1490	mg/Kg dry	1.00	12/13/10 21:20	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**32.8**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**67.2**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-10-1 (RTL0689-08 - Soil) — Sampled: 12/07/10 10:37 — Recvd: 12/08/10 10:15

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.6	0.41	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		5.6	0.91	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		5.6	0.73	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		5.6	0.69	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		5.6	0.69	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		5.6	0.72	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		5.6	0.44	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		5.6	0.28	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		5.6	0.29	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		5.6	0.79	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
2-Butanone	ND		28	2.1	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Acetone	25	J	28	4.7	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Benzene	ND		5.6	0.28	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Bromodichloromethane	ND		5.6	0.75	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Bromoform	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Bromomethane	ND		5.6	0.51	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Carbon disulfide	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		5.6	0.55	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Chlorobenzene	ND		5.6	0.74	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Dibromochloromethane	ND		5.6	0.72	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Chloroethane	ND		5.6	1.3	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Chloroform	ND		5.6	0.35	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Chloromethane	ND		5.6	0.34	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		5.6	0.72	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		5.6	0.81	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Cyclohexane	ND		5.6	0.79	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		5.6	0.47	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Ethylbenzene	ND		5.6	0.39	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Isopropylbenzene	ND		5.6	0.85	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Methyl Acetate	ND		5.6	1.0	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.6	0.55	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Methylcyclohexane	ND		5.6	0.86	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Methylene Chloride	17		5.6	2.6	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Styrene	ND		5.6	0.28	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Tetrachloroethene	ND		5.6	0.76	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Toluene	ND		5.6	0.43	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		5.6	0.58	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Trichloroethene	ND		5.6	1.2	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		5.6	0.53	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
Vinyl chloride	ND		5.6	0.69	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-10-1 (RTL0689-08 - Soil) - cont. **Sampled: 12/07/10 10:37** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.95	ug/kg dry	1.00	12/13/10 17:56	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/13/10 17:56*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*103 %*		*Surr Limits: (72-126%)*				*12/13/10 17:56*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-125%)*				*12/13/10 17:56*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D12	1000	220	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D12	1000	65	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D12	1000	52	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D12	1000	270	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D12	1900	350	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D12	1000	150	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	D12,L	1000	240	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D12	1000	66	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2-Chlorophenol	ND	D12	1000	50	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D12	1000	12	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2-Methylphenol	ND	D12	1000	30	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2-Nitroaniline	ND	D12	1900	320	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2-Nitrophenol	ND	D12	1000	45	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D12	1000	870	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
3-Nitroaniline	ND	D12	1900	230	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D12	1900	340	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	D12	1000	310	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D12	1000	41	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Chloroaniline	ND	D12	1000	290	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D12,L	1000	21	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Methylphenol	ND	D12	1900	55	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Nitroaniline	ND	D12	1900	110	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
4-Nitrophenol	ND	D12	1900	240	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Acenaphthene	ND	D12	1000	12	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Acenaphthylene	ND	D12	1000	8.1	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Acetophenone	ND	D12,L	1000	51	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Anthracene	ND	D12	1000	25	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Atrazine	ND	D12,L	1000	44	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Benzaldehyde	ND	D12	1000	110	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Benzo[a]anthracene	**180**	~~D12~~,J	1000	17	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Benzo[a]pyrene	**170**	~~D12~~,J	1000	24	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Benzo[b]fluoranthene	**150**	~~D12~~,J	1000	19	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Benzo[g,h,i]perylene	**130**	~~D12~~,J	1000	12	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D12	1000	11	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Biphenyl	ND	D12	1000	62	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D12	1000	54	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D12	1000	85	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D12	1000	100	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	(1000) ~~700~~ UB	~~D12,J,B~~	1000	320	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-1 (RTL0689-08 - Soil) - cont.						**Sampled: 12/07/10 10:37**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D12	1000	270	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Caprolactam	ND	D12,L	1000	430	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Carbazole	ND	D12	1000	11	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Chrysene	130	D12,J	1000	9.9	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D12	1000	12	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Dibenzofuran	ND	D12	1000	10	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Diethyl phthalate	ND	D12,L	1000	30	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Dimethyl phthalate	ND	D12	1000	26	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D12,L	1000	340	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D12,L	1000	23	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Fluoranthene	230	D12,J	1000	14	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Fluorene	ND	D12,L	1000	23	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Hexachlorobenzene	ND	D12	1000	49	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D12	1000	51	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D12	1000	300	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Hexachloroethane	ND	D12	1000	76	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	94	D12,J	1000	27	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Isophorone	ND	D12	1000	49	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Naphthalene	ND	D12	1000	16	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Nitrobenzene	ND	D12	1000	44	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D12	1000	78	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D12,L	1000	54	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Pentachlorophenol	ND	D12	1900	340	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Phenanthrene	110	D12,J	1000	21	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Phenol	ND	D12	1000	100	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
Pyrene	300	D12,J	1000	6.4	ug/kg dry	5.00	12/13/10 18:14	MKP	10L0689	8270C
2,4,6-Tribromophenol	*73 %*	*D12*	*Surr Limits: (39-146%)*				*12/13/10 18:14*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*81 %*	*D12*	*Surr Limits: (37-120%)*				*12/13/10 18:14*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*70 %*	*D12*	*Surr Limits: (18-120%)*				*12/13/10 18:14*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*73 %*	*D12*	*Surr Limits: (34-132%)*				*12/13/10 18:14*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*78 %*	*D12*	*Surr Limits: (11-120%)*				*12/13/10 18:14*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*80 %*	*D12*	*Surr Limits: (58-147%)*				*12/13/10 18:14*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	1730		11.2	4.9	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Antimony	ND		16.8	0.6	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Arsenic	7.9		2.2	0.4	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Barium	37.4		0.561	0.123	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Beryllium	0.155	J	0.224	0.031	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Cadmium	0.109	J	0.224	0.034	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Calcium	1890	B	56.1	3.7	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Chromium	3.01		0.561	0.224	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Cobalt	1.38		0.561	0.056	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Copper	6.0		1.1	0.2	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Iron	5430		11.2	1.2	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Lead	200	J	1.1	0.3	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Magnesium	570	B	22.4	1.0	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Manganese	50.4	B	0.2	0.04	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-1 (RTL0689-08 - Soil) - cont.						**Sampled: 12/07/10 10:37**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**2.78**	J	5.61	0.258	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Potassium	**243**		33.7	22.4	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Silver	ND		0.561	0.224	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Sodium	**840**		157	14.6	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Thallium	ND		6.7	0.3	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Vanadium	**4.74**		0.561	0.123	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Zinc	**60.6**	B	2.2	0.2	mg/kg dry	1.00	12/10/10 19:50	AMH	10L0810	6010B
Mercury	**0.0325**		0.0217	0.0088	mg/kg dry	1.00	12/10/10 12:30	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**85**		0.010	NR	%	1.00	12/10/10 17:22	MJM	10L0847	Dry Weight
Ferrous Iron	**0.7**	HFT, J	2.3	0.4	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**441**		117	58.5	mg/kg dry	1.00	12/13/10 14:41	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2730**		1180	1180	mg/Kg dry	1.00	12/13/10 21:33	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**15.2**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**84.8**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-2 (RTL0689-09 - Soil)						**Sampled: 12/07/10 11:14**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.6	0.40	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		5.6	0.90	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		5.6	0.72	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		5.6	0.68	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		5.6	0.68	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		5.6	0.71	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		5.6	0.43	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		5.6	0.28	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		5.6	0.29	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		5.6	0.78	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
2-Butanone	ND		28	2.0	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Acetone	ND		28	4.7	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Benzene	ND		5.6	0.27	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Bromodichloromethane	ND		5.6	0.74	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Bromoform	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Bromomethane	ND		5.6	0.50	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Carbon disulfide	ND		5.6	2.8	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		5.6	0.54	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Chlorobenzene	ND		5.6	0.73	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Dibromochloromethane	ND		5.6	0.71	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Chloroethane	ND		5.6	1.3	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Chloroform	ND		5.6	0.34	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Chloromethane	ND		5.6	0.34	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		5.6	0.71	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		5.6	0.80	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Cyclohexane	ND		5.6	0.78	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		5.6	0.46	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Ethylbenzene	ND		5.6	0.38	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Isopropylbenzene	ND		5.6	0.84	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Methyl Acetate	ND		5.6	1.0	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.6	0.55	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Methylcyclohexane	ND		5.6	0.84	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Methylene Chloride	18		5.6	2.6	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Styrene	ND		5.6	0.28	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Tetrachloroethene	ND		5.6	0.75	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Toluene	ND		5.6	0.42	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		5.6	0.57	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		5.6	2.4	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Trichloroethene	ND		5.6	1.2	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		5.6	0.53	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
Vinyl chloride	ND		5.6	0.68	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-10-2 (RTL0689-09 - Soil) - cont. **Sampled: 12/07/10 11:14** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		11	0.93	ug/kg dry	1.00	12/13/10 18:21	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/13/10 18:21*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*105 %*		*Surr Limits: (72-126%)*				*12/13/10 18:21*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-125%)*				*12/13/10 18:21*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D12	940	200	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D12	940	61	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D12	940	49	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D12	940	250	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D12	1800	330	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D12	940	140	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	~~D12,L~~	940	230	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D12	940	62	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2-Chlorophenol	ND	D12	940	47	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D12	940	11	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2-Methylphenol	ND	D12	940	29	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2-Nitroaniline	ND	D12	1800	300	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2-Nitrophenol	ND	D12	940	43	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D12	940	820	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
3-Nitroaniline	ND	D12	1800	210	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D12	1800	320	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	~~D12~~	940	300	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D12	940	38	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Chloroaniline	ND	D12	940	270	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D12,L	940	20	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Methylphenol	ND	D12	1800	52	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Nitroaniline	ND	D12	1800	100	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
4-Nitrophenol	ND	D12	1800	230	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Acenaphthene	ND	D12	940	11	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Acenaphthylene	ND	D12	940	7.6	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Acetophenone	ND	~~D12,L~~	940	48	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Anthracene	68	~~D12~~,J	940	24	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Atrazine	ND	~~D12,L~~	940	41	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Benzaldehyde	ND	~~D12~~	940	100	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Benzo[a]anthracene	240	~~D12~~,J	940	16	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Benzo[a]pyrene	260	~~D12~~,J	940	22	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Benzo[b]fluoranthene	250	~~D12~~,J	940	18	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Benzo[g,h,i]perylene	140	~~D12~~,J	940	11	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D12	940	10	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Biphenyl	ND	D12	940	58	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D12	940	51	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D12	940	80	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D12	940	97	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	940 ~~670~~ UB	~~D12,J,B~~	940	300	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-10-2 (RTL0689-09 - Soil) - cont. **Sampled: 12/07/10 11:14** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND	D12	940	250	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Caprolactam	ND	D12,L	940	400	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Carbazole	ND	D12	940	11	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Chrysene	**230**	D12,J	940	9.3	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D12	940	11	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Dibenzofuran	ND	D12	940	9.7	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Diethyl phthalate	ND	D12,L	940	28	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Dimethyl phthalate	ND	D12	940	24	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D12,L	940	320	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D12,L	940	22	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Fluoranthene	**420**	D12,J	940	13	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Fluorene	ND	D12,L	940	21	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Hexachlorobenzene	ND	D12	940	46	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D12	940	48	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D12	940	280	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Hexachloroethane	ND	D12	940	72	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	**110**	D12,J	940	26	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Isophorone	ND	D12	940	47	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Naphthalene	ND	D12	940	15	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Nitrobenzene	ND	D12	940	41	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D12	940	74	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D12,L	940	51	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Pentachlorophenol	ND	D12	1800	320	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Phenanthrene	ND	D12	940	20	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Phenol	ND	D12	940	98	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
Pyrene	**410**	D12,J	940	6.0	ug/kg dry	5.00	12/13/10 18:37	MKP	10L0689	8270C
2,4,6-Tribromophenol	*77 %*	*D12*	*Surr Limits: (39-146%)*				*12/13/10 18:37*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*92 %*	*D12*	*Surr Limits: (37-120%)*				*12/13/10 18:37*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*78 %*	*D12*	*Surr Limits: (18-120%)*				*12/13/10 18:37*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*81 %*	*D12*	*Surr Limits: (34-132%)*				*12/13/10 18:37*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*88 %*	*D12*	*Surr Limits: (11-120%)*				*12/13/10 18:37*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*84 %*	*D12*	*Surr Limits: (58-147%)*				*12/13/10 18:37*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2440**		10.5	4.6	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Antimony	ND		15.7	0.6	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Arsenic	**20.7**		2.1	0.4	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Barium	**44.9**		0.523	0.115	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Beryllium	**0.182**	J	0.209	0.029	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Cadmium	**0.222**		0.209	0.031	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Calcium	**8390**	B	52.3	3.5	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Chromium	**4.57**		0.523	0.209	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Cobalt	**1.61**		0.523	0.052	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Copper	**9.4**		1.0	0.2	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Iron	**4600**		10.5	1.2	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Lead	**41.8**	J	1.0	0.3	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Magnesium	**2420**	B	20.9	1.0	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Manganese	**74.6**	B	0.2	0.03	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-2 (RTL0689-09 - Soil) - cont.						**Sampled: 12/07/10 11:14**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**3.98**	J	5.23	0.241	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Potassium	**268**		31.4	20.9	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Selenium	ND		4.2	0.6	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Silver	ND		0.523	0.209	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Sodium	**83.2**	J	147	13.6	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Thallium	ND		6.3	0.3	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Vanadium	**6.75**		0.523	0.115	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Zinc	**80.7**	B	2.1	0.2	mg/kg dry	1.00	12/10/10 19:52	AMH	10L0810	6010B
Mercury	**0.0675**		0.0218	0.0088	mg/kg dry	1.00	12/10/10 12:32	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**89**		0.010	NR	%	1.00	12/10/10 17:24	MJM	10L0847	Dry Weight
Ferrous Iron	**2.7**	J ~~HFT~~	2.3	0.3	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**231**		112	56.2	mg/kg dry	1.00	12/13/10 14:41	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3350**		1110	1110	mg/Kg dry	1.00	12/13/10 21:58	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**9.9**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**90.1**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: DUP-120710 (RTL0689-10 - Soil) — **Sampled: 12/07/10** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1, D04, N1	410	110	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,1,2,2-Tetrachloroethane	ND	W1, D04, N1	410	67	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,1,2-Trichloroethane	ND	W1, D04, N1	410	86	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1, D04, N1	410	210	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,1-Dichloroethane	ND	W1, D04, N1	410	130	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,1-Dichloroethene	ND	W1, D04, N1	410	140	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2,4-Trichlorobenzene	ND	W1, D04, N1	410	160	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2-Dibromo-3-chloropropane	ND J	W1, D04, N1	410	210	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2-Dibromoethane	ND	W1, D04, N1	410	16	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2-Dichlorobenzene	ND	W1, D04, N1	410	100	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2-Dichloroethane	ND	W1, D04, N1	410	170	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2-Dichloropropane	ND	W1, D04, N1	410	66	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,3-Dichlorobenzene	ND	W1, D04, N1	410	110	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,4-Dichlorobenzene	ND	W1, D04, N1	410	57	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
2-Butanone	ND	W1, D04, N1	2100	1200	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
2-Hexanone	ND	W1, D04, N1	2100	840	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
4-Methyl-2-pentanone	ND	W1, D04, N1	2100	130	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Acetone	ND	W1, D04, N1	2100	1700	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Benzene	ND	W1, D04, N1	410	20	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Bromodichloromethane	ND	W1, D04, N1	410	82	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Bromoform	ND J	W1, D04, N1	410	210	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Bromomethane	ND	W1, D04, N1	410	90	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Carbon disulfide	ND J	W1, D04, N1	410	190	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Carbon Tetrachloride	ND J	W1, D04, N1	410	100	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Chlorobenzene	ND	W1, D04, N1	410	54	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Dibromochloromethane	ND J	W1, D04, N1	410	200	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: DUP-120710 (RTL0689-10 - Soil) - cont. **Sampled: 12/07/10** **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Chloroethane	ND	W1, D04, N1	410	85	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Chloroform	ND	W1, D04, N1	410	280	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Chloromethane	ND	W1, D04, N1	410	98	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
cis-1,2-Dichloroethene	ND	W1, D04, N1	410	110	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
cis-1,3-Dichloropropene	ND	W1, D04, N1	410	98	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Cyclohexane	610 J	W1, D04, N1	410	91	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Dichlorodifluoromethane	ND J	W1, D04, N1	410	180	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Ethylbenzene	ND	W1, D04, N1	410	120	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Isopropylbenzene	1100	W1, D04, N1	410	62	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Methyl Acetate	ND	W1, D04, N1	410	200	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1, D04, N1	410	160	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Methylcyclohexane	2900 J	W1, D04, N1	410	190	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Methylene Chloride	ND	W1, D04, N1	410	81	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Styrene	ND	W1, D04, N1	410	99	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Tetrachloroethene	ND	W1, D04, N1	410	55	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Toluene	ND	W1, D04, N1	410	110	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
trans-1,2-Dichloroethene	ND	W1, D04, N1	410	97	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
trans-1,3-Dichloropropene	ND	W1, D04, N1	410	20	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Trichloroethene	ND	W1, D04, N1	410	110	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Trichlorofluoromethane	ND	W1, D04, N1	410	190	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Vinyl chloride	ND	W1, D04, N1	410	140	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
Xylenes, total	ND	W1, D04, N1	820	69	ug/kg dry	4.00	12/13/10 00:36	NMD	10L0923	8260B
1,2-Dichloroethane-d4	*97 %*	*W1, D04, N1*	*Surr Limits: (53-146%)*				*12/13/10 00:36*	*NMD*	*10L0923*	*8260B*
4-Bromofluorobenzene	*89 %*	*W1, D04, N1*	*Surr Limits: (49-148%)*				*12/13/10 00:36*	*NMD*	*10L0923*	*8260B*
Toluene-d8	*105 %*	*W1, D04, N1*	*Surr Limits: (50-149%)*				*12/13/10 00:36*	*NMD*	*10L0923*	*8260B*

Semivolatile Organics by GC/MS

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: DUP-120710 (RTL0689-10 - Soil) - cont. **Sampled: 12/07/10** **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	D02	1800	390	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,4,6-Trichlorophenol	ND	D02	1800	120	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,4-Dichlorophenol	ND	D02	1800	95	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,4-Dimethylphenol	ND	D02	1800	490	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,4-Dinitrophenol	ND J	D02	3500	630	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,4-Dinitrotoluene	ND	D02	1800	280	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,6-Dinitrotoluene	ND	D02,L	1800	440	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2-Chloronaphthalene	ND	D02	1800	120	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2-Chlorophenol	ND	D02	1800	92	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2-Methylnaphthalene	ND	D02	1800	22	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2-Methylphenol	ND	D02	1800	56	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2-Nitroaniline	ND	D02	3500	580	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2-Nitrophenol	ND	D02	1800	83	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
3,3'-Dichlorobenzidine	ND	D02	1800	1600	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
3-Nitroaniline	ND	D02	3500	420	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	D02	3500	620	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Bromophenyl phenyl ether	ND	~~D02~~	1800	580	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Chloro-3-methylphenol	ND	D02	1800	74	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Chloroaniline	ND	D02	1800	530	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	D02,L	1800	39	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Methylphenol	ND	D02	3500	100	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Nitroaniline	ND	D02	3500	200	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
4-Nitrophenol	ND	D02	3500	440	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Acenaphthene	ND	D02	1800	21	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Acenaphthylene	ND	D02	1800	15	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Acetophenone	ND	D02,L	1800	93	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Anthracene	ND	D02	1800	46	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Atrazine	ND	D02,L	1800	80	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Benzaldehyde	ND	D02	1800	200	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Benzo[a]anthracene	ND	D02	1800	31	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Benzo[a]pyrene	ND	D02	1800	44	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Benzo[b]fluoranthene	ND	D02	1800	35	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Benzo[g,h,i]perylene	ND	D02	1800	22	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Benzo[k]fluoranthene	ND	D02	1800	20	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Biphenyl	ND	D02	1800	110	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Bis(2-chloroethoxy)methane	ND	D02	1800	98	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Bis(2-chloroethyl)ether	ND	D02	1800	160	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	1800	190	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Bis(2-ethylhexyl) phthalate	KW ~~1300~~ UB	~~D02,J,B~~	1800	580	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Butyl benzyl phthalate	ND	D02	1800	490	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Caprolactam	ND	D02,L	1800	780	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Carbazole	ND	D02	1800	21	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Chrysene	ND	D02	1800	18	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Dibenzo(a,h)anthracene	ND	D02	1800	21	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Dibenzofuran	1400	~~D02,J~~	1800	19	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Diethyl phthalate	ND	~~D02,L~~	1800	55	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-120710 (RTL0689-10 - Soil) - cont.						**Sampled: 12/07/10**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Dimethyl phthalate	ND	D02	1800	47	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Di-n-butyl phthalate	ND	D02,L	1800	630	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Di-n-octyl phthalate	ND	D02,L	1800	42	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Fluoranthene	ND	D02	1800	26	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Fluorene	ND	D02,L	1800	42	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Hexachlorobenzene	ND	D02	1800	90	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Hexachlorobutadiene	ND	D02	1800	93	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Hexachlorocyclopentadiene	ND	D02	1800	550	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Hexachloroethane	ND	D02	1800	140	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND	D02	1800	50	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Isophorone	ND	D02	1800	90	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Naphthalene	ND	D02	1800	30	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Nitrobenzene	ND	D02	1800	80	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
N-Nitrosodi-n-propylamine	ND	D02	1800	140	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
N-Nitrosodiphenylamine	ND	D02,L	1800	99	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Pentachlorophenol	ND	D02	3500	620	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Phenanthrene	**2500**	D02	1800	38	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Phenol	ND	D02	1800	190	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
Pyrene	ND	D02	1800	12	ug/kg dry	10.0	12/13/10 19:01	MKP	10L0689	8270C
2,4,6-Tribromophenol	*67 %*	*D02*	*Surr Limits: (39-146%)*				*12/13/10 19:01*	*MKP*	*10L0689*	*8270C*
2-Fluorobiphenyl	*97 %*	*D02*	*Surr Limits: (37-120%)*				*12/13/10 19:01*	*MKP*	*10L0689*	*8270C*
2-Fluorophenol	*69 %*	*D02*	*Surr Limits: (18-120%)*				*12/13/10 19:01*	*MKP*	*10L0689*	*8270C*
Nitrobenzene-d5	*90 %*	*D02*	*Surr Limits: (34-132%)*				*12/13/10 19:01*	*MKP*	*10L0689*	*8270C*
Phenol-d5	*77 %*	*D02*	*Surr Limits: (11-120%)*				*12/13/10 19:01*	*MKP*	*10L0689*	*8270C*
p-Terphenyl-d14	*83 %*	*D02*	*Surr Limits: (58-147%)*				*12/13/10 19:01*	*MKP*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**512**		9.9	4.3	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Antimony	ND		14.8	0.5	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Arsenic	ND		2.0	0.4	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Barium	**1.37**		0.493	0.109	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Beryllium	**0.049**	J	0.197	0.028	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Cadmium	ND		0.197	0.030	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Calcium	**91.2**	B	49.3	3.3	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Chromium	**1.14**		0.493	0.197	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Cobalt	**0.347**	J	0.493	0.049	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Copper	**0.6**	J	1.0	0.2	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Iron	**753**		9.9	1.1	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Lead	**0.5**	J	1.0	0.2	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Magnesium	**95.0**	B	19.7	0.9	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Manganese	**6.4**	B	0.2	0.03	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Nickel	**0.846**	J	4.93	0.227	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Potassium	**99.7**		29.6	19.7	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Selenium	ND		3.9	0.6	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Silver	ND		0.493	0.197	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Sodium	**45.2**	J	138	12.8	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Thallium	ND		5.9	0.3	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Vanadium	**1.29**		0.493	0.109	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-120710 (RTL0689-10 - Soil) - cont.						**Sampled: 12/07/10**			**Recvd: 12/08/10 10:15**	
Total Metals by SW 846 Series Methods - cont.										
Zinc	**1.5**	J, B	2.0	0.2	mg/kg dry	1.00	12/10/10 19:54	AMH	10L0810	6010B
Mercury	**0.0165**	J	0.0209	0.0084	mg/kg dry	1.00	12/10/10 12:34	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**93**		0.010	NR	%	1.00	12/10/10 17:26	MJM	10L0847	Dry Weight
Ferrous Iron	**0.6**	HFT, J	2.1	0.3	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		107	53.5	mg/kg dry	1.00	12/13/10 14:41	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1130	1130	mg/Kg dry	1.00	12/13/10 22:11	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**11.2**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**88.8**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-11-1 (RTL0689-11 - Soil) — **Sampled: 12/07/10 13:50** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		40	2.9	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		40	6.4	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		40	5.2	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	9.1	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		40	4.9	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		40	4.9	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		40	2.4	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		40	20	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		40	5.1	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		40	3.1	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		40	2.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		40	20	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		40	2.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		40	5.6	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
2-Butanone	ND		200	15	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
2-Hexanone	ND		200	20	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		200	13	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Acetone	**58**	J	200	33	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Benzene	ND		40	1.9	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Bromodichloromethane	ND		40	5.3	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Bromoform	ND		40	20	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Bromomethane	ND		40	3.6	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Carbon disulfide	ND		40	20	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		40	3.8	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Chlorobenzene	ND		40	5.2	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Dibromochloromethane	ND		40	5.1	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Chloroethane	ND		40	9.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Chloroform	ND		40	2.5	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Chloromethane	ND		40	2.4	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		40	5.1	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		40	5.7	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Cyclohexane	ND		40	5.6	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		40	3.3	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Ethylbenzene	ND		40	2.7	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Isopropylbenzene	**26**	J	40	6.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Methyl Acetate	ND		40	7.4	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		40	3.9	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Methylcyclohexane	**100**		40	6.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Methylene Chloride	**86**		40	18	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Styrene	ND		40	2.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Tetrachloroethene	ND		40	5.3	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Toluene	ND		40	3.0	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		40	4.1	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		40	17	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Trichloroethene	ND		40	8.7	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		40	3.8	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
Vinyl chloride	ND		40	4.9	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-11-1 (RTL0689-11 - Soil) - cont.							**Sampled: 12/07/10 13:50**		**Recvd: 12/08/10 10:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	20	J	80	6.7	ug/kg dry	1.00	12/13/10 18:47	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*105 %*		*Surr Limits: (64-126%)*				*12/13/10 18:47*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*93 %*		*Surr Limits: (72-126%)*				*12/13/10 18:47*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*96 %*		*Surr Limits: (71-125%)*				*12/13/10 18:47*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		230	50	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,4,6-Trichlorophenol	ND		230	15	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,4-Dichlorophenol	ND		230	12	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,4-Dimethylphenol	ND		230	62	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,4-Dinitrophenol	ND		450	81	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,4-Dinitrotoluene	ND		230	36	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,6-Dinitrotoluene	ND	L	230	56	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2-Chloronaphthalene	ND		230	15	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2-Chlorophenol	ND		230	12	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2-Methylnaphthalene	440		230	2.8	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2-Methylphenol	ND		230	7.1	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2-Nitroaniline	ND		450	74	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2-Nitrophenol	ND		230	11	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
3,3'-Dichlorobenzidine	ND		230	200	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
3-Nitroaniline	ND		450	53	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		450	80	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Bromophenyl phenyl ether	ND		230	73	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Chloro-3-methylphenol	ND		230	9.5	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Chloroaniline	ND		230	68	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	L	230	4.9	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Methylphenol	ND		450	13	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Nitroaniline	ND		450	26	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
4-Nitrophenol	ND		450	56	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Acenaphthene	100	J	230	2.7	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Acenaphthylene	ND		230	1.9	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Acetophenone	ND	L	230	12	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Anthracene	99	J	230	5.9	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Atrazine	ND	L	230	10	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Benzaldehyde	ND		230	25	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Benzo[a]anthracene	39	J	230	4.0	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Benzo[a]pyrene	24	J	230	5.6	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Benzo[b]fluoranthene	29	J	230	4.5	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Benzo[g,h,i]perylene	ND		230	2.8	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Benzo[k]fluoranthene	ND		230	2.5	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Biphenyl	20	J	230	14	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		230	13	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Bis(2-chloroethyl)ether	ND		230	20	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		230	24	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Bis(2-ethylhexyl) phthalate	230 ~~190~~	UB ~~J,B~~	230	74	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-11-1 (RTL0689-11 - Soil) - cont.						**Sampled: 12/07/10 13:50**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		230	62	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Caprolactam	ND	L	230	100	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Carbazole	33	J	230	2.7	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Chrysene	30	J	230	2.3	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Dibenzo(a,h)anthracene	ND		230	2.7	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Dibenzofuran	93	J	230	2.4	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Diethyl phthalate	230 ~~19~~	UB ~~L, J, B~~	230	7.0	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Dimethyl phthalate	ND		230	6.0	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Di-n-butyl phthalate	ND	L	230	80	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Di-n-octyl phthalate	ND	L	230	5.4	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Fluoranthene	130	J	230	3.3	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Fluorene	150	L, J	230	5.3	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Hexachlorobenzene	ND		230	11	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Hexachlorobutadiene	ND		230	12	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Hexachlorocyclopentadiene	ND		230	70	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Hexachloroethane	ND		230	18	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND		230	6.4	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Isophorone	ND		230	12	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Naphthalene	ND		230	3.8	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Nitrobenzene	ND		230	10	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		230	18	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	230	13	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Pentachlorophenol	ND		450	79	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Phenanthrene	270		230	4.8	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Phenol	ND		230	24	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
Pyrene	110	J	230	1.5	ug/kg dry	1.00	12/13/10 23:23	JLG	10L0689	8270C
2,4,6-Tribromophenol	*101 %*		*Surr Limits: (39-146%)*				*12/13/10 23:23*	*JLG*	*10L0689*	*8270C*
2-Fluorobiphenyl	*86 %*		*Surr Limits: (37-120%)*				*12/13/10 23:23*	*JLG*	*10L0689*	*8270C*
2-Fluorophenol	*64 %*		*Surr Limits: (18-120%)*				*12/13/10 23:23*	*JLG*	*10L0689*	*8270C*
Nitrobenzene-d5	*74 %*		*Surr Limits: (34-132%)*				*12/13/10 23:23*	*JLG*	*10L0689*	*8270C*
Phenol-d5	*73 %*		*Surr Limits: (11-120%)*				*12/13/10 23:23*	*JLG*	*10L0689*	*8270C*
p-Terphenyl-d14	*100 %*		*Surr Limits: (58-147%)*				*12/13/10 23:23*	*JLG*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	3760		13.6	6.0	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Antimony	ND		20.4	0.7	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Arsenic	3.0		2.7	0.5	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Barium	14.6		0.679	0.149	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Beryllium	0.304		0.272	0.038	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Cadmium	0.382		0.272	0.041	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Calcium	1190	B	67.9	4.5	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Chromium	10.4		0.679	0.272	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Cobalt	2.72		0.679	0.068	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Copper	8.1		1.4	0.3	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Iron	7510		13.6	1.5	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Lead	13.4	J	1.4	0.3	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Magnesium	1480	B	27.2	1.3	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Manganese	73.7	B	0.3	0.04	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-11-1 (RTL0689-11 - Soil) - cont.						**Sampled: 12/07/10 13:50**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**6.14**	J	6.79	0.313	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Potassium	**910**		40.8	27.2	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Selenium	ND		5.4	0.8	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Silver	ND		0.679	0.272	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Sodium	**57.9**	J	190	17.7	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Thallium	ND		8.2	0.4	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Vanadium	**12.5**		0.679	0.149	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Zinc	**24.2**	B	2.7	0.2	mg/kg dry	1.00	12/10/10 19:56	AMH	10L0810	6010B
Mercury	ND		0.0279	0.0113	mg/kg dry	1.00	12/10/10 12:36	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**72**		0.010	NR	%	1.00	12/10/10 17:28	MJM	10L0847	Dry Weight
Ferrous Iron	**1.0**	HFT, J	2.8	0.4	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	ND		138	69.1	mg/kg dry	1.00	12/13/10 14:41	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1250	1250	mg/Kg dry	1.00	12/13/10 22:24	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**19.8**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**80.2**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-12-1 (RTL0689-12 - Soil) — **Sampled: 12/07/10 14:11** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	W1	120	32	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,1,2,2-Tetrachloroethane	ND	W1	120	19	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,1,2-Trichloroethane	ND	W1	120	24	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	120	58	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,1-Dichloroethane	ND	W1	120	36	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,1-Dichloroethene	ND	W1	120	40	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2,4-Trichlorobenzene	ND	W1	120	44	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2-Dibromo-3-chloropropane	ND J	W1	120	58	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2-Dibromoethane	ND	W1	120	4.4	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2-Dichlorobenzene	ND	W1	120	30	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2-Dichloroethane	ND	W1	120	48	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2-Dichloropropane	ND	W1	120	19	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,3-Dichlorobenzene	ND	W1	120	31	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,4-Dichlorobenzene	ND	W1	120	16	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
2-Butanone	ND	W1	580	350	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
2-Hexanone	ND	W1	580	240	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
4-Methyl-2-pentanone	ND	W1	580	37	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Acetone	ND	W1	580	480	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Benzene	ND	W1	120	5.6	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Bromodichloromethane	ND	W1	120	23	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Bromoform	ND J	W1	120	58	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Bromomethane	ND	W1	120	26	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Carbon disulfide	ND J	W1	120	53	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Carbon Tetrachloride	ND J	W1	120	30	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Chlorobenzene	ND	W1	120	15	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Dibromochloromethane	ND J	W1	120	56	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Chloroethane	ND	W1	120	24	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Chloroform	ND	W1	120	80	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Chloromethane	ND	W1	120	28	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
cis-1,2-Dichloroethene	ND	W1	120	32	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
cis-1,3-Dichloropropene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Cyclohexane	ND J	W1	120	26	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Dichlorodifluoromethane	ND J	W1	120	51	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Ethylbenzene	ND	W1	120	34	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Isopropylbenzene	970	W1	120	17	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Methyl Acetate	ND	W1	120	56	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	120	44	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Methylcyclohexane	970 J	W1	120	55	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Methylene Chloride	ND	W1	120	23	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Styrene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Tetrachloroethene	ND	W1	120	16	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Toluene	ND	W1	120	31	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
trans-1,2-Dichloroethene	ND	W1	120	28	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
trans-1,3-Dichloropropene	ND	W1	120	5.6	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Trichloroethene	ND	W1	120	32	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Trichlorofluoromethane	ND	W1	120	55	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
Vinyl chloride	ND	W1	120	39	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-12-1 (RTL0689-12 - Soil) - cont.							**Sampled: 12/07/10 14:11**		**Recvd: 12/08/10 10:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~W1~~	230	20	ug/kg dry	1.00	12/10/10 21:33	LH	10L0923	8260B
1,2-Dichloroethane-d4	*90 %*	*W1*	*Surr Limits: (53-146%)*				*12/10/10 21:33*	*LH*	*10L0923*	*8260B*
4-Bromofluorobenzene	*84 %*	*W1*	*Surr Limits: (49-148%)*				*12/10/10 21:33*	*LH*	*10L0923*	*8260B*
Toluene-d8	*98 %*	*W1*	*Surr Limits: (50-149%)*				*12/10/10 21:33*	*LH*	*10L0923*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		190	42	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,4,6-Trichlorophenol	ND		190	13	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,4-Dichlorophenol	ND		190	10	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,4-Dimethylphenol	ND		190	52	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,4-Dinitrophenol	ND		380	67	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,4-Dinitrotoluene	ND		190	30	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,6-Dinitrotoluene	ND	L	190	47	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2-Chloronaphthalene	ND		190	13	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2-Chlorophenol	ND		190	9.8	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2-Methylnaphthalene	**860**		190	2.3	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2-Methylphenol	ND		190	5.9	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2-Nitroaniline	ND		380	62	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2-Nitrophenol	ND		190	8.8	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
3,3'-Dichlorobenzidine	ND		190	170	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
3-Nitroaniline	ND		380	44	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		380	66	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Bromophenyl phenyl ether	ND		190	61	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Chloro-3-methylphenol	ND		190	7.9	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Chloroaniline	ND		190	56	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	L	190	41	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Methylphenol	ND		380	11	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Nitroaniline	ND		380	21	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
4-Nitrophenol	ND		380	47	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Acenaphthene	**75**	J	190	2.3	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Acenaphthylene	ND		190	1.6	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Acetophenone	ND	L	190	9.9	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Anthracene	ND		190	4.9	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Atrazine	ND	L	190	8.6	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Benzaldehyde	ND		190	21	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Benzo[a]anthracene	**29**	J	190	3.3	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Benzo[a]pyrene	**31**	J	190	4.6	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Benzo[b]fluoranthene	**29**	J	190	3.7	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Benzo[g,h,i]perylene	**25**	J	190	2.3	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Benzo[k]fluoranthene	ND		190	2.1	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Biphenyl	ND		190	12	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		190	10	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Bis(2-chloroethyl)ether	ND		190	17	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		190	20	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Bis(2-ethylhexyl) phthalate	190 ~~170~~	UB ~~J, B~~	190	62	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-12-1 (RTL0689-12 - Soil) - cont. **Sampled: 12/07/10 14:11** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		190	52	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Caprolactam	ND	L	190	83	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Carbazole	ND		190	2.2	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Chrysene	**27**	J	190	1.9	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Dibenzo(a,h)anthracene	ND		190	2.3	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Dibenzofuran	**96**	J	190	2.0	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Diethyl phthalate	**27**	L, J, B	190	5.8	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Dimethyl phthalate	ND		190	5.0	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Di-n-butyl phthalate	ND	L	190	67	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Di-n-octyl phthalate	ND	L	190	4.5	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Fluoranthene	**60**	J	190	2.8	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Fluorene	**190**	L1, N1	190	4.4	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Hexachlorobenzene	ND		190	9.6	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Hexachlorobutadiene	ND		190	9.8	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Hexachlorocyclopentadiene	ND		190	58	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Hexachloroethane	ND		190	15	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Indeno[1,2,3-cd]pyrene	**18**	J	190	5.3	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Isophorone	ND		190	9.6	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Naphthalene	**33**	J	190	3.2	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Nitrobenzene	ND		190	8.5	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		190	15	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	190	11	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Pentachlorophenol	ND		380	66	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Phenanthrene	**460**		190	4.0	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Phenol	ND		190	20	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
Pyrene	**74**	J	190	1.2	ug/kg dry	1.00	12/13/10 23:47	JLG	10L0689	8270C
2,4,6-Tribromophenol	*109 %*		*Surr Limits: (39-146%)*				*12/13/10 23:47*	*JLG*	*10L0689*	*8270C*
2-Fluorobiphenyl	*86 %*		*Surr Limits: (37-120%)*				*12/13/10 23:47*	*JLG*	*10L0689*	*8270C*
2-Fluorophenol	*64 %*		*Surr Limits: (18-120%)*				*12/13/10 23:47*	*JLG*	*10L0689*	*8270C*
Nitrobenzene-d5	*75 %*		*Surr Limits: (34-132%)*				*12/13/10 23:47*	*JLG*	*10L0689*	*8270C*
Phenol-d5	*77 %*		*Surr Limits: (11-120%)*				*12/13/10 23:47*	*JLG*	*10L0689*	*8270C*
p-Terphenyl-d14	*104 %*		*Surr Limits: (58-147%)*				*12/13/10 23:47*	*JLG*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3550**		11.7	5.2	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Antimony	ND		17.6	0.6	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Arsenic	**1.7**	J	2.3	0.5	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Barium	**13.0**		0.587	0.129	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Beryllium	**0.277**		0.235	0.033	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Cadmium	**0.087**	J	0.235	0.035	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Calcium	**4180**	B	58.7	3.9	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Chromium	**9.55**		0.587	0.235	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Cobalt	**1.69**		0.587	0.059	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Copper	**5.6**		1.2	0.2	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Iron	**6210**		11.7	1.3	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Lead	**7.7**	J	1.2	0.3	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Magnesium	**2050**	B	23.5	1.1	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Manganese	**46.6**	B	0.2	0.04	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-12-1 (RTL0689-12 - Soil) - cont.						**Sampled: 12/07/10 14:11**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**6.08**		5.87	0.270	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Potassium	**853**		35.2	23.5	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Silver	ND		0.587	0.235	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Sodium	**78.5**	J	164	15.3	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Thallium	ND		7.0	0.4	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Vanadium	**11.6**		0.587	0.129	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Zinc	**17.1**	~~B~~	2.3	0.2	mg/kg dry	1.00	12/10/10 19:58	AMH	10L0810	6010B
Mercury	**1.35**	~~D08~~	0.108	0.0438	mg/kg dry	5.00	12/10/10 12:37	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**86**		0.010	NR	%	1.00	12/10/10 17:30	MJM	10L0847	Dry Weight
Ferrous Iron	**1.2**	~~HFT~~, J	2.3	0.4	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**221**		117	58.3	mg/kg dry	1.00	12/13/10 15:19	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1470**		1200	1200	mg/Kg dry	1.00	12/13/10 22:37	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**16.7**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**83.3**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-12-1 (RTL0689-12RE1 - Soil) — **Sampled: 12/07/10 14:11** — **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2,4,5-Trichlorophenol	ND	~~D08~~	780	170	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,4,6-Trichlorophenol	ND	~~D08~~	780	51	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,4-Dichlorophenol	ND	~~D08~~	780	41	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,4-Dimethylphenol	ND	~~D08~~	780	210	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,4-Dinitrophenol	ND	~~D08~~	1500	270	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,4-Dinitrotoluene	ND	~~D08~~	780	120	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,6-Dinitrotoluene	ND	~~D08~~	780	190	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2-Chloronaphthalene	ND	~~D08~~	780	52	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2-Chlorophenol	ND	~~D08~~	780	39	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2-Methylnaphthalene	**13000**	~~D08~~	780	9.4	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2-Methylphenol	ND	~~D08~~	780	24	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2-Nitroaniline	ND	~~D08~~	1500	250	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2-Nitrophenol	ND	~~D08~~	780	35	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
3,3'-Dichlorobenzidine	ND	~~D08~~	780	680	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
3-Nitroaniline	ND	~~D08~~	1500	180	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4,6-Dinitro-2-methylphenol	ND	~~D08~~	1500	270	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Bromophenyl phenyl ether	ND	~~D08~~	780	250	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Chloro-3-methylphenol	ND	~~D08~~	780	32	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Chloroaniline	ND	~~D08~~	780	230	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Chlorophenyl phenyl ether	ND	~~D08~~	780	17	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Methylphenol	ND	~~D08~~	1500	43	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Nitroaniline	ND	~~D08~~	1500	87	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
4-Nitrophenol	ND	~~D08~~	1500	190	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Acenaphthene	**690**	~~D08~~,J	780	9.1	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Acenaphthylene	ND	~~D08~~	780	6.3	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Acetophenone	ND	~~D08~~	780	40	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Anthracene	ND	~~D08~~	780	20	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Atrazine	ND	~~D08~~	780	35	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Benzaldehyde	ND	~~D08~~	780	85	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Benzo[a]anthracene	**260**	~~D08~~,J	780	13	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Benzo[a]pyrene	**230**	~~D08~~,J	780	19	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Benzo[b]fluoranthene	**390** JY	~~D08~~,ID4,J	780	15	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Benzo[g,h,i]perylene	**190**	~~D08~~,J	780	9.3	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Benzo[k]fluoranthene	490 ~~ND~~ JY	~~D08~~	780	8.5	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Biphenyl	ND	~~D08~~	780	48	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Bis(2-chloroethoxy)methane	ND	~~D08~~	780	42	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Bis(2-chloroethyl)ether	ND	~~D08~~	780	67	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,2'-Oxybis(1-Chloropropane)	ND	~~D08~~	780	81	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Bis(2-ethylhexyl) phthalate	**340**	~~D08~~,J	780	250	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Butyl benzyl phthalate	ND	~~D08~~	780	210	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Caprolactam	ND	~~D08~~	780	340	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Carbazole	ND	~~D08~~	780	9.0	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Chrysene	**220**	~~D08~~,J	780	7.8	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Dibenzo(a,h)anthracene	ND	~~D08~~	780	9.1	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Dibenzofuran	ND	~~D08~~	780	8.1	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-12-1 (RTL0689-12RE1 - Soil) - cont. **Sampled: 12/07/10 14:11** **Recvd: 12/08/10 10:15**

Semivolatile Organics by GC/MS - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Diethyl phthalate	ND	D08	780	23	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Dimethyl phthalate	ND	D08	780	20	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Di-n-butyl phthalate	ND	D08	780	270	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Di-n-octyl phthalate	ND	D08	780	18	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Fluoranthene	**580**	D08,J	780	11	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Fluorene	**1600**	D08	780	18	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Hexachlorobenzene	ND	D08	780	39	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Hexachlorobutadiene	ND	D08	780	40	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Hexachlorocyclopentadiene	ND	D08	780	230	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Hexachloroethane	ND	D08	780	60	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Indeno[1,2,3-cd]pyrene	**160**	D08,J	780	21	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Isophorone	ND	D08	780	39	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Naphthalene	**270**	D08,J	780	13	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Nitrobenzene	ND	D08	780	34	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
N-Nitrosodi-n-propylamine	ND	D08	780	61	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
N-Nitrosodiphenylamine	ND	D08	780	42	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Pentachlorophenol	ND	D08	1500	270	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Phenanthrene	**3300**	D08	780	16	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Phenol	ND	D08	780	82	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
Pyrene	**750**	D08,J	780	5.0	ug/kg dry	4.00	12/17/10 14:12	MAF	10L1331	8270C
2,4,6-Tribromophenol	*107 %*	*D08*	*Surr Limits: (39-146%)*				*12/17/10 14:12*	*MAF*	*10L1331*	*8270C*
2-Fluorobiphenyl	*93 %*	*D08*	*Surr Limits: (37-120%)*				*12/17/10 14:12*	*MAF*	*10L1331*	*8270C*
2-Fluorophenol	*85 %*	*D08*	*Surr Limits: (18-120%)*				*12/17/10 14:12*	*MAF*	*10L1331*	*8270C*
Nitrobenzene-d5	*102 %*	*D08*	*Surr Limits: (34-132%)*				*12/17/10 14:12*	*MAF*	*10L1331*	*8270C*
Phenol-d5	*87 %*	*D08*	*Surr Limits: (11-120%)*				*12/17/10 14:12*	*MAF*	*10L1331*	*8270C*
p-Terphenyl-d14	*88 %*	*D08*	*Surr Limits: (58-147%)*				*12/17/10 14:12*	*MAF*	*10L1331*	*8270C*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-31D-2R (17-19) (RTL0689-13 - Soil) — **Sampled: 12/07/10 08:10** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		6.0	0.44	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		6.0	0.97	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		6.0	0.78	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.0	1.4	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		6.0	0.73	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		6.0	0.74	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		6.0	0.37	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		6.0	0.77	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		6.0	0.47	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		6.0	0.30	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		6.0	0.31	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		6.0	0.84	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		30	2.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Acetone	**20**	J	30	5.1	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Benzene	ND		6.0	0.29	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Bromodichloromethane	ND		6.0	0.80	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Bromoform	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Bromomethane	ND		6.0	0.54	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Carbon disulfide	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		6.0	0.58	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Chlorobenzene	ND		6.0	0.79	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Dibromochloromethane	ND		6.0	0.77	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Chloroethane	ND		6.0	1.4	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Chloroform	ND		6.0	0.37	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Chloromethane	ND		6.0	0.36	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		6.0	0.77	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		6.0	0.86	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Cyclohexane	ND		6.0	0.84	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		6.0	0.50	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Ethylbenzene	ND		6.0	0.41	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Isopropylbenzene	ND		6.0	0.91	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Methyl Acetate	ND		6.0	1.1	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.0	0.59	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Methylcyclohexane	**1.9**	J	6.0	0.91	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Methylene Chloride	**21**		6.0	2.8	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Styrene	ND		6.0	0.30	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Tetrachloroethene	ND		6.0	0.81	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Toluene	ND		6.0	0.45	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		6.0	0.62	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		6.0	2.6	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Trichloroethene	ND		6.0	1.3	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		6.0	0.57	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
Vinyl chloride	ND		6.0	0.73	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-31D-2R (17-19) (RTL0689-13 - Soil) - cont. **Sampled: 12/07/10 08:10** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		12	1.0	ug/kg dry	1.00	12/13/10 19:12	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/13/10 19:12*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*101 %*		*Surr Limits: (72-126%)*				*12/13/10 19:12*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/13/10 19:12*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	45	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,4,6-Trichlorophenol	ND		210	13	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,4-Dimethylphenol	ND		210	55	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,4-Dinitrophenol	ND		400	72	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,4-Dinitrotoluene	ND		210	32	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,6-Dinitrotoluene	ND	↙	210	50	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2-Chlorophenol	ND		210	10	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2-Methylnaphthalene	ND		210	2.5	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2-Methylphenol	ND		210	6.3	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2-Nitroaniline	ND		400	66	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2-Nitrophenol	ND		210	9.3	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
3-Nitroaniline	ND		400	47	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		400	71	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Bromophenyl phenyl ether	ND		210	65	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Chloro-3-methylphenol	ND		210	8.4	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Chloroaniline	ND		210	60	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	↙	210	4.4	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Methylphenol	ND		400	11	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Nitroaniline	ND		400	23	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
4-Nitrophenol	ND		400	50	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Acenaphthene	**46**	J	210	2.4	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Acetophenone	ND	↙	210	10	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Anthracene	**120**	J	210	5.2	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Atrazine	ND	↙	210	9.1	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Benzaldehyde	ND		210	22	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Benzo[a]anthracene	**250**		210	3.5	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Benzo[a]pyrene	**190**	J	210	4.9	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Benzo[b]fluoranthene	**210**		210	4.0	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Benzo[g,h,i]perylene	**130**	J	210	2.5	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Benzo[k]fluoranthene	**61**	J	210	2.3	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	21	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Bis(2-ethylhexyl) phthalate	**380**	U B	210	66	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-31D-2R (17-19) (RTL0689-13 - Soil) - cont. **Sampled: 12/07/10 08:10** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		210	55	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Caprolactam	ND	L	210	88	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Carbazole	72	J	210	2.4	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Chrysene	190	J	210	2.0	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Dibenzo(a,h)anthracene	29	J	210	2.4	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Dibenzofuran	34	J	210	2.1	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Diethyl phthalate	210 ~~41~~	UB ~~L, J, B~~	210	6.2	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Dimethyl phthalate	ND		210	5.3	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Di-n-butyl phthalate	ND	L	210	71	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Di-n-octyl phthalate	ND	L	210	4.8	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Fluoranthene	590		210	3.0	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Fluorene	66	L, J	210	4.7	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Hexachlorobutadiene	ND		210	10	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Hexachlorocyclopentadiene	ND		210	62	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Indeno[1,2,3-cd]pyrene	91	J	210	5.7	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Isophorone	ND		210	10	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Naphthalene	ND		210	3.4	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Nitrobenzene	ND		210	9.1	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		210	16	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	210	11	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Pentachlorophenol	ND		400	70	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Phenanthrene	390		210	4.3	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Phenol	ND		210	22	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
Pyrene	530		210	1.3	ug/kg dry	1.00	12/14/10 00:11	JLG	10L0689	8270C
2,4,6-Tribromophenol	*95 %*		*Surr Limits: (39-146%)*				*12/14/10 00:11*	*JLG*	*10L0689*	*8270C*
2-Fluorobiphenyl	*72 %*		*Surr Limits: (37-120%)*				*12/14/10 00:11*	*JLG*	*10L0689*	*8270C*
2-Fluorophenol	*53 %*		*Surr Limits: (18-120%)*				*12/14/10 00:11*	*JLG*	*10L0689*	*8270C*
Nitrobenzene-d5	*63 %*		*Surr Limits: (34-132%)*				*12/14/10 00:11*	*JLG*	*10L0689*	*8270C*
Phenol-d5	*64 %*		*Surr Limits: (11-120%)*				*12/14/10 00:11*	*JLG*	*10L0689*	*8270C*
p-Terphenyl-d14	*95 %*		*Surr Limits: (58-147%)*				*12/14/10 00:11*	*JLG*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	2330		11.5	5.0	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Antimony	ND		17.2	0.6	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Arsenic	1.8	J	2.3	0.5	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Barium	7.98		0.573	0.126	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Beryllium	0.181	J	0.229	0.032	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Cadmium	ND		0.229	0.034	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Calcium	237	B	57.3	3.8	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Chromium	6.07		0.573	0.229	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Cobalt	0.797		0.573	0.057	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Copper	1.6		1.1	0.2	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Iron	5180		11.5	1.3	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Lead	1.5 J		1.1	0.3	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Magnesium	691	B	22.9	1.1	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Manganese	36.9	B	0.2	0.04	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (17-19) (RTL0689-13 - Soil) - cont.						**Sampled: 12/07/10 08:10**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**1.97**	J	5.73	0.264	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Potassium	**392**		34.4	22.9	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Selenium	ND		4.6	0.7	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Silver	ND		0.573	0.229	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Sodium	**662**		160	14.9	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Thallium	ND		6.9	0.3	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Vanadium	**7.85**		0.573	0.126	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Zinc	**5.2**	B	2.3	0.2	mg/kg dry	1.00	12/10/10 20:00	AMH	10L0810	6010B
Mercury	**0.0186**	J	0.0244	0.0099	mg/kg dry	1.00	12/10/10 12:39	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**82**		0.010	NR	%	1.00	12/10/10 17:32	MJM	10L0847	Dry Weight
Ferrous Iron	**1.4**	HFT, J	2.4	0.4	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**400**		121	60.6	mg/kg dry	1.00	12/13/10 15:19	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1260	1260	mg/Kg dry	1.00	12/13/10 22:50	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**20.7**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**79.3**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-23D-2R (18-20) (RTL0689-14 - Soil) **Sampled: 12/07/10 13:30** **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		6.0	0.43	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		6.0	0.97	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		6.0	0.77	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.0	1.4	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		6.0	0.73	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		6.0	0.73	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		6.0	0.36	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		6.0	0.76	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		6.0	0.47	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		6.0	0.30	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		6.0	0.31	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		6.0	0.83	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		30	2.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Acetone	17	J	30	5.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Benzene	ND		6.0	0.29	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Bromodichloromethane	ND		6.0	0.80	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Bromoform	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Bromomethane	ND		6.0	0.54	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Carbon disulfide	ND		6.0	3.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		6.0	0.58	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Chlorobenzene	ND		6.0	0.79	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Dibromochloromethane	ND		6.0	0.76	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Chloroethane	ND		6.0	1.3	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Chloroform	ND		6.0	0.37	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Chloromethane	ND		6.0	0.36	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		6.0	0.76	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		6.0	0.86	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Cyclohexane	ND		6.0	0.83	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		6.0	0.49	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Ethylbenzene	ND		6.0	0.41	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Isopropylbenzene	ND		6.0	0.90	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Methyl Acetate	ND		6.0	1.1	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.0	0.58	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Methylcyclohexane	ND		6.0	0.91	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Methylene Chloride	19		6.0	2.7	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Styrene	ND		6.0	0.30	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Tetrachloroethene	ND		6.0	0.80	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Toluene	ND		6.0	0.45	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		6.0	0.61	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		6.0	2.6	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Trichloroethene	ND		6.0	1.3	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		6.0	0.56	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
Vinyl chloride	ND		6.0	0.73	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-23D-2R (18-20) (RTL0689-14 - Soil) - cont.							**Sampled: 12/07/10 13:30**		**Recvd: 12/08/10 10:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		12	1.0	ug/kg dry	1.00	12/13/10 19:38	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*105 %*		*Surr Limits: (64-126%)*				*12/13/10 19:38*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*100 %*		*Surr Limits: (72-126%)*				*12/13/10 19:38*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-125%)*				*12/13/10 19:38*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	43	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,4-Dimethylphenol	ND		200	54	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,4-Dinitrophenol	ND		390	70	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,4-Dinitrotoluene	ND		200	31	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,6-Dinitrotoluene	ND	✓	200	49	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2-Methylnaphthalene	ND		200	2.4	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2-Methylphenol	ND		200	6.1	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2-Nitroaniline	ND		390	64	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2-Nitrophenol	ND		200	9.1	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
3,3'-Dichlorobenzidine	ND		200	170	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
3-Nitroaniline	ND		390	46	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND	J	390	69	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Bromophenyl phenyl ether	ND		200	63	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Chloro-3-methylphenol	ND		200	8.2	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Chloroaniline	ND		200	58	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	✓	200	4.2	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Methylphenol	ND		390	11	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Nitroaniline	ND		390	22	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
4-Nitrophenol	ND		390	48	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Acenaphthene	**84**	J	200	2.3	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Acetophenone	ND	✓	200	10	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Anthracene	ND		200	5.1	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Atrazine	ND	✓	200	8.8	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Benzo[a]anthracene	ND		200	3.4	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Benzo[a]pyrene	ND		200	4.8	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Benzo[b]fluoranthene	ND		200	3.9	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Benzo[g,h,i]perylene	ND		200	2.4	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Biphenyl	ND		200	12	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Bis(2-ethylhexyl) phthalate	**250**	U B	200	64	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-23D-2R (18-20) (RTL0689-14 - Soil) - cont. **Sampled: 12/07/10 13:30** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		200	53	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Caprolactam	ND	J	200	86	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Carbazole	**78**	J	200	2.3	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Chrysene	ND		200	2.0	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Dibenzo(a,h)anthracene	ND	J	200	2.3	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Dibenzofuran	**71**	J	200	2.1	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Diethyl phthalate	ND	J	200	6.0	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Dimethyl phthalate	ND		200	5.2	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Di-n-butyl phthalate	ND	J	200	69	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Di-n-octyl phthalate	ND	J	200	4.6	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Fluoranthene	**29**	J	200	2.9	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Fluorene	**67**	J, J	200	4.6	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Hexachlorobenzene	ND		200	9.9	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Hexachlorocyclopentadiene	ND		200	60	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND		200	5.5	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Isophorone	ND		200	9.9	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Naphthalene	ND		200	3.3	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Nitrobenzene	ND		200	8.8	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
N-Nitrosodiphenylamine	ND	J	200	11	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Pentachlorophenol	ND		390	68	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Phenanthrene	**240**		200	4.2	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
Pyrene	**16**	J	200	1.3	ug/kg dry	1.00	12/14/10 00:34	JLG	10L0689	8270C
2,4,6-Tribromophenol	*94 %*		*Surr Limits: (39-146%)*				*12/14/10 00:34*	*JLG*	*10L0689*	*8270C*
2-Fluorobiphenyl	*76 %*		*Surr Limits: (37-120%)*				*12/14/10 00:34*	*JLG*	*10L0689*	*8270C*
2-Fluorophenol	*61 %*		*Surr Limits: (18-120%)*				*12/14/10 00:34*	*JLG*	*10L0689*	*8270C*
Nitrobenzene-d5	*68 %*		*Surr Limits: (34-132%)*				*12/14/10 00:34*	*JLG*	*10L0689*	*8270C*
Phenol-d5	*71 %*		*Surr Limits: (11-120%)*				*12/14/10 00:34*	*JLG*	*10L0689*	*8270C*
p-Terphenyl-d14	*103 %*		*Surr Limits: (58-147%)*				*12/14/10 00:34*	*JLG*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2270**		11.6	5.1	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Antimony	ND		17.4	0.6	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Arsenic	**1.0**	J	2.3	0.5	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Barium	**7.26**		0.581	0.128	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Beryllium	**0.157**	J	0.232	0.033	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Cadmium	ND		0.232	0.035	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Calcium	**526**	B	58.1	3.8	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Chromium	**6.70**		0.581	0.232	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Cobalt	**1.01**		0.581	0.058	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Copper	**4.1**		1.2	0.2	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Iron	**3640**		11.6	1.3	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Lead	**1.8**	J	1.2	0.3	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Magnesium	**641**	B	23.2	1.1	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Manganese	**31.6**	B	0.2	0.04	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-23D-2R (18-20) (RTL0689-14 - Soil) - cont.						**Sampled: 12/07/10 13:30**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**3.31**	J	5.81	0.267	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Potassium	**387**		34.9	23.2	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Selenium	ND		4.6	0.7	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Silver	ND		0.581	0.232	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Sodium	**205**		163	15.1	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Thallium	ND		7.0	0.3	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Vanadium	**5.91**		0.581	0.128	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Zinc	**5.0**	B	2.3	0.2	mg/kg dry	1.00	12/10/10 20:02	AMH	10L0810	6010B
Mercury	ND		0.0235	0.0095	mg/kg dry	1.00	12/10/10 12:41	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**84**		0.010	NR	%	1.00	12/10/10 17:34	MJM	10L0847	Dry Weight
Ferrous Iron	**0.9**	HFT, J	2.4	0.4	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**318**		119	59.6	mg/kg dry	1.00	12/13/10 15:19	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1210	1210	mg/Kg dry	1.00	12/13/10 23:03	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**17.2**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**82.8**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-12-7-10 (RTL0689-18 - Water) — **Sampled: 12/07/10 16:00** — **Recvd: 12/08/10 10:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2-Dibromo-3-chloropropane	ND		1.0	0.39	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Acetone	5.1		5.0	3.0	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Methyl Acetate	ND	L	1.0	0.50	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Methylene Chloride	3.5	B	1.0	0.44	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-3 (RTL0689-17 - Soil)						**Sampled: 12/07/10 13:11**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.2	0.45	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,1,2-Trichloroethane	ND		6.2	0.81	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,1-Dichloroethane	ND		6.2	0.76	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,1-Dichloroethene	ND		6.2	0.76	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2-Dibromo-3-chloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2-Dibromoethane	ND		6.2	0.80	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2-Dichlorobenzene	ND		6.2	0.49	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2-Dichloroethane	ND		6.2	0.31	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2-Dichloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,3-Dichlorobenzene	ND		6.2	0.32	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,4-Dichlorobenzene	ND		6.2	0.87	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
2-Butanone	ND		31	2.3	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Acetone	**18**	J	31	5.3	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Benzene	ND		6.2	0.31	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Bromodichloromethane	ND		6.2	0.84	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Bromoform	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Bromomethane	ND		6.2	0.56	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Carbon disulfide	ND		6.2	3.1	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Carbon Tetrachloride	ND		6.2	0.60	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Chlorobenzene	ND		6.2	0.82	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Dibromochloromethane	ND		6.2	0.80	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Chloroethane	ND		6.2	1.4	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Chloroform	ND		6.2	0.39	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Chloromethane	ND		6.2	0.38	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
cis-1,2-Dichloroethene	ND		6.2	0.80	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
cis-1,3-Dichloropropene	ND		6.2	0.90	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Cyclohexane	ND		6.2	0.87	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Dichlorodifluoromethane	ND		6.2	0.52	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Ethylbenzene	ND		6.2	0.43	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Isopropylbenzene	**1.3**	J	6.2	0.94	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Methyl Acetate	ND		6.2	1.2	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.2	0.61	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Methylcyclohexane	**4.5**	J	6.2	0.95	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Methylene Chloride	**15**		6.2	2.9	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Styrene	ND		6.2	0.31	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Tetrachloroethene	ND		6.2	0.84	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Toluene	ND		6.2	0.47	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Trichloroethene	ND		6.2	1.4	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Trichlorofluoromethane	ND		6.2	0.59	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
Vinyl chloride	ND		6.2	0.76	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TP-10-3 (RTL0689-17 - Soil) - cont. **Sampled: 12/07/10 13:11** **Recvd: 12/08/10 10:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		12	1.0	ug/kg dry	1.00	12/13/10 20:54	RMJ	10L1041	8260B
1,2-Dichloroethane-d4	*109 %*		*Surr Limits: (64-126%)*				*12/13/10 20:54*	*RMJ*	*10L1041*	*8260B*
4-Bromofluorobenzene	*97 %*		*Surr Limits: (72-126%)*				*12/13/10 20:54*	*RMJ*	*10L1041*	*8260B*
Toluene-d8	*99 %*		*Surr Limits: (71-125%)*				*12/13/10 20:54*	*RMJ*	*10L1041*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,4-Dimethylphenol	ND		210	57	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,4-Dinitrophenol	ND		410	74	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,4-Dinitrotoluene	ND		210	33	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,6-Dinitrotoluene	ND	↙	210	52	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2-Methylnaphthalene	**34**	J	210	2.6	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2-Methylphenol	ND		210	6.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2-Nitroaniline	ND		410	68	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2-Nitrophenol	ND		210	9.7	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
3,3'-Dichlorobenzidine	ND		210	190	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
3-Nitroaniline	ND		410	49	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4,6-Dinitro-2-methylphenol	ND		410	73	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Bromophenyl phenyl ether	ND		210	67	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Chloro-3-methylphenol	ND		210	8.7	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Chloroaniline	ND		210	62	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Chlorophenyl phenyl ether	ND	↙	210	4.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Nitroaniline	ND		410	24	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Acenaphthene	**310**		210	2.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Acetophenone	ND	↙	210	11	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Anthracene	**110**	J	210	5.4	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Atrazine	ND	↙	210	9.4	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Benzo[a]anthracene	**26**	J	210	3.7	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Benzo[a]pyrene	ND		210	5.1	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Benzo[b]fluoranthene	**17**	J	210	4.1	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Benzo[g,h,i]perylene	ND		210	2.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Benzo[k]fluoranthene	ND		210	2.3	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Bis(2-chloroethoxy)methane	ND		210	12	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Bis(2-ethylhexyl) phthalate	210 ~~460~~	U8 ~~J,B~~	210	68	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-3 (RTL0689-17 - Soil) - cont.						**Sampled: 12/07/10 13:11**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		210	57	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Caprolactam	ND	L	210	92	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Carbazole	**20**	J	210	2.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Chrysene	**24**	J	210	2.1	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Dibenzo(a,h)anthracene	ND		210	2.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Dibenzofuran	**190**	J	210	2.2	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Diethyl phthalate	ND	L	210	6.4	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Di-n-butyl phthalate	ND	L	210	73	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Di-n-octyl phthalate	ND	L	210	5.0	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Fluoranthene	ND		210	3.1	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Fluorene	**230**	L	210	4.9	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Hexachlorobenzene	ND		210	11	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Hexachlorocyclopentadiene	ND		210	64	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Indeno[1,2,3-cd]pyrene	ND		210	5.9	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Isophorone	ND		210	11	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Nitrobenzene	ND		210	9.4	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
N-Nitrosodiphenylamine	ND	L	210	12	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Pentachlorophenol	ND		410	73	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Phenanthrene	**210**		210	4.4	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Phenol	ND		210	22	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
Pyrene	**150**	J	210	1.4	ug/kg dry	1.00	12/14/10 00:58	JLG	10L0689	8270C
2,4,6-Tribromophenol	*105 %*		*Surr Limits: (39-146%)*				*12/14/10 00:58*	*JLG*	*10L0689*	*8270C*
2-Fluorobiphenyl	*87 %*		*Surr Limits: (37-120%)*				*12/14/10 00:58*	*JLG*	*10L0689*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*12/14/10 00:58*	*JLG*	*10L0689*	*8270C*
Nitrobenzene-d5	*79 %*		*Surr Limits: (34-132%)*				*12/14/10 00:58*	*JLG*	*10L0689*	*8270C*
Phenol-d5	*77 %*		*Surr Limits: (11-120%)*				*12/14/10 00:58*	*JLG*	*10L0689*	*8270C*
p-Terphenyl-d14	*112 %*		*Surr Limits: (58-147%)*				*12/14/10 00:58*	*JLG*	*10L0689*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**5570**		11.8	5.2	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Antimony	ND		17.7	0.6	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Arsenic	**1.0**	J	2.4	0.5	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Barium	**16.8**		0.589	0.130	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Beryllium	**0.369**		0.236	0.033	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Cadmium	**0.040**	J	0.236	0.035	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Calcium	**387**	B	58.9	3.9	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Chromium	**6.72**		0.589	0.236	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Cobalt	**1.70**		0.589	0.059	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Copper	**5.0**		1.2	0.2	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Iron	**6830**		11.8	1.3	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Lead	**8.3**	J	1.2	0.3	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Magnesium	**823**	B	23.6	1.1	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Manganese	**50.0**	B	0.2	0.04	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TP-10-3 (RTL0689-17 - Soil) - cont.						**Sampled: 12/07/10 13:11**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Nickel	**5.02**	J	5.89	0.271	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Potassium	**365**		35.3	23.6	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Silver	ND		0.589	0.236	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Sodium	**116**	J	165	15.3	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Vanadium	**9.88**		0.589	0.130	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Zinc	**14.0**	B	2.4	0.2	mg/kg dry	1.00	12/10/10 20:17	AMH	10L0810	6010B
Mercury	ND		0.0251	0.0102	mg/kg dry	1.00	12/10/10 12:51	JRK	10L0719	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	12/10/10 17:36	MJM	10L0847	Dry Weight
Ferrous Iron	**2.1**	HFT, J	2.5	0.4	mg/kg dry	1.00	12/13/10 17:00	LRM	10L1132	3500FE
Sulfate	**394**		127	63.3	mg/kg dry	1.00	12/13/10 15:19	KLD	10L1118	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1730**		1140	1140	mg/Kg dry	1.00	12/13/10 23:42	MNT	11084	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**12.1**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture
Percent Solids	**87.9**		0.25	0.25	%	1.00	12/13/10 10:21	AJN	11013	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-12-7-10 (RTL0689-18 - Water) - cont.						**Sampled: 12/07/10 16:00**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND		2.0	0.66	ug/L	1.00	12/13/10 15:23	RMJ	10L1099	8260B
1,2-Dichloroethane-d4	*105 %*		*Surr Limits: (66-137%)*				*12/13/10 15:23*	*RMJ*	*10L1099*	*8260B*
4-Bromofluorobenzene	*98 %*		*Surr Limits: (73-120%)*				*12/13/10 15:23*	*RMJ*	*10L1099*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-126%)*				*12/13/10 15:23*	*RMJ*	*10L1099*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		4.9	0.47	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,4,6-Trichlorophenol	ND		4.9	0.60	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,4-Dichlorophenol	ND		4.9	0.50	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,4-Dimethylphenol	ND		4.9	0.49	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,4-Dinitrophenol	ND		9.8	2.2	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,4-Dinitrotoluene	ND		4.9	0.44	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,6-Dinitrotoluene	ND		4.9	0.39	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2-Chloronaphthalene	ND		4.9	0.45	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2-Chlorophenol	ND		4.9	0.52	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2-Methylnaphthalene	ND		4.9	0.59	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2-Methylphenol	ND		4.9	0.39	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2-Nitroaniline	ND		9.8	0.41	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2-Nitrophenol	ND		4.9	0.47	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
3,3'-Dichlorobenzidine	ND		4.9	0.39	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
3-Nitroaniline	ND		9.8	0.47	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4,6-Dinitro-2-methylphenol	ND		9.8	2.2	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Bromophenyl phenyl ether	ND		4.9	0.44	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Chloro-3-methylphenol	ND		4.9	0.44	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Chloroaniline	ND		4.9	0.58	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Chlorophenyl phenyl ether	ND		4.9	0.34	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Methylphenol	ND		9.8	0.35	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Nitroaniline	ND		9.8	0.25	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
4-Nitrophenol	ND		9.8	1.5	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Acenaphthene	ND		4.9	0.40	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Acenaphthylene	ND		4.9	0.37	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Acetophenone	ND		4.9	0.53	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Anthracene	ND		4.9	0.27	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Atrazine	ND		4.9	0.45	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Benzaldehyde	ND		4.9	0.26	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Benzo(a)anthracene	ND		4.9	0.35	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Benzo(a)pyrene	ND		4.9	0.46	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Benzo(b)fluoranthene	ND		4.9	0.33	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Benzo(ghi)perylene	ND		4.9	0.34	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Benzo(k)fluoranthene	ND		4.9	0.72	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Biphenyl	ND		4.9	0.64	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Bis(2-chloroethoxy)methane	ND		4.9	0.34	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Bis(2-chloroethyl)ether	ND		4.9	0.39	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,2'-Oxybis(1-Chloropropane)	ND		4.9	0.51	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Bis(2-ethylhexyl) phthalate	ND		4.9	1.8	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-12-7-10 (RTL0689-18 - Water) - cont.						**Sampled: 12/07/10 16:00**		**Recvd: 12/08/10 10:15**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		4.9	0.41	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Caprolactam	ND		4.9	2.2	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Carbazole	ND		4.9	0.29	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Chrysene	ND		4.9	0.32	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Dibenzo(a,h)anthracene	ND		4.9	0.41	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Dibenzofuran	ND		4.9	0.50	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Diethyl phthalate	ND		4.9	0.22	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Dimethyl phthalate	ND		4.9	0.35	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Di-n-butyl phthalate	ND		4.9	0.30	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Di-n-octyl phthalate	ND		4.9	0.46	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Fluoranthene	ND		4.9	0.39	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Fluorene	ND		4.9	0.35	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Hexachlorobenzene	ND		4.9	0.50	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Hexachlorobutadiene	ND		4.9	0.67	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Hexachlorocyclopentadiene	ND		4.9	0.58	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Hexachloroethane	ND		4.9	0.58	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Indeno(1,2,3-cd)pyrene	ND		4.9	0.46	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Isophorone	ND		4.9	0.42	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Naphthalene	ND		4.9	0.75	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Nitrobenzene	ND		4.9	0.28	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
N-Nitrosodi-n-propylamine	ND		4.9	0.53	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
N-Nitrosodiphenylamine	ND	↙	4.9	0.50	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Pentachlorophenol	ND		9.8	2.2	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Phenanthrene	ND		4.9	0.43	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Phenol	ND		4.9	0.38	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
Pyrene	ND		4.9	0.33	ug/L	1.00	12/13/10 17:00	MKP	10L0915	8270C
2,4,6-Tribromophenol	*128 %*		*Surr Limits: (52-132%)*				*12/13/10 17:00*	*MKP*	*10L0915*	*8270C*
2-Fluorobiphenyl	*77 %*		*Surr Limits: (48-120%)*				*12/13/10 17:00*	*MKP*	*10L0915*	*8270C*
2-Fluorophenol	*39 %*		*Surr Limits: (20-120%)*				*12/13/10 17:00*	*MKP*	*10L0915*	*8270C*
Nitrobenzene-d5	*72 %*		*Surr Limits: (46-120%)*				*12/13/10 17:00*	*MKP*	*10L0915*	*8270C*
Phenol-d5	*30 %*		*Surr Limits: (16-120%)*				*12/13/10 17:00*	*MKP*	*10L0915*	*8270C*
p-Terphenyl-d14	*76 %*		*Surr Limits: (24-136%)*				*12/13/10 17:00*	*MKP*	*10L0915*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	ND		0.200	0.045	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Barium	ND		0.0020	0.0005	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Calcium	ND		0.5	0.1	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Copper	ND		0.0100	0.0015	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Iron	ND		0.050	0.019	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Magnesium	ND		0.200	0.043	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Manganese	**0.0002**	J, B	0.0030	0.0002	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-12-7-10 (RTL0689-18 - Water) - cont.						**Sampled: 12/07/10 16:00**		**Recvd: 12/08/10 10:15**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	ND		0.500	0.200	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Sodium	ND		1.0	0.3	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Vanadium	ND		0.0050	0.0011	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Zinc	ND		0.0100	0.0017	mg/L	1.00	12/10/10 15:58	LMH	10L0820	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/10/10 13:06	JRK	10L0823	7470A
General Chemistry Parameters										
Ferrous Iron	ND	J ~~HFT~~	0.100	0.0750	mg/L	1.00	12/08/10 20:35	LRM	10L0728	3500FE
Sulfate	ND		5.0	1.5	mg/L	1.00	12/13/10 15:19	KLD	10L1116	D-516-90
Total Organic Carbon	0.5	J	1.0	0.4	mg/L	1.00	12/14/10 09:13	KLD	10L1073	9060

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-10-12-7-10 (RTL0689-19 - Water) — Sampled: 12/07/10 — Recvd: 12/08/10 10:15

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Methyl Acetate	ND	N1,L	1.0	0.50	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Methylene Chloride	**2.8**	N1,B	1.0	0.44	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-10-12-7-10 (RTL0689-19 - Water) - cont.						**Sampled: 12/07/10**			**Recvd: 12/08/10 10:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	2.0	0.66	ug/L	1.00	12/13/10 15:48	RMJ	10L1099	8260B
1,2-Dichloroethane-d4	*104 %*	*N1*	*Surr Limits: (66-137%)*				*12/13/10 15:48*	*RMJ*	*10L1099*	*8260B*
4-Bromofluorobenzene	*99 %*	*N1*	*Surr Limits: (73-120%)*				*12/13/10 15:48*	*RMJ*	*10L1099*	*8260B*
Toluene-d8	*104 %*	*N1*	*Surr Limits: (71-126%)*				*12/13/10 15:48*	*RMJ*	*10L1099*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-11-12-7-10 (RTL0689-20 - Water)						**Sampled: 12/07/10**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Methyl Acetate	ND	N1,L	1.0	0.50	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Methylene Chloride	**3.1**	N1,B	1.0	0.44	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-11-12-7-10 (RTL0689-20 - Water) - cont.						**Sampled: 12/07/10**		**Recvd: 12/08/10 10:15**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	N1	2.0	0.66	ug/L	1.00	12/13/10 16:14	RMJ	10L1099	8260B
1,2-Dichloroethane-d4	*110 %*	*N1*	*Surr Limits: (66-137%)*				*12/13/10 16:14*	*RMJ*	*10L1099*	*8260B*
4-Bromofluorobenzene	*105 %*	*N1*	*Surr Limits: (73-120%)*				*12/13/10 16:14*	*RMJ*	*10L1099*	*8260B*
Toluene-d8	*109 %*	*N1*	*Surr Limits: (71-126%)*				*12/13/10 16:14*	*RMJ*	*10L1099*	*8260B*

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: MW-25D3 (21-23) (RTL0812-01 - Soil) **Sampled: 12/09/10 09:25** **Recvd: 12/10/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	5.9	0.43	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,1,2,2-Tetrachloroethane	ND	N1	5.9	0.96	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,1,2-Trichloroethane	ND	N1	5.9	0.77	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	5.9	1.3	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,1-Dichloroethane	ND	N1	5.9	0.72	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,1-Dichloroethene	ND	N1	5.9	0.72	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2,4-Trichlorobenzene	ND	N1	5.9	0.36	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2-Dibromo-3-chloropropane	ND	N1	5.9	2.9	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2-Dibromoethane	ND	N1	5.9	0.76	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2-Dichlorobenzene	ND	N1	5.9	0.46	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2-Dichloroethane	ND	N1	5.9	0.30	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2-Dichloropropane	ND	N1	5.9	2.9	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,3-Dichlorobenzene	ND	N1	5.9	0.30	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,4-Dichlorobenzene	ND	N1	5.9	0.83	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
2-Butanone	ND	N1	29	2.2	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
2-Hexanone	ND	N1	29	2.9	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
4-Methyl-2-pentanone	ND	N1	29	1.9	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Acetone	20	N1,J	29	5.0	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Benzene	ND	N1	5.9	0.29	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Bromodichloromethane	ND	N1	5.9	0.79	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Bromoform	ND	N1	5.9	2.9	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Bromomethane	ND	N1	5.9	0.53	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Carbon disulfide	10	N1	5.9	2.9	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Carbon Tetrachloride	ND	N1	5.9	0.57	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Chlorobenzene	ND	N1	5.9	0.78	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Dibromochloromethane	ND	N1	5.9	0.76	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Chloroethane	ND	N1	5.9	1.3	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Chloroform	ND	N1	5.9	0.36	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Chloromethane	ND	N1	5.9	0.36	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
cis-1,2-Dichloroethene	10	N1	5.9	0.76	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
cis-1,3-Dichloropropene	ND	N1	5.9	0.85	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Cyclohexane	ND	N1	5.9	0.83	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Dichlorodifluoromethane	ND	N1	5.9	0.49	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Ethylbenzene	ND	N1	5.9	0.41	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Isopropylbenzene	ND	N1	5.9	0.89	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Methyl Acetate	ND	N1,L	5.9	1.1	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Methyl-t-Butyl Ether (MTBE)	14	N1	5.9	0.58	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Methylcyclohexane	ND	N1	5.9	0.90	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Methylene Chloride	120	N1,B	5.9	2.7	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Styrene	ND	N1	5.9	0.29	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Tetrachloroethene	ND	N1	5.9	0.79	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Toluene	ND	N1	5.9	0.45	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
trans-1,2-Dichloroethene	ND	N1	5.9	0.61	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
trans-1,3-Dichloropropene	ND	N1	5.9	2.6	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Trichloroethene	3.1	N1,J	5.9	1.3	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Trichlorofluoromethane	ND	N1	5.9	0.56	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
Vinyl chloride	2.0	N1,J	5.9	0.72	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (21-23) (RTL0812-01 - Soil) - cont.						**Sampled: 12/09/10 09:25**		**Recvd: 12/10/10 09:30**		
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	12	0.99	ug/kg dry	1.00	12/16/10 16:35	PJQ	10L1384	8260B
1,2-Dichloroethane-d4	*106 %*	*N1*	*Surr Limits: (64-126%)*				*12/16/10 16:35*	*PJQ*	*10L1384*	*8260B*
4-Bromofluorobenzene	*102 %*	*N1*	*Surr Limits: (72-126%)*				*12/16/10 16:35*	*PJQ*	*10L1384*	*8260B*
Toluene-d8	*103 %*	*N1*	*Surr Limits: (71-125%)*				*12/16/10 16:35*	*PJQ*	*10L1384*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	44	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,4-Dimethylphenol	ND		200	54	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,4-Dinitrophenol	ND		390	70	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,4-Dinitrotoluene	ND		200	31	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,6-Dinitrotoluene	ND		200	49	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2-Methylnaphthalene	ND		200	2.4	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2-Methylphenol	ND		200	6.2	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2-Nitroaniline	ND		390	64	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2-Nitrophenol	ND		200	9.1	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
3,3'-Dichlorobenzidine	ND		200	180	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
3-Nitroaniline	ND		390	46	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4,6-Dinitro-2-methylphenol	ND		390	69	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Bromophenyl phenyl ether	ND		200	64	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Chloro-3-methylphenol	ND		200	8.2	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Chloroaniline	ND		200	59	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Chlorophenyl phenyl ether	ND		200	4.3	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Methylphenol	ND		390	11	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Nitroaniline	ND		390	22	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
4-Nitrophenol	ND		390	48	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Acenaphthene	ND		200	2.4	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Acetophenone	ND		200	10	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Anthracene	ND		200	5.1	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Atrazine	ND		200	8.9	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Benzo[a]anthracene	ND		200	3.5	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Benzo[a]pyrene	ND		200	4.8	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Benzo[b]fluoranthene	ND		200	3.9	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Benzo[g,h,i]perylene	ND		200	2.4	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Biphenyl	ND		200	12	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Bis(2-ethylhexyl) phthalate	490		200	64	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (21-23) (RTL0812-01 - Soil) - cont.						**Sampled: 12/09/10 09:25**		**Recvd: 12/10/10 09:30**		
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		200	54	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Caprolactam	ND		200	87	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Carbazole	ND		200	2.3	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Chrysene	ND		200	2.0	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Dibenzo(a,h)anthracene	ND		200	2.4	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Dibenzofuran	ND		200	2.1	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Diethyl phthalate	ND		200	6.0	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Dimethyl phthalate	ND		200	5.2	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Di-n-butyl phthalate	ND		200	69	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Di-n-octyl phthalate	ND		200	4.7	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Fluoranthene	ND		200	2.9	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Fluorene	ND		200	4.6	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Hexachlorobenzene	ND		200	9.9	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Hexachlorocyclopentadiene	ND		200	60	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Indeno[1,2,3-cd]pyrene	ND		200	5.5	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Isophorone	ND		200	10	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Naphthalene	ND		200	3.3	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Nitrobenzene	ND		200	8.9	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Pentachlorophenol	ND		390	69	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Phenanthrene	ND		200	4.2	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Phenol	ND		200	21	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
Pyrene	ND		200	1.3	ug/kg dry	1.00	12/17/10 14:42	MAF	10L1331	8270C
2,4,6-Tribromophenol	*105 %*		*Surr Limits: (39-146%)*				*12/17/10 14:42*	*MAF*	*10L1331*	*8270C*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (37-120%)*				*12/17/10 14:42*	*MAF*	*10L1331*	*8270C*
2-Fluorophenol	*70 %*		*Surr Limits: (18-120%)*				*12/17/10 14:42*	*MAF*	*10L1331*	*8270C*
Nitrobenzene-d5	*73 %*		*Surr Limits: (34-132%)*				*12/17/10 14:42*	*MAF*	*10L1331*	*8270C*
Phenol-d5	*78 %*		*Surr Limits: (11-120%)*				*12/17/10 14:42*	*MAF*	*10L1331*	*8270C*
p-Terphenyl-d14	*80 %*		*Surr Limits: (58-147%)*				*12/17/10 14:42*	*MAF*	*10L1331*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2410**		12.1	5.3	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Antimony	ND		18.1	0.7	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Arsenic	**2.3**	J	2.4	0.5	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Barium	**10.5**		0.604	0.133	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Beryllium	**0.225**	J	0.241	0.034	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Cadmium	**0.066**	J	0.241	0.036	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Calcium	**553**	B	60.4	4.0	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Chromium	**8.06**		0.604	0.241	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Cobalt	**1.99**		0.604	0.060	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Copper	**3.4**		1.2	0.3	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Iron	**5350**	B	12.1	1.3	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Lead	**2.3**		1.2	0.3	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Magnesium	**928**	B	24.1	1.1	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Manganese	**37.5**	B	0.2	0.04	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-25D3 (21-23) (RTL0812-01 - Soil) - cont.							**Sampled: 12/09/10 09:25**		**Recvd: 12/10/10 09:30**	
Total Metals by SW 846 Series Methods - cont.										
Nickel	**4.37**	J	6.04	0.278	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Potassium	**607**		36.2	24.1	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Selenium	ND		4.8	0.7	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Silver	ND		0.604	0.241	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Sodium	**752**		169	15.7	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Thallium	ND		7.2	0.4	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Vanadium	**10.7**		0.604	0.133	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Zinc	**8.4**	~~B~~	2.4	0.2	mg/kg dry	1.00	12/17/10 16:33	AMH	10L1304	6010B
Mercury	**0.0229**	J	0.0231	0.0093	mg/kg dry	1.00	12/14/10 14:20	JRK	10L1086	7471A
General Chemistry Parameters										
Percent Solids	**83**		0.010	NR	%	1.00	12/13/10 08:57	KV	10L0982	Dry Weight
Ferrous Iron	ND	~~J HFT~~	2.4	0.4	mg/kg dry	1.00	12/17/10 23:35	JLN	10L1692	3500FE
Sulfate	**403**		121	60.4	mg/kg dry	1.00	12/20/10 15:16	KLD	10L1718	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	ND	U	1220	1220	mg/Kg dry	1.00	12/14/10 18:38	ZMS	11133	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**18.2**		0.25	0.25	%	1.00	12/14/10 11:53	ZMS	11093	Moisture
Percent Solids	**81.8**		0.25	0.25	%	1.00	12/14/10 11:53	ZMS	11093	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-12-9-10 (RTL0812-02 - Water)						**Sampled: 12/09/10**		**Recvd: 12/10/10 09:30**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Methyl Acetate	ND	N1,L	1.0	0.50	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Methylene Chloride	**1.8**	N1,B	1.0	0.44	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-12-9-10 (RTL0812-02 - Water) - cont.						**Sampled: 12/09/10**			**Recvd: 12/10/10 09:30**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	2.0	0.66	ug/L	1.00	12/16/10 15:45	PJQ	10L1385	8260B
1,2-Dichloroethane-d4	*103 %*	*N1*	*Surr Limits: (66-137%)*				*12/16/10 15:45*	*PJQ*	*10L1385*	*8260B*
4-Bromofluorobenzene	*97 %*	*N1*	*Surr Limits: (73-120%)*				*12/16/10 15:45*	*PJQ*	*10L1385*	*8260B*
Toluene-d8	*101 %*	*N1*	*Surr Limits: (71-126%)*				*12/16/10 15:45*	*PJQ*	*10L1385*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		5.1	0.48	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,4,6-Trichlorophenol	ND		5.1	0.62	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,4-Dichlorophenol	ND		5.1	0.52	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,4-Dimethylphenol	ND		5.1	0.51	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,4-Dinitrophenol	ND		10	2.2	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,4-Dinitrotoluene	ND		5.1	0.45	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,6-Dinitrotoluene	ND		5.1	0.40	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2-Chloronaphthalene	ND		5.1	0.46	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2-Chlorophenol	ND		5.1	0.54	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2-Methylnaphthalene	ND		5.1	0.61	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2-Methylphenol	ND		5.1	0.40	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2-Nitroaniline	ND		10	0.42	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2-Nitrophenol	ND		5.1	0.48	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
3,3'-Dichlorobenzidine	ND		5.1	0.40	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
3-Nitroaniline	ND		10	0.48	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Bromophenyl phenyl ether	ND		5.1	0.45	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Chloro-3-methylphenol	ND		5.1	0.45	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Chloroaniline	ND		5.1	0.60	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Chlorophenyl phenyl ether	ND		5.1	0.35	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Methylphenol	ND		10	0.36	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Nitroaniline	ND		10	0.25	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
4-Nitrophenol	ND		10	1.5	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Acenaphthene	ND		5.1	0.41	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Acenaphthylene	ND		5.1	0.38	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Acetophenone	ND		5.1	0.55	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Anthracene	ND		5.1	0.28	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Atrazine	ND		5.1	0.46	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Benzaldehyde	ND		5.1	0.27	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Benzo(a)anthracene	ND		5.1	0.36	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Benzo(a)pyrene	ND		5.1	0.47	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Benzo(b)fluoranthene	ND		5.1	0.34	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Benzo(ghi)perylene	ND		5.1	0.35	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Benzo(k)fluoranthene	ND		5.1	0.74	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Biphenyl	ND		5.1	0.66	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Bis(2-chloroethoxy)methane	ND		5.1	0.35	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Bis(2-chloroethyl)ether	ND		5.1	0.40	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.1	0.53	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Bis(2-ethylhexyl) phthalate	ND		5.1	1.8	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: RB-12-9-10 (RTL0812-02 - Water) - cont. **Sampled: 12/09/10** **Recvd: 12/10/10 09:30**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Butyl benzyl phthalate	ND		5.1	0.42	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Caprolactam	ND		5.1	2.2	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Carbazole	ND		5.1	0.30	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Chrysene	ND		5.1	0.33	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Dibenzo(a,h)anthracene	ND		5.1	0.42	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Dibenzofuran	ND		5.1	0.52	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Diethyl phthalate	ND		5.1	0.22	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Dimethyl phthalate	ND		5.1	0.36	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Di-n-butyl phthalate	ND		5.1	0.31	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Di-n-octyl phthalate	ND		5.1	0.47	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Fluoranthene	ND		5.1	0.40	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Fluorene	ND		5.1	0.36	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Hexachlorobenzene	ND		5.1	0.52	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Hexachlorobutadiene	ND		5.1	0.69	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Hexachlorocyclopentadiene	ND		5.1	0.60	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Hexachloroethane	ND		5.1	0.60	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Indeno(1,2,3-cd)pyrene	ND		5.1	0.47	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Isophorone	ND		5.1	0.43	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Naphthalene	ND		5.1	0.77	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Nitrobenzene	ND		5.1	0.29	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
N-Nitrosodi-n-propylamine	ND		5.1	0.55	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
N-Nitrosodiphenylamine	ND		5.1	0.52	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Pentachlorophenol	ND		10	2.2	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Phenanthrene	ND		5.1	0.44	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Phenol	ND		5.1	0.39	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
Pyrene	ND		5.1	0.34	ug/L	1.00	12/15/10 18:53	MAF	10L1107	8270C
2,4,6-Tribromophenol	*114 %*		*Surr Limits: (52-132%)*				*12/15/10 18:53*	*MAF*	*10L1107*	*8270C*
2-Fluorobiphenyl	*96 %*		*Surr Limits: (48-120%)*				*12/15/10 18:53*	*MAF*	*10L1107*	*8270C*
2-Fluorophenol	*50 %*		*Surr Limits: (20-120%)*				*12/15/10 18:53*	*MAF*	*10L1107*	*8270C*
Nitrobenzene-d5	*87 %*		*Surr Limits: (46-120%)*				*12/15/10 18:53*	*MAF*	*10L1107*	*8270C*
Phenol-d5	*28 %*		*Surr Limits: (16-120%)*				*12/15/10 18:53*	*MAF*	*10L1107*	*8270C*
p-Terphenyl-d14	*106 %*		*Surr Limits: (24-136%)*				*12/15/10 18:53*	*MAF*	*10L1107*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**0.062**	J	0.200	0.045	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Barium	**0.0193**		0.0020	0.0005	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Calcium	**32.5**		0.5	0.1	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Copper	ND		0.0100	0.0015	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Iron	ND		0.050	0.019	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Magnesium	**8.44**		0.200	0.043	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Manganese	**0.0008**	J	0.0030	0.0002	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-12-9-10 (RTL0812-02 - Water) - cont.						**Sampled: 12/09/10**		**Recvd: 12/10/10 09:30**		
Total Metals by SW 846 Series Methods - cont.										
Potassium	**1.57**		0.500	0.200	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Sodium	**13.2**	B	1.0	0.3	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Vanadium	ND		0.0050	0.0011	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Zinc	ND		0.0100	0.0017	mg/L	1.00	12/15/10 19:29	LMH	10L1207	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	12/20/10 11:50	JRK	10L1615	7470A
General Chemistry Parameters										
Ferrous Iron	ND	J ~~HFT~~	0.100	0.0750	mg/L	1.00	12/10/10 23:00	JLN	10L0963	3500FE
Sulfate	**29.8**	B	5.0	1.5	mg/L	1.00	12/17/10 09:06	RJF	10L1513	D-516-90
Total Organic Carbon	**0.4**	J	1.0	0.4	mg/L	1.00	12/14/10 14:06	KLD	10L1073	9060

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Client ID: TB-12-9-10 (RTL0812-03 - Water) — **Sampled: 12/09/10** — **Recvd: 12/10/10 09:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	N1	1.0	0.82	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,1,2,2-Tetrachloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,1,2-Trichloroethane	ND	N1	1.0	0.23	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	N1	1.0	0.31	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,1-Dichloroethane	ND	N1	1.0	0.38	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,1-Dichloroethene	ND	N1	1.0	0.29	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2,4-Trichlorobenzene	ND	N1	1.0	0.41	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2-Dibromo-3-chloropropane	ND	N1	1.0	0.39	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2-Dibromoethane	ND	N1	1.0	0.73	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2-Dichlorobenzene	ND	N1	1.0	0.79	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2-Dichloroethane	ND	N1	1.0	0.21	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2-Dichloropropane	ND	N1	1.0	0.72	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,3-Dichlorobenzene	ND	N1	1.0	0.78	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,4-Dichlorobenzene	ND	N1	1.0	0.84	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
2-Butanone	ND	N1	5.0	1.3	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
2-Hexanone	ND	N1	5.0	1.2	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
4-Methyl-2-pentanone	ND	N1	5.0	2.1	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Acetone	ND	N1	5.0	3.0	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Benzene	ND	N1	1.0	0.41	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Bromodichloromethane	ND	N1	1.0	0.39	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Bromoform	ND	N1	1.0	0.26	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Bromomethane	ND	N1	1.0	0.69	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Carbon disulfide	ND	N1	1.0	0.19	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Carbon Tetrachloride	ND	N1	1.0	0.27	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Chlorobenzene	ND	N1	1.0	0.75	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Dibromochloromethane	ND	N1	1.0	0.32	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Chloroethane	ND	N1	1.0	0.32	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Chloroform	ND	N1	1.0	0.34	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Chloromethane	ND	N1	1.0	0.35	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
cis-1,2-Dichloroethene	ND	N1	1.0	0.81	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
cis-1,3-Dichloropropene	ND	N1	1.0	0.36	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Cyclohexane	ND	N1	1.0	0.18	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Dichlorodifluoromethane	ND	N1	1.0	0.68	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Ethylbenzene	ND	N1	1.0	0.74	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Isopropylbenzene	ND	N1	1.0	0.79	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Methyl Acetate	ND	N1,L	1.0	0.50	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Methyl-t-Butyl Ether (MTBE)	ND	N1	1.0	0.16	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Methylcyclohexane	ND	N1	1.0	0.16	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Methylene Chloride	**1.5**	N1,B	1.0	0.44	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Styrene	ND	N1	1.0	0.73	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Tetrachloroethene	ND	N1	1.0	0.36	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Toluene	ND	N1	1.0	0.51	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
trans-1,2-Dichloroethene	ND	N1	1.0	0.90	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
trans-1,3-Dichloropropene	ND	N1	1.0	0.37	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Trichloroethene	ND	N1	1.0	0.46	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Trichlorofluoromethane	ND	N1	1.0	0.88	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
Vinyl chloride	ND	N1	1.0	0.90	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX 1
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTL0286

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 12/01/10-12/10/10
Reported: 12/30/10 13:23

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-12-9-10 (RTL0812-03 - Water) - cont.						**Sampled: 12/09/10**			**Recvd: 12/10/10 09:30**	
Volatile Organic Compounds by EPA 8260B - cont.										
Xylenes, total	ND	~~N1~~	2.0	0.66	ug/L	1.00	12/16/10 16:10	PJQ	10L1385	8260B
1,2-Dichloroethane-d4	*108 %*	*N1*	*Surr Limits: (66-137%)*				*12/16/10 16:10*	*PJQ*	*10L1385*	*8260B*
4-Bromofluorobenzene	*107 %*	*N1*	*Surr Limits: (73-120%)*				*12/16/10 16:10*	*PJQ*	*10L1385*	*8260B*
Toluene-d8	*112 %*	*N1*	*Surr Limits: (71-126%)*				*12/16/10 16:10*	*PJQ*	*10L1385*	*8260B*

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron – Former Gulf Oil Terminal

Data Usability Summary Report

OCEANSIDE, NEW YORK

Volatile, Semivolatile, Metals and Miscellaneous Analyses

SDG#RTK1440

Analyses Performed By:
TestAmerica
Amherst, New York

Report: #13698R
Review Level: Tier III
Project: B0047517.0004.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # RTK1440 for samples collected in association with the Chevron – Former Gulf Oil Terminal Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
AMW-1 (0-2)	RTK1440-01	Soil	11/16/2010		X	X		X	X
AMW-1 (2-4)	RTK1440-02	Soil	11/16/2010		X	X		X	X
AMW-1 (4-6)	RTK1440-03	Soil	11/16/2010		X	X		X	X
AMW-2 (0-2)	RTK1440-04	Soil	11/16/2010		X	X		X	X
AMW-2 (4-6)	RTK1440-05	Soil	11/16/2010		X	X		X	X
AMW-2 (2-4)	RTK1440-06	Soil	11/16/2010		X	X		X	X
TRIP BLANK (11-16-10)	RTK1440-07	Water	11/16/2010		X	X		X	X
MW-31D-1R (0-2)	RTK1440-08	Soil	11/17/2010		X	X		X	X
MW-31D-1R (2-4)	RTK1440-09	Soil	11/17/2010		X	X		X	X
MW-31D-1R (4-6)	RTK1440-10	Soil	11/17/2010		X	X		X	X
MW-31D-2R (2-4)	RTK1440-11	Soil	11/17/2010		X	X		X	X
MW-31D-2R (4-6)	RTK1440-12	Soil	11/17/2010		X	X		X	X
MW-31D-2R (6-8)	RTK1440-13	Soil	11/17/2010		X	X		X	X
RB1 (11-17-10)	RTK1440-14	Water	11/17/2010		X	X		X	X
DUP-111710	RTK1440-15	Soil	11/17/2010	MW-31D-2R (4-6)	X	X		X	X
AMW-4 (2-4)	RTK1486-01	Soil	11/18/2010		X	X		X	X
AMW-4 (4-6)	RTK1486-02	Soil	11/18/2010		X	X		X	X
AMW-4 (6-8)	RTK1486-05	Soil	11/18/2010		X	X		X	X
AMW-5 (2-4)	RTK1486-06	Soil	11/18/2010		X	X		X	X
AMW-5 (4-6)	RTK1486-07	Soil	11/18/2010		X	X		X	X
AMW-5 (6-8)	RTK1486-08	Soil	11/18/2010		X	X		X	X
AMW-6 (2-4)	RTK1486-09	Soil	11/18/2010		X	X		X	X
AMW-6 (4-6)	RTK1486-10	Soil	11/18/2010		X	X		X	X
AMW-6 (6-8)	RTK1486-11	Soil	11/18/2010		X	X		X	X
RB-2-11-18-102	RTK1486-12	Water	11/18/2010		X	X		X	X
TB-3-11-18-10	RTK1486-13	Water	11/18/2010		X				

Note:
1. Miscellaneous parameters include total organic carbon, sulfate, and ferrous iron.
2. Matrix spike/matrix spike duplicate (MS/MSD) was performed on sample location AMW-4 (4-6).

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) USEPA SW-846 Method 8260, 8270 and 8082. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.
	Soil	14 days from collection to analysis	Cool to 4°C±2°C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AMW-1 (0-2) AMW-1 (2-4) AMW-1 (4-6) AMW-2 (0-2) AMW-2 (2-4) DUP-111710 MW-31D-1R (2-4) MW-31D-1R (4-6) MW-31D-2R (2-4) MW-31D-2R (4-6) MW-31D-2R (6-8)	Methylene chloride	Detected sample results >RL and <BAL	"UB" at detected sample concentration

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.
All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
AMW-1 (0-2) AMW-1 (2-4) AMW-1 (4-6) AMW-2 (0-2) AMW-2 (2-4) MW-31D-1R (2-4) MW-31D-1R (4-6) MW-31D-2R (2-4) MW-31D-2R (4-6) MW-31D-2R (6-8) DUP-111710	CCV %D	Methylene chloride	-22.5%
AMW-2 (4-6) MW-31D-1R (0-2)	CCV %D	Methylene chloride	-24.9%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J

Initial/Continuing	Criteria	Sample Result	Qualification
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
RB-2-11-18-102 TB-3-11-18-10	Methyl acetate	>UL	--

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Acetone	17 J	19 J	AC
	Benzene	6.1 U	2.8 J	AC
	Ethylbenzene	6.1 U	3.1 J	AC
	Isopropylbenzene	12	44	114.3 %
	Methylcyclohexane	54	180	107.7 %
	Methylene Chloride	33	31	6.2 %
	Xylenes, total	4.6 J	6.8 J	AC

AC Acceptable
U Not detected

The compounds isopropylbenzene, and methylcyclohexane associated with sample locations MW-31D-2R (4-6) and DUP-111710 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

When samples were re-analyzed at a dilution, a methanol extraction was performed. The methanol extraction method generally exhibits greater extraction efficiency than the water extraction method, therefore the compounds are generally detected at a higher concentration associated with the methanol extraction method. In the instance when the re-analysis sample result completed by the methanol extraction method exhibits a concentration greater than the water extracted analysis, the result from the methanol extracted sample is reported.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration and/or exhibited higher concentration of a detected compound in the methanol-extracted analysis are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
AMW-2 (0-2)	1,2-Dichloroethane	6.0 U	68 DJ	68 DJ
	Methylcyclohexane	230	2900 D	2900 D
	Xylenes, total	1300 E	16000 D	16000 D
AMW-2 (2-4)	Ethylbenzene	660 E	7200 D	7200 D
	Isopropylbenzene	420 E	3000 D	3000 D
	Methylcyclohexane	120	2200 D	2200 D
	Xylenes, total	3400 E	73000 D	73000 D
DUP-111710	Methylcyclohexane	66	180 D	180 D
	Isopropylbenzene	22	44 D	44 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ

Reported Sample Results	Qualification
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

The results for several sample locations were qualified by the laboratory due to dilutions being performed for matrix effects, sample viscosity, and/or high concentrations of target analytes. Since these causes do not have a direct impact on the quality or usability of the data, the laboratory qualifiers will be removed.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
D. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMI-VOLATILE VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
AMW-1 (2-4) AMW-1 (4-6) AMW-2 (0-2) AMW-2 (4-6) AMW-2 (2-4) MW-31D-1R (0-2) MW-31D-1R (2-4) MW-31D-1R (4-6) MW-31D-2R (6-8) RB1 (11-17-10) AMW-5 (6-8) AMW-6 (2-4) AMW-6 (4-6) AMW-6 (6-8) RB-2-11-18-102	CCV %D	Acetophenone	-23.4%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All sample locations exhibited acceptable surrogate recoveries.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
AMW-4 (4-6)	2,4-Dinitrophenol	<10%	<10%
	2,4-Dinitrotoluene	>UL	>UL
	2,6-Dinitrotoluene	>UL	>UL
	3,3-Dichlorobenzidine	<10%	AC
	4,6-Dinitro-2-methylphenol	>UL	AC
	Acenaphthylene	>UL	AC
	Caprolactam	<10%	<10%
	Di-n-octyl phthalate	>UL	AC
	Nitrobenzene	>UL	>UL
	N-Nitrosodiphenylamine	>UL	>UL
	Pentachlorophenol	>UL	AC

Sample Locations	Compound	MS Recovery	MSD Recovery
	3-Nitroaniline	AC	>UL
	Atrazine	AC	>UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
AMW-1 (0-2)	2,4-Dinitrophenol
	3,3-Dichlorobenzidine
	4,6-Dinitro-2-methylphenol
	Benzo(b)fluoranthene
	Hexachlorocyclopentadiene
AMW-4 (4-6)	3-Nitroaniline
	4,6-Dinitro-2-methylphenol
	4-Nitrophenol
	Di-n-octyl phthalate
	Pentachlorophenol

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	2-Methylnaphthalene	290	310	6.6 %
	Acenaphthene	410	530	25.5 %
	Anthracene	400	530	27.9 %
	Benzo(a)anthracene	640	780	19.7 %
	Benzo(a)pyrene	610	630	3.2 %
	Benzo(b)fluoranthene	740	750	1.3 %
	Benzo(ghi)perylene	220	270	20.4 %
	Benzo(k)fluoranthene	260	280	7.4 %
	Bis(2-ethylhexyl) phthalate	100 J	110 J	AC
	Carbazole	44 J	53 J	AC
	Chrysene	500	610	19.8 %
	Dibenzo(a,h)anthracene	53 J	57 J	AC
	Dibenzofuran	240	310	25.4 %
	Fluoranthene	1500	2000	28.5 %
	Fluorene	430	550	24.4 %
	Indeno(1,2,3-cd)pyrene	160 J	190 J	AC
	N-Nitrosodiphenylamine	210 U	160 J	AC
	Phenanthrene	1700	2200	25.6 %
	Pyrene	1200	1500	22.2 %

AC Acceptable

U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

The results for several sample locations were qualified by the laboratory due to dilutions being performed for matrix effects, sample viscosity, and/or high concentrations of target analytes. Since these causes do not have a direct impact on the quality or usability of the data, the laboratory qualifiers will be removed.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) SW-846 Methods 6000/7000, 3500FE, D-516-90, and the Lloyd Kahn Method for TOC. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    UB Analyte considered non-detect at the listed value due to associated blank contamination.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cool to 4°C±2°C.
SW-846 7470	Water	28 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the instrument detection limit (IDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. Therefore, sample results greater than the BAL resulted in the removal of the laboratory qualifier (J). No other qualification of the sample results was required.

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All analytes associated with CRDL standard recoveries were within control limits with the exception of the analytes presented in the following table.

Sample Locations	Analytes	CRDL Recovery
RB1 (11-17-10)	Lead	67.0%
	Silver	142.0%

The criteria applied to evaluate the CRDL Standard criteria are presented below. In the case of a calibration deviation, the sample results are qualified.

CRDL Standard Recovery Criteria			
Analytes	**Control Limit**	**Sample Result**	**Qualification**
All analytes, with the exception of Al, Ba, Ca, Fe, Mg, Na, and K	CRDL %R <50% (<30% for Sb, Pb, Tl)	Sample results ≥ MDL but <2x CRDL	R
		Non-detect sample results	R
		Detected sample results ≥ 2x CRDL	J
	CRDL %R 50-69% (30-49% for Sb, Pb, Tl)	Sample results ≥ MDL but <2x CRDL	J
		Non-detect sample results	UJ
		Detected sample results ≥ 2x CRDL	No Action
	%R >130% but <180% (>150% but <200% for Sb, Pb, Tl)	Sample results ≥ MDL but <2x CRDL	J
		Non-detect sample results	No Action
		Detected sample results ≥ 2x CRDL	No Action
	CRI %R >180% (>200% for Sb, Pb, Tl)	Sample results ≥ MDL	R

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits with the exception of the following analyte present in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
AMW-1 (0-2)	Aluminum	<30%	<30%
	Calcium	>UL	<LL but >30%
	Iron	<30%	<30%
	Magnesium	>UL	AC
	Manganese	<30%	<30%
	Barium	AC	<LL but >30%
AMW-4 (4-6)	Aluminum	>UL	AC
	Iron	>UL	AC

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD was performed in place of a laboratory duplicate. Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
AMW-1 (0-2)	Calcium
	Magnesium

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Aluminum	1340	1430	6.4 %
	Arsenic	1 J	0.9 J	AC
	Barium	4.83	4.63	4.2 %
	Beryllium	0.042 J	0.068 J	AC
	Cadmium	0.075 J	0.099 J	AC
	Calcium	304	245	21.4 %
	Chromium	2.88	2.21	26.3 %
	Cobalt	0.667	0.786	16.3 %
	Copper	1.6	2	22.2 %
	Iron	2130	2120	0.4 %
	Lead	2.5	3.6	36.0 %
	Magnesium	370	331	11.1 %
	Manganese	21.1	22	4.1 %
	Nickel	1.9 J	1.88 J	AC
	Potassium	247	249	.8 %
	Sodium	53.7 J	49.8 J	AC
	Vanadium	3.78	2.89	26.6 %
	Zinc	6.6	6.5	1.5 %

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits, with the exception of the analytes presented in the following table. The sample locations associated with the deviant %D are also presented in the following table.

Sample Locations	Analytes	Serial Dilution (%D)
AMW-1 (0-2)	Potassium	11%
AMW-4 (4-6)	Lead	21%
	Nickel	21%
	Potassium	11%

The criteria used to evaluate the serial dilution are presented in the following table. In the case of a serial dilution deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. Furnace Analysis QC

No furnace analyses were performed on the samples.

9. Method of Standard Additions (MSA)

No samples were analyzed following the method of standard additions.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALs

METALS; SW-846 6000/7000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X		X	
C. Equipment/Field Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X	X		
Field Duplicate (RPD)		X		X	
ICP Serial Dilution		X	X		
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X	X		
ICP Interference Check		X		X	
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Organic Carbon by Lloyd Kahn	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of greater than 12.
	Soil		Cool to 4°C±2°C.
Ferrous Iron by SM3500FE	Leachate	24 hours from collection to analysis	Cool to 4°C±2°C.
Sulfate by D-516-90	Leachate	28 days from collection to analysis	Cool to 4°C±2°C.

The analyses that exceeded the holding are presented in the following table.

Sample Locations	Holding Time	Criteria
AMW-1 (0-2) AMW-1 (2-4) AMW-1 (4-6) AMW-2 (0-2) AMW-2 (4-6) AMW-2 (2-4) MW-31D-1R (0-2) MW-31D-1R (2-4) MW-31D-1R (4-6) MW-31D-2R (2-4) MW-31D-2R (4-6) MW-31D-2R (6-8) DUP-111710 AMW-4 (2-4) AMW-4 (4-6) AMW-4 (6-8) AMW-5 (2-4) AMW-5 (4-6) AMW-5 (6-8) AMW-6 (2-4) AMW-6 (4-6) AMW-6 (6-8)	>48 hours	<24 hours

Sample results associated with sample locations analyzed by analytical method SW-846 8260 were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ
Analysis completed greater than two times holding time	J	R

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier will be removed.

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analytes	MS Recovery
AMW-6 (6-8)	Ferrous iron	73%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate recoveries exhibited acceptable RPD.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Total Organic Carbon	3760	1300	97.2 %
	Sulfate	131	136	3.7 %

U = Not detected
AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA 9012A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTK1440	11/16/2010	SW846	AMW-1 (0-2)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – MS/MSD RPD MET – MS/MSD %R, Ser. Dil.
RTK1440	11/16/2010	SW846	AMW-1 (2-4)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/16/2010	SW846	AMW-1 (4-6)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/16/2010	SW846	AMW-2 (0-2)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/16/2010	SW846	AMW-2 (4-6)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/16/2010	SW846	AMW-2 (2-4)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/16/2010	SW846	TRIP BLANK (11-16-10)	Water	Yes	--	--	--	--	
RTK1440	11/17/2010	SW846	MW-31D-1R (0-2)	Soil	No	No	--	No	Yes	VOC – CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/17/2010	SW846	MW-31D-1R (2-4)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/17/2010	SW846	MW-31D-1R (4-6)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D, Field dup. RPD SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/17/2010	SW846	MW-31D-2R (2-4)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
RTK1440	11/17/2010	SW846	MW-31D-2R (4-6)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/17/2010	SW846	MW-31D-2R (6-8)	Soil	No	No	--	No	Yes	VOC – Blank, CCV %D SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/17/2010	SW846	RB1 (11-17-10)	Water	Yes	No	--	No	Yes	SVOC – CCV %D MET - CRDL
RTK1440	11/17/2010	SW846	DUP-111710	Soil	No	Yes	--	No	Yes	VOC – Blank, CCV %D, Field dup. RPD MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-4 (2-4)	Soil	Yes	Yes	--	No	Yes	MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-4 (4-6)	Soil	Yes	No	--	No	Yes	SVOC – MS/MSD %R, RPD MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-4 (6-8)	Soil	Yes	Yes	--	No	Yes	MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-5 (2-4)	Soil	Yes	Yes	--	No	Yes	MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-5 (4-6)	Soil	Yes	Yes	--	No	Yes	MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-5 (6-8)	Soil	Yes	No	--	No	Yes	SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-6 (2-4)	Soil	Yes	No	--	No	Yes	SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-6 (4-6)	Soil	Yes	No	--	No	Yes	SVOC – CCV %D MET – MS/MSD %R, Ser. Dil.
RTK1440	11/18/2010	SW846	AMW-6 (6-8)	Soil	Yes	No	--	No	No	SVOC – CCV %D MET – MS/MSD %R, Ser. Dil. MISC – MS %R
RTK1440	11/18/2010	SW846	RB-2-11-18-102	Water	Yes	No	--	Yes	Yes	SVOC – CCV %D
RTK1440	11/18/2010	SW846	TB-3-11-18-10	Water	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE: 

DATE: February 25, 2011

PEER REVIEW: Dennis Capria

DATE: April 4, 2011

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	Jo Ann Robertson	11-17-10	180084
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 2
6723 Towpath Rd.	315-446-9120		
City	**State** / **Zip Code**	**Site Contact**	**Lab Contact**
Syracuse	NY / 13214	Marcus Eriksson	
Project Name and Location (State)		**Carrier/Waybill Number**	
Chevron - Oceanside, NY - Former Gulf Terminal			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	Analysis: VOC's	SVOC's	TAL Metals	Ferrous iron	TOC	Sulfate
AMW-1 (0-2)	11-16-10	1500				X	5						X	X	X	X	X	X
AMW-1 (2-4)	11-16-10	1505				X	5						X	X	X	X	X	X
AMW-1 (4-6)	11-16-10	1510				X	5						X	X	X	X	X	X
AMW-2 (0-2)	11-16-10	1540				X	5						X	X	X	X	X	X
AMW-2 (4-6)	11-16-10	1600				X	5						X	X	X	X	X	X
AMW-2 (2-4)	11-16-10	1550				X	5						X	X	X	X	X	X
Trip Blank	11-16-10	—		X						2			X					
MW-31D-1R (0-2)	11-17-10	1020				X	5						X	X	X	X	X	X
MW-31D-1R (2-4)	11-17-10	1030				X	5						X	X	X	X	X	X
MW-31D-1R (4-6)	11-17-10	1035				X	5						X	X	X	X	X	X
MW-31D-2R (2-4)	11-17-10	1540				X	5						X	X	X	X	X	X
MW-31D-2R (4-6)	11-17-10	1550				X	5						X	X	X	X	X	X

Special Instructions/ Conditions of Receipt

218/2524

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11-17-10	1700	1. Received By	11/18/10	0945
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

2270

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	Jo Ann Robertson	11-17-10	180085
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 2 of 2**
6723 Towpath Rd	315-446-9120		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Syracuse / NY / 13214	Marcus Eriksen		
Project Name and Location (State)	**Carrier/Waybill Number**		
Chevron - Former Gulf Terminal			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOC's	SVOC's	TAL Metals	Ferrous Iron	TOC	Sulfide
MW-310-2R (6-8)	11-17-10	1555				X	5						X	X	X	X	X	X
RB	11-17-10	1600		X			3		1	4			X	X	X	X	X	X
Dup-111710	11-17-10	—				X	5						X	X	X	X	X	X

Special Instructions/ Conditions of Receipt

219/2524

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By	11-17-10	1700
2. Relinquished By		
3. Relinquished By		

	Date	Time
1. Received By	11/19/10	0900
2. Received By		
3. Received By		

Comments

2020

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Aradis	Jo Ann Robertson	11-18-10	180078
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
6723 Towpath Rd.	315-446-9120		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Syracuse / NY / 13214	Marcus Eriksson		
Project Name and Location (State)	**Carrier/Waybill Number**		
Gulf Former Terminal - Chevron			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: VOC's	SVOC's	TAL Metals	Ferrous iron	TOC	Sulfide	Special Instructions/ Conditions of Receipt
RB-2-11-18-10	11-18-10	1630		X			3		1	4			X	X	X	X	X	X	
TB-3-11-18-10	11-18-10	-		X						1			X						
AMW-4(2-4)	11-18-10	0935		~~X~~		X	5						X	X	X	X	X	X	
AMW-4(4-6)	11-18-10	0940		~~X~~		X	10						X	X	X	X	X	X	☒MS/MSD
AMW-4(6-8)	11-18-10	0950				X	5						X	X	X	X	X	X	
AMW-5(2-4)	11-18-10	1050				X	5						X	X	X	X	X	X	
AMW-5(4-6)	11-18-10	1055				X	5						X	X	X	X	X	X	
AMW-5(6-8)	11-18-10	1100				X	5						X	X	X	X	X	X	
AMW-6(2-4)	11-18-10	1450				X	5						X	X	X	X	X	X	
AMW-6(4-6)	11-18-10	1500				X	5						X	X	X	X	X	X	
AMW-6(6-8)	11-18-10	1515				X	5						X	X	X	X	X	X	

214/252

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11-18-10	1630	1. Received By	11/19/10	0830
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

2.4°

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (0-2) (RTK1440-01 - Soil)						**Sampled: 11/16/10 15:00**		**Recvd: 11/19/10 09:45**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.0	0.44	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		6.0	0.98	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		6.0	0.79	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.0	1.4	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,1-Dichloroethane	ND		6.0	0.74	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,1-Dichloroethene	ND		6.0	0.74	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		6.0	0.37	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,2-Dibromoethane	ND		6.0	0.78	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		6.0	0.47	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,2-Dichloroethane	ND		6.0	0.30	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,2-Dichloropropane	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		6.0	0.31	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		6.0	0.85	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		30	2.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Acetone	ND		30	5.1	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Benzene	ND		6.0	0.30	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Bromodichloromethane	ND		6.0	0.81	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Bromoform	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Bromomethane	ND		6.0	0.54	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Carbon disulfide	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Carbon Tetrachloride	ND		6.0	0.59	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Chlorobenzene	ND		6.0	0.80	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Dibromochloromethane	ND		6.0	0.77	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Chloroethane	ND		6.0	1.4	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Chloroform	ND		6.0	0.37	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Chloromethane	ND		6.0	0.37	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		6.0	0.77	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		6.0	0.87	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Cyclohexane	ND		6.0	0.85	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		6.0	0.50	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Ethylbenzene	ND		6.0	0.42	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Isopropylbenzene	ND		6.0	0.91	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Methyl Acetate	ND		6.0	1.1	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.0	0.59	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Methylcyclohexane	ND		6.0	0.92	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Methylene Chloride	**21**	V B J	6.0	2.8	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Styrene	ND		6.0	0.30	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Tetrachloroethene	ND		6.0	0.81	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Toluene	ND		6.0	0.46	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		6.0	0.62	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		6.0	2.7	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Trichloroethene	ND		6.0	1.3	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Trichlorofluoromethane	ND		6.0	0.57	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Vinyl chloride	ND		6.0	0.74	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B
Xylenes, total	ND		12	1.0	ug/kg dry	1.00	11/29/10 15:30	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (0-2) (RTK1440-01 - Soil) - cont.							**Sampled: 11/16/10 15:00**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*96 %*		*Surr Limits: (64-126%)*				*11/29/10 15:30*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*97 %*		*Surr Limits: (72-126%)*				*11/29/10 15:30*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*11/29/10 15:30*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	44	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		200	11	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		200	55	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,4-Dinitrophenol	ND	J	400	71	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		200	31	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		200	50	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2-Chloronaphthalene	ND		200	14	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2-Methylnaphthalene	ND		200	2.5	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2-Methylphenol	ND		200	6.2	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2-Nitroaniline	ND		400	65	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2-Nitrophenol	ND		200	9.3	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND	J	200	180	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
3-Nitroaniline	ND		400	47	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND	J	400	70	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		200	64	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		200	8.3	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Chloroaniline	ND		200	59	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		200	4.3	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Methylphenol	ND		400	11	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Nitroaniline	ND		400	23	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
4-Nitrophenol	ND		400	49	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Acenaphthene	ND		200	2.4	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Acenaphthylene	ND		200	1.7	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Acetophenone	ND		200	10	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Anthracene	ND		200	5.2	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Atrazine	ND		200	9.0	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Benzo[a]anthracene	**56**	J	200	3.5	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Benzo[a]pyrene	**64**	J	200	4.9	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Benzo[b]fluoranthene	**97**	J	200	3.9	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**40**	J	200	2.4	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Biphenyl	ND		200	13	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		200	65	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		200	54	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Caprolactam	ND		200	88	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (0-2) (RTK1440-01 - Soil) - cont.							**Sampled: 11/16/10 15:00**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		200	2.3	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Chrysene	**58**	J	200	2.0	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	**20**	J	200	2.4	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Dibenzofuran	ND		200	2.1	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Diethyl phthalate	ND		200	6.1	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Dimethyl phthalate	ND		200	5.3	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		200	70	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		200	4.7	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Fluoranthene	**82**	J	200	2.9	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Fluorene	ND		200	4.7	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Hexachlorobenzene	**61**	J	200	10	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND	J	200	61	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Hexachloroethane	ND		200	16	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**34**	J	200	5.6	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Isophorone	ND		200	10	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Naphthalene	ND		200	3.4	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Nitrobenzene	ND		200	9.0	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Pentachlorophenol	ND		400	69	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Phenanthrene	**26**	J	200	4.2	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Phenol	ND		200	21	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
Pyrene	**66**	J	200	1.3	ug/kg dry	1.00	11/30/10 15:19	MKP	10K2280	8270C
2,4,6-Tribromophenol	*116 %*		*Surr Limits: (39-146%)*				*11/30/10 15:19*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*94 %*		*Surr Limits: (37-120%)*				*11/30/10 15:19*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*76 %*		*Surr Limits: (18-120%)*				*11/30/10 15:19*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*89 %*		*Surr Limits: (34-132%)*				*11/30/10 15:19*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*89 %*		*Surr Limits: (11-120%)*				*11/30/10 15:19*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*90 %*		*Surr Limits: (58-147%)*				*11/30/10 15:19*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**6030**	J	12.2	5.3	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Antimony	ND		18.2	0.7	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Arsenic	**4.6**		2.4	0.5	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Barium	**20.4**	J	0.608	0.134	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Beryllium	**0.214**	J	0.243	0.034	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Cadmium	**0.185**	J	0.243	0.036	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Calcium	**2940**	B J	60.8	4.0	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Chromium	**7.49**		0.608	0.243	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Cobalt	**2.69**		0.608	0.061	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Copper	**9.4**		1.2	0.3	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Iron	**8480**	B J	12.2	1.3	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Lead	**31.9**		1.2	0.3	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Magnesium	**1190**	B J	24.3	1.1	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Manganese	**131**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Nickel	**6.08**		6.08	0.280	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Potassium	**281**	J	36.5	24.3	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Selenium	ND		4.9	0.7	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (0-2) (RTK1440-01 - Soil) - cont.							**Sampled: 11/16/10 15:00**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.608	0.243	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Sodium	**41.2**	J	170	15.8	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Thallium	ND		7.3	0.4	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Vanadium	**11.2**		0.608	0.134	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Zinc	**32.5**	B	2.4	0.2	mg/kg dry	1.00	11/23/10 12:39	LMH	10K2022	6010B
Mercury	**0.0333**		0.0238	0.0096	mg/kg dry	1.00	11/22/10 14:53	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**81**		0.010	NR	%	1.00	11/22/10 17:02	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.5~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	ND		124	61.8	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3340**		1090	1090	mg/Kg dry	1.00	11/29/10 17:19	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**8.0**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**92.0**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-1 (2-4) (RTK1440-02 - Soil) — **Sampled: 11/16/10 15:05** — **Recvd: 11/19/10 09:45**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.4	0.39	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		5.4	0.88	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		5.4	0.70	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.4	1.2	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,1-Dichloroethane	ND		5.4	0.66	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,1-Dichloroethene	ND		5.4	0.66	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		5.4	0.33	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,2-Dibromoethane	ND		5.4	0.70	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		5.4	0.42	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,2-Dichloroethane	ND		5.4	0.27	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,2-Dichloropropane	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		5.4	0.28	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		5.4	0.76	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Acetone	ND		27	4.6	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Benzene	ND		5.4	0.27	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Bromodichloromethane	ND		5.4	0.73	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Bromoform	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Bromomethane	ND		5.4	0.49	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Carbon disulfide	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Carbon Tetrachloride	ND		5.4	0.52	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Chlorobenzene	ND		5.4	0.71	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Dibromochloromethane	ND		5.4	0.69	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Chloroethane	ND		5.4	1.2	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Chloroform	ND		5.4	0.33	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Chloromethane	ND		5.4	0.33	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
cis-1,2-Dichloroethene	**2.4**	J	5.4	0.69	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		5.4	0.78	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Cyclohexane	ND		5.4	0.76	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		5.4	0.45	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Ethylbenzene	ND		5.4	0.37	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Isopropylbenzene	ND		5.4	0.82	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Methyl Acetate	ND		5.4	1.0	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.4	0.53	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Methylcyclohexane	ND		5.4	0.82	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Methylene Chloride	**23**	U B J	5.4	2.5	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Styrene	ND		5.4	0.27	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Tetrachloroethene	ND		5.4	0.73	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Toluene	ND		5.4	0.41	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		5.4	0.56	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		5.4	2.4	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Trichloroethene	ND		5.4	1.2	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Trichlorofluoromethane	ND		5.4	0.51	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Vinyl chloride	ND		5.4	0.66	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B
Xylenes, total	ND		11	0.91	ug/kg dry	1.00	11/29/10 15:55	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (2-4) (RTK1440-02 - Soil) - cont.							**Sampled: 11/16/10 15:05**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*104 %*		*Surr Limits: (64-126%)*				*11/29/10 15:55*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*104 %*		*Surr Limits: (72-126%)*				*11/29/10 15:55*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*11/29/10 15:55*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	43	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		200	10	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		200	53	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		380	68	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		200	30	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		200	48	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2-Chloronaphthalene	ND		200	13	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2-Methylnaphthalene	**39**	J	200	2.4	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2-Methylphenol	ND		200	6.0	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2-Nitroaniline	ND		380	63	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2-Nitrophenol	ND		200	8.9	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		200	170	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
3-Nitroaniline	ND		380	45	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		380	68	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		200	62	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		200	8.0	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Chloroaniline	ND		200	57	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		200	4.2	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Methylphenol	ND		380	11	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Nitroaniline	ND		380	22	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
4-Nitrophenol	ND		380	47	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Acenaphthene	ND		200	2.3	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Acenaphthylene	ND		200	1.6	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Acetophenone	ND	J	200	10	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Anthracene	ND		200	5.0	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Atrazine	ND		200	8.7	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Benzaldehyde	ND		200	21	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Benzo[a]anthracene	**14**	J	200	3.4	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Benzo[a]pyrene	ND		200	4.7	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Benzo[b]fluoranthene	**20**	J	200	3.8	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Benzo[g,h,i]perylene	ND		200	2.3	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND		200	2.2	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Biphenyl	ND		200	12	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		200	17	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	20	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		200	63	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		200	52	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Caprolactam	ND		200	85	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (2-4) (RTK1440-02 - Soil) - cont.							**Sampled: 11/16/10 15:05**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		200	2.3	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Chrysene	**15**	J	200	2.0	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		200	2.3	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Dibenzofuran	ND		200	2.0	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Diethyl phthalate	ND		200	5.9	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Dimethyl phthalate	ND		200	5.1	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		200	68	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		200	4.6	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Fluoranthene	**21**	J	200	2.8	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Fluorene	ND		200	4.5	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Hexachlorobenzene	ND		200	9.7	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		200	59	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Hexachloroethane	ND		200	15	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	ND		200	5.4	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Isophorone	ND		200	9.8	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Naphthalene	**32**	J	200	3.3	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Nitrobenzene	ND		200	8.7	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		200	15	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Pentachlorophenol	ND		380	67	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Phenanthrene	ND		200	4.1	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Phenol	ND		200	21	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
Pyrene	**19**	J	200	1.3	ug/kg dry	1.00	11/24/10 17:35	MKP	10K2280	8270C
2,4,6-Tribromophenol	*90 %*		*Surr Limits: (39-146%)*				*11/24/10 17:35*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*79 %*		*Surr Limits: (37-120%)*				*11/24/10 17:35*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*11/24/10 17:35*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*76 %*		*Surr Limits: (34-132%)*				*11/24/10 17:35*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*75 %*		*Surr Limits: (11-120%)*				*11/24/10 17:35*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*82 %*		*Surr Limits: (58-147%)*				*11/24/10 17:35*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4630**	J	11.4	5.0	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Antimony	ND		17.0	0.6	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Arsenic	**4.5**		2.3	0.5	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Barium	**19.2**	J	0.568	0.125	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Beryllium	**0.156**	J	0.227	0.032	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Cadmium	**0.128**	J	0.227	0.034	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Calcium	**1190**	B J	56.8	3.7	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Chromium	**11.9**		0.568	0.227	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Cobalt	**1.80**		0.568	0.057	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Copper	**6.8**		1.1	0.2	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Iron	**6610**	B J	11.4	1.2	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Lead	**21.5**		1.1	0.3	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Magnesium	**1110**	B J	22.7	1.1	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Manganese	**80.1**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Nickel	**4.70**	J	5.68	0.261	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Potassium	**774**	J	34.1	22.7	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (2-4) (RTK1440-02 - Soil) - cont.							**Sampled: 11/16/10 15:05**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.568	0.227	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Sodium	**89.8**	J	159	14.8	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Thallium	ND		6.8	0.3	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Vanadium	**18.1**		0.568	0.125	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Zinc	**18.8**	B	2.3	0.2	mg/kg dry	1.00	11/23/10 12:50	LMH	10K2022	6010B
Mercury	**0.0700**		0.0229	0.0093	mg/kg dry	1.00	11/22/10 14:59	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**86**		0.010	NR	%	1.00	11/22/10 17:04	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.3~~	~~0.3~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**283**		116	57.9	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**23600**		1480	1480	mg/Kg dry	1.00	11/29/10 17:32	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**32.6**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**67.4**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (4-6) (RTK1440-03 - Soil)						**Sampled: 11/16/10 15:10**		**Recvd: 11/19/10 09:45**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.7	0.48	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		6.7	1.1	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		6.7	0.86	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.7	1.5	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,1-Dichloroethane	ND		6.7	0.81	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,1-Dichloroethene	ND		6.7	0.81	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		6.7	0.40	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		6.7	3.3	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,2-Dibromoethane	ND		6.7	0.85	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		6.7	0.52	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,2-Dichloroethane	ND		6.7	0.33	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,2-Dichloropropane	ND		6.7	3.3	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		6.7	0.34	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		6.7	0.93	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
2-Butanone	**3.4**	J	33	2.4	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
2-Hexanone	ND		33	3.3	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		33	2.2	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Acetone	**35**		33	5.6	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Benzene	ND		6.7	0.33	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Bromodichloromethane	ND		6.7	0.89	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Bromoform	ND		6.7	3.3	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Bromomethane	ND		6.7	0.60	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Carbon disulfide	**8.3**		6.7	3.3	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Carbon Tetrachloride	ND		6.7	0.64	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Chlorobenzene	ND		6.7	0.88	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Dibromochloromethane	ND		6.7	0.85	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Chloroethane	ND		6.7	1.5	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Chloroform	ND		6.7	0.41	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Chloromethane	ND		6.7	0.40	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
cis-1,2-Dichloroethene	**5.0**	J	6.7	0.85	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		6.7	0.96	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Cyclohexane	ND		6.7	0.93	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		6.7	0.55	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Ethylbenzene	ND		6.7	0.46	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Isopropylbenzene	**3.0**	J	6.7	1.0	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Methyl Acetate	ND		6.7	1.2	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.7	0.65	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Methylcyclohexane	**20**		6.7	1.0	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Methylene Chloride	**32**	U B J	6.7	3.1	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Styrene	ND		6.7	0.33	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Tetrachloroethene	ND		6.7	0.89	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Toluene	ND		6.7	0.50	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		6.7	0.69	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		6.7	2.9	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Trichloroethene	ND		6.7	1.5	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Trichlorofluoromethane	ND		6.7	0.63	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Vinyl chloride	ND		6.7	0.81	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B
Xylenes, total	**12**	J	13	1.1	ug/kg dry	1.00	11/29/10 16:20	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (4-6) (RTK1440-03 - Soil) - cont.							**Sampled: 11/16/10 15:10**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*99 %*		*Surr Limits: (64-126%)*				*11/29/10 16:20*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*97 %*		*Surr Limits: (72-126%)*				*11/29/10 16:20*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*100 %*		*Surr Limits: (71-125%)*				*11/29/10 16:20*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		230	50	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		230	15	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		230	12	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		230	61	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		440	79	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		230	35	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		230	56	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2-Chloronaphthalene	ND		230	15	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2-Chlorophenol	ND		230	12	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2-Methylnaphthalene	ND		230	2.8	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2-Methylphenol	ND		230	7.0	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2-Nitroaniline	ND		440	73	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2-Nitrophenol	ND		230	10	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		230	200	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
3-Nitroaniline	ND		440	52	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		440	78	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		230	72	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		230	9.3	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Chloroaniline	ND		230	67	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		230	4.8	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Methylphenol	ND		440	13	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Nitroaniline	ND		440	25	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
4-Nitrophenol	ND		440	55	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Acenaphthene	ND		230	2.7	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Acenaphthylene	ND		230	1.9	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Acetophenone	ND	J	230	12	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Anthracene	ND		230	5.8	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Atrazine	ND		230	10	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Benzaldehyde	ND		230	25	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Benzo[a]anthracene	ND		230	3.9	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Benzo[a]pyrene	ND		230	5.5	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Benzo[b]fluoranthene	ND		230	4.4	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Benzo[g,h,i]perylene	ND		230	2.7	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND		230	2.5	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Biphenyl	ND		230	14	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		230	12	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		230	20	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		230	24	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		230	73	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		230	61	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Caprolactam	ND		230	98	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (4-6) (RTK1440-03 - Soil) - cont.							**Sampled: 11/16/10 15:10**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		230	2.6	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Chrysene	ND		230	2.3	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		230	2.7	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Dibenzofuran	ND		230	2.4	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Diethyl phthalate	ND		230	6.9	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Dimethyl phthalate	ND		230	5.9	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		230	78	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		230	5.3	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Fluoranthene	ND		230	3.3	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Fluorene	ND		230	5.2	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Hexachlorobenzene	ND		230	11	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Hexachlorobutadiene	ND		230	12	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		230	69	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Hexachloroethane	ND		230	18	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	ND		230	6.3	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Isophorone	ND		230	11	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Naphthalene	ND		230	3.8	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Nitrobenzene	ND		230	10	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		230	18	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		230	12	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Pentachlorophenol	ND		440	78	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Phenanthrene	ND		230	4.8	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Phenol	ND		230	24	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
Pyrene	ND		230	1.5	ug/kg dry	1.00	11/24/10 17:58	MKP	10K2280	8270C
2,4,6-Tribromophenol	*83 %*		*Surr Limits: (39-146%)*				*11/24/10 17:58*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*69 %*		*Surr Limits: (37-120%)*				*11/24/10 17:58*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*56 %*		*Surr Limits: (18-120%)*				*11/24/10 17:58*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*62 %*		*Surr Limits: (34-132%)*				*11/24/10 17:58*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*64 %*		*Surr Limits: (11-120%)*				*11/24/10 17:58*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*77 %*		*Surr Limits: (58-147%)*				*11/24/10 17:58*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1960**	J	13.4	5.9	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Antimony	ND		20.1	0.7	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Arsenic	**1.2**	J	2.7	0.5	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Barium	**8.53**	J	0.669	0.147	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Beryllium	**0.098**	J	0.268	0.037	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Cadmium	**0.072**	J	0.268	0.040	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Calcium	**799**	B J	66.9	4.4	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Chromium	**4.79**		0.669	0.268	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Cobalt	**1.14**		0.669	0.067	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Copper	**2.7**		1.3	0.3	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Iron	**3680**	B J	13.4	1.5	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Lead	**2.6**		1.3	0.3	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Magnesium	**706**	B J	26.8	1.2	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Manganese	**35.5**	B J	0.3	0.04	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Nickel	**3.26**	J	6.69	0.308	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Potassium	**535**	J	40.1	26.8	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Selenium	ND		5.4	0.8	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Silver	ND		0.669	0.268	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-1 (4-6) (RTK1440-03 - Soil) - cont.							**Sampled: 11/16/10 15:10**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Sodium	**52.2**	J	187	17.4	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Thallium	ND		8.0	0.4	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Vanadium	**6.02**		0.669	0.147	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Zinc	**7.5**	B	2.7	0.2	mg/kg dry	1.00	11/23/10 12:52	LMH	10K2022	6010B
Mercury	ND		0.0250	0.0101	mg/kg dry	1.00	11/22/10 15:01	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**74**		0.010	NR	%	1.00	11/22/10 17:06	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	R	~~2.7~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**168**		135	67.3	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1520**		1440	1440	mg/Kg dry	1.00	11/29/10 17:44	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**30.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**69.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (0-2) (RTK1440-04 - Soil)							**Sampled: 11/16/10 15:40**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.0	0.44	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		6.0	0.98	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		6.0	0.79	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.0	1.4	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,1-Dichloroethane	ND		6.0	0.74	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,1-Dichloroethene	ND		6.0	0.74	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		6.0	0.37	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,2-Dibromoethane	ND		6.0	0.78	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		6.0	0.47	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,2-Dichloroethane	~~ND~~ 68	DJ	6.0	0.30	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,2-Dichloropropane	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		6.0	0.31	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		6.0	0.85	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		30	2.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Acetone	ND		30	5.1	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Benzene	ND		6.0	0.30	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Bromodichloromethane	ND		6.0	0.81	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Bromoform	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Bromomethane	ND		6.0	0.54	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Carbon disulfide	ND		6.0	3.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Carbon Tetrachloride	ND		6.0	0.59	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Chlorobenzene	ND		6.0	0.80	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Dibromochloromethane	ND		6.0	0.77	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Chloroethane	ND		6.0	1.4	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Chloroform	ND		6.0	0.37	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Chloromethane	ND		6.0	0.37	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
cis-1,2-Dichloroethene	**23**		6.0	0.77	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		6.0	0.87	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Cyclohexane	ND		6.0	0.85	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		6.0	0.50	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Ethylbenzene	**20**		6.0	0.42	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Isopropylbenzene	**52**		6.0	0.91	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Methyl Acetate	ND		6.0	1.1	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.0	0.59	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Methylcyclohexane	~~230~~ 2900	D	6.0	0.92	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Methylene Chloride	**28**	U B J	6.0	2.8	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Styrene	ND		6.0	0.30	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Tetrachloroethene	ND		6.0	0.81	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Toluene	**2.6**	J	6.0	0.46	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		6.0	0.62	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		6.0	2.7	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Trichloroethene	ND		6.0	1.3	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Trichlorofluoromethane	ND		6.0	0.57	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Vinyl chloride	ND		6.0	0.74	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B
Xylenes, total	~~1300~~ 16000	E D	12	1.0	ug/kg dry	1.00	11/29/10 16:46	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (0-2) (RTK1440-04 - Soil) - cont.							**Sampled: 11/16/10 15:40**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*124 %*		*Surr Limits: (64-126%)*				*11/29/10 16:46*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*80 %*		*Surr Limits: (72-126%)*				*11/29/10 16:46*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*86 %*		*Surr Limits: (71-125%)*				*11/29/10 16:46*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		1100	230	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		1100	70	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		1100	55	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		1100	290	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		2100	370	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		1100	160	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		1100	260	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2-Chloronaphthalene	ND		1100	71	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2-Chlorophenol	ND		1100	54	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2-Methylnaphthalene	**6300**		1100	13	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2-Methylphenol	ND		1100	32	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2-Nitroaniline	ND		2100	340	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2-Nitrophenol	ND		1100	48	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		1100	930	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
3-Nitroaniline	ND		2100	240	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		2100	360	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		1100	340	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		1100	43	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Chloroaniline	ND		1100	310	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		1100	23	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Methylphenol	ND		2100	59	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Nitroaniline	ND		2100	120	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
4-Nitrophenol	ND		2100	260	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Acenaphthene	**250**	J	1100	12	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Acenaphthylene	ND		1100	8.6	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Acetophenone	ND	J	1100	54	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Anthracene	**290**	J	1100	27	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Atrazine	ND		1100	47	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Benzaldehyde	ND		1100	120	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Benzo[a]anthracene	**220**	J	1100	18	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Benzo[a]pyrene	**200**	J	1100	25	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Benzo[b]fluoranthene	**220**	J	1100	20	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**180**	J	1100	13	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND		1100	12	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Biphenyl	**110**	J	1100	66	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		1100	57	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		1100	91	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		1100	110	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	**940**	J	1100	340	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		1100	280	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Caprolactam	ND		1100	460	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (0-2) (RTK1440-04 - Soil) - cont.							**Sampled: 11/16/10 15:40**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		1100	12	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Chrysene	**200**	J	1100	11	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		1100	12	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Dibenzofuran	**120**	J	1100	11	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Diethyl phthalate	ND		1100	32	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Dimethyl phthalate	ND		1100	28	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		1100	360	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		1100	25	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Fluoranthene	**660**	J	1100	15	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Fluorene	**290**	J	1100	24	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Hexachlorobenzene	**210**	J	1100	52	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Hexachlorobutadiene	ND		1100	54	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		1100	320	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Hexachloroethane	ND		1100	82	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**130**	J	1100	29	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Isophorone	ND		1100	53	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Naphthalene	**1800**		1100	18	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Nitrobenzene	ND		1100	47	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		1100	84	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		1100	58	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Pentachlorophenol	ND		2100	360	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Phenanthrene	**870**	J	1100	22	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Phenol	ND		1100	110	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
Pyrene	**560**	J	1100	6.8	ug/kg dry	5.00	11/24/10 18:22	MKP	10K2280	8270C
2,4,6-Tribromophenol	*104 %*		*Surr Limits: (39-146%)*				*11/24/10 18:22*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*102 %*		*Surr Limits: (37-120%)*				*11/24/10 18:22*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*79 %*		*Surr Limits: (18-120%)*				*11/24/10 18:22*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*93 %*		*Surr Limits: (34-132%)*				*11/24/10 18:22*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*91 %*		*Surr Limits: (11-120%)*				*11/24/10 18:22*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*102 %*		*Surr Limits: (58-147%)*				*11/24/10 18:22*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2380**	J	12.6	5.6	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Antimony	ND		18.9	0.7	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Arsenic	**2.3**	J	2.5	0.5	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Barium	**15.6**	J	0.631	0.139	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Beryllium	**0.110**	J	0.252	0.035	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Cadmium	**0.212**	J	0.252	0.038	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Calcium	**19600**	B J	63.1	4.2	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Chromium	**4.64**		0.631	0.252	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Cobalt	**1.53**		0.631	0.063	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Copper	**6.9**		1.3	0.3	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Iron	**4480**	B J	12.6	1.4	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Lead	**24.0**		1.3	0.3	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Magnesium	**11200**	B J	25.2	1.2	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Manganese	**69.0**	B J	0.3	0.04	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Nickel	**4.06**	J	6.31	0.290	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Potassium	**368**	J	37.9	25.2	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Selenium	ND		5.0	0.7	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (0-2) (RTK1440-04 - Soil) - cont.							**Sampled: 11/16/10 15:40**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.631	0.252	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Sodium	**40.5**	J	177	16.4	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Thallium	ND		7.6	0.4	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Vanadium	**7.40**		0.631	0.139	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Zinc	**20.7**	B	2.5	0.2	mg/kg dry	1.00	11/23/10 12:54	LMH	10K2022	6010B
Mercury	ND		0.0249	0.0101	mg/kg dry	1.00	11/22/10 15:03	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	11/22/10 17:08	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.5~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**225**		127	63.4	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**4830**		1390	1390	mg/Kg dry	1.00	11/29/10 17:57	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**27.8**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**72.2**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (0-2) (RTK1440-04RE1 - Soil)							**Sampled: 11/16/10 15:40**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1	130	35	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,1,2,2-Tetrachloroethane	ND	W1	130	20	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,1,2-Trichloroethane	ND	W1	130	26	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	130	63	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,1-Dichloroethane	ND	W1	130	39	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,1-Dichloroethene	ND	W1	130	43	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,2,4-Trichlorobenzene	ND	W1	130	47	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,2-Dibromo-3-chloropropane	ND	W1	130	63	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,2-Dibromoethane	ND	W1	130	4.8	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,2-Dichlorobenzene	ND	W1	130	32	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,2-Dichloroethane	**68**	W1,J	130	51	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,2-Dichloropropane	ND	W1	130	20	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,3-Dichlorobenzene	ND	W1	130	33	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
1,4-Dichlorobenzene	ND	W1	130	18	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
2-Butanone	ND	W1	630	370	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
2-Hexanone	ND	W1	630	260	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
4-Methyl-2-pentanone	ND	W1	630	40	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Acetone	ND	W1	630	510	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Benzene	ND	W1	130	6.0	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Bromodichloromethane	ND	W1	130	25	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Bromoform	ND	W1	130	63	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Bromomethane	ND	W1	130	28	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Carbon disulfide	ND	W1	130	57	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Carbon Tetrachloride	ND	W1	130	32	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Chlorobenzene	ND	W1	130	17	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Dibromochloromethane	ND	W1	130	61	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Chloroethane	ND	W1	130	26	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Chloroform	ND	W1	130	86	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Chloromethane	ND	W1	130	30	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
cis-1,2-Dichloroethene	ND	W1	130	35	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
cis-1,3-Dichloropropene	ND	W1	130	30	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Cyclohexane	ND	W1	130	28	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Dichlorodifluoromethane	ND	W1	130	55	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Ethylbenzene	**180**	W1	130	36	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Isopropylbenzene	**710**	W1	130	19	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Methyl Acetate	ND	W1	130	60	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	130	47	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Methylcyclohexane	**2900**	W1	130	59	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Methylene Chloride	**100**	W1,J, B	130	25	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Styrene	ND	W1	130	30	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Tetrachloroethene	ND	W1	130	17	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Toluene	ND	W1	130	34	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
trans-1,2-Dichloroethene	ND	W1	130	30	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
trans-1,3-Dichloropropene	ND	W1	130	6.0	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Trichloroethene	ND	W1	130	35	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Trichlorofluoromethane	ND	W1	130	59	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Vinyl chloride	ND	W1	130	42	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B
Xylenes, total	**16000**	W1	250	21	ug/kg dry	1.00	11/30/10 13:38	DHC	10K2700	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (0-2) (RTK1440-04RE1 - Soil) - cont.							**Sampled: 11/16/10 15:40**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*142 %*	*W1*	*Surr Limits: (53-146%)*				*11/30/10 13:38*	*DHC*	*10K2700*	*8260B*
4-Bromofluorobenzene	*87 %*	*W1*	*Surr Limits: (49-148%)*				*11/30/10 13:38*	*DHC*	*10K2700*	*8260B*
Toluene-d8	*102 %*	*W1*	*Surr Limits: (50-149%)*				*11/30/10 13:38*	*DHC*	*10K2700*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (4-6) (RTK1440-05 - Soil)							**Sampled: 11/16/10 16:00**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		28	2.1	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,1,2,2-Tetrachloroethane	ND		28	4.6	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,1,2-Trichloroethane	ND		28	3.7	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		28	6.5	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,1-Dichloroethane	ND		28	3.5	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,1-Dichloroethene	ND		28	3.5	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,2,4-Trichlorobenzene	ND		28	1.7	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,2-Dibromo-3-chloropropane	ND		28	14	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,2-Dibromoethane	ND		28	3.7	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,2-Dichlorobenzene	ND		28	2.2	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,2-Dichloroethane	ND		28	1.4	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,2-Dichloropropane	ND		28	14	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,3-Dichlorobenzene	ND		28	1.5	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
1,4-Dichlorobenzene	ND		28	4.0	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
2-Butanone	ND		140	10	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
2-Hexanone	ND		140	14	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
4-Methyl-2-pentanone	ND		140	9.3	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Acetone	ND		140	24	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Benzene	ND		28	1.4	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Bromodichloromethane	ND		28	3.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Bromoform	ND		28	14	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Bromomethane	ND		28	2.6	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Carbon disulfide	**29**		28	14	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Carbon Tetrachloride	ND		28	2.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Chlorobenzene	ND		28	3.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Dibromochloromethane	ND		28	3.6	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Chloroethane	ND		28	6.4	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Chloroform	ND		28	1.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Chloromethane	ND		28	1.7	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
cis-1,2-Dichloroethene	**260**		28	3.6	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
cis-1,3-Dichloropropene	ND		28	4.1	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Cyclohexane	ND		28	4.0	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Dichlorodifluoromethane	ND		28	2.4	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Ethylbenzene	ND		28	2.0	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Isopropylbenzene	ND		28	4.3	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Methyl Acetate	ND		28	5.3	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Methyl-t-Butyl Ether (MTBE)	**14**	J	28	2.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Methylcyclohexane	ND		28	4.3	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Methylene Chloride	**64**	J	28	13	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Styrene	ND		28	1.4	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Tetrachloroethene	ND		28	3.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Toluene	ND		28	2.2	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
trans-1,2-Dichloroethene	ND		28	2.9	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
trans-1,3-Dichloropropene	ND		28	13	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Trichloroethene	ND		28	6.3	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Trichlorofluoromethane	ND		28	2.7	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Vinyl chloride	**44**		28	3.5	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B
Xylenes, total	**16**	J	57	4.8	ug/kg dry	1.00	11/30/10 03:11	CDC	10K2672	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-2 (4-6) (RTK1440-05 - Soil) - cont. **Sampled: 11/16/10 16:00** **Recvd: 11/19/10 09:45**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,2-Dichloroethane-d4	*97 %*		*Surr Limits: (64-126%)*				*11/30/10 03:11*	*CDC*	*10K2672*	*8260B*
4-Bromofluorobenzene	*103 %*		*Surr Limits: (72-126%)*				*11/30/10 03:11*	*CDC*	*10K2672*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*11/30/10 03:11*	*CDC*	*10K2672*	*8260B*

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		210	57	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		410	74	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		210	33	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		210	51	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2-Methylnaphthalene	ND		210	2.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2-Methylphenol	ND		210	6.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2-Nitroaniline	ND		410	67	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2-Nitrophenol	ND		210	9.6	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
3-Nitroaniline	ND		410	48	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		410	73	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		210	67	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		210	8.7	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Chloroaniline	ND		210	62	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Nitroaniline	ND		410	24	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Acenaphthene	**41**	J	210	2.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Acetophenone	ND	J	210	11	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Anthracene	**23**	J	210	5.4	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Atrazine	ND		210	9.4	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Benzo[a]anthracene	ND		210	3.6	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Benzo[a]pyrene	ND		210	5.1	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Benzo[b]fluoranthene	ND		210	4.1	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Benzo[g,h,i]perylene	ND		210	2.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND		210	2.3	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		210	68	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		210	57	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Caprolactam	ND		210	91	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (4-6) (RTK1440-05 - Soil) - cont.							**Sampled: 11/16/10 16:00**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**25**	J	210	2.4	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Chrysene	ND		210	2.1	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		210	2.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Dibenzofuran	**82**	J	210	2.2	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Diethyl phthalate	ND		210	6.4	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		210	73	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Fluoranthene	**73**	J	210	3.0	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Fluorene	**99**	J	210	4.8	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		210	64	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	ND		210	5.8	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Isophorone	ND		210	11	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Nitrobenzene	ND		210	9.3	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		210	12	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Pentachlorophenol	ND		410	72	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Phenanthrene	**260**		210	4.4	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Phenol	ND		210	22	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
Pyrene	**22**	J	210	1.4	ug/kg dry	1.00	11/24/10 18:45	MKP	10K2280	8270C
2,4,6-Tribromophenol	*84 %*		*Surr Limits: (39-146%)*				*11/24/10 18:45*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*70 %*		*Surr Limits: (37-120%)*				*11/24/10 18:45*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*59 %*		*Surr Limits: (18-120%)*				*11/24/10 18:45*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*66 %*		*Surr Limits: (34-132%)*				*11/24/10 18:45*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*66 %*		*Surr Limits: (11-120%)*				*11/24/10 18:45*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*78 %*		*Surr Limits: (58-147%)*				*11/24/10 18:45*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1040**	J	12.2	5.3	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Antimony	ND		18.2	0.7	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Arsenic	**0.8**	J	2.4	0.5	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Barium	**3.68**	J	0.608	0.134	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Beryllium	**0.049**	J	0.243	0.034	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Cadmium	**0.057**	J	0.243	0.036	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Calcium	**213**	B J	60.8	4.0	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Chromium	**2.79**		0.608	0.243	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Cobalt	**0.730**		0.608	0.061	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Copper	**1.6**		1.2	0.3	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Iron	**2560**	B J	12.2	1.3	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Lead	**1.7**		1.2	0.3	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Magnesium	**261**	B J	24.3	1.1	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Manganese	**20.5**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Nickel	**1.56**	J	6.08	0.280	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Potassium	**206**	J	36.5	24.3	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Selenium	ND		4.9	0.7	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (4-6) (RTK1440-05 - Soil) - cont.							**Sampled: 11/16/10 16:00**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.608	0.243	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Sodium	**67.7**	J	170	15.8	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Thallium	ND		7.3	0.4	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Vanadium	**3.56**		0.608	0.134	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Zinc	**3.3**	B	2.4	0.2	mg/kg dry	1.00	11/23/10 12:57	LMH	10K2022	6010B
Mercury	ND		0.0232	0.0094	mg/kg dry	1.00	11/22/10 15:05	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**80**		0.010	NR	%	1.00	11/22/10 17:10	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.5~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**140**		125	62.5	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1390**		1330	1330	mg/Kg dry	1.00	11/29/10 18:09	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**24.6**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**75.4**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-2 (2-4) (RTK1440-06 - Soil) — **Sampled: 11/16/10 15:50** — **Recvd: 11/19/10 09:45**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		7.4	0.54	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		7.4	1.2	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		7.4	0.96	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.4	1.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,1-Dichloroethane	ND		7.4	0.90	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,1-Dichloroethene	ND		7.4	0.90	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		7.4	0.45	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		7.4	3.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,2-Dibromoethane	ND		7.4	0.95	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		7.4	0.58	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,2-Dichloroethane	ND		7.4	0.37	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,2-Dichloropropane	ND		7.4	3.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		7.4	0.38	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		7.4	1.0	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
2-Butanone	**37**		37	2.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
2-Hexanone	ND		37	3.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		37	2.4	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Acetone	**270**		37	6.2	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Benzene	ND		7.4	0.36	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Bromodichloromethane	ND		7.4	0.99	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Bromoform	ND		7.4	3.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Bromomethane	ND		7.4	0.66	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Carbon disulfide	ND		7.4	3.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Carbon Tetrachloride	ND		7.4	0.71	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Chlorobenzene	ND		7.4	0.97	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Dibromochloromethane	ND		7.4	0.95	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Chloroethane	ND		7.4	1.7	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Chloroform	ND		7.4	0.46	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Chloromethane	ND		7.4	0.45	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
cis-1,2-Dichloroethene	**6.4**	J	7.4	0.95	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		7.4	1.1	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Cyclohexane	ND		7.4	1.0	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		7.4	0.61	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Ethylbenzene	~~660~~ 7200	E D	7.4	0.51	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Isopropylbenzene	~~420~~ 3000	E D	7.4	1.1	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Methyl Acetate	ND		7.4	1.4	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		7.4	0.73	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Methylcyclohexane	~~420~~ 2200	D	7.4	1.1	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Methylene Chloride	**44**	U B J	7.4	3.4	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Styrene	ND		7.4	0.37	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Tetrachloroethene	ND		7.4	0.99	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Toluene	**38**		7.4	0.56	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		7.4	0.76	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		7.4	3.2	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Trichloroethene	ND		7.4	1.6	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Trichlorofluoromethane	ND		7.4	0.70	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Vinyl chloride	ND		7.4	0.90	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B
Xylenes, total	~~3400~~ 21000	E D	15	1.2	ug/kg dry	1.00	11/29/10 17:36	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-2 (2-4) (RTK1440-06 - Soil) - cont. **Sampled: 11/16/10 15:50** **Recvd: 11/19/10 09:45**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,2-Dichloroethane-d4	*113 %*		*Surr Limits: (64-126%)*				*11/29/10 17:36*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*77 %*		*Surr Limits: (72-126%)*				*11/29/10 17:36*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*83 %*		*Surr Limits: (71-125%)*				*11/29/10 17:36*	*RJ*	*10K2623*	*8260B*

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND	D08	1300	270	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND	D08	1300	83	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,4-Dichlorophenol	ND	D08	1300	66	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,4-Dimethylphenol	ND	D08	1300	340	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,4-Dinitrophenol	ND	D08	2500	440	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND	D08	1300	190	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND	D08	1300	310	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2-Chloronaphthalene	ND	D08	1300	84	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2-Chlorophenol	ND	D08	1300	64	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2-Methylnaphthalene	**9900**	D08	1300	15	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2-Methylphenol	ND	D08	1300	39	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2-Nitroaniline	ND	D08	2500	400	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2-Nitrophenol	ND	D08	1300	57	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND	D08	1300	1100	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
3-Nitroaniline	ND	D08	2500	290	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND	D08	2500	430	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND	D08	1300	400	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND	D08	1300	52	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Chloroaniline	ND	D08	1300	370	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND	D08	1300	27	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Methylphenol	ND	D08	2500	70	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Nitroaniline	ND	D08	2500	140	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
4-Nitrophenol	ND	D08	2500	300	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Acenaphthene	**290**	D08,J	1300	15	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Acenaphthylene	ND	D08	1300	10	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Acetophenone	ND	D08	1300	64	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Anthracene	**350**	D08,J	1300	32	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Atrazine	ND	D08	1300	56	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Benzaldehyde	ND	D08	1300	140	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Benzo[a]anthracene	**250**	D08,J	1300	22	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Benzo[a]pyrene	**200**	D08,J	1300	30	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Benzo[b]fluoranthene	**220**	D08,J	1300	24	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**100**	D08,J	1300	15	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND	D08	1300	14	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Biphenyl	**180**	D08,J	1300	78	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND	D08	1300	68	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND	D08	1300	110	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D08	1300	130	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	**600**	D08,J	1300	400	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Butyl benzyl phthalate	ND	D08	1300	340	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Caprolactam	ND	D08	1300	540	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (2-4) (RTK1440-06 - Soil) - cont.							**Sampled: 11/16/10 15:50**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**97**	D08,J	1300	15	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Chrysene	**230**	D08,J	1300	13	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND	D08	1300	15	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Dibenzofuran	**160**	D08,J	1300	13	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Diethyl phthalate	ND	D08	1300	38	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Dimethyl phthalate	ND	D08	1300	33	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Di-n-butyl phthalate	ND	D08	1300	430	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Di-n-octyl phthalate	ND	D08	1300	29	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Fluoranthene	**860**	D08,J	1300	18	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Fluorene	**340**	D08,J	1300	29	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Hexachlorobenzene	ND	D08	1300	62	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Hexachlorobutadiene	ND	D08	1300	64	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND	D08	1300	380	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Hexachloroethane	ND	D08	1300	97	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	ND	D08	1300	35	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Isophorone	ND	D08	1300	63	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Naphthalene	**5200**	D08	1300	21	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Nitrobenzene	ND	D08	1300	56	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND	D08	1300	99	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND	D08	1300	69	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Pentachlorophenol	ND	D08	2500	430	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Phenanthrene	**1200**	D08,J	1300	26	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Phenol	ND	D08	1300	130	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
Pyrene	**680**	D08,J	1300	8.1	ug/kg dry	5.00	11/24/10 19:09	MKP	10K2280	8270C
2,4,6-Tribromophenol	*95 %*	*D08*	*Surr Limits: (39-146%)*				*11/24/10 19:09*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*91 %*	*D08*	*Surr Limits: (37-120%)*				*11/24/10 19:09*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*66 %*	*D08*	*Surr Limits: (18-120%)*				*11/24/10 19:09*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*80 %*	*D08*	*Surr Limits: (34-132%)*				*11/24/10 19:09*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*79 %*	*D08*	*Surr Limits: (11-120%)*				*11/24/10 19:09*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*93 %*	*D08*	*Surr Limits: (58-147%)*				*11/24/10 19:09*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2950**	J	14.5	6.4	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Antimony	ND		21.8	0.8	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Arsenic	**2.4**	J	2.9	0.6	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Barium	**19.1**	J	0.727	0.160	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Beryllium	**0.138**	J	0.291	0.041	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Cadmium	**0.140**	J	0.291	0.044	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Calcium	**1180**	B J	72.7	4.8	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Chromium	**6.92**		0.727	0.291	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Cobalt	**2.18**		0.727	0.073	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Copper	**6.7**		1.5	0.3	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Iron	**5190**	B J	14.5	1.6	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Lead	**27.9**		1.5	0.3	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Magnesium	**1060**	B J	29.1	1.3	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Manganese	**40.3**	B J	0.3	0.05	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Nickel	**5.01**	J	7.27	0.334	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Potassium	**597**	J	43.6	29.1	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Selenium	ND		5.8	0.8	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (2-4) (RTK1440-06 - Soil) - cont.							**Sampled: 11/16/10 15:50**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.727	0.291	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Sodium	**55.4**	J	204	18.9	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Thallium	ND		8.7	0.4	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Vanadium	**10.1**		0.727	0.160	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Zinc	**17.6**	B	2.9	0.2	mg/kg dry	1.00	11/23/10 12:59	LMH	10K2022	6010B
Mercury	ND		0.0302	0.0122	mg/kg dry	1.00	11/22/10 15:11	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**66**		0.010	NR	%	1.00	11/22/10 17:12	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	R	~~3.0~~	~~0.5~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**248**		150	75.2	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**6700**		1810	1810	mg/Kg dry	1.00	11/29/10 18:22	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**44.8**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**55.2**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (2-4) (RTK1440-06RE1 - Soil)							**Sampled: 11/16/10 15:50**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	D08, W1, N1	1500	420	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,1,2,2-Tetrachloroethane	ND	D08, W1, N1	1500	240	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,1,2-Trichloroethane	ND	D08, W1, N1	1500	320	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D08, W1, N1	1500	750	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,1-Dichloroethane	ND	D08, W1, N1	1500	460	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,1-Dichloroethene	ND	D08, W1, N1	1500	520	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2,4-Trichlorobenzene	ND	D08, W1, N1	1500	570	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2-Dibromo-3-chloropropane	ND	D08, W1, N1	1500	750	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2-Dibromoethane	ND	D08, W1, N1	1500	57	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2-Dichlorobenzene	ND	D08, W1, N1	1500	380	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2-Dichloroethane	ND	D08, W1, N1	1500	610	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2-Dichloropropane	ND	D08, W1, N1	1500	240	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,3-Dichlorobenzene	ND	D08, W1, N1	1500	400	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,4-Dichlorobenzene	ND	D08, W1, N1	1500	210	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
2-Butanone	ND	D08, W1, N1	7500	4500	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
2-Hexanone	ND	D08, W1, N1	7500	3100	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
4-Methyl-2-pentanone	ND	D08, W1, N1	7500	480	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Acetone	ND	D08, W1, N1	7500	6200	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Benzene	ND	D08, W1, N1	1500	72	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Bromodichloromethane	ND	D08, W1, N1	1500	300	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Bromoform	ND	D08, W1, N1	1500	750	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Bromomethane	ND	D08, W1, N1	1500	330	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Carbon disulfide	ND	D08, W1, N1	1500	680	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Carbon Tetrachloride	ND	D08, W1, N1	1500	380	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Chlorobenzene	ND	D08, W1, N1	1500	200	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Dibromochloromethane	ND	D08, W1, N1	1500	730	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Chloroethane	ND	D08, W1, N1	1500	310	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-2 (2-4) (RTK1440-06RE1 - Soil) - cont.						**Sampled: 11/16/10 15:50**		**Recvd: 11/19/10 09:45**		
Volatile Organic Compounds by EPA 8260B - cont.										
Chloroform	ND	D08, W1, N1	1500	1000	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Chloromethane	ND	D08, W1, N1	1500	360	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
cis-1,2-Dichloroethene	ND	D08, W1, N1	1500	410	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
cis-1,3-Dichloropropene	ND	D08, W1, N1	1500	360	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Cyclohexane	ND	D08, W1, N1	1500	330	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Dichlorodifluoromethane	ND	D08, W1, N1	1500	650	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Ethylbenzene	**7200**	D08, W1, N1	1500	440	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Isopropylbenzene	**3000**	D08, W1, N1	1500	230	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Methyl Acetate	ND	D08, W1, N1	1500	710	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Methyl-t-Butyl Ether (MTBE)	ND	D08, W1, N1	1500	570	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Methylcyclohexane	**2200**	D08, W1, N1	1500	700	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Methylene Chloride	ND	D08, W1, N1	1500	300	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Styrene	ND	D08, W1, N1	1500	360	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Tetrachloroethene	ND	D08, W1, N1	1500	200	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Toluene	ND	D08, W1, N1	1500	400	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
trans-1,2-Dichloroethene	ND	D08, W1, N1	1500	350	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
trans-1,3-Dichloropropene	ND	D08, W1, N1	1500	72	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Trichloroethene	ND	D08, W1, N1	1500	420	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Trichlorofluoromethane	ND	D08, W1, N1	1500	700	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Vinyl chloride	ND	D08, W1, N1	1500	500	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
Xylenes, total	**73000**	D08, W1, N1	3000	250	ug/kg dry	10.0	11/30/10 23:39	NMD	10K2700	8260B
1,2-Dichloroethane-d4	*127 %*	*D08, W1, N1*	*Surr Limits: (53-146%)*				*11/30/10 23:39*	*NMD*	*10K2700*	*8260B*
4-Bromofluorobenzene	*107 %*	*D08, W1, N1*	*Surr Limits: (49-148%)*				*11/30/10 23:39*	*NMD*	*10K2700*	*8260B*
Toluene-d8	*114 %*	*D08, W1, N1*	*Surr Limits: (50-149%)*				*11/30/10 23:39*	*NMD*	*10K2700*	*8260B*

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TRIP BLANK (11-16-10) (RTK1440-07 - Water)						**Sampled: 11/16/10**			**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,2-Dibromo-3-chloropropane	ND		1.0	0.39	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Acetone	**3.0**	J, B	5.0	3.0	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Methylene Chloride	**10**	B	1.0	0.44	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	11/29/10 14:33	RJ	10K2659	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TRIP BLANK (11-16-10) (RTK1440-07 - Water) - cont.						**Sampled: 11/16/10**			**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*94 %*		*Surr Limits: (66-137%)*				*11/29/10 14:33*	*RJ*	*10K2659*	*8260B*
4-Bromofluorobenzene	*101 %*		*Surr Limits: (73-120%)*				*11/29/10 14:33*	*RJ*	*10K2659*	*8260B*
Toluene-d8	*103 %*		*Surr Limits: (71-126%)*				*11/29/10 14:33*	*RJ*	*10K2659*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (0-2) (RTK1440-08 - Soil)						**Sampled: 11/17/10 10:20**		**Recvd: 11/19/10 09:45**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.2	0.38	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,1,2,2-Tetrachloroethane	ND		5.2	0.85	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,1,2-Trichloroethane	ND		5.2	0.68	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,1-Dichloroethane	ND		5.2	0.64	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,1-Dichloroethene	ND		5.2	0.64	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,2-Dibromo-3-chloropropane	ND		5.2	2.6	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,2-Dibromoethane	ND		5.2	0.67	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,2-Dichlorobenzene	ND		5.2	0.41	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,2-Dichloroethane	ND		5.2	0.26	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,2-Dichloropropane	ND		5.2	2.6	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,3-Dichlorobenzene	ND		5.2	0.27	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
1,4-Dichlorobenzene	ND		5.2	0.73	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
2-Butanone	ND		26	1.9	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
2-Hexanone	ND		26	2.6	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
4-Methyl-2-pentanone	ND		26	1.7	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Acetone	**4.9**	J	26	4.4	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Benzene	ND		5.2	0.26	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Bromodichloromethane	ND		5.2	0.70	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Bromoform	ND		5.2	2.6	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Bromomethane	ND		5.2	0.47	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Carbon disulfide	ND		5.2	2.6	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Carbon Tetrachloride	ND		5.2	0.51	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Chlorobenzene	ND		5.2	0.69	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Dibromochloromethane	ND		5.2	0.67	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Chloroethane	ND		5.2	1.2	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Chloroform	ND		5.2	0.32	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Chloromethane	ND		5.2	0.32	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Cyclohexane	ND		5.2	0.73	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Dichlorodifluoromethane	ND		5.2	0.43	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Ethylbenzene	ND		5.2	0.36	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Isopropylbenzene	ND		5.2	0.79	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Methyl Acetate	ND		5.2	0.97	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.2	0.51	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Methylcyclohexane	ND		5.2	0.79	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Methylene Chloride	**8.0**	J	5.2	2.4	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Styrene	ND		5.2	0.26	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Tetrachloroethene	ND		5.2	0.70	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Toluene	ND		5.2	0.39	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Trichloroethene	ND		5.2	1.1	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Trichlorofluoromethane	ND		5.2	0.49	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Vinyl chloride	ND		5.2	0.64	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B
Xylenes, total	ND		10	0.88	ug/kg dry	1.00	11/30/10 03:37	CDC	10K2672	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (0-2) (RTK1440-08 - Soil) - cont.							**Sampled: 11/17/10 10:20**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*101 %*		*Surr Limits: (64-126%)*				*11/30/10 03:37*	*CDC*	*10K2672*	*8260B*
4-Bromofluorobenzene	*106 %*		*Surr Limits: (72-126%)*				*11/30/10 03:37*	*CDC*	*10K2672*	*8260B*
Toluene-d8	*106 %*		*Surr Limits: (71-125%)*				*11/30/10 03:37*	*CDC*	*10K2672*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		180	38	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		180	12	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		180	9.2	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		180	47	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		340	62	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		180	27	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		180	43	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2-Chloronaphthalene	ND		180	12	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2-Chlorophenol	ND		180	8.9	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2-Methylnaphthalene	ND		180	2.1	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2-Methylphenol	ND		180	5.4	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2-Nitroaniline	ND		340	56	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2-Nitrophenol	ND		180	8.0	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		180	150	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
3-Nitroaniline	ND		340	40	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		340	61	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		180	56	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		180	7.2	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Chloroaniline	ND		180	52	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		180	3.7	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Methylphenol	ND		340	9.8	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Nitroaniline	ND		340	20	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
4-Nitrophenol	ND		340	43	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Acenaphthene	ND		180	2.1	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Acenaphthylene	ND		180	1.4	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Acetophenone	ND	J	180	9.0	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Anthracene	ND		180	4.5	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Atrazine	ND		180	7.8	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Benzaldehyde	ND		180	19	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Benzo[a]anthracene	ND		180	3.0	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Benzo[a]pyrene	ND		180	4.2	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Benzo[b]fluoranthene	**14**	J	180	3.4	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Benzo[g,h,i]perylene	ND		180	2.1	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Benzo[k]fluoranthene	ND		180	1.9	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Biphenyl	ND		180	11	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		180	9.6	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		180	15	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		180	18	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		180	57	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		180	47	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Caprolactam	ND		180	76	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: MW-31D-1R (0-2) (RTK1440-08 - Soil) - cont. **Sampled: 11/17/10 10:20** **Recvd: 11/19/10 09:45**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		180	2.0	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Chrysene	ND		180	1.8	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		180	2.1	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Dibenzofuran	ND		180	1.8	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Diethyl phthalate	ND		180	5.3	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Dimethyl phthalate	ND		180	4.6	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		180	61	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		180	4.1	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Fluoranthene	ND		180	2.5	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Fluorene	ND		180	4.0	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Hexachlorobenzene	ND		180	8.7	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Hexachlorobutadiene	ND		180	9.0	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		180	53	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Hexachloroethane	ND		180	14	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	ND		180	4.9	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Isophorone	ND		180	8.8	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Naphthalene	ND		180	2.9	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Nitrobenzene	ND		180	7.8	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		180	14	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		180	9.6	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Pentachlorophenol	ND		340	60	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Phenanthrene	ND		180	3.7	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Phenol	ND		180	19	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
Pyrene	ND		180	1.1	ug/kg dry	1.00	11/24/10 19:32	MKP	10K2280	8270C
2,4,6-Tribromophenol	*87 %*		*Surr Limits: (39-146%)*				*11/24/10 19:32*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*66 %*		*Surr Limits: (37-120%)*				*11/24/10 19:32*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*52 %*		*Surr Limits: (18-120%)*				*11/24/10 19:32*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*58 %*		*Surr Limits: (34-132%)*				*11/24/10 19:32*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*59 %*		*Surr Limits: (11-120%)*				*11/24/10 19:32*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*82 %*		*Surr Limits: (58-147%)*				*11/24/10 19:32*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4400**	J	10.6	4.7	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Antimony	ND		15.9	0.6	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Arsenic	**1.9**	J	2.1	0.4	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Barium	**16.0**	J	0.530	0.117	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Beryllium	**0.179**	J	0.212	0.030	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Cadmium	**0.100**	J	0.212	0.032	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Calcium	**369**	B J	53.0	3.5	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Chromium	**4.92**		0.530	0.212	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Cobalt	**2.61**		0.530	0.053	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Copper	**5.1**		1.1	0.2	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Iron	**5520**	B J	10.6	1.2	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Lead	**11.8**		1.1	0.3	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Magnesium	**777**	B J	21.2	1.0	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Manganese	**154**	B J	0.2	0.03	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Nickel	**4.71**	J	5.30	0.244	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Potassium	**382**	J	31.8	21.2	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Selenium	ND		4.2	0.6	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Silver	ND		0.530	0.212	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (0-2) (RTK1440-08 - Soil) - cont.							**Sampled: 11/17/10 10:20**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Sodium	**29.6**	J	148	13.8	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Thallium	ND		6.4	0.3	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Vanadium	**7.37**		0.530	0.117	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Zinc	**15.2**	B	2.1	0.2	mg/kg dry	1.00	11/23/10 13:05	LMH	10K2022	6010B
Mercury	**0.0202**		0.0188	0.0076	mg/kg dry	1.00	11/22/10 15:13	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**94**		0.010	NR	%	1.00	11/22/10 17:14	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.1~~	~~0.3~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**83.8**	J	106	52.9	mg/kg dry	1.00	11/24/10 14:36	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2780**		1160	1160	mg/Kg dry	1.00	11/29/10 18:35	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**13.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**86.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (2-4) (RTK1440-09 - Soil)							**Sampled: 11/17/10 10:30**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.2	0.45	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		6.2	0.81	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,1-Dichloroethane	ND		6.2	0.76	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,1-Dichloroethene	ND		6.2	0.76	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		6.2	3.1	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,2-Dibromoethane	ND		6.2	0.80	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		6.2	0.49	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,2-Dichloroethane	ND		6.2	0.31	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,2-Dichloropropane	ND		6.2	3.1	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		6.2	0.32	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		6.2	0.87	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
2-Butanone	ND		31	2.3	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Acetone	**13**	J	31	5.2	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Benzene	ND		6.2	0.30	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Bromodichloromethane	ND		6.2	0.83	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Bromoform	ND		6.2	3.1	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Bromomethane	ND		6.2	0.56	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Carbon disulfide	ND		6.2	3.1	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Carbon Tetrachloride	ND		6.2	0.60	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Chlorobenzene	ND		6.2	0.82	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Dibromochloromethane	ND		6.2	0.79	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Chloroethane	ND		6.2	1.4	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Chloroform	ND		6.2	0.38	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Chloromethane	ND		6.2	0.37	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		6.2	0.79	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		6.2	0.89	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Cyclohexane	ND		6.2	0.87	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		6.2	0.51	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Ethylbenzene	ND		6.2	0.43	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Isopropylbenzene	**3.6**	J	6.2	0.94	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Methyl Acetate	ND		6.2	1.2	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.2	0.61	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Methylcyclohexane	**11**		6.2	0.94	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Methylene Chloride	**31**	U B J	6.2	2.9	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Styrene	ND		6.2	0.31	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Tetrachloroethene	ND		6.2	0.83	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Toluene	ND		6.2	0.47	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Trichloroethene	ND		6.2	1.4	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Trichlorofluoromethane	ND		6.2	0.59	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Vinyl chloride	ND		6.2	0.76	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B
Xylenes, total	**4.8**	J	12	1.0	ug/kg dry	1.00	11/29/10 18:27	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (2-4) (RTK1440-09 - Soil) - cont.							**Sampled: 11/17/10 10:30**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*92 %*		*Surr Limits: (64-126%)*				*11/29/10 18:27*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*83 %*		*Surr Limits: (72-126%)*				*11/29/10 18:27*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*85 %*		*Surr Limits: (71-125%)*				*11/29/10 18:27*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		210	57	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		410	74	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		210	33	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		210	52	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2-Methylnaphthalene	**57**	J	210	2.6	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2-Methylphenol	ND		210	6.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2-Nitroaniline	ND		410	68	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2-Nitrophenol	ND		210	9.7	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		210	190	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
3-Nitroaniline	ND		410	49	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		410	73	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		210	67	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		210	8.7	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Chloroaniline	ND		210	62	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Nitroaniline	ND		410	24	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Acenaphthene	**66**	J	210	2.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Acetophenone	ND	J	210	11	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Anthracene	**100**	J	210	5.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Atrazine	ND		210	9.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Benzo[a]anthracene	**130**	J	210	3.7	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Benzo[a]pyrene	**95**	J	210	5.1	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Benzo[b]fluoranthene	**100**	J	210	4.1	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**40**	J	210	2.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Benzo[k]fluoranthene	**38**	J	210	2.3	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		210	12	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		210	68	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		210	57	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Caprolactam	ND		210	91	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (2-4) (RTK1440-09 - Soil) - cont.							**Sampled: 11/17/10 10:30**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**17**	J	210	2.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Chrysene	**94**	J	210	2.1	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		210	2.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Dibenzofuran	**44**	J	210	2.2	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Diethyl phthalate	ND		210	6.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		210	73	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Fluoranthene	**410**		210	3.1	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Fluorene	**84**	J	210	4.9	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Hexachlorobenzene	ND		210	11	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		210	64	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**37**	J	210	5.9	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Isophorone	ND		210	11	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Nitrobenzene	ND		210	9.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		210	12	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Pentachlorophenol	ND		410	73	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Phenanthrene	**450**		210	4.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Phenol	ND		210	22	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
Pyrene	**340**		210	1.4	ug/kg dry	1.00	11/24/10 19:56	MKP	10K2280	8270C
2,4,6-Tribromophenol	*97 %*		*Surr Limits: (39-146%)*				*11/24/10 19:56*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*82 %*		*Surr Limits: (37-120%)*				*11/24/10 19:56*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*70 %*		*Surr Limits: (18-120%)*				*11/24/10 19:56*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*80 %*		*Surr Limits: (34-132%)*				*11/24/10 19:56*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*80 %*		*Surr Limits: (11-120%)*				*11/24/10 19:56*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*86 %*		*Surr Limits: (58-147%)*				*11/24/10 19:56*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1180**	J	12.4	5.5	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Antimony	ND		18.6	0.7	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Arsenic	**0.7**	J	2.5	0.5	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Barium	**4.91**	J	0.620	0.136	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Beryllium	**0.053**	J	0.248	0.035	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Cadmium	**0.055**	J	0.248	0.037	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Calcium	**368**	B J	62.0	4.1	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Chromium	**2.08**		0.620	0.248	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Cobalt	**0.641**		0.620	0.062	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Copper	**1.5**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Iron	**1950**	B J	12.4	1.4	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Lead	**2.8**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Magnesium	**334**	B J	24.8	1.1	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Manganese	**26.2**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Nickel	**1.59**	J	6.20	0.285	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Potassium	**220**	J	37.2	24.8	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Selenium	ND		5.0	0.7	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (2-4) (RTK1440-09 - Soil) - cont.							**Sampled: 11/17/10 10:30**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.620	0.248	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Sodium	**31.3**	J	174	16.1	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Thallium	ND		7.4	0.4	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Vanadium	**2.91**		0.620	0.136	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Zinc	**4.7**	B	2.5	0.2	mg/kg dry	1.00	11/23/10 13:08	LMH	10K2022	6010B
Mercury	ND		0.0237	0.0096	mg/kg dry	1.00	11/22/10 15:14	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**79**		0.010	NR	%	1.00	11/22/10 17:16	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~ R		~~2.5~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**98.3**	J	126	63.1	mg/kg dry	1.00	11/24/10 14:37	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2090**		1360	1360	mg/Kg dry	1.00	11/29/10 18:47	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**26.7**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**73.3**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (4-6) (RTK1440-10 - Soil)							**Sampled: 11/17/10 10:35**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.9	0.43	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		5.9	0.96	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		5.9	0.77	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-triflu oroethane	ND		5.9	1.3	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,1-Dichloroethane	ND		5.9	0.72	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,1-Dichloroethene	ND		5.9	0.72	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		5.9	0.36	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,2-Dibromo-3-chloroprop ane	ND		5.9	3.0	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,2-Dibromoethane	ND		5.9	0.76	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		5.9	0.46	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,2-Dichloroethane	ND		5.9	0.30	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,2-Dichloropropane	ND		5.9	3.0	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		5.9	0.30	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		5.9	0.83	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		30	1.9	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Acetone	**17**	J	30	5.0	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Benzene	ND		5.9	0.29	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Bromodichloromethane	ND		5.9	0.79	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Bromoform	ND		5.9	3.0	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Bromomethane	ND		5.9	0.53	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Carbon disulfide	ND		5.9	3.0	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Carbon Tetrachloride	ND		5.9	0.57	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Chlorobenzene	ND		5.9	0.78	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Dibromochloromethane	ND		5.9	0.76	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Chloroethane	ND		5.9	1.3	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Chloroform	ND		5.9	0.37	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Chloromethane	ND		5.9	0.36	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		5.9	0.76	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		5.9	0.85	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Cyclohexane	ND		5.9	0.83	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		5.9	0.49	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Ethylbenzene	ND		5.9	0.41	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Isopropylbenzene	**5.7**	J	5.9	0.89	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Methyl Acetate	ND		5.9	1.1	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.9	0.58	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Methylcyclohexane	**15**		5.9	0.90	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Methylene Chloride	**30**	V B J	5.9	2.7	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Styrene	ND		5.9	0.30	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Tetrachloroethene	ND		5.9	0.79	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Toluene	ND		5.9	0.45	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		5.9	0.61	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
trans-1,3-Dichloropropen e	ND		5.9	2.6	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Trichloroethene	ND		5.9	1.3	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Trichlorofluoromethane	ND		5.9	0.56	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Vinyl chloride	ND		5.9	0.72	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B
Xylenes, total	**11**	J	12	0.99	ug/kg dry	1.00	11/29/10 18:52	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (4-6) (RTK1440-10 - Soil) - cont.							**Sampled: 11/17/10 10:35**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*97 %*		*Surr Limits: (64-126%)*				*11/29/10 18:52*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*79 %*		*Surr Limits: (72-126%)*				*11/29/10 18:52*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*77 %*		*Surr Limits: (71-125%)*				*11/29/10 18:52*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	44	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		200	11	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		200	55	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		400	71	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		200	31	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		200	50	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2-Chloronaphthalene	ND		200	14	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2-Methylnaphthalene	**49**	J	200	2.5	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2-Methylphenol	ND		200	6.3	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2-Nitroaniline	ND		400	65	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2-Nitrophenol	ND		200	9.3	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		200	180	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
3-Nitroaniline	ND		400	47	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		400	70	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		200	65	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		200	8.4	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Chloroaniline	ND		200	60	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		200	4.3	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Methylphenol	ND		400	11	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Nitroaniline	ND		400	23	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
4-Nitrophenol	ND		400	49	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Acenaphthene	**85**	J	200	2.4	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Acenaphthylene	ND		200	1.7	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Acetophenone	ND	J	200	10	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Anthracene	**120**	J	200	5.2	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Atrazine	ND		200	9.1	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Benzo[a]anthracene	**140**	J	200	3.5	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Benzo[a]pyrene	**94**	J	200	4.9	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Benzo[b]fluoranthene	**110**	J	200	3.9	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**37**	J	200	2.4	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Benzo[k]fluoranthene	**35**	J	200	2.2	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Biphenyl	ND		200	13	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		200	18	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	ND		200	66	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		200	55	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Caprolactam	ND		200	88	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (4-6) (RTK1440-10 - Soil) - cont.							**Sampled: 11/17/10 10:35**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**45**	J	200	2.4	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Chrysene	**96**	J	200	2.0	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	ND		200	2.4	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Dibenzofuran	**60**	J	200	2.1	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Diethyl phthalate	ND		200	6.1	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Dimethyl phthalate	ND		200	5.3	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		200	70	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		200	4.8	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Fluoranthene	**430**		200	2.9	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Fluorene	**110**	J	200	4.7	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Hexachlorobenzene	ND		200	10	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		200	61	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Hexachloroethane	ND		200	16	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**35**	J	200	5.6	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Isophorone	ND		200	10	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Naphthalene	**36**	J	200	3.4	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Nitrobenzene	ND		200	9.0	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		200	11	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Pentachlorophenol	ND		400	70	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Phenanthrene	**560**		200	4.3	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Phenol	ND		200	21	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
Pyrene	**360**		200	1.3	ug/kg dry	1.00	11/24/10 20:19	MKP	10K2280	8270C
2,4,6-Tribromophenol	*92 %*		*Surr Limits: (39-146%)*				*11/24/10 20:19*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*76 %*		*Surr Limits: (37-120%)*				*11/24/10 20:19*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*68 %*		*Surr Limits: (18-120%)*				*11/24/10 20:19*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*76 %*		*Surr Limits: (34-132%)*				*11/24/10 20:19*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*76 %*		*Surr Limits: (11-120%)*				*11/24/10 20:19*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*85 %*		*Surr Limits: (58-147%)*				*11/24/10 20:19*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**901**	J	11.9	5.2	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Antimony	ND		17.8	0.6	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Arsenic	**0.5**	J	2.4	0.5	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Barium	**4.69**	J	0.594	0.131	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Beryllium	**0.042**	J	0.238	0.033	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Cadmium	**0.049**	J	0.238	0.036	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Calcium	**232**	B J	59.4	3.9	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Chromium	**2.19**		0.594	0.238	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Cobalt	**0.388**	J	0.594	0.059	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Copper	**1.1**	J	1.2	0.2	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Iron	**1370**	B J	11.9	1.3	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Lead	**1.8**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Magnesium	**281**	B J	23.8	1.1	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Manganese	**12.4**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Nickel	**1.17**	J	5.94	0.273	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Potassium	**226**	J	35.6	23.8	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Selenium	ND		4.8	0.7	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-1R (4-6) (RTK1440-10 - Soil) - cont.							**Sampled: 11/17/10 10:35**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.594	0.238	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Sodium	**48.2**	J	166	15.4	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Vanadium	**2.69**		0.594	0.131	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Zinc	**4.0**	B	2.4	0.2	mg/kg dry	1.00	11/23/10 13:10	LMH	10K2022	6010B
Mercury	ND		0.0217	0.0088	mg/kg dry	1.00	11/22/10 15:16	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**83**		0.010	NR	%	1.00	11/22/10 17:18	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	R	~~2.4~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**99.7**	J	120	60.2	mg/kg dry	1.00	11/24/10 14:37	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2320**		1310	1310	mg/Kg dry	1.00	11/29/10 19:13	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**23.9**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**76.1**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (2-4) (RTK1440-11 - Soil)							**Sampled: 11/17/10 15:40**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.4	0.39	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		5.4	0.88	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		5.4	0.70	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.4	1.2	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,1-Dichloroethane	ND		5.4	0.66	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,1-Dichloroethene	ND		5.4	0.66	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		5.4	0.33	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,2-Dibromoethane	ND		5.4	0.69	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		5.4	0.42	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,2-Dichloroethane	ND		5.4	0.27	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,2-Dichloropropane	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		5.4	0.28	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		5.4	0.76	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Acetone	ND		27	4.6	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Benzene	ND		5.4	0.27	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Bromodichloromethane	ND		5.4	0.73	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Bromoform	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Bromomethane	ND		5.4	0.49	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Carbon disulfide	ND		5.4	2.7	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Carbon Tetrachloride	ND		5.4	0.52	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Chlorobenzene	ND		5.4	0.71	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Dibromochloromethane	ND		5.4	0.69	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Chloroethane	ND		5.4	1.2	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Chloroform	ND		5.4	0.33	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Chloromethane	ND		5.4	0.33	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		5.4	0.69	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		5.4	0.78	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Cyclohexane	ND		5.4	0.76	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		5.4	0.45	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Ethylbenzene	ND		5.4	0.37	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Isopropylbenzene	ND		5.4	0.82	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Methyl Acetate	ND		5.4	1.0	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.4	0.53	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Methylcyclohexane	**4.2**	J	5.4	0.82	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Methylene Chloride	**25**	U B J	5.4	2.5	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Styrene	ND		5.4	0.27	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Tetrachloroethene	ND		5.4	0.73	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Toluene	ND		5.4	0.41	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		5.4	0.56	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		5.4	2.4	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Trichloroethene	ND		5.4	1.2	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Trichlorofluoromethane	ND		5.4	0.51	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Vinyl chloride	ND		5.4	0.66	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B
Xylenes, total	ND		11	0.91	ug/kg dry	1.00	11/29/10 19:17	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (2-4) (RTK1440-11 - Soil) - cont.							**Sampled: 11/17/10 15:40**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*90 %*		*Surr Limits: (64-126%)*				*11/29/10 19:17*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*93 %*		*Surr Limits: (72-126%)*				*11/29/10 19:17*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*90 %*		*Surr Limits: (71-125%)*				*11/29/10 19:17*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D08	370	81	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND	D08	370	24	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,4-Dichlorophenol	ND	D08	370	19	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,4-Dimethylphenol	ND	D08	370	100	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,4-Dinitrophenol	ND	D08	730	130	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND	D08	370	57	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND	D08	370	91	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2-Chloronaphthalene	ND	D08	370	25	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2-Chlorophenol	ND	D08	370	19	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2-Methylnaphthalene	**130**	D08,J	370	4.5	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2-Methylphenol	ND	D08	370	11	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2-Nitroaniline	ND	D08	730	120	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2-Nitrophenol	ND	D08	370	17	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND	D08	370	330	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
3-Nitroaniline	ND	D08	730	85	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND	D08	730	130	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND	D08	370	120	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND	D08	370	15	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Chloroaniline	ND	D08	370	110	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND	D08	370	7.9	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Methylphenol	ND	D08	730	21	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Nitroaniline	ND	D08	730	41	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
4-Nitrophenol	ND	D08	730	90	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Acenaphthene	**290**	D08,J	370	4.4	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Acenaphthylene	**29**	D08,J	370	3.0	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Acetophenone	ND	D08	370	19	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Anthracene	**600**	D08	370	9.5	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Atrazine	ND	D08	370	17	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Benzaldehyde	ND	D08	370	41	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Benzo[a]anthracene	**3300**	D08	370	6.4	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Benzo[a]pyrene	**3000**	D08	370	8.9	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Benzo[b]fluoranthene	**3900**	D08	370	7.2	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**1200**	D08	370	4.5	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Benzo[k]fluoranthene	**1200**	D08	370	4.1	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Biphenyl	ND	D08	370	23	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND	D08	370	20	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND	D08	370	32	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D08	370	39	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	**600**	D08	370	120	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Butyl benzyl phthalate	ND	D08	370	100	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Caprolactam	ND	D08	370	160	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (2-4) (RTK1440-11 - Soil) - cont.							**Sampled: 11/17/10 15:40**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**50**	~~D08~~,J	370	4.3	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Chrysene	**2500**	~~D08~~	370	3.7	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	**270**	~~D08~~,J	370	4.4	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Dibenzofuran	**160**	~~D08~~,J	370	3.9	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Diethyl phthalate	ND	~~D08~~	370	11	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Dimethyl phthalate	ND	~~D08~~	370	9.7	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Di-n-butyl phthalate	ND	~~D08~~	370	130	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Di-n-octyl phthalate	ND	~~D08~~	370	8.7	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Fluoranthene	**5600**	~~D08~~	370	5.4	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Fluorene	**320**	~~D08~~,J	370	8.5	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Hexachlorobenzene	ND	~~D08~~	370	18	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Hexachlorobutadiene	ND	~~D08~~	370	19	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND	~~D08~~	370	110	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Hexachloroethane	ND	~~D08~~	370	29	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**870**	~~D08~~	370	10	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Isophorone	ND	~~D08~~	370	19	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Naphthalene	ND	~~D08~~	370	6.2	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Nitrobenzene	ND	~~D08~~	370	16	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND	~~D08~~	370	29	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND	~~D08~~	370	20	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Pentachlorophenol	ND	~~D08~~	730	130	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Phenanthrene	**1500**	~~D08~~	370	7.8	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Phenol	ND	~~D08~~	370	39	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
Pyrene	**4600**	~~D08~~	370	2.4	ug/kg dry	2.00	11/30/10 16:06	MKP	10K2280	8270C
2,4,6-Tribromophenol	*125 %*	*~~D08~~*	*Surr Limits: (39-146%)*				*11/30/10 16:06*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*102 %*	*~~D08~~*	*Surr Limits: (37-120%)*				*11/30/10 16:06*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*85 %*	*~~D08~~*	*Surr Limits: (18-120%)*				*11/30/10 16:06*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*95 %*	*~~D08~~*	*Surr Limits: (34-132%)*				*11/30/10 16:06*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*98 %*	*~~D08~~*	*Surr Limits: (11-120%)*				*11/30/10 16:06*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*101 %*	*~~D08~~*	*Surr Limits: (58-147%)*				*11/30/10 16:06*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4020**	~~J~~	11.1	4.9	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Antimony	ND		16.7	0.6	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Arsenic	**2.2**		2.2	0.4	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Barium	**15.1**	~~J~~	0.557	0.123	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Beryllium	**0.158**	J	0.223	0.031	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Cadmium	**0.120**	J	0.223	0.033	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Calcium	**2220**	~~B J~~	55.7	3.7	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Chromium	**5.73**		0.557	0.223	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Cobalt	**2.33**		0.557	0.056	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Copper	**6.1**		1.1	0.2	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Iron	**5650**	~~B J~~	11.1	1.2	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Lead	**17.7**		1.1	0.3	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Magnesium	**920**	~~B J~~	22.3	1.0	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Manganese	**84.4**	~~B J~~	0.2	0.04	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Nickel	**4.44**	J	5.57	0.256	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Potassium	**510**	~~J~~	33.4	22.3	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (2-4) (RTK1440-11 - Soil) - cont.							**Sampled: 11/17/10 15:40**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.557	0.223	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Sodium	**128**	J	156	14.5	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Thallium	ND		6.7	0.3	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Vanadium	**7.66**		0.557	0.123	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Zinc	**20.6**	B	2.2	0.2	mg/kg dry	1.00	11/23/10 13:12	LMH	10K2022	6010B
Mercury	**0.0377**		0.0217	0.0088	mg/kg dry	1.00	11/22/10 15:18	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**89**		0.010	NR	%	1.00	11/22/10 17:20	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	~~D02~~	~~4.5~~	~~0.7~~	mg/kg dry	2.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	ND		112	56.1	mg/kg dry	1.00	11/24/10 14:37	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1780**		1320	1320	mg/Kg dry	1.00	11/29/10 19:25	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**24.1**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**75.9**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (4-6) (RTK1440-12 - Soil)							**Sampled: 11/17/10 15:50**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.1	0.45	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		6.1	1.0	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		6.1	0.80	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.1	1.4	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,1-Dichloroethane	ND		6.1	0.75	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,1-Dichloroethene	ND		6.1	0.75	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		6.1	0.37	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		6.1	3.1	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,2-Dibromoethane	ND		6.1	0.79	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		6.1	0.48	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,2-Dichloroethane	ND		6.1	0.31	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,2-Dichloropropane	ND		6.1	3.1	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		6.1	0.32	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		6.1	0.86	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
2-Butanone	ND		31	2.2	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Acetone	**17**	J	31	5.2	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Benzene	ND		6.1	0.30	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Bromodichloromethane	ND		6.1	0.82	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Bromoform	ND		6.1	3.1	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Bromomethane	ND		6.1	0.55	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Carbon disulfide	ND		6.1	3.1	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Carbon Tetrachloride	ND		6.1	0.59	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Chlorobenzene	ND		6.1	0.81	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Dibromochloromethane	ND		6.1	0.79	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Chloroethane	ND		6.1	1.4	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Chloroform	ND		6.1	0.38	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Chloromethane	ND		6.1	0.37	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		6.1	0.79	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		6.1	0.88	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Cyclohexane	ND		6.1	0.86	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		6.1	0.51	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Ethylbenzene	ND		6.1	0.42	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Isopropylbenzene	**12**	J	6.1	0.93	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Methyl Acetate	ND		6.1	1.1	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.1	0.60	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Methylcyclohexane	**54**	J	6.1	0.93	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Methylene Chloride	**33**	V B J	6.1	2.8	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Styrene	ND		6.1	0.31	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Tetrachloroethene	ND		6.1	0.82	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Toluene	ND		6.1	0.46	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		6.1	0.63	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		6.1	2.7	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Trichloroethene	ND		6.1	1.3	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Trichlorofluoromethane	ND		6.1	0.58	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Vinyl chloride	ND		6.1	0.75	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B
Xylenes, total	**4.6**	J	12	1.0	ug/kg dry	1.00	11/29/10 19:42	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Client ID: MW-31D-2R (4-6) (RTK1440-12 - Soil) - cont. **Sampled: 11/17/10 15:50** **Recvd: 11/19/10 09:45**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (64-126%)*				*11/29/10 19:42*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*91 %*		*Surr Limits: (72-126%)*				*11/29/10 19:42*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*92 %*		*Surr Limits: (71-125%)*				*11/29/10 19:42*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		210	46	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		210	14	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		210	57	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		410	74	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		210	33	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		210	51	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2-Chloronaphthalene	ND		210	14	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2-Chlorophenol	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2-Methylnaphthalene	**290**		210	2.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2-Methylphenol	ND		210	6.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2-Nitroaniline	ND		410	67	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2-Nitrophenol	ND		210	9.6	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		210	180	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
3-Nitroaniline	ND		410	48	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		410	73	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		210	67	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		210	8.7	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Chloroaniline	ND		210	62	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		210	4.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Methylphenol	ND		410	12	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Nitroaniline	ND		410	23	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
4-Nitrophenol	ND		410	51	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Acenaphthene	**410**		210	2.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Acenaphthylene	ND		210	1.7	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Acetophenone	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Anthracene	**400**		210	5.4	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Atrazine	ND		210	9.4	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Benzaldehyde	ND		210	23	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Benzo[a]anthracene	**640**		210	3.6	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Benzo[a]pyrene	**610**		210	5.1	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Benzo[b]fluoranthene	**740**		210	4.1	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**220**		210	2.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Benzo[k]fluoranthene	**260**		210	2.3	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Biphenyl	ND		210	13	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		210	18	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		210	22	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	**100**	J	210	68	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		210	56	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Caprolactam	ND		210	91	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (4-6) (RTK1440-12 - Soil) - cont.							**Sampled: 11/17/10 15:50**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**44**	J	210	2.4	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Chrysene	**500**		210	2.1	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	**53**	J	210	2.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Dibenzofuran	**240**		210	2.2	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Diethyl phthalate	ND		210	6.4	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Dimethyl phthalate	ND		210	5.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		210	73	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		210	4.9	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Fluoranthene	**1500**		210	3.0	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Fluorene	**430**		210	4.8	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Hexachlorobenzene	ND		210	10	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Hexachlorobutadiene	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		210	64	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Hexachloroethane	ND		210	16	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**160**	J	210	5.8	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Isophorone	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Naphthalene	ND		210	3.5	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Nitrobenzene	ND		210	9.3	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		210	17	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND		210	11	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Pentachlorophenol	ND		410	72	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Phenanthrene	**1700**		210	4.4	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Phenol	ND		210	22	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
Pyrene	**1200**		210	1.4	ug/kg dry	1.00	11/30/10 16:30	MKP	10K2280	8270C
2,4,6-Tribromophenol	*111 %*		*Surr Limits: (39-146%)*				*11/30/10 16:30*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*76 %*		*Surr Limits: (37-120%)*				*11/30/10 16:30*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*59 %*		*Surr Limits: (18-120%)*				*11/30/10 16:30*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*67 %*		*Surr Limits: (34-132%)*				*11/30/10 16:30*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*67 %*		*Surr Limits: (11-120%)*				*11/30/10 16:30*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*81 %*		*Surr Limits: (58-147%)*				*11/30/10 16:30*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1340**	J	12.3	5.4	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Antimony	ND		18.4	0.7	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Arsenic	**1.0**	J	2.5	0.5	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Barium	**4.83**	J	0.614	0.135	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Beryllium	**0.042**	J	0.246	0.034	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Cadmium	**0.075**	J	0.246	0.037	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Calcium	**304**	B J	61.4	4.1	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Chromium	**2.88**		0.614	0.246	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Cobalt	**0.667**		0.614	0.061	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Copper	**1.6**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Iron	**2130**	B J	12.3	1.4	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Lead	**2.5**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Magnesium	**370**	B J	24.6	1.1	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Manganese	**21.1**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Nickel	**1.90**	J	6.14	0.282	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Potassium	**247**	J	36.8	24.6	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Selenium	ND		4.9	0.7	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (4-6) (RTK1440-12 - Soil) - cont.							**Sampled: 11/17/10 15:50**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.614	0.246	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Sodium	**53.7**	J	172	16.0	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Thallium	ND		7.4	0.4	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Vanadium	**3.78**		0.614	0.135	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Zinc	**6.6**	B	2.5	0.2	mg/kg dry	1.00	11/23/10 13:14	LMH	10K2022	6010B
Mercury	ND		0.0228	0.0092	mg/kg dry	1.00	11/22/10 15:19	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**80**		0.010	NR	%	1.00	11/22/10 17:22	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.5~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**131**		125	62.7	mg/kg dry	1.00	11/24/10 14:46	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3760**		1240	1240	mg/Kg dry	1.00	11/29/10 19:38	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**19.6**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**80.4**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: MW-31D-2R (6-8) (RTK1440-13 - Soil) — **Sampled: 11/17/10 15:55** — **Recvd: 11/19/10 09:45**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.88	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		5.5	0.71	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.2	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,1-Dichloroethene	ND		5.5	0.67	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.33	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		5.5	2.7	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,2-Dibromoethane	ND		5.5	0.70	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,2-Dichloroethane	ND		5.5	0.27	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,2-Dichloropropane	ND		5.5	2.7	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		5.5	0.76	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Acetone	**14**	J	27	4.6	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Bromodichloromethane	ND		5.5	0.73	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Bromoform	ND		5.5	2.7	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Bromomethane	ND		5.5	0.49	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Carbon disulfide	ND		5.5	2.7	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Carbon Tetrachloride	ND		5.5	0.53	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Chlorobenzene	ND		5.5	0.72	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Dibromochloromethane	ND		5.5	0.70	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Chloroethane	ND		5.5	1.2	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		5.5	0.70	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Cyclohexane	ND		5.5	0.76	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		5.5	0.45	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Isopropylbenzene	**4.5**	J	5.5	0.82	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Methylcyclohexane	**14**		5.5	0.83	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Methylene Chloride	**22**	U B J	5.5	2.5	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Styrene	ND		5.5	0.27	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Tetrachloroethene	ND		5.5	0.73	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Toluene	ND		5.5	0.41	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		5.5	0.56	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B
Xylenes, total	**2.6**	J	11	0.92	ug/kg dry	1.00	11/29/10 20:07	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (6-8) (RTK1440-13 - Soil) - cont.							**Sampled: 11/17/10 15:55**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*100 %*		*Surr Limits: (64-126%)*				*11/29/10 20:07*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*93 %*		*Surr Limits: (72-126%)*				*11/29/10 20:07*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*89 %*		*Surr Limits: (71-125%)*				*11/29/10 20:07*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D12	1900	410	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND	D12	1900	130	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,4-Dichlorophenol	ND	D12	1900	100	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,4-Dimethylphenol	ND	D12	1900	510	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,4-Dinitrophenol	ND	D12	3700	660	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND	D12	1900	290	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND	D12	1900	460	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2-Chloronaphthalene	ND	D12	1900	130	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2-Chlorophenol	ND	D12	1900	97	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2-Methylnaphthalene	ND	D12	1900	23	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2-Methylphenol	ND	D12	1900	58	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2-Nitroaniline	ND	D12	3700	610	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2-Nitrophenol	ND	D12	1900	87	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND	D12	1900	1700	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
3-Nitroaniline	ND	D12	3700	440	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND	D12	3700	660	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND	D12	1900	600	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND	D12	1900	78	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Chloroaniline	ND	D12	1900	560	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND	D12	1900	41	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Methylphenol	ND	D12	3700	110	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Nitroaniline	ND	D12	3700	210	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
4-Nitrophenol	ND	D12	3700	460	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Acenaphthene	**190**	D12,J	1900	22	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Acenaphthylene	ND	D12	1900	16	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Acetophenone	ND J	D12	1900	98	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Anthracene	**890**	D12,J	1900	49	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Atrazine	ND	D12	1900	85	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Benzaldehyde	ND	D12	1900	210	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Benzo[a]anthracene	**8900**	D12	1900	33	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Benzo[a]pyrene	**11000**	D12	1900	46	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Benzo[b]fluoranthene	**11000**	D12	1900	37	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**6300**	D12	1900	23	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Benzo[k]fluoranthene	**4500**	D12	1900	21	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Biphenyl	ND	D12	1900	120	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND	D12	1900	100	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND	D12	1900	160	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D12	1900	200	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	**1200**	D12,J	1900	610	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Butyl benzyl phthalate	ND	D12	1900	510	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Caprolactam	ND	D12	1900	820	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (6-8) (RTK1440-13 - Soil) - cont.							**Sampled: 11/17/10 15:55**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND	D12	1900	22	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Chrysene	**8500**	D12	1900	19	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	**1700**	D12,J	1900	22	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Dibenzofuran	ND	D12	1900	20	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Diethyl phthalate	ND	D12	1900	57	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Dimethyl phthalate	ND	D12	1900	50	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Di-n-butyl phthalate	ND	D12	1900	660	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Di-n-octyl phthalate	ND	D12	1900	44	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Fluoranthene	**11000**	D12	1900	28	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Fluorene	**220**	D12,J	1900	44	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Hexachlorobenzene	ND	D12	1900	94	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Hexachlorobutadiene	ND	D12	1900	97	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND	D12	1900	570	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Hexachloroethane	ND	D12	1900	150	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**5800**	D12	1900	53	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Isophorone	ND	D12	1900	95	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Naphthalene	ND	D12	1900	32	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Nitrobenzene	ND	D12	1900	84	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND	D12	1900	150	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
N-Nitrosodiphenylamine	ND	D12	1900	100	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Pentachlorophenol	ND	D12	3700	650	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Phenanthrene	**1400**	D12,J	1900	40	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Phenol	ND	D12	1900	200	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
Pyrene	**12000**	D12	1900	12	ug/kg dry	10.0	11/24/10 21:30	MKP	10K2280	8270C
2,4,6-Tribromophenol	*95 %*	*D12*	*Surr Limits: (39-146%)*				*11/24/10 21:30*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*100 %*	*D12*	*Surr Limits: (37-120%)*				*11/24/10 21:30*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*78 %*	*D12*	*Surr Limits: (18-120%)*				*11/24/10 21:30*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*87 %*	*D12*	*Surr Limits: (34-132%)*				*11/24/10 21:30*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*92 %*	*D12*	*Surr Limits: (11-120%)*				*11/24/10 21:30*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*104 %*	*D12*	*Surr Limits: (58-147%)*				*11/24/10 21:30*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**2720**	J	11.3	5.0	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Antimony	ND		17.0	0.6	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Arsenic	**1.6**	J	2.3	0.5	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Barium	**14.1**	J	0.565	0.124	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Beryllium	**0.130**	J	0.226	0.032	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Cadmium	**0.171**	J	0.226	0.034	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Calcium	**9650**	B J	56.5	3.7	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Chromium	**5.37**		0.565	0.226	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Cobalt	**1.49**		0.565	0.057	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Copper	**4.9**		1.1	0.2	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Iron	**4420**	B J	11.3	1.2	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Lead	**15.6**		1.1	0.3	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Magnesium	**2450**	B J	22.6	1.0	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Manganese	**55.7**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Nickel	**3.88**	J	5.65	0.260	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Potassium	**324**	J	33.9	22.6	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Selenium	ND		4.5	0.6	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: MW-31D-2R (6-8) (RTK1440-13 - Soil) - cont.							**Sampled: 11/17/10 15:55**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.565	0.226	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Sodium	**52.4**	J	158	14.7	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Thallium	ND		6.8	0.3	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Vanadium	**6.16**		0.565	0.124	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Zinc	**21.0**	B	2.3	0.2	mg/kg dry	1.00	11/23/10 13:16	LMH	10K2022	6010B
Mercury	**0.0119**	J	0.0219	0.0089	mg/kg dry	1.00	11/22/10 15:21	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**87**		0.010	NR	%	1.00	11/22/10 17:24	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.3~~	~~0.3~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	ND		114	57.2	mg/kg dry	1.00	11/24/10 14:46	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**5630**		1080	1080	mg/Kg dry	1.00	11/29/10 19:51	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**7.4**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**92.6**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: RB1 (11-17-10) (RTK1440-14 - Water) **Sampled: 11/17/10 16:00** **Recvd: 11/19/10 09:45**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,2-Dibromo-3-chloropropane	ND		1.0	0.39	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Acetone	ND		5.0	3.0	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Methylene Chloride	**7.5**	B	1.0	0.44	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	11/29/10 14:59	RJ	10K2659	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB1 (11-17-10) (RTK1440-14 - Water) - cont.							**Sampled: 11/17/10 16:00**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*97 %*		*Surr Limits: (66-137%)*				*11/29/10 14:59*	*RJ*	*10K2659*	*8260B*
4-Bromofluorobenzene	*102 %*		*Surr Limits: (73-120%)*				*11/29/10 14:59*	*RJ*	*10K2659*	*8260B*
Toluene-d8	*105 %*		*Surr Limits: (71-126%)*				*11/29/10 14:59*	*RJ*	*10K2659*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,4-Dichlorophenol	ND		5.0	0.51	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,4-Dimethylphenol	ND		5.0	0.50	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,4-Dinitrophenol	ND		10	2.2	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,4-Dinitrotoluene	ND		5.0	0.44	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2-Chloronaphthalene	ND		5.0	0.46	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2-Chlorophenol	ND		5.0	0.53	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2-Methylnaphthalene	ND		5.0	0.60	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2-Methylphenol	ND		5.0	0.40	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2-Nitroaniline	ND		10	0.42	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2-Nitrophenol	ND		5.0	0.48	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
3-Nitroaniline	ND		10	0.48	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Chloroaniline	ND		5.0	0.59	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Methylphenol	ND		10	0.36	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Nitroaniline	ND		10	0.25	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
4-Nitrophenol	ND		10	1.5	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Acenaphthene	ND		5.0	0.41	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Acenaphthylene	ND		5.0	0.38	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Acetophenone	ND	J	5.0	0.54	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Anthracene	ND		5.0	0.28	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Atrazine	ND		5.0	0.46	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Benzaldehyde	ND		5.0	0.27	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Benzo(a)anthracene	ND		5.0	0.36	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Benzo(a)pyrene	ND		5.0	0.47	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Benzo(ghi)perylene	ND		5.0	0.35	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Biphenyl	ND		5.0	0.65	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.0	0.52	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Bis(2-ethylhexyl) phthalate	ND		5.0	1.8	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Butyl benzyl phthalate	ND		5.0	0.42	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Caprolactam	ND		5.0	2.2	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB1 (11-17-10) (RTK1440-14 - Water) - cont.							**Sampled: 11/17/10 16:00**		**Recvd: 11/19/10 09:45**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		5.0	0.30	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Chrysene	ND		5.0	0.33	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Dibenzo(a,h)anthracene	ND		5.0	0.42	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Dibenzofuran	ND		5.0	0.51	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Diethyl phthalate	ND		5.0	0.22	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Dimethyl phthalate	ND		5.0	0.36	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Di-n-butyl phthalate	ND		5.0	0.31	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Di-n-octyl phthalate	ND		5.0	0.47	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Fluoranthene	ND		5.0	0.40	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Fluorene	ND		5.0	0.36	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Hexachlorobenzene	ND		5.0	0.51	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Hexachlorobutadiene	ND		5.0	0.68	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Hexachloroethane	ND		5.0	0.59	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Isophorone	ND		5.0	0.43	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Naphthalene	ND		5.0	0.76	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Nitrobenzene	ND		5.0	0.29	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Pentachlorophenol	ND		10	2.2	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Phenanthrene	ND		5.0	0.44	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Phenol	ND		5.0	0.39	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
Pyrene	ND		5.0	0.34	ug/L	1.00	11/24/10 14:50	MKP	10K2368	8270C
2,4,6-Tribromophenol	*93 %*		*Surr Limits: (52-132%)*				*11/24/10 14:50*	*MKP*	*10K2368*	*8270C*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (48-120%)*				*11/24/10 14:50*	*MKP*	*10K2368*	*8270C*
2-Fluorophenol	*34 %*		*Surr Limits: (20-120%)*				*11/24/10 14:50*	*MKP*	*10K2368*	*8270C*
Nitrobenzene-d5	*74 %*		*Surr Limits: (46-120%)*				*11/24/10 14:50*	*MKP*	*10K2368*	*8270C*
Phenol-d5	*26 %*		*Surr Limits: (16-120%)*				*11/24/10 14:50*	*MKP*	*10K2368*	*8270C*
p-Terphenyl-d14	*73 %*		*Surr Limits: (24-136%)*				*11/24/10 14:50*	*MKP*	*10K2368*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	ND		0.200	0.045	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Barium	ND		0.0020	0.0005	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Calcium	**0.1**	J, B	0.5	0.1	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Copper	ND		0.0100	0.0015	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Iron	ND		0.050	0.019	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Lead	ND	J	0.0050	0.0030	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Magnesium	ND		0.200	0.043	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Manganese	**0.0002**	J	0.0030	0.0002	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Potassium	ND		0.500	0.200	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB1 (11-17-10) (RTK1440-14 - Water) - cont.							**Sampled: 11/17/10 16:00**		**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Sodium	ND		1.0	0.3	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Vanadium	ND		0.0050	0.0011	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Zinc	ND		0.0100	0.0017	mg/L	1.00	11/23/10 20:13	AMH	10K2276	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	11/29/10 16:13	JRK	10K2495	7470A
General Chemistry Parameters										
Ferrous Iron	~~ND~~	~~HFT~~	~~0.100~~	~~0.0750~~	mg/L	1.00	11/19/10 21:35	JFR	10K2055	3500FE
Sulfate	ND		5.0	1.5	mg/L	1.00	11/22/10 19:09	KLD	10K2304	D-516-90
Soluble Organic Carbon	ND		1.0	0.4	mg/L	1.00	11/25/10 13:12	KLD	10K2431	9060

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-111710 (RTK1440-15 - Soil)						**Sampled: 11/17/10**			**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.1	0.44	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,1,2,2-Tetrachloroethane	ND		6.1	0.98	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,1,2-Trichloroethane	ND		6.1	0.79	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.1	1.4	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,1-Dichloroethane	ND		6.1	0.74	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,1-Dichloroethene	ND		6.1	0.74	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,2,4-Trichlorobenzene	ND		6.1	0.37	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,2-Dibromo-3-chloropropane	ND		6.1	3.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,2-Dibromoethane	ND		6.1	0.78	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,2-Dichlorobenzene	ND		6.1	0.47	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,2-Dichloroethane	ND		6.1	0.30	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,2-Dichloropropane	ND		6.1	3.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,3-Dichlorobenzene	ND		6.1	0.31	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
1,4-Dichlorobenzene	ND		6.1	0.85	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
2-Butanone	ND		30	2.2	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
2-Hexanone	ND		30	3.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
4-Methyl-2-pentanone	ND		30	2.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Acetone	**19**	J	30	5.1	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Benzene	**2.8**	J	6.1	0.30	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Bromodichloromethane	ND		6.1	0.81	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Bromoform	ND		6.1	3.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Bromomethane	ND		6.1	0.55	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Carbon disulfide	ND		6.1	3.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Carbon Tetrachloride	ND		6.1	0.59	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Chlorobenzene	ND		6.1	0.80	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Dibromochloromethane	ND		6.1	0.78	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Chloroethane	ND		6.1	1.4	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Chloroform	ND		6.1	0.38	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Chloromethane	ND		6.1	0.37	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
cis-1,2-Dichloroethene	ND		6.1	0.78	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
cis-1,3-Dichloropropene	ND		6.1	0.87	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Cyclohexane	ND		6.1	0.85	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Dichlorodifluoromethane	ND		6.1	0.50	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Ethylbenzene	**3.1**	J	6.1	0.42	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Isopropylbenzene	**22** 44 D J		6.1	0.92	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Methyl Acetate	ND		6.1	1.1	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.1	0.60	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Methylcyclohexane	**66** 190 DJ		6.1	0.92	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Methylene Chloride	**31** U B J		6.1	2.8	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Styrene	ND		6.1	0.30	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Tetrachloroethene	ND		6.1	0.81	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Toluene	ND		6.1	0.46	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
trans-1,2-Dichloroethene	ND		6.1	0.63	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
trans-1,3-Dichloropropene	ND		6.1	2.7	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Trichloroethene	ND		6.1	1.3	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Trichlorofluoromethane	ND		6.1	0.57	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Vinyl chloride	ND		6.1	0.74	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B
Xylenes, total	**6.8**	J	12	1.0	ug/kg dry	1.00	11/29/10 20:32	RJ	10K2623	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-111710 (RTK1440-15 - Soil) - cont.							**Sampled: 11/17/10**		**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*98 %*		*Surr Limits: (64-126%)*				*11/29/10 20:32*	*RJ*	*10K2623*	*8260B*
4-Bromofluorobenzene	*72 %*	*N1*	*Surr Limits: (72-126%)*				*11/29/10 20:32*	*RJ*	*10K2623*	*8260B*
Toluene-d8	*72 %*		*Surr Limits: (71-125%)*				*11/29/10 20:32*	*RJ*	*10K2623*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		200	44	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,4,6-Trichlorophenol	ND		200	13	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,4-Dichlorophenol	ND		200	11	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,4-Dimethylphenol	ND		200	55	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,4-Dinitrophenol	ND		400	71	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,4-Dinitrotoluene	ND		200	32	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,6-Dinitrotoluene	ND		200	50	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2-Chloronaphthalene	ND		200	14	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2-Chlorophenol	ND		200	10	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2-Methylnaphthalene	**310**		200	2.5	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2-Methylphenol	ND		200	6.3	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2-Nitroaniline	ND		400	65	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2-Nitrophenol	ND		200	9.3	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
3,3'-Dichlorobenzidine	ND		200	180	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
3-Nitroaniline	ND		400	47	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4,6-Dinitro-2-methylphenol	ND		400	70	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Bromophenyl phenyl ether	ND		200	65	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Chloro-3-methylphenol	ND		200	8.4	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Chloroaniline	ND		200	60	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Chlorophenyl phenyl ether	ND		200	4.3	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Methylphenol	ND		400	11	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Nitroaniline	ND		400	23	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
4-Nitrophenol	ND		400	49	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Acenaphthene	**530**		200	2.4	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Acenaphthylene	ND		200	1.7	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Acetophenone	ND		200	10	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Anthracene	**530**		200	5.2	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Atrazine	ND		200	9.1	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Benzaldehyde	ND		200	22	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Benzo[a]anthracene	**780**		200	3.5	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Benzo[a]pyrene	**630**		200	4.9	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Benzo[b]fluoranthene	**750**		200	3.9	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Benzo[g,h,i]perylene	**270**		200	2.4	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Benzo[k]fluoranthene	**280**		200	2.2	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Biphenyl	ND		200	13	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Bis(2-chloroethoxy)methane	ND		200	11	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Bis(2-chloroethyl)ether	ND		200	18	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,2'-Oxybis(1-Chloropropane)	ND		200	21	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Bis(2-ethylhexyl) phthalate	**110**	J	200	66	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Butyl benzyl phthalate	ND		200	55	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Caprolactam	ND		200	88	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-111710 (RTK1440-15 - Soil) - cont.						**Sampled: 11/17/10**		**Recvd: 11/19/10 09:45**		
Semivolatile Organics by GC/MS - cont.										
Carbazole	**53**	J	200	2.4	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Chrysene	**610**		200	2.0	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Dibenzo(a,h)anthracene	**57**	J	200	2.4	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Dibenzofuran	**310**		200	2.1	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Diethyl phthalate	ND		200	6.1	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Dimethyl phthalate	ND		200	5.3	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Di-n-butyl phthalate	ND		200	70	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Di-n-octyl phthalate	ND		200	4.8	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Fluoranthene	**2000**		200	2.9	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Fluorene	**550**		200	4.7	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Hexachlorobenzene	ND		200	10	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Hexachlorobutadiene	ND		200	10	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Hexachlorocyclopentadiene	ND		200	62	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Hexachloroethane	ND		200	16	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Indeno[1,2,3-cd]pyrene	**190**	J	200	5.6	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Isophorone	ND		200	10	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Naphthalene	ND		200	3.4	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Nitrobenzene	ND		200	9.0	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
N-Nitrosodi-n-propylamine	ND		200	16	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
N-Nitrosodiphenylamine	**160**	J	200	11	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Pentachlorophenol	ND		400	70	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Phenanthrene	**2200**		200	4.3	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Phenol	ND		200	21	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
Pyrene	**1500**		200	1.3	ug/kg dry	1.00	11/30/10 16:54	MKP	10K2280	8270C
2,4,6-Tribromophenol	*108 %*		*Surr Limits: (39-146%)*				*11/30/10 16:54*	*MKP*	*10K2280*	*8270C*
2-Fluorobiphenyl	*81 %*		*Surr Limits: (37-120%)*				*11/30/10 16:54*	*MKP*	*10K2280*	*8270C*
2-Fluorophenol	*67 %*		*Surr Limits: (18-120%)*				*11/30/10 16:54*	*MKP*	*10K2280*	*8270C*
Nitrobenzene-d5	*78 %*		*Surr Limits: (34-132%)*				*11/30/10 16:54*	*MKP*	*10K2280*	*8270C*
Phenol-d5	*76 %*		*Surr Limits: (11-120%)*				*11/30/10 16:54*	*MKP*	*10K2280*	*8270C*
p-Terphenyl-d14	*81 %*		*Surr Limits: (58-147%)*				*11/30/10 16:54*	*MKP*	*10K2280*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1430**	J	12.2	5.4	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Antimony	ND		18.3	0.7	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Arsenic	**0.9**	J	2.4	0.5	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Barium	**4.63**	J	0.611	0.135	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Beryllium	**0.068**	J	0.245	0.034	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Cadmium	**0.099**	J	0.245	0.037	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Calcium	**245**	B J	61.1	4.0	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Chromium	**2.21**		0.611	0.245	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Cobalt	**0.786**		0.611	0.061	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Copper	**2.0**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Iron	**2120**	B J	12.2	1.3	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Lead	**3.6**		1.2	0.3	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Magnesium	**331**	B J	24.5	1.1	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Manganese	**22.0**	B J	0.2	0.04	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Nickel	**1.88**	J	6.11	0.281	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Potassium	**249**	J	36.7	24.5	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Selenium	ND		4.9	0.7	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-111710 (RTK1440-15 - Soil) - cont.						**Sampled: 11/17/10**			**Recvd: 11/19/10 09:45**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.611	0.245	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Sodium	**49.8**	J	171	15.9	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Thallium	ND		7.3	0.4	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Vanadium	**2.89**		0.611	0.135	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Zinc	**6.5**	B	2.4	0.2	mg/kg dry	1.00	11/23/10 13:18	LMH	10K2022	6010B
Mercury	ND		0.0221	0.0090	mg/kg dry	1.00	11/22/10 15:22	JRK	10K2181	7471A
General Chemistry Parameters										
Percent Solids	**81**		0.010	NR	%	1.00	11/22/10 17:26	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	R	~~2.5~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**136**		123	61.5	mg/kg dry	1.00	11/24/10 14:46	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**1300**		1170	1170	mg/Kg dry	1.00	11/29/10 20:04	MNT	10362	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**14.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**85.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-111710 (RTK1440-15RE1 - Soil)						**Sampled: 11/17/10**			**Recvd: 11/19/10 09:45**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		30	2.2	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,1,2,2-Tetrachloroethane	ND		30	4.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,1,2-Trichloroethane	ND		30	3.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		30	6.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,1-Dichloroethane	ND		30	3.7	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,1-Dichloroethene	ND		30	3.7	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,2,4-Trichlorobenzene	ND		30	1.8	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,2-Dibromo-3-chloropropane	ND		30	15	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,2-Dibromoethane	ND		30	3.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,2-Dichlorobenzene	ND		30	2.4	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,2-Dichloroethane	ND		30	1.5	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,2-Dichloropropane	ND		30	15	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,3-Dichlorobenzene	ND		30	1.6	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
1,4-Dichlorobenzene	ND		30	4.2	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
2-Butanone	ND		150	11	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
2-Hexanone	ND		150	15	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
4-Methyl-2-pentanone	ND		150	9.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Acetone	**35**	J	150	25	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Benzene	ND		30	1.5	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Bromodichloromethane	ND		30	4.0	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Bromoform	ND		30	15	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Bromomethane	ND		30	2.7	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Carbon disulfide	ND		30	15	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Carbon Tetrachloride	ND		30	2.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Chlorobenzene	ND		30	4.0	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Dibromochloromethane	ND		30	3.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Chloroethane	ND		30	6.8	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Chloroform	ND		30	1.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Chloromethane	ND		30	1.8	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
cis-1,2-Dichloroethene	ND		30	3.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
cis-1,3-Dichloropropene	ND		30	4.4	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Cyclohexane	ND		30	4.2	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Dichlorodifluoromethane	ND		30	2.5	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Ethylbenzene	ND		30	2.1	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Isopropylbenzene	**44**		30	4.6	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Methyl Acetate	ND		30	5.6	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Methyl-t-Butyl Ether (MTBE)	ND		30	3.0	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Methylcyclohexane	**180**		30	4.6	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Methylene Chloride	**72**		30	14	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Styrene	ND		30	1.5	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Tetrachloroethene	ND		30	4.1	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Toluene	ND		30	2.3	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
trans-1,2-Dichloroethene	ND		30	3.1	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
trans-1,3-Dichloropropene	ND		30	13	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Trichloroethene	ND		30	6.6	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Trichlorofluoromethane	ND		30	2.9	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Vinyl chloride	ND		30	3.7	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B
Xylenes, total	ND		60	5.1	ug/kg dry	1.00	11/30/10 04:02	CDC	10K2672	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: DUP-111710 (RTK1440-15RE1 - Soil) - cont.							**Sampled: 11/17/10**			**Recvd: 11/19/10 09:45**
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*97 %*		*Surr Limits: (64-126%)*				*11/30/10 04:02*	*CDC*	*10K2672*	*8260B*
4-Bromofluorobenzene	*84 %*		*Surr Limits: (72-126%)*				*11/30/10 04:02*	*CDC*	*10K2672*	*8260B*
Toluene-d8	*85 %*		*Surr Limits: (71-125%)*				*11/30/10 04:02*	*CDC*	*10K2672*	*8260B*

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440
Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-4 (2-4) (RTK1486-01 - Soil) **Sampled: 11/18/10 09:35** **Recvd: 11/20/10 09:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		5.3	0.39	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		5.3	0.87	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		5.3	0.70	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		5.3	0.65	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		5.3	0.65	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		5.3	0.33	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		5.3	0.69	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		5.3	0.42	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		5.3	0.27	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		5.3	0.27	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		5.3	0.75	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Acetone	ND		27	4.5	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Benzene	ND		5.3	0.26	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Bromodichloromethane	ND		5.3	0.72	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Bromoform	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Bromomethane	ND		5.3	0.48	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Carbon disulfide	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		5.3	0.52	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Chlorobenzene	ND		5.3	0.71	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Dibromochloromethane	ND		5.3	0.68	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Chloroethane	ND		5.3	1.2	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Chloroform	ND		5.3	0.33	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Chloromethane	ND		5.3	0.32	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		5.3	0.68	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		5.3	0.77	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Cyclohexane	ND		5.3	0.75	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		5.3	0.44	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Ethylbenzene	ND		5.3	0.37	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Isopropylbenzene	ND		5.3	0.81	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Methyl Acetate	ND		5.3	0.99	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.3	0.53	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Methylcyclohexane	ND		5.3	0.81	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Methylene Chloride	**5.2**	J	5.3	2.5	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Styrene	ND		5.3	0.27	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Tetrachloroethene	ND		5.3	0.72	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Toluene	ND		5.3	0.40	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		5.3	0.55	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		5.3	2.4	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Trichloroethene	ND		5.3	1.2	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		5.3	0.51	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Vinyl chloride	ND		5.3	0.65	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B
Xylenes, total	ND		11	0.90	ug/kg dry	1.00	12/01/10 13:32	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (2-4) (RTK1486-01 - Soil) - cont.							**Sampled: 11/18/10 09:35**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*113 %*		*Surr Limits: (64-126%)*				*12/01/10 13:32*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*109 %*		*Surr Limits: (72-126%)*				*12/01/10 13:32*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*102 %*		*Surr Limits: (71-125%)*				*12/01/10 13:32*	*PJQ*	*10L0022*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		180	39	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,4,6-Trichlorophenol	ND		180	12	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,4-Dichlorophenol	ND		180	9.4	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,4-Dimethylphenol	ND		180	48	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,4-Dinitrophenol	ND		350	63	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,4-Dinitrotoluene	ND		180	28	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,6-Dinitrotoluene	ND		180	44	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2-Chloronaphthalene	ND		180	12	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2-Chlorophenol	ND		180	9.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2-Methylnaphthalene	ND		180	2.2	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2-Methylphenol	ND		180	5.5	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2-Nitroaniline	ND		350	57	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2-Nitrophenol	ND		180	8.2	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
3,3'-Dichlorobenzidine	ND		180	160	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
3-Nitroaniline	ND		350	41	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND		350	62	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Bromophenyl phenyl ether	ND		180	57	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Chloro-3-methylphenol	ND		180	7.4	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Chloroaniline	ND		180	53	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Chlorophenyl phenyl ether	ND		180	3.8	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Methylphenol	ND		350	10	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Nitroaniline	ND		350	20	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
4-Nitrophenol	ND		350	43	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Acenaphthene	ND		180	2.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Acenaphthylene	ND		180	1.5	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Acetophenone	ND		180	9.2	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Anthracene	ND		180	4.6	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Atrazine	ND		180	8.0	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Benzaldehyde	ND		180	20	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Benzo[a]anthracene	**20**	J	180	3.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Benzo[a]pyrene	**18**	J	180	4.3	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Benzo[b]fluoranthene	**21**	J	180	3.5	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Benzo[g,h,i]perylene	**14**	J	180	2.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Benzo[k]fluoranthene	ND		180	2.0	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Biphenyl	ND		180	11	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Bis(2-chloroethoxy)methane	ND		180	9.7	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Bis(2-chloroethyl)ether	ND		180	15	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND		180	19	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Bis(2-ethylhexyl) phthalate	ND		180	58	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Butyl benzyl phthalate	ND		180	48	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Caprolactam	ND		180	77	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (2-4) (RTK1486-01 - Soil) - cont.							**Sampled: 11/18/10 09:35**		**Recvd: 11/20/10 09:15**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		180	2.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Chrysene	**18**	J	180	1.8	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Dibenzo(a,h)anthracene	ND		180	2.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Dibenzofuran	ND		180	1.9	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Diethyl phthalate	ND		180	5.4	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Dimethyl phthalate	ND		180	4.7	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Di-n-butyl phthalate	ND		180	62	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Di-n-octyl phthalate	ND		180	4.2	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Fluoranthene	**36**	J	180	2.6	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Fluorene	ND		180	4.1	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Hexachlorobenzene	ND		180	8.9	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Hexachlorobutadiene	ND		180	9.2	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Hexachlorocyclopentadiene	ND		180	54	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Hexachloroethane	ND		180	14	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Indeno[1,2,3-cd]pyrene	ND		180	5.0	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Isophorone	ND		180	9.0	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Naphthalene	ND		180	3.0	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Nitrobenzene	ND		180	7.9	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
N-Nitrosodi-n-propylamine	ND		180	14	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
N-Nitrosodiphenylamine	ND		180	9.8	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Pentachlorophenol	ND		350	61	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Phenanthrene	**22**	J	180	3.8	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Phenol	ND		180	19	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
Pyrene	**29**	J	180	1.2	ug/kg dry	1.00	11/24/10 06:34	JLG	10K2281	8270C
2,4,6-Tribromophenol	*88 %*		*Surr Limits: (39-146%)*				*11/24/10 06:34*	*JLG*	*10K2281*	*8270C*
2-Fluorobiphenyl	*77 %*		*Surr Limits: (37-120%)*				*11/24/10 06:34*	*JLG*	*10K2281*	*8270C*
2-Fluorophenol	*61 %*		*Surr Limits: (18-120%)*				*11/24/10 06:34*	*JLG*	*10K2281*	*8270C*
Nitrobenzene-d5	*74 %*		*Surr Limits: (34-132%)*				*11/24/10 06:34*	*JLG*	*10K2281*	*8270C*
Phenol-d5	*75 %*		*Surr Limits: (11-120%)*				*11/24/10 06:34*	*JLG*	*10K2281*	*8270C*
p-Terphenyl-d14	*77 %*		*Surr Limits: (58-147%)*				*11/24/10 06:34*	*JLG*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**8070**	J	10.7	4.7	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Antimony	ND		16.1	0.6	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Arsenic	**3.8**		2.1	0.4	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Barium	**26.6**		0.536	0.118	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Beryllium	**0.362**		0.214	0.030	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Cadmium	**0.193**	J	0.214	0.032	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Calcium	**556**	B	53.6	3.5	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Chromium	**10.6**		0.536	0.214	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Cobalt	**4.27**		0.536	0.054	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Copper	**4.8**		1.1	0.2	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Iron	**10100**	B J	10.7	1.2	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Lead	**8.2**	J	1.1	0.3	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Magnesium	**1070**	B	21.4	1.0	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Manganese	**246**	B	0.2	0.03	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Nickel	**6.07**	J	5.36	0.246	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Potassium	**305**	J	32.1	21.4	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Selenium	ND		4.3	0.6	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (2-4) (RTK1486-01 - Soil) - cont.							**Sampled: 11/18/10 09:35**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.536	0.214	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Sodium	**83.1**	J	150	13.9	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Thallium	ND		6.4	0.3	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Vanadium	**13.6**		0.536	0.118	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Zinc	**20.8**	B	2.1	0.2	mg/kg dry	1.00	11/23/10 13:41	LMH	10K2209	6010B
Mercury	**0.0173**	J	0.0218	0.0088	mg/kg dry	1.00	11/23/10 12:10	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**92**		0.010	NR	%	1.00	11/22/10 18:14	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~ R	~~D02~~	~~8.7~~	~~1.3~~	mg/kg dry	4.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**172**		108	54.0	mg/kg dry	1.00	11/24/10 14:46	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2320**		1100	1100	mg/Kg dry	1.00	12/02/10 18:01	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**9.2**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**90.8**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-4 (4-6) (RTK1486-02 - Soil) **Sampled: 11/18/10 09:40** **Recvd: 11/20/10 09:15**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND	D08, W1	230	64	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,1,2,2-Tetrachloroethane	ND	D08, W1	230	38	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,1,2-Trichloroethane	ND	D08, W1	230	49	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	D08, W1	230	120	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,1-Dichloroethane	ND	D08, W1	230	72	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,1-Dichloroethene	ND	D08, W1	230	80	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,2,4-Trichlorobenzene	ND	D08, W1	230	88	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,2-Dibromo-3-chloropropane	ND	D08, W1	230	120	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,2-Dibromoethane	ND	D08, W1	230	8.8	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,2-Dichlorobenzene	ND	D08, W1	230	59	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,2-Dichloroethane	ND	D08, W1	230	95	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,2-Dichloropropane	ND	D08, W1	230	38	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,3-Dichlorobenzene	ND	D08, W1	230	62	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
1,4-Dichlorobenzene	ND	D08, W1	230	33	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
2-Butanone	ND	D08, W1	1200	690	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
2-Hexanone	ND	D08, W1	1200	480	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
4-Methyl-2-pentanone	ND	D08, W1	1200	74	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Acetone	ND	D08, W1	1200	950	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Benzene	ND	D08, W1	230	11	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Bromodichloromethane	ND	D08, W1	230	46	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Bromoform	ND	D08, W1	230	120	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Bromomethane	ND	D08, W1	230	51	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Carbon disulfide	ND	D08, W1	230	110	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Carbon Tetrachloride	ND	D08, W1	230	59	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Chlorobenzene	ND	D08, W1	230	31	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Dibromochloromethane	ND	D08, W1	230	110	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Chloroethane	ND	D08, W1	230	48	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Chloroform	ND	D08, W1	230	160	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Chloromethane	ND	D08, W1	230	55	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
cis-1,2-Dichloroethene	ND	D08, W1	230	64	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
cis-1,3-Dichloropropene	ND	D08, W1	230	56	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Cyclohexane	ND	D08, W1	230	52	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Dichlorodifluoromethane	ND	D08, W1	230	100	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Ethylbenzene	**200**	D08, W1,J	230	68	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Isopropylbenzene	**390**	D08, W1	230	35	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Methyl Acetate	ND	D08, W1	230	110	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Methyl-t-Butyl Ether (MTBE)	ND	D08, W1	230	88	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Methylcyclohexane	**3200**	D08, W1	230	110	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Methylene Chloride	ND	D08, W1	230	46	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Styrene	ND	D08, W1	230	56	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Tetrachloroethene	ND	D08, W1	230	31	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Toluene	ND	D08, W1	230	62	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
trans-1,2-Dichloroethene	ND	D08, W1	230	55	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
trans-1,3-Dichloropropene	ND	D08, W1	230	11	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Trichloroethene	ND	D08, W1	230	65	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Trichlorofluoromethane	ND	D08, W1	230	110	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Vinyl chloride	ND	D08, W1	230	78	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B
Xylenes, total	ND	D08, W1	460	39	ug/kg dry	2.00	12/01/10 17:54	NMD	10L0021	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (4-6) (RTK1486-02 - Soil) - cont.							**Sampled: 11/18/10 09:40**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*106 %*	*D08, W1*	*Surr Limits: (53-146%)*				*12/01/10 17:54*	*NMD*	*10L0021*	*8260B*
4-Bromofluorobenzene	*95 %*	*D08, W1*	*Surr Limits: (49-148%)*				*12/01/10 17:54*	*NMD*	*10L0021*	*8260B*
Toluene-d8	*103 %*	*D08, W1*	*Surr Limits: (50-149%)*				*12/01/10 17:54*	*NMD*	*10L0021*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D02	1000	220	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,4,6-Trichlorophenol	ND	D02	1000	66	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,4-Dichlorophenol	ND	D02	1000	52	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,4-Dimethylphenol	ND	D02	1000	270	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,4-Dinitrophenol	R ND	D02	1900	350	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,4-Dinitrotoluene	ND	D02	1000	150	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,6-Dinitrotoluene	ND	D02	1000	240	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2-Chloronaphthalene	ND	D02	1000	67	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2-Chlorophenol	ND	D02	1000	51	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2-Methylnaphthalene	**9500**	D02	1000	12	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2-Methylphenol	ND	D02	1000	31	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2-Nitroaniline	ND	D02	1900	320	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2-Nitrophenol	ND	D02	1000	46	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
3,3'-Dichlorobenzidine	R ND	D02	1000	870	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
3-Nitroaniline	ND J	D02	1900	230	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND J	D02	1900	340	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Bromophenyl phenyl ether	ND	D02	1000	320	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Chloro-3-methylphenol	ND	D02	1000	41	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Chloroaniline	ND	D02	1000	290	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	D02	1000	21	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Methylphenol	ND	D02	1900	56	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Nitroaniline	ND	D02	1900	110	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
4-Nitrophenol	ND J	D02	1900	240	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Acenaphthene	**1100**	D02	1000	12	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Acenaphthylene	ND	D02	1000	8.2	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Acetophenone	ND	D02	1000	51	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Anthracene	ND	D02	1000	26	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Atrazine	ND	D02	1000	44	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Benzaldehyde	ND	D02	1000	110	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Benzo[a]anthracene	**420**	D02,J	1000	17	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Benzo[a]pyrene	**360**	D02,J	1000	24	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Benzo[b]fluoranthene	**420**	D02,J	1000	19	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Benzo[g,h,i]perylene	**250**	D02,J	1000	12	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Benzo[k]fluoranthene	**210**	D02,J	1000	11	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Biphenyl	ND	D02	1000	62	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	D02	1000	54	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Bis(2-chloroethyl)ether	ND	D02	1000	86	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	1000	100	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Bis(2-ethylhexyl) phthalate	ND	D02	1000	320	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Butyl benzyl phthalate	ND	D02	1000	270	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Caprolactam	R ND	D02	1000	430	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C

testAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-4 (4-6) (RTK1486-02 - Soil) - cont. **Sampled: 11/18/10 09:40** **Recvd: 11/20/10 09:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND	D02	1000	12	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Chrysene	**420**	D02,J	1000	10	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Dibenzo(a,h)anthracene	ND	D02	1000	12	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Dibenzofuran	**790**	D02,J	1000	10	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Diethyl phthalate	ND	D02	1000	30	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Dimethyl phthalate	ND	D02	1000	26	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Di-n-butyl phthalate	ND	D02	1000	340	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Di-n-octyl phthalate	ND	J D02	1000	23	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Fluoranthene	**1300**	D02	1000	14	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Fluorene	**1500**	D02	1000	23	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Hexachlorobenzene	ND	D02	1000	50	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Hexachlorobutadiene	ND	D02	1000	51	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Hexachlorocyclopentadiene	ND	D02	1000	300	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Hexachloroethane	ND	D02	1000	77	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Indeno[1,2,3-cd]pyrene	**200**	D02,J	1000	28	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Isophorone	ND	D02	1000	50	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Naphthalene	**2500**	D02	1000	17	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Nitrobenzene	ND	D02	1000	44	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	D02	1000	79	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
N-Nitrosodiphenylamine	ND	D02	1000	54	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Pentachlorophenol	ND	J D02	1900	340	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Phenanthrene	**3000**	D02	1000	21	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Phenol	ND	D02	1000	100	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
Pyrene	**1300**	D02	1000	6.5	ug/kg dry	5.00	11/24/10 06:58	JLG	10K2281	8270C
2,4,6-Tribromophenol	*110 %*	*D02*	*Surr Limits: (39-146%)*				*11/24/10 06:58*	*JLG*	*10K2281*	*8270C*
2-Fluorobiphenyl	*103 %*	*D02*	*Surr Limits: (37-120%)*				*11/24/10 06:58*	*JLG*	*10K2281*	*8270C*
2-Fluorophenol	*74 %*	*D02*	*Surr Limits: (18-120%)*				*11/24/10 06:58*	*JLG*	*10K2281*	*8270C*
Nitrobenzene-d5	*109 %*	*D02*	*Surr Limits: (34-132%)*				*11/24/10 06:58*	*JLG*	*10K2281*	*8270C*
Phenol-d5	*94 %*	*D02*	*Surr Limits: (11-120%)*				*11/24/10 06:58*	*JLG*	*10K2281*	*8270C*
p-Terphenyl-d14	*98 %*	*D02*	*Surr Limits: (58-147%)*				*11/24/10 06:58*	*JLG*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**1390**	J	11.8	5.2	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Antimony	ND		17.7	0.6	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Arsenic	**1.1**	J	2.4	0.5	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Barium	**7.89**		0.590	0.130	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Beryllium	**0.053**	J	0.236	0.033	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Cadmium	**0.055**	J	0.236	0.035	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Calcium	**218**	B	59.0	3.9	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Chromium	**2.53**		0.590	0.236	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Cobalt	**0.924**		0.590	0.059	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Copper	**1.5**		1.2	0.2	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Iron	**1860**	B J	11.8	1.3	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Lead	**4.7**	J	1.2	0.3	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Magnesium	**309**	B	23.6	1.1	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Manganese	**25.4**	B	0.2	0.04	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Nickel	**1.58**	J	5.90	0.271	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Potassium	**202**	J	35.4	23.6	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Selenium	ND		4.7	0.7	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (4-6) (RTK1486-02 - Soil) - cont.							**Sampled: 11/18/10 09:40**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.590	0.236	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Sodium	**34.0**	J	165	15.3	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Thallium	ND		7.1	0.4	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Vanadium	**3.38**		0.590	0.130	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Zinc	**4.4**	B	2.4	0.2	mg/kg dry	1.00	11/23/10 13:43	LMH	10K2209	6010B
Mercury	ND		0.0240	0.0097	mg/kg dry	1.00	11/23/10 12:11	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**84**		0.010	NR	%	1.00	11/22/10 18:16	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	~~D02~~	~~23.8~~	~~3.6~~	mg/kg dry	10.0	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**59.6**	J	119	59.5	mg/kg dry	1.00	11/24/10 17:15	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**8850**		1300	1300	mg/Kg dry	1.00	12/02/10 18:14	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**23.1**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**76.9**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (6-8) (RTK1486-05 - Soil)							**Sampled: 11/18/10 09:50**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND	W1	100	28	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,1,2,2-Tetrachloroethane	ND	W1	100	17	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,1,2-Trichloroethane	ND	W1	100	21	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	W1	100	51	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,1-Dichloroethane	ND	W1	100	32	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,1-Dichloroethene	ND	W1	100	35	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,2,4-Trichlorobenzene	ND	W1	100	39	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,2-Dibromo-3-chloropropane	ND	W1	100	51	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,2-Dibromoethane	ND	W1	100	3.9	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,2-Dichlorobenzene	ND	W1	100	26	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,2-Dichloroethane	ND	W1	100	42	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,2-Dichloropropane	ND	W1	100	17	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,3-Dichlorobenzene	ND	W1	100	27	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
1,4-Dichlorobenzene	ND	W1	100	14	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
2-Butanone	ND	W1	510	300	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
2-Hexanone	ND	W1	510	210	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
4-Methyl-2-pentanone	ND	W1	510	33	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Acetone	ND	W1	510	420	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Benzene	ND	W1	100	4.9	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Bromodichloromethane	ND	W1	100	20	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Bromoform	ND	W1	100	51	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Bromomethane	ND	W1	100	22	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Carbon disulfide	ND	W1	100	46	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Carbon Tetrachloride	ND	W1	100	26	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Chlorobenzene	ND	W1	100	13	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Dibromochloromethane	ND	W1	100	49	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Chloroethane	ND	W1	100	21	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Chloroform	ND	W1	100	70	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Chloromethane	ND	W1	100	24	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
cis-1,2-Dichloroethene	ND	W1	100	28	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
cis-1,3-Dichloropropene	ND	W1	100	24	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Cyclohexane	ND	W1	100	23	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Dichlorodifluoromethane	ND	W1	100	45	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Ethylbenzene	**88**	W1,J	100	30	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Isopropylbenzene	**220**	W1	100	15	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Methyl Acetate	ND	W1	100	49	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Methyl-t-Butyl Ether (MTBE)	ND	W1	100	39	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Methylcyclohexane	**1300**	W1	100	48	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Methylene Chloride	ND	W1	100	20	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Styrene	ND	W1	100	25	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Tetrachloroethene	ND	W1	100	14	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Toluene	ND	W1	100	27	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
trans-1,2-Dichloroethene	ND	W1	100	24	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
trans-1,3-Dichloropropene	ND	W1	100	4.9	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Trichloroethene	ND	W1	100	28	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Trichlorofluoromethane	ND	W1	100	48	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Vinyl chloride	ND	W1	100	34	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B
Xylenes, total	ND	W1	200	17	ug/kg dry	1.00	12/01/10 14:26	DHC	10L0021	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (6-8) (RTK1486-05 - Soil) - cont.							**Sampled: 11/18/10 09:50**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*121 %*	*W1*	*Surr Limits: (53-146%)*				*12/01/10 14:26*	*DHC*	*10L0021*	*8260B*
4-Bromofluorobenzene	*99 %*	*W1*	*Surr Limits: (49-148%)*				*12/01/10 14:26*	*DHC*	*10L0021*	*8260B*
Toluene-d8	*110 %*	*W1*	*Surr Limits: (50-149%)*				*12/01/10 14:26*	*DHC*	*10L0021*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D02	880	190	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,4,6-Trichlorophenol	ND	D02	880	58	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,4-Dichlorophenol	ND	D02	880	46	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,4-Dimethylphenol	ND	D02	880	240	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,4-Dinitrophenol	ND	D02	1700	310	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,4-Dinitrotoluene	ND	D02	880	140	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,6-Dinitrotoluene	ND	D02	880	210	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2-Chloronaphthalene	ND	D02	880	59	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2-Chlorophenol	ND	D02	880	44	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2-Methylnaphthalene	**1200**	D02	880	11	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2-Methylphenol	ND	D02	880	27	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2-Nitroaniline	ND	D02	1700	280	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2-Nitrophenol	ND	D02	880	40	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
3,3'-Dichlorobenzidine	ND	D02	880	760	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
3-Nitroaniline	ND	D02	1700	200	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND	D02	1700	300	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Bromophenyl phenyl ether	ND	D02	880	280	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Chloro-3-methylphenol	ND	D02	880	36	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Chloroaniline	ND	D02	880	260	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	D02	880	19	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Methylphenol	ND	D02	1700	49	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Nitroaniline	ND	D02	1700	97	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
4-Nitrophenol	ND	D02	1700	210	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Acenaphthene	**460**	D02,J	880	10	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Acenaphthylene	ND	D02	880	7.1	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Acetophenone	ND	D02	880	45	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Anthracene	ND	D02	880	22	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Atrazine	ND	D02	880	39	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Benzaldehyde	ND	D02	880	96	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Benzo[a]anthracene	**260**	D02,J	880	15	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Benzo[a]pyrene	**300**	D02,J	880	21	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Benzo[b]fluoranthene	**380**	D02,J	880	17	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Benzo[g,h,i]perylene	**240**	D02,J	880	10	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Benzo[k]fluoranthene	ND	D02	880	9.6	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Biphenyl	ND	D02	880	54	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	D02	880	47	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Bis(2-chloroethyl)ether	ND	D02	880	75	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	880	91	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Bis(2-ethylhexyl) phthalate	ND	D02	880	280	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Butyl benzyl phthalate	ND	D02	880	230	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Caprolactam	ND	D02	880	380	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (6-8) (RTK1486-05 - Soil) - cont.							**Sampled: 11/18/10 09:50**		**Recvd: 11/20/10 09:15**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND	D02	880	10	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Chrysene	**290**	D02,J	880	8.7	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Dibenzo(a,h)anthracene	ND	D02	880	10	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Dibenzofuran	ND	D02	880	9.1	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Diethyl phthalate	ND	D02	880	26	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Dimethyl phthalate	ND	D02	880	23	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Di-n-butyl phthalate	ND	D02	880	300	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Di-n-octyl phthalate	ND	D02	880	20	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Fluoranthene	**770**	D02,J	880	13	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Fluorene	**660**	D02,J	880	20	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Hexachlorobenzene	ND	D02	880	43	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Hexachlorobutadiene	ND	D02	880	45	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Hexachlorocyclopentadiene	ND	D02	880	260	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Hexachloroethane	ND	D02	880	67	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Indeno[1,2,3-cd]pyrene	**160**	D02,J	880	24	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Isophorone	ND	D02	880	44	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Naphthalene	**440**	D02,J	880	15	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Nitrobenzene	ND	D02	880	39	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	D02	880	69	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
N-Nitrosodiphenylamine	ND	D02	880	48	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Pentachlorophenol	ND	D02	1700	300	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Phenanthrene	**1000**	D02	880	18	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Phenol	ND	D02	880	92	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
Pyrene	**1000**	D02	880	5.6	ug/kg dry	5.00	11/24/10 07:21	JLG	10K2281	8270C
2,4,6-Tribromophenol	*104 %*	*D02*	*Surr Limits: (39-146%)*				*11/24/10 07:21*	*JLG*	*10K2281*	*8270C*
2-Fluorobiphenyl	*95 %*	*D02*	*Surr Limits: (37-120%)*				*11/24/10 07:21*	*JLG*	*10K2281*	*8270C*
2-Fluorophenol	*59 %*	*D02*	*Surr Limits: (18-120%)*				*11/24/10 07:21*	*JLG*	*10K2281*	*8270C*
Nitrobenzene-d5	*104 %*	*D02*	*Surr Limits: (34-132%)*				*11/24/10 07:21*	*JLG*	*10K2281*	*8270C*
Phenol-d5	*82 %*	*D02*	*Surr Limits: (11-120%)*				*11/24/10 07:21*	*JLG*	*10K2281*	*8270C*
p-Terphenyl-d14	*90 %*	*D02*	*Surr Limits: (58-147%)*				*11/24/10 07:21*	*JLG*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4010**	J	10.5	4.6	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Antimony	ND		15.7	0.6	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Arsenic	**2.0**	J	2.1	0.4	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Barium	**22.1**		0.523	0.115	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Beryllium	**0.186**	J	0.209	0.029	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Cadmium	**0.092**	J	0.209	0.031	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Calcium	**428**	B	52.3	3.5	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Chromium	**5.58**		0.523	0.209	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Cobalt	**2.64**		0.523	0.052	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Copper	**4.0**		1.0	0.2	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Iron	**5410**	B J	10.5	1.2	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Lead	**9.0**	J	1.0	0.3	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Magnesium	**638**	B	20.9	1.0	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Manganese	**60.8**	B	0.2	0.03	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Nickel	**4.47**	J	5.23	0.241	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Potassium	**298**	J	31.4	20.9	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Selenium	ND		4.2	0.6	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-4 (6-8) (RTK1486-05 - Soil) - cont.							**Sampled: 11/18/10 09:50**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.523	0.209	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Sodium	**36.2**	J	146	13.6	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Thallium	ND		6.3	0.3	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Vanadium	**7.78**		0.523	0.115	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Zinc	**10.3**	B	2.1	0.2	mg/kg dry	1.00	11/23/10 13:58	LMH	10K2209	6010B
Mercury	**0.0226**		0.0205	0.0083	mg/kg dry	1.00	11/23/10 12:22	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**95**		0.010	NR	%	1.00	11/22/10 18:18	JRR	10K2214	Dry Weight
Ferrous Iron	**1.7**	D02, J	8.4	1.3	mg/kg dry	4.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	ND		105	52.5	mg/kg dry	1.00	11/24/10 14:46	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3610**		1090	1090	mg/Kg dry	1.00	12/02/10 18:51	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**8.3**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**91.7**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (2-4) (RTK1486-06 - Soil)						Sampled: 11/18/10 10:50		Recvd: 11/20/10 09:15		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.3	0.39	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		5.3	0.86	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		5.3	0.69	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		5.3	0.65	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		5.3	0.65	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		5.3	0.68	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		5.3	0.42	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		5.3	0.27	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		5.3	0.27	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		5.3	0.74	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
2-Butanone	**4.0**	J	27	1.9	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		27	1.7	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Acetone	**100**		27	4.5	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Benzene	ND		5.3	0.26	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Bromodichloromethane	ND		5.3	0.71	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Bromoform	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Bromomethane	ND		5.3	0.48	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Carbon disulfide	ND		5.3	2.7	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		5.3	0.51	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Chlorobenzene	ND		5.3	0.70	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Dibromochloromethane	ND		5.3	0.68	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Chloroethane	ND		5.3	1.2	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Chloroform	ND		5.3	0.33	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Chloromethane	ND		5.3	0.32	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		5.3	0.68	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		5.3	0.77	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Cyclohexane	ND		5.3	0.74	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		5.3	0.44	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Ethylbenzene	ND		5.3	0.37	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Isopropylbenzene	ND		5.3	0.80	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Methyl Acetate	ND		5.3	0.99	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.3	0.52	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Methylcyclohexane	ND		5.3	0.81	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Methylene Chloride	**10**		5.3	2.4	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Styrene	ND		5.3	0.27	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Tetrachloroethene	ND		5.3	0.71	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Toluene	ND		5.3	0.40	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		5.3	0.55	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Trichloroethene	ND		5.3	1.2	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		5.3	0.50	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Vinyl chloride	ND		5.3	0.65	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B
Xylenes, total	ND		11	0.89	ug/kg dry	1.00	12/01/10 13:58	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (2-4) (RTK1486-06 - Soil) - cont.							**Sampled: 11/18/10 10:50**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*110 %*		*Surr Limits: (64-126%)*				*12/01/10 13:58*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*107 %*		*Surr Limits: (72-126%)*				*12/01/10 13:58*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*100 %*		*Surr Limits: (71-125%)*				*12/01/10 13:58*	*PJQ*	*10L0022*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	T10, D12	9100	2000	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,4,6-Trichlorophenol	ND	T10, D12	9100	600	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,4-Dichlorophenol	ND	T10, D12	9100	470	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,4-Dimethylphenol	ND	T10, D12	9100	2400	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,4-Dinitrophenol	ND	T10, D12	18000	3200	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,4-Dinitrotoluene	ND	T10, D12	9100	1400	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,6-Dinitrotoluene	ND	T10, D12	9100	2200	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2-Chloronaphthalene	ND	T10, D12	9100	610	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2-Chlorophenol	ND	T10, D12	9100	460	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2-Methylnaphthalene	ND	T10, D12	9100	110	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2-Methylphenol	ND	T10, D12	9100	280	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2-Nitroaniline	ND	T10, D12	18000	2900	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2-Nitrophenol	ND	T10, D12	9100	410	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
3,3'-Dichlorobenzidine	ND	T10, D12	9100	7900	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
3-Nitroaniline	ND	T10, D12	18000	2100	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND	T10, D12	18000	3100	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Bromophenyl phenyl ether	ND	T10, D12	9100	2900	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Chloro-3-methylphenol	ND	T10, D12	9100	370	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Chloroaniline	ND	T10, D12	9100	2600	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	T10, D12	9100	190	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Methylphenol	ND	T10, D12	18000	500	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Nitroaniline	ND	T10, D12	18000	1000	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
4-Nitrophenol	ND	T10, D12	18000	2200	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Acenaphthene	ND	T10, D12	9100	110	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Acenaphthylene	ND	T10, D12	9100	74	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Acetophenone	ND	T10, D12	9100	460	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Anthracene	ND	T10, D12	9100	230	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Atrazine	ND	T10, D12	9100	400	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Benzaldehyde	ND	T10, D12	9100	990	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Benzo[a]anthracene	**960**	T10, D12,J	9100	160	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Benzo[a]pyrene	**940**	T10, D12,J	9100	220	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Benzo[b]fluoranthene	**1100**	T10, D12,J	9100	180	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Benzo[g,h,i]perylene	ND	T10, D12	9100	110	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Benzo[k]fluoranthene	ND	T10, D12	9100	99	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Biphenyl	ND	T10, D12	9100	560	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	T10, D12	9100	490	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Bis(2-chloroethyl)ether	ND	T10, D12	9100	780	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	T10, D12	9100	940	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Bis(2-ethylhexyl) phthalate	ND	T10, D12	9100	2900	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Butyl benzyl phthalate	ND	T10, D12	9100	2400	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Caprolactam	ND	T10, D12	9100	3900	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (2-4) (RTK1486-06 - Soil) - cont.							**Sampled: 11/18/10 10:50**		**Recvd: 11/20/10 09:15**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND	T10, D12	9100	100	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Chrysene	**980**	T10, D12,J	9100	90	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Dibenzo(a,h)anthracene	ND	T10, D12	9100	110	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Dibenzofuran	ND	T10, D12	9100	94	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Diethyl phthalate	ND	T10, D12	9100	270	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Dimethyl phthalate	ND	T10, D12	9100	240	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Di-n-butyl phthalate	ND	T10, D12	9100	3100	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Di-n-octyl phthalate	ND	T10, D12	9100	210	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Fluoranthene	**1900**	T10, D12,J	9100	130	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Fluorene	ND	T10, D12	9100	210	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Hexachlorobenzene	ND	T10, D12	9100	450	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Hexachlorobutadiene	ND	T10, D12	9100	460	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Hexachlorocyclopentadiene	ND	T10, D12	9100	2700	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Hexachloroethane	ND	T10, D12	9100	700	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Indeno[1,2,3-cd]pyrene	ND	T10, D12	9100	250	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Isophorone	ND	T10, D12	9100	450	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Naphthalene	ND	T10, D12	9100	150	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Nitrobenzene	ND	T10, D12	9100	400	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	T10, D12	9100	720	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
N-Nitrosodiphenylamine	ND	T10, D12	9100	490	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Pentachlorophenol	ND	T10, D12	18000	3100	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Phenanthrene	**1200**	T10, D12,J	9100	190	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Phenol	ND	T10, D12	9100	950	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
Pyrene	**1600**	T10, D12,J	9100	58	ug/kg dry	10.0	11/24/10 07:46	JLG	10K2281	8270C
2,4,6-Tribromophenol	*49 %*	*T10, D12*	*Surr Limits: (39-146%)*				*11/24/10 07:46*	*JLG*	*10K2281*	*8270C*
2-Fluorobiphenyl	*105 %*	*T10, D12*	*Surr Limits: (37-120%)*				*11/24/10 07:46*	*JLG*	*10K2281*	*8270C*
2-Fluorophenol	*73 %*	*T10, D12*	*Surr Limits: (18-120%)*				*11/24/10 07:46*	*JLG*	*10K2281*	*8270C*
Nitrobenzene-d5	*88 %*	*T10, D12*	*Surr Limits: (34-132%)*				*11/24/10 07:46*	*JLG*	*10K2281*	*8270C*
Phenol-d5	*96 %*	*T10, D12*	*Surr Limits: (11-120%)*				*11/24/10 07:46*	*JLG*	*10K2281*	*8270C*
p-Terphenyl-d14	*100 %*	*T10, D12*	*Surr Limits: (58-147%)*				*11/24/10 07:46*	*JLG*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**5780**	J	10.8	4.8	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Antimony	ND		16.2	0.6	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Arsenic	**7.9**		2.2	0.4	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Barium	**118**		0.542	0.119	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Beryllium	**0.261**		0.217	0.030	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Cadmium	**0.560**		0.217	0.032	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Calcium	**24500**	B	54.2	3.6	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Chromium	**14.6**		0.542	0.217	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Cobalt	**3.14**		0.542	0.054	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Copper	**20.7**		1.1	0.2	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Iron	**8320**	B J	10.8	1.2	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Lead	**61.5**	J	1.1	0.3	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Magnesium	**3570**	B	21.7	1.0	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Manganese	**198**	B	0.2	0.03	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Nickel	**8.27**	J	5.42	0.249	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Potassium	**527**	J	32.5	21.7	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Selenium	ND		4.3	0.6	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (2-4) (RTK1486-06 - Soil) - cont.							**Sampled: 11/18/10 10:50**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.542	0.217	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Sodium	**347**		152	14.1	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Thallium	ND		6.5	0.3	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Vanadium	**16.2**		0.542	0.119	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Zinc	**123**	B	2.2	0.2	mg/kg dry	1.00	11/23/10 14:00	LMH	10K2209	6010B
Mercury	**0.105**		0.0220	0.0089	mg/kg dry	1.00	11/23/10 12:24	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**91**		0.010	NR	%	1.00	11/22/10 18:20	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	R	~~2.2~~	~~0.3~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**649**		109	54.6	mg/kg dry	1.00	11/24/10 14:46	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**21100**		1420	1420	mg/Kg dry	1.00	12/02/10 19:04	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**29.4**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**70.6**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (4-6) (RTK1486-07 - Soil)							**Sampled: 11/18/10 10:55**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.6	0.41	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		5.6	0.91	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		5.6	0.73	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.6	1.3	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		5.6	0.68	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		5.6	0.68	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		5.6	0.34	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		5.6	0.72	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		5.6	0.44	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		5.6	0.28	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		5.6	2.8	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		5.6	0.29	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		5.6	0.78	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
2-Butanone	**11**	J	28	2.0	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		28	1.8	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Acetone	**74**		28	4.7	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Benzene	ND		5.6	0.27	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Bromodichloromethane	ND		5.6	0.75	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Bromoform	ND		5.6	2.8	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Bromomethane	ND		5.6	0.50	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Carbon disulfide	ND		5.6	2.8	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		5.6	0.54	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Chlorobenzene	ND		5.6	0.74	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Dibromochloromethane	ND		5.6	0.71	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Chloroethane	ND		5.6	1.3	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Chloroform	ND		5.6	0.35	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Chloromethane	ND		5.6	0.34	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		5.6	0.71	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		5.6	0.80	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Cyclohexane	ND		5.6	0.78	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		5.6	0.46	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Ethylbenzene	ND		5.6	0.39	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Isopropylbenzene	**3.2**	J	5.6	0.84	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Methyl Acetate	ND		5.6	1.0	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.6	0.55	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Methylcyclohexane	**2.4**	J	5.6	0.85	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Methylene Chloride	**8.1**		5.6	2.6	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Styrene	ND		5.6	0.28	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Tetrachloroethene	ND		5.6	0.75	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Toluene	ND		5.6	0.42	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		5.6	0.58	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		5.6	2.5	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Trichloroethene	ND		5.6	1.2	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		5.6	0.53	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Vinyl chloride	ND		5.6	0.68	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B
Xylenes, total	**2.3**	J	11	0.94	ug/kg dry	1.00	12/01/10 14:23	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (4-6) (RTK1486-07 - Soil) - cont.							**Sampled: 11/18/10 10:55**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*113 %*		*Surr Limits: (64-126%)*				*12/01/10 14:23*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*93 %*		*Surr Limits: (72-126%)*				*12/01/10 14:23*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*89 %*		*Surr Limits: (71-125%)*				*12/01/10 14:23*	*PJQ*	*10L0022*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D12	1900	410	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,4,6-Trichlorophenol	ND	D12	1900	120	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,4-Dichlorophenol	ND	D12	1900	98	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,4-Dimethylphenol	ND	D12	1900	500	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,4-Dinitrophenol	ND	D12	3600	650	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,4-Dinitrotoluene	ND	D12	1900	290	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,6-Dinitrotoluene	ND	D12	1900	460	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2-Chloronaphthalene	ND	D12	1900	120	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2-Chlorophenol	ND	D12	1900	95	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2-Methylnaphthalene	ND	D12	1900	23	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2-Methylphenol	ND	D12	1900	57	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2-Nitroaniline	ND	D12	3600	600	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2-Nitrophenol	ND	D12	1900	85	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
3,3'-Dichlorobenzidine	ND	D12	1900	1600	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
3-Nitroaniline	ND	D12	3600	430	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND	D12	3600	640	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Bromophenyl phenyl ether	ND	D12	1900	590	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Chloro-3-methylphenol	ND	D12	1900	77	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Chloroaniline	ND	D12	1900	550	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	D12	1900	40	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Methylphenol	ND	D12	3600	100	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Nitroaniline	ND	D12	3600	210	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
4-Nitrophenol	ND	D12	3600	450	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Acenaphthene	ND	D12	1900	22	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Acenaphthylene	ND	D12	1900	15	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Acetophenone	ND	D12	1900	95	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Anthracene	**260**	D12,J	1900	48	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Atrazine	ND	D12	1900	83	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Benzaldehyde	ND	D12	1900	200	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Benzo[a]anthracene	**690**	D12,J	1900	32	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Benzo[a]pyrene	**620**	D12,J	1900	45	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Benzo[b]fluoranthene	**720**	D12,J	1900	36	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Benzo[g,h,i]perylene	**400**	D12,J	1900	22	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Benzo[k]fluoranthene	**280**	D12,J	1900	20	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Biphenyl	ND	D12	1900	120	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	D12	1900	100	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Bis(2-chloroethyl)ether	ND	D12	1900	160	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D12	1900	190	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Bis(2-ethylhexyl) phthalate	ND	D12	1900	600	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Butyl benzyl phthalate	ND	D12	1900	500	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Caprolactam	ND	D12	1900	800	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (4-6) (RTK1486-07 - Soil) - cont.						**Sampled: 11/18/10 10:55**		**Recvd: 11/20/10 09:15**		
Semivolatile Organics by GC/MS - cont.										
Carbazole	**180**	D12,J	1900	22	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Chrysene	**740**	D12,J	1900	19	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Dibenzo(a,h)anthracene	ND	D12	1900	22	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Dibenzofuran	ND	D12	1900	19	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Diethyl phthalate	ND	D12	1900	56	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Dimethyl phthalate	ND	D12	1900	49	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Di-n-butyl phthalate	ND	D12	1900	640	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Di-n-octyl phthalate	ND	D12	1900	44	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Fluoranthene	**1300**	D12,J	1900	27	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Fluorene	**220**	D12,J	1900	43	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Hexachlorobenzene	ND	D12	1900	92	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Hexachlorobutadiene	ND	D12	1900	95	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Hexachlorocyclopentadiene	ND	D12	1900	560	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Hexachloroethane	ND	D12	1900	140	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Indeno[1,2,3-cd]pyrene	**330**	D12,J	1900	51	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Isophorone	ND	D12	1900	93	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Naphthalene	ND	D12	1900	31	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Nitrobenzene	ND	D12	1900	82	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	D12	1900	150	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
N-Nitrosodiphenylamine	ND	D12	1900	100	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Pentachlorophenol	ND	D12	3600	640	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Phenanthrene	**1200**	D12,J	1900	39	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Phenol	ND	D12	1900	200	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
Pyrene	**1100**	D12,J	1900	12	ug/kg dry	10.0	11/24/10 08:09	JLG	10K2281	8270C
2,4,6-Tribromophenol	*57 %*	*D12*	*Surr Limits: (39-146%)*				*11/24/10 08:09*	*JLG*	*10K2281*	*8270C*
2-Fluorobiphenyl	*102 %*	*D12*	*Surr Limits: (37-120%)*				*11/24/10 08:09*	*JLG*	*10K2281*	*8270C*
2-Fluorophenol	*68 %*	*D12*	*Surr Limits: (18-120%)*				*11/24/10 08:09*	*JLG*	*10K2281*	*8270C*
Nitrobenzene-d5	*91 %*	*D12*	*Surr Limits: (34-132%)*				*11/24/10 08:09*	*JLG*	*10K2281*	*8270C*
Phenol-d5	*95 %*	*D12*	*Surr Limits: (11-120%)*				*11/24/10 08:09*	*JLG*	*10K2281*	*8270C*
p-Terphenyl-d14	*95 %*	*D12*	*Surr Limits: (58-147%)*				*11/24/10 08:09*	*JLG*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**4360**	J	11.0	4.8	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Antimony	ND		16.5	0.6	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Arsenic	**10.2**		2.2	0.4	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Barium	**34.3**		0.550	0.121	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Beryllium	**0.251**		0.220	0.031	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Cadmium	**1.88**		0.220	0.033	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Calcium	**8860**	B	55.0	3.6	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Chromium	**8.50**		0.550	0.220	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Cobalt	**2.15**		0.550	0.055	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Copper	**14.3**		1.1	0.2	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Iron	**6550**	B J	11.0	1.2	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Lead	**24.2**	J	1.1	0.3	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Magnesium	**2400**	B	22.0	1.0	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Manganese	**280**	B	0.2	0.04	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Nickel	**4.24**	J	5.50	0.253	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Potassium	**547**	J	33.0	22.0	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Selenium	ND		4.4	0.6	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (4-6) (RTK1486-07 - Soil) - cont.							**Sampled: 11/18/10 10:55**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.550	0.220	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Sodium	**125**	J	154	14.3	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Thallium	ND		6.6	0.3	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Vanadium	**11.1**		0.550	0.121	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Zinc	**52.8**	B	2.2	0.2	mg/kg dry	1.00	11/23/10 14:03	LMH	10K2209	6010B
Mercury	**0.0309**		0.0204	0.0082	mg/kg dry	1.00	11/23/10 12:25	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**90**		0.010	NR	%	1.00	11/22/10 18:22	JRR	10K2214	Dry Weight
Ferrous Iron	**11.2**	J	2.2	0.3	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2551	3500FE
Sulfate	**518**		111	55.7	mg/kg dry	1.00	11/24/10 14:47	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**11500**		1650	1650	mg/Kg dry	1.00	12/02/10 19:17	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**39.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**60.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (6-8) (RTK1486-08 - Soil)						**Sampled: 11/18/10 11:00**		**Recvd: 11/20/10 09:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		6.2	0.45	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		6.2	0.81	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		6.2	0.76	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		6.2	0.76	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		6.2	0.80	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		6.2	0.49	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		6.2	0.31	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		6.2	3.1	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		6.2	0.32	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		6.2	0.87	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
2-Butanone	**6.5**	J	31	2.3	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
2-Hexanone	ND		31	3.1	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		31	2.0	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Acetone	**47**		31	5.2	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Benzene	ND		6.2	0.31	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Bromodichloromethane	ND		6.2	0.84	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Bromoform	ND		6.2	3.1	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Bromomethane	ND		6.2	0.56	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Carbon disulfide	ND		6.2	3.1	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		6.2	0.60	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Chlorobenzene	ND		6.2	0.82	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Dibromochloromethane	ND		6.2	0.80	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Chloroethane	ND		6.2	1.4	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Chloroform	ND		6.2	0.39	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Chloromethane	ND		6.2	0.38	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		6.2	0.80	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		6.2	0.90	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Cyclohexane	ND		6.2	0.87	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		6.2	0.51	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Ethylbenzene	ND		6.2	0.43	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Isopropylbenzene	**4.4**	J	6.2	0.94	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Methyl Acetate	ND		6.2	1.2	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		6.2	0.61	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Methylcyclohexane	**8.0**		6.2	0.95	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Methylene Chloride	**6.2**		6.2	2.9	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Styrene	ND		6.2	0.31	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Tetrachloroethene	ND		6.2	0.84	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Toluene	ND		6.2	0.47	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Trichloroethene	ND		6.2	1.4	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		6.2	0.59	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Vinyl chloride	ND		6.2	0.76	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B
Xylenes, total	ND		12	1.0	ug/kg dry	1.00	12/01/10 14:48	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-5 (6-8) (RTK1486-08 - Soil) - cont. **Sampled: 11/18/10 11:00** **Recvd: 11/20/10 09:15**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,2-Dichloroethane-d4	*111 %*		*Surr Limits: (64-126%)*				*12/01/10 14:48*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*85 %*		*Surr Limits: (72-126%)*				*12/01/10 14:48*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*79 %*		*Surr Limits: (71-125%)*				*12/01/10 14:48*	*PJQ*	*10L0022*	*8260B*

Semivolatile Organics by GC/MS

2,4,5-Trichlorophenol	ND	D02	430	93	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,4,6-Trichlorophenol	ND	D02	430	28	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,4-Dichlorophenol	ND	D02	430	22	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,4-Dimethylphenol	ND	D02	430	110	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,4-Dinitrophenol	ND	D02	830	150	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,4-Dinitrotoluene	ND	D02	430	66	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,6-Dinitrotoluene	ND	D02	430	100	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2-Chloronaphthalene	ND	D02	430	28	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2-Chlorophenol	ND	D02	430	22	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2-Methylnaphthalene	ND	D02	430	5.1	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2-Methylphenol	ND	D02	430	13	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2-Nitroaniline	ND	D02	830	140	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2-Nitrophenol	ND	D02	430	19	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
3,3'-Dichlorobenzidine	ND	D02	430	370	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
3-Nitroaniline	ND	D02	830	98	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND	D02	830	150	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Bromophenyl phenyl ether	ND	D02	430	140	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Chloro-3-methylphenol	ND	D02	430	17	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Chloroaniline	ND	D02	430	120	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	D02	430	9.1	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Methylphenol	ND	D02	830	24	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Nitroaniline	ND	D02	830	47	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
4-Nitrophenol	ND	D02	830	100	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Acenaphthene	**40**	D02,J	430	5.0	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Acenaphthylene	ND	D02	430	3.5	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Acetophenone	ND J	D02	430	22	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Anthracene	**51**	D02,J	430	11	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Atrazine	ND	D02	430	19	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Benzaldehyde	ND	D02	430	47	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Benzo[a]anthracene	**140**	D02,J	430	7.3	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Benzo[a]pyrene	**130**	D02,J	430	10	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Benzo[b]fluoranthene	**150**	D02,J	430	8.2	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Benzo[g,h,i]perylene	**95**	D02,J	430	5.1	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Benzo[k]fluoranthene	**64**	D02,J	430	4.7	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Biphenyl	ND	D02	430	26	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	D02	430	23	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Bis(2-chloroethyl)ether	ND	D02	430	37	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	430	44	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Bis(2-ethylhexyl) phthalate	**170**	D02,J	430	140	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Butyl benzyl phthalate	ND	D02	430	110	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Caprolactam	ND	D02	430	180	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (6-8) (RTK1486-08 - Soil) - cont.							**Sampled: 11/18/10 11:00**		**Recvd: 11/20/10 09:15**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND	D02	430	4.9	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Chrysene	**150**	D02,J	430	4.2	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Dibenzo(a,h)anthracene	ND	D02	430	5.0	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Dibenzofuran	ND	D02	430	4.4	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Diethyl phthalate	ND	D02	430	13	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Dimethyl phthalate	ND	D02	430	11	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Di-n-butyl phthalate	ND	D02	430	150	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Di-n-octyl phthalate	ND	D02	430	9.9	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Fluoranthene	**280**	D02,J	430	6.2	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Fluorene	**67**	D02,J	430	9.8	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Hexachlorobenzene	ND	D02	430	21	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Hexachlorobutadiene	ND	D02	430	22	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Hexachlorocyclopentadiene	ND	D02	430	130	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Hexachloroethane	ND	D02	430	33	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Indeno[1,2,3-cd]pyrene	**76**	D02,J	430	12	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Isophorone	ND	D02	430	21	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Naphthalene	ND	D02	430	7.1	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Nitrobenzene	ND	D02	430	19	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	D02	430	34	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
N-Nitrosodiphenylamine	ND	D02	430	23	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Pentachlorophenol	ND	D02	830	150	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Phenanthrene	**250**	D02,J	430	8.9	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Phenol	ND	D02	430	45	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
Pyrene	**260**	D02,J	430	2.7	ug/kg dry	2.00	11/24/10 11:02	MKP	10K2281	8270C
2,4,6-Tribromophenol	*94 %*	*D02*	*Surr Limits: (39-146%)*				*11/24/10 11:02*	*MKP*	*10K2281*	*8270C*
2-Fluorobiphenyl	*94 %*	*D02*	*Surr Limits: (37-120%)*				*11/24/10 11:02*	*MKP*	*10K2281*	*8270C*
2-Fluorophenol	*77 %*	*D02*	*Surr Limits: (18-120%)*				*11/24/10 11:02*	*MKP*	*10K2281*	*8270C*
Nitrobenzene-d5	*84 %*	*D02*	*Surr Limits: (34-132%)*				*11/24/10 11:02*	*MKP*	*10K2281*	*8270C*
Phenol-d5	*88 %*	*D02*	*Surr Limits: (11-120%)*				*11/24/10 11:02*	*MKP*	*10K2281*	*8270C*
p-Terphenyl-d14	*92 %*	*D02*	*Surr Limits: (58-147%)*				*11/24/10 11:02*	*MKP*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**5980**	J	12.7	5.6	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Antimony	ND		19.1	0.7	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Arsenic	**24.4**		2.5	0.5	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Barium	**78.8**		0.635	0.140	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Beryllium	**0.283**		0.254	0.036	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Cadmium	**1.36**		0.254	0.038	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Calcium	**2420**	B	63.5	4.2	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Chromium	**9.32**		0.635	0.254	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Cobalt	**3.57**		0.635	0.064	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Copper	**17.9**		1.3	0.3	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Iron	**8740**	B J	12.7	1.4	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Lead	**21.1**	J	1.3	0.3	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Magnesium	**1010**	B	25.4	1.2	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Manganese	**120**	B	0.3	0.04	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Nickel	**6.55**	J	6.35	0.292	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Potassium	**444**	J	38.1	25.4	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Selenium	ND		5.1	0.7	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (6-8) (RTK1486-08 - Soil) - cont.							**Sampled: 11/18/10 11:00**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.635	0.254	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Sodium	**143**	J	178	16.5	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Thallium	ND		7.6	0.4	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Vanadium	**12.3**		0.635	0.140	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
Zinc	**44.6**	B	2.5	0.2	mg/kg dry	1.00	11/23/10 14:05	LMH	10K2209	6010B
General Chemistry Parameters										
Percent Solids	**78**		0.010	NR	%	1.00	11/22/10 18:24	JRR	10K2214	Dry Weight
Ferrous Iron	R ~~ND~~		~~2.6~~	~~0.4~~	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2553	3500FE
Sulfate	**101**	J	128	64.0	mg/kg dry	1.00	11/24/10 14:57	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**2220**		1140	1140	mg/Kg dry	1.00	12/02/10 19:29	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**12.6**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**87.4**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-5 (6-8) (RTK1486-08RE1 - Soil)						**Sampled: 11/18/10 11:00**		**Recvd: 11/20/10 09:15**		
Total Metals by SW 846 Series Methods										
Mercury	11.1	D08	0.503	0.204	mg/kg dry	20.0	11/29/10 17:01	JRK	10K2354	7471A

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (2-4) (RTK1486-09 - Soil)						**Sampled: 11/18/10 14:50**		**Recvd: 11/20/10 09:15**		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.5	0.40	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		5.5	0.89	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		5.5	0.71	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.5	1.2	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		5.5	0.67	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		5.5	0.67	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		5.5	0.33	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		5.5	0.70	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		5.5	0.43	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		5.5	0.27	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		5.5	2.7	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		5.5	0.28	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		5.5	0.77	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
2-Butanone	ND		27	2.0	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
2-Hexanone	ND		27	2.7	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		27	1.8	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Acetone	ND		27	4.6	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Benzene	ND		5.5	0.27	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Bromodichloromethane	ND		5.5	0.73	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Bromoform	ND		5.5	2.7	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Bromomethane	ND		5.5	0.49	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Carbon disulfide	ND		5.5	2.7	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		5.5	0.53	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Chlorobenzene	ND		5.5	0.72	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Dibromochloromethane	ND		5.5	0.70	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Chloroethane	ND		5.5	1.2	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Chloroform	ND		5.5	0.34	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Chloromethane	ND		5.5	0.33	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		5.5	0.70	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		5.5	0.79	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Cyclohexane	ND		5.5	0.77	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		5.5	0.45	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Ethylbenzene	ND		5.5	0.38	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Isopropylbenzene	ND		5.5	0.83	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Methyl Acetate	ND		5.5	1.0	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.5	0.54	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Methylcyclohexane	ND		5.5	0.83	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Methylene Chloride	**6.2**		5.5	2.5	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Styrene	ND		5.5	0.27	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Tetrachloroethene	ND		5.5	0.73	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Toluene	ND		5.5	0.41	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		5.5	0.56	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		5.5	2.4	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Trichloroethene	ND		5.5	1.2	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		5.5	0.52	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Vinyl chloride	ND		5.5	0.67	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B
Xylenes, total	ND		11	0.92	ug/kg dry	1.00	12/01/10 15:13	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (2-4) (RTK1486-09 - Soil) - cont.							**Sampled: 11/18/10 14:50**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*112 %*		*Surr Limits: (64-126%)*				*12/01/10 15:13*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*108 %*		*Surr Limits: (72-126%)*				*12/01/10 15:13*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*99 %*		*Surr Limits: (71-125%)*				*12/01/10 15:13*	*PJQ*	*10L0022*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D12	3600	790	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,4,6-Trichlorophenol	ND	D12	3600	240	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,4-Dichlorophenol	ND	D12	3600	190	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,4-Dimethylphenol	ND	D12	3600	970	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,4-Dinitrophenol	ND	D12	7000	1300	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,4-Dinitrotoluene	ND	D12	3600	560	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,6-Dinitrotoluene	ND	D12	3600	880	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2-Chloronaphthalene	ND	D12	3600	240	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2-Chlorophenol	ND	D12	3600	180	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2-Methylnaphthalene	ND	D12	3600	44	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2-Methylphenol	ND	D12	3600	110	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2-Nitroaniline	ND	D12	7000	1200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2-Nitrophenol	ND	D12	3600	160	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
3,3'-Dichlorobenzidine	ND	D12	3600	3200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
3-Nitroaniline	ND	D12	7000	830	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND	D12	7000	1200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Bromophenyl phenyl ether	ND	D12	3600	1100	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Chloro-3-methylphenol	ND	D12	3600	150	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Chloroaniline	ND	D12	3600	1100	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	D12	3600	77	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Methylphenol	ND	D12	7000	200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Nitroaniline	ND	D12	7000	400	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
4-Nitrophenol	ND	D12	7000	870	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Acenaphthene	ND	D12	3600	42	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Acenaphthylene	ND	D12	3600	29	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Acetophenone	ND	D12	3600	190	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Anthracene	ND	D12	3600	92	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Atrazine	ND	D12	3600	160	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Benzaldehyde	ND	D12	3600	400	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Benzo[a]anthracene	**440**	D12,J	3600	62	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Benzo[a]pyrene	**420**	D12,J	3600	87	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Benzo[b]fluoranthene	**520**	D12,J	3600	70	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Benzo[g,h,i]perylene	**300**	D12,J	3600	43	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Benzo[k]fluoranthene	ND	D12	3600	40	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Biphenyl	ND	D12	3600	220	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	D12	3600	200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Bis(2-chloroethyl)ether	ND	D12	3600	310	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D12	3600	380	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Bis(2-ethylhexyl) phthalate	ND	D12	3600	1200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Butyl benzyl phthalate	ND	D12	3600	970	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Caprolactam	ND	D12	3600	1600	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (2-4) (RTK1486-09 - Soil) - cont.							**Sampled: 11/18/10 14:50**		**Recvd: 11/20/10 09:15**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND	D12	3600	42	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Chrysene	**440**	D12,J	3600	36	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Dibenzo(a,h)anthracene	ND	D12	3600	42	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Dibenzofuran	ND	D12	3600	38	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Diethyl phthalate	ND	D12	3600	110	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Dimethyl phthalate	ND	D12	3600	94	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Di-n-butyl phthalate	ND	D12	3600	1200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Di-n-octyl phthalate	ND	D12	3600	84	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Fluoranthene	**1000**	D12,J	3600	52	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Fluorene	ND	D12	3600	83	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Hexachlorobenzene	ND	D12	3600	180	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Hexachlorobutadiene	ND	D12	3600	180	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Hexachlorocyclopentadiene	ND	D12	3600	1100	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Hexachloroethane	ND	D12	3600	280	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Indeno[1,2,3-cd]pyrene	ND	D12	3600	100	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Isophorone	ND	D12	3600	180	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Naphthalene	ND	D12	3600	60	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Nitrobenzene	ND	D12	3600	160	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	D12	3600	290	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
N-Nitrosodiphenylamine	ND	D12	3600	200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Pentachlorophenol	ND	D12	7000	1200	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Phenanthrene	**740**	D12,J	3600	76	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Phenol	ND	D12	3600	380	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
Pyrene	**830**	D12,J	3600	23	ug/kg dry	20.0	11/24/10 11:26	MKP	10K2281	8270C
2,4,6-Tribromophenol	*84 %*	*D12*	*Surr Limits: (39-146%)*				*11/24/10 11:26*	*MKP*	*10K2281*	*8270C*
2-Fluorobiphenyl	*106 %*	*D12*	*Surr Limits: (37-120%)*				*11/24/10 11:26*	*MKP*	*10K2281*	*8270C*
2-Fluorophenol	*83 %*	*D12*	*Surr Limits: (18-120%)*				*11/24/10 11:26*	*MKP*	*10K2281*	*8270C*
Nitrobenzene-d5	*83 %*	*D12*	*Surr Limits: (34-132%)*				*11/24/10 11:26*	*MKP*	*10K2281*	*8270C*
Phenol-d5	*95 %*	*D12*	*Surr Limits: (11-120%)*				*11/24/10 11:26*	*MKP*	*10K2281*	*8270C*
p-Terphenyl-d14	*100 %*	*D12*	*Surr Limits: (58-147%)*				*11/24/10 11:26*	*MKP*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3660**	J	10.9	4.8	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Antimony	ND		16.4	0.6	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Arsenic	**16.2**		2.2	0.4	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Barium	**32.5**		0.546	0.120	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Beryllium	**0.174**	J	0.219	0.031	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Cadmium	**0.199**	J	0.219	0.033	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Calcium	**5420**	B	54.6	3.6	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Chromium	**7.77**		0.546	0.219	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Cobalt	**2.04**		0.546	0.055	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Copper	**11.5**		1.1	0.2	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Iron	**6630**	B J	10.9	1.2	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Lead	**50.8**	J	1.1	0.3	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Magnesium	**2300**	B	21.9	1.0	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Manganese	**63.1**	B	0.2	0.03	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Nickel	**4.81**	J	5.46	0.251	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Potassium	**432**	J	32.8	21.9	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Selenium	ND		4.4	0.6	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (2-4) (RTK1486-09 - Soil) - cont.						**Sampled: 11/18/10 14:50**		**Recvd: 11/20/10 09:15**		
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.546	0.219	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Sodium	**524**		153	14.2	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Thallium	ND		6.6	0.3	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Vanadium	**9.48**		0.546	0.120	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Zinc	**51.6**	B	2.2	0.2	mg/kg dry	1.00	11/23/10 14:07	LMH	10K2209	6010B
Mercury	**0.0785**		0.0216	0.0088	mg/kg dry	1.00	11/23/10 12:29	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**91**		0.010	NR	%	1.00	11/22/10 18:26	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~ R	~~D02~~	~~4.4~~	~~0.7~~	mg/kg dry	2.00	11/24/10 20:40	JLN	10K2553	3500FE
Sulfate	**89.4**	J	110	55.0	mg/kg dry	1.00	11/24/10 14:57	JFR	10K2532	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**4960**		1090	1090	mg/Kg dry	1.00	12/02/10 19:55	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**7.9**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**92.1**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440
Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (4-6) (RTK1486-10 - Soil)							**Sampled: 11/18/10 15:00**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		5.7	0.41	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		5.7	0.92	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		5.7	0.74	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		5.7	0.69	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		5.7	0.69	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		5.7	0.34	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		5.7	2.8	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		5.7	0.73	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		5.7	0.44	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		5.7	0.28	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		5.7	2.8	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		5.7	0.29	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		5.7	0.79	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
2-Butanone	**11**	J	28	2.1	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
2-Hexanone	ND		28	2.8	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		28	1.9	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Acetone	**59**		28	4.8	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Benzene	ND		5.7	0.28	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Bromodichloromethane	ND		5.7	0.76	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Bromoform	ND		5.7	2.8	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Bromomethane	ND		5.7	0.51	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Carbon disulfide	ND		5.7	2.8	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		5.7	0.55	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Chlorobenzene	ND		5.7	0.75	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Dibromochloromethane	ND		5.7	0.73	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Chloroethane	ND		5.7	1.3	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Chloroform	ND		5.7	0.35	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Chloromethane	ND		5.7	0.34	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		5.7	0.82	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Cyclohexane	ND		5.7	0.79	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		5.7	0.47	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Ethylbenzene	ND		5.7	0.39	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Isopropylbenzene	ND		5.7	0.85	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Methyl Acetate	ND		5.7	1.1	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		5.7	0.56	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Methylcyclohexane	ND		5.7	0.86	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Methylene Chloride	**9.0**		5.7	2.6	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Styrene	ND		5.7	0.28	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Tetrachloroethene	ND		5.7	0.76	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Toluene	ND		5.7	0.43	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		5.7	0.58	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Trichloroethene	ND		5.7	1.2	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		5.7	0.54	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Vinyl chloride	ND		5.7	0.69	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B
Xylenes, total	ND		11	0.95	ug/kg dry	1.00	12/01/10 15:39	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire, TX
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/10
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (4-6) (RTK1486-10 - Soil) - cont.							**Sampled: 11/18/10 15:00**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*109 %*		*Surr Limits: (64-126%)*				*12/01/10 15:39*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*110 %*		*Surr Limits: (72-126%)*				*12/01/10 15:39*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-125%)*				*12/01/10 15:39*	*PJQ*	*10L0022*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND	D02	380	83	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,4,6-Trichlorophenol	ND	D02	380	25	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,4-Dichlorophenol	ND	D02	380	20	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,4-Dimethylphenol	ND	D02	380	100	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,4-Dinitrophenol	ND	D02	740	130	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,4-Dinitrotoluene	ND	D02	380	59	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,6-Dinitrotoluene	ND	D02	380	93	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2-Chloronaphthalene	ND	D02	380	26	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2-Chlorophenol	ND	D02	380	19	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2-Methylnaphthalene	**240**	D02,J	380	4.6	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2-Methylphenol	ND	D02	380	12	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2-Nitroaniline	ND	D02	740	120	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2-Nitrophenol	ND	D02	380	17	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
3,3'-Dichlorobenzidine	ND	D02	380	330	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
3-Nitroaniline	ND	D02	740	88	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND	D02	740	130	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Bromophenyl phenyl ether	ND	D02	380	120	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Chloro-3-methylphenol	ND	D02	380	16	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Chloroaniline	ND	D02	380	110	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Chlorophenyl phenyl ether	ND	D02	380	8.1	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Methylphenol	ND	D02	740	21	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Nitroaniline	ND	D02	740	43	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
4-Nitrophenol	ND	D02	740	92	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Acenaphthene	**140**	D02,J	380	4.5	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Acenaphthylene	ND	D02	380	3.1	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Acetophenone	ND J	D02	380	20	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Anthracene	**270**	D02,J	380	9.7	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Atrazine	ND	D02	380	17	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Benzaldehyde	ND	D02	380	42	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Benzo[a]anthracene	**560**	D02	380	6.6	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Benzo[a]pyrene	**540**	D02	380	9.2	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Benzo[b]fluoranthene	**630**	D02	380	7.4	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Benzo[g,h,i]perylene	**390**	D02	380	4.6	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Benzo[k]fluoranthene	**250**	D02,J	380	4.2	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Biphenyl	ND	D02	380	24	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Bis(2-chloroethoxy)methane	ND	D02	380	21	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Bis(2-chloroethyl)ether	ND	D02	380	33	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND	D02	380	40	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Bis(2-ethylhexyl) phthalate	**960**	D02	380	120	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Butyl benzyl phthalate	ND	D02	380	100	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Caprolactam	ND	D02	380	160	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (4-6) (RTK1486-10 - Soil) - cont.							**Sampled: 11/18/10 15:00**		**Recvd: 11/20/10 09:15**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	**130**	D02,J	380	4.4	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Chrysene	**640**	D02	380	3.8	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Dibenzo(a,h)anthracene	**110**	D02,J	380	4.5	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Dibenzofuran	**110**	D02,J	380	4.0	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Diethyl phthalate	ND	D02	380	11	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Dimethyl phthalate	ND	D02	380	9.9	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Di-n-butyl phthalate	ND	D02	380	130	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Di-n-octyl phthalate	ND	D02	380	8.9	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Fluoranthene	**1100**	D02	380	5.5	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Fluorene	**280**	D02,J	380	8.8	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Hexachlorobenzene	ND	D02	380	19	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Hexachlorobutadiene	ND	D02	380	19	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Hexachlorocyclopentadiene	ND	D02	380	120	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Hexachloroethane	ND	D02	380	29	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Indeno[1,2,3-cd]pyrene	**340**	D02,J	380	11	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Isophorone	ND	D02	380	19	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Naphthalene	**88**	D02,J	380	6.3	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Nitrobenzene	ND	D02	380	17	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
N-Nitrosodi-n-propylamine	ND	D02	380	30	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
N-Nitrosodiphenylamine	ND	D02	380	21	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Pentachlorophenol	ND	D02	740	130	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Phenanthrene	**1100**	D02	380	8.0	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Phenol	ND	D02	380	40	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
Pyrene	**1000**	D02	380	2.5	ug/kg dry	2.00	11/24/10 11:49	MKP	10K2281	8270C
2,4,6-Tribromophenol	*102 %*	*D02*	*Surr Limits: (39-146%)*				*11/24/10 11:49*	*MKP*	*10K2281*	*8270C*
2-Fluorobiphenyl	*93 %*	*D02*	*Surr Limits: (37-120%)*				*11/24/10 11:49*	*MKP*	*10K2281*	*8270C*
2-Fluorophenol	*76 %*	*D02*	*Surr Limits: (18-120%)*				*11/24/10 11:49*	*MKP*	*10K2281*	*8270C*
Nitrobenzene-d5	*86 %*	*D02*	*Surr Limits: (34-132%)*				*11/24/10 11:49*	*MKP*	*10K2281*	*8270C*
Phenol-d5	*88 %*	*D02*	*Surr Limits: (11-120%)*				*11/24/10 11:49*	*MKP*	*10K2281*	*8270C*
p-Terphenyl-d14	*93 %*	*D02*	*Surr Limits: (58-147%)*				*11/24/10 11:49*	*MKP*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**3620**	J	11.4	5.0	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Antimony	ND		17.1	0.6	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Arsenic	**20.1**		2.3	0.5	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Barium	**44.4**		0.571	0.126	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Beryllium	**0.185**	J	0.228	0.032	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Cadmium	**0.356**		0.228	0.034	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Calcium	**1520**	B	57.1	3.8	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Chromium	**6.12**		0.571	0.228	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Cobalt	**2.12**		0.571	0.057	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Copper	**11.5**		1.1	0.2	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Iron	**5890**	B J	11.4	1.3	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Lead	**80.2**	J	1.1	0.3	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Magnesium	**577**	B	22.8	1.1	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Manganese	**52.6**	B	0.2	0.04	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Nickel	**4.56**	J	5.71	0.263	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Potassium	**332**	J	34.3	22.8	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Selenium	ND		4.6	0.7	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (4-6) (RTK1486-10 - Soil) - cont.							**Sampled: 11/18/10 15:00**		**Recvd: 11/20/10 09:15**	
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.571	0.228	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Sodium	**153**	J	160	14.8	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Thallium	ND		6.9	0.3	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Vanadium	**7.67**		0.571	0.126	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Zinc	**96.9**	B	2.3	0.2	mg/kg dry	1.00	11/23/10 14:09	LMH	10K2209	6010B
Mercury	**0.199**		0.0216	0.0088	mg/kg dry	1.00	11/23/10 12:30	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**87**		0.010	NR	%	1.00	11/22/10 18:28	JRR	10K2214	Dry Weight
Ferrous Iron	ND		2.3	0.3	mg/kg dry	1.00	11/24/10 20:40	JLN	10K2553	3500FE
Sulfate	ND		115	57.5	mg/kg dry	1.00	11/24/10 14:57	JFR	10K2533	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**3250**		1380	1380	mg/Kg dry	1.00	12/02/10 20:07	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**27.3**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**72.7**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (6-8) (RTK1486-11 - Soil)							**Sampled: 11/18/10 15:15**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		36	2.6	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,1,2,2-Tetrachloroethane	ND		36	5.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,1,2-Trichloroethane	ND		36	4.6	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		36	8.1	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,1-Dichloroethane	ND		36	4.3	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,1-Dichloroethene	ND		36	4.3	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,2,4-Trichlorobenzene	ND		36	2.2	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,2-Dibromo-3-chloropropane	ND		36	18	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,2-Dibromoethane	ND		36	4.6	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,2-Dichlorobenzene	ND		36	2.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,2-Dichloroethane	ND		36	1.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,2-Dichloropropane	ND		36	18	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,3-Dichlorobenzene	ND		36	1.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
1,4-Dichlorobenzene	ND		36	5.0	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
2-Butanone	**34**	J	180	13	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
2-Hexanone	ND		180	18	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
4-Methyl-2-pentanone	ND		180	12	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Acetone	**180**		180	30	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Benzene	ND		36	1.7	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Bromodichloromethane	ND		36	4.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Bromoform	ND		36	18	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Bromomethane	ND		36	3.2	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Carbon disulfide	ND		36	18	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Carbon Tetrachloride	ND		36	3.4	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Chlorobenzene	ND		36	4.7	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Dibromochloromethane	ND		36	4.5	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Chloroethane	ND		36	8.0	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Chloroform	ND		36	2.2	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Chloromethane	ND		36	2.1	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
cis-1,2-Dichloroethene	ND		36	4.5	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
cis-1,3-Dichloropropene	ND		36	5.1	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Cyclohexane	ND		36	5.0	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Dichlorodifluoromethane	ND		36	2.9	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Ethylbenzene	ND		36	2.5	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Isopropylbenzene	**16**	J	36	5.4	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Methyl Acetate	ND		36	6.6	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Methyl-t-Butyl Ether (MTBE)	ND		36	3.5	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Methylcyclohexane	**18**	J	36	5.4	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Methylene Chloride	**49**		36	16	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Styrene	ND		36	1.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Tetrachloroethene	ND		36	4.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Toluene	ND		36	2.7	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
trans-1,2-Dichloroethene	ND		36	3.7	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
trans-1,3-Dichloropropene	ND		36	16	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Trichloroethene	ND		36	7.8	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Trichlorofluoromethane	ND		36	3.4	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Vinyl chloride	ND		36	4.3	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B
Xylenes, total	ND		71	6.0	ug/kg dry	1.00	12/01/10 16:04	PJQ	10L0022	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (6-8) (RTK1486-11 - Soil) - cont.							**Sampled: 11/18/10 15:15**		**Recvd: 11/20/10 09:15**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*110 %*		*Surr Limits: (64-126%)*				*12/01/10 16:04*	*PJQ*	*10L0022*	*8260B*
4-Bromofluorobenzene	*100 %*		*Surr Limits: (72-126%)*				*12/01/10 16:04*	*PJQ*	*10L0022*	*8260B*
Toluene-d8	*94 %*		*Surr Limits: (71-125%)*				*12/01/10 16:04*	*PJQ*	*10L0022*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		240	52	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,4,6-Trichlorophenol	ND		240	16	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,4-Dichlorophenol	ND		240	13	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,4-Dimethylphenol	ND		240	65	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,4-Dinitrophenol	ND		470	84	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,4-Dinitrotoluene	ND		240	37	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,6-Dinitrotoluene	ND		240	59	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2-Chloronaphthalene	ND		240	16	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2-Chlorophenol	ND		240	12	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2-Methylnaphthalene	**97**	J	240	2.9	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2-Methylphenol	ND		240	7.4	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2-Nitroaniline	ND		470	77	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2-Nitrophenol	ND		240	11	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
3,3'-Dichlorobenzidine	ND		240	210	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
3-Nitroaniline	ND		470	55	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4,6-Dinitro-2-methylphenol	ND		470	83	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Bromophenyl phenyl ether	ND		240	76	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Chloro-3-methylphenol	ND		240	9.9	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Chloroaniline	ND		240	70	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Chlorophenyl phenyl ether	ND		240	5.1	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Methylphenol	ND		470	13	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Nitroaniline	ND		470	27	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
4-Nitrophenol	ND		470	58	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Acenaphthene	**26**	J	240	2.8	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Acenaphthylene	**25**	J	240	2.0	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Acetophenone	ND	J	240	12	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Anthracene	**52**	J	240	6.1	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Atrazine	ND		240	11	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Benzaldehyde	ND		240	26	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Benzo[a]anthracene	**150**	J	240	4.1	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Benzo[a]pyrene	**160**	J	240	5.8	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Benzo[b]fluoranthene	**190**	J	240	4.7	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Benzo[g,h,i]perylene	**120**	J	240	2.9	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Benzo[k]fluoranthene	**74**	J	240	2.6	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Biphenyl	ND		240	15	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Bis(2-chloroethoxy)methane	ND		240	13	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Bis(2-chloroethyl)ether	ND		240	21	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,2'-Oxybis(1-Chloropropane)	ND		240	25	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Bis(2-ethylhexyl) phthalate	**630**		240	77	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Butyl benzyl phthalate	ND		240	64	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Caprolactam	ND		240	100	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: AMW-6 (6-8) (RTK1486-11 - Soil) - cont. **Sampled: 11/18/10 15:15** **Recvd: 11/20/10 09:15**

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Semivolatile Organics by GC/MS - cont.										
Carbazole	**29**	J	240	2.8	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Chrysene	**170**	J	240	2.4	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Dibenzo(a,h)anthracene	**36**	J	240	2.8	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Dibenzofuran	**27**	J	240	2.5	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Diethyl phthalate	ND		240	7.3	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Dimethyl phthalate	ND		240	6.3	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Di-n-butyl phthalate	ND		240	83	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Di-n-octyl phthalate	ND		240	5.6	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Fluoranthene	**280**		240	3.5	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Fluorene	**64**	J	240	5.5	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Hexachlorobenzene	ND		240	12	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Hexachlorobutadiene	ND		240	12	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Hexachlorocyclopentadiene	ND		240	73	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Hexachloroethane	ND		240	19	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Indeno[1,2,3-cd]pyrene	**100**	J	240	6.6	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Isophorone	ND		240	12	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Naphthalene	**29**	J	240	4.0	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Nitrobenzene	ND		240	11	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
N-Nitrosodi-n-propylamine	ND		240	19	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
N-Nitrosodiphenylamine	ND		240	13	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Pentachlorophenol	ND		470	82	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Phenanthrene	**270**		240	5.0	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Phenol	ND		240	25	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
Pyrene	**240**		240	1.6	ug/kg dry	1.00	11/24/10 12:46	MKP	10K2281	8270C
2,4,6-Tribromophenol	*115 %*		*Surr Limits: (39-146%)*				*11/24/10 12:46*	*MKP*	*10K2281*	*8270C*
2-Fluorobiphenyl	*96 %*		*Surr Limits: (37-120%)*				*11/24/10 12:46*	*MKP*	*10K2281*	*8270C*
2-Fluorophenol	*73 %*		*Surr Limits: (18-120%)*				*11/24/10 12:46*	*MKP*	*10K2281*	*8270C*
Nitrobenzene-d5	*84 %*		*Surr Limits: (34-132%)*				*11/24/10 12:46*	*MKP*	*10K2281*	*8270C*
Phenol-d5	*87 %*		*Surr Limits: (11-120%)*				*11/24/10 12:46*	*MKP*	*10K2281*	*8270C*
p-Terphenyl-d14	*99 %*		*Surr Limits: (58-147%)*				*11/24/10 12:46*	*MKP*	*10K2281*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**8470**	J	14.0	6.1	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Antimony	ND		20.9	0.8	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Arsenic	**10.6**		2.8	0.6	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Barium	**44.6**		0.698	0.154	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Beryllium	**0.448**		0.279	0.039	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Cadmium	**0.468**		0.279	0.042	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Calcium	**2140**	B	69.8	4.6	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Chromium	**22.7**		0.698	0.279	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Cobalt	**4.84**		0.698	0.070	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Copper	**14.7**		1.4	0.3	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Iron	**18200**	B J	14.0	1.5	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Lead	**43.8**	J	1.4	0.3	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Magnesium	**2900**	B	27.9	1.3	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Manganese	**180**	B	0.3	0.04	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Nickel	**13.0**	J	6.98	0.321	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Potassium	**1630**	J	41.9	27.9	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Selenium	ND		5.6	0.8	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: AMW-6 (6-8) (RTK1486-11 - Soil) - cont.						**Sampled: 11/18/10 15:15**		**Recvd: 11/20/10 09:15**		
Total Metals by SW 846 Series Methods - cont.										
Silver	ND		0.698	0.279	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Sodium	**392**		195	18.2	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Thallium	ND		8.4	0.4	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Vanadium	**24.8**		0.698	0.154	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Zinc	**75.0**	B	2.8	0.2	mg/kg dry	1.00	11/23/10 14:11	LMH	10K2209	6010B
Mercury	**0.122**		0.0285	0.0115	mg/kg dry	1.00	11/23/10 12:32	JRK	10K2247	7471A
General Chemistry Parameters										
Percent Solids	**70**		0.010	NR	%	1.00	11/22/10 18:30	JRR	10K2214	Dry Weight
Ferrous Iron	~~ND~~	~~D02~~	~~23.0~~	~~3.4~~	mg/kg dry	8.00	11/24/10 20:40	JLN	10K2553	3500FE
Sulfate	**132**	J	143	71.6	mg/kg dry	1.00	11/24/10 14:57	JFR	10K2533	D-516-90
Organic Carbon, Total (TOC)										
Total Organic Carbon	**15800**		1380	1380	mg/Kg dry	1.00	12/02/10 20:20	MNT	10572	Lloyd Kahn Dry
Percent Moisture										
Percent Moisture	**27.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture
Percent Solids	**72.5**		0.25	0.25	%	1.00	11/23/10 21:33	MNT	10127	Moisture

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: RB-2-11-18-102 (RTK1486-12 - Water) **Sampled: 11/18/10 16:30** **Recvd: 11/20/10 08:30**

Volatile Organic Compounds by EPA 8260B

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,2-Dibromo-3-chloropropane	ND		1.0	0.39	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Acetone	**5.7**		5.0	3.0	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Methylene Chloride	**2.0**		1.0	0.44	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	12/01/10 12:16	PJQ	10L0031	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Client ID: RB-2-11-18-102 (RTK1486-12 - Water) - cont. **Sampled: 11/18/10 16:30** **Recvd: 11/20/10 08:30**

Volatile Organic Compounds by EPA 8260B - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
1,2-Dichloroethane-d4	*110 %*		*Surr Limits: (66-137%)*				*12/01/10 12:16*	*PJQ*	*10L0031*	*8260B*
4-Bromofluorobenzene	*108 %*		*Surr Limits: (73-120%)*				*12/01/10 12:16*	*PJQ*	*10L0031*	*8260B*
Toluene-d8	*100 %*		*Surr Limits: (71-126%)*				*12/01/10 12:16*	*PJQ*	*10L0031*	*8260B*
Semivolatile Organics by GC/MS										
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,4-Dichlorophenol	ND		5.0	0.51	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,4-Dimethylphenol	ND		5.0	0.50	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,4-Dinitrophenol	ND		10	2.2	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2-Chloronaphthalene	ND		5.0	0.46	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2-Chlorophenol	ND		5.0	0.53	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2-Methylnaphthalene	ND		5.0	0.60	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2-Methylphenol	ND		5.0	0.40	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2-Nitroaniline	ND		10	0.42	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2-Nitrophenol	ND		5.0	0.48	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
3-Nitroaniline	ND		10	0.48	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Chloroaniline	ND		5.0	0.59	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Methylphenol	ND		10	0.36	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Nitroaniline	ND		10	0.25	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
4-Nitrophenol	ND		10	1.5	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Acenaphthene	ND		5.0	0.41	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Acenaphthylene	ND		5.0	0.38	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Acetophenone	ND	J	5.0	0.54	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Anthracene	ND		5.0	0.28	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Atrazine	ND		5.0	0.46	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Benzaldehyde	ND		5.0	0.27	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Benzo(a)anthracene	ND		5.0	0.36	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Benzo(a)pyrene	ND		5.0	0.47	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Benzo(ghi)perylene	ND		5.0	0.35	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Biphenyl	ND		5.0	0.65	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,2'-Oxybis(1-Chloropropane)	ND		5.0	0.52	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Bis(2-ethylhexyl) phthalate	ND		5.0	1.8	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Butyl benzyl phthalate	ND		5.0	0.42	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Caprolactam	ND		5.0	2.2	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-2-11-18-102 (RTK1486-12 - Water) - cont.							**Sampled: 11/18/10 16:30**		**Recvd: 11/20/10 08:30**	
Semivolatile Organics by GC/MS - cont.										
Carbazole	ND		5.0	0.30	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Chrysene	ND		5.0	0.33	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Dibenzo(a,h)anthracene	ND		5.0	0.42	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Dibenzofuran	ND		5.0	0.51	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Diethyl phthalate	ND		5.0	0.22	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Dimethyl phthalate	ND		5.0	0.36	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Di-n-butyl phthalate	ND		5.0	0.31	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Di-n-octyl phthalate	ND		5.0	0.47	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Fluoranthene	ND		5.0	0.40	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Fluorene	ND		5.0	0.36	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Hexachlorobenzene	ND		5.0	0.51	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Hexachlorobutadiene	ND		5.0	0.68	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Hexachloroethane	ND		5.0	0.59	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Isophorone	ND		5.0	0.43	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Naphthalene	ND		5.0	0.76	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Nitrobenzene	ND		5.0	0.29	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Pentachlorophenol	ND		10	2.2	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Phenanthrene	ND		5.0	0.44	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Phenol	ND		5.0	0.39	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
Pyrene	ND		5.0	0.34	ug/L	1.00	11/24/10 15:14	MKP	10K2368	8270C
2,4,6-Tribromophenol	*96 %*		*Surr Limits: (52-132%)*				*11/24/10 15:14*	*MKP*	*10K2368*	*8270C*
2-Fluorobiphenyl	*75 %*		*Surr Limits: (48-120%)*				*11/24/10 15:14*	*MKP*	*10K2368*	*8270C*
2-Fluorophenol	*37 %*		*Surr Limits: (20-120%)*				*11/24/10 15:14*	*MKP*	*10K2368*	*8270C*
Nitrobenzene-d5	*73 %*		*Surr Limits: (46-120%)*				*11/24/10 15:14*	*MKP*	*10K2368*	*8270C*
Phenol-d5	*27 %*		*Surr Limits: (16-120%)*				*11/24/10 15:14*	*MKP*	*10K2368*	*8270C*
p-Terphenyl-d14	*71 %*		*Surr Limits: (24-136%)*				*11/24/10 15:14*	*MKP*	*10K2368*	*8270C*
Total Metals by SW 846 Series Methods										
Aluminum	**0.100**	J, B	0.200	0.045	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Antimony	ND		0.0200	0.0068	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Arsenic	ND		0.0100	0.0056	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Barium	**0.0184**		0.0020	0.0005	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Beryllium	ND		0.0020	0.0003	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Cadmium	ND		0.0010	0.0003	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Calcium	**31.0**		0.5	0.1	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Chromium	ND		0.0040	0.0009	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Cobalt	ND		0.0040	0.0006	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Copper	**0.0015**	J	0.0100	0.0015	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Iron	ND		0.050	0.019	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Lead	ND		0.0050	0.0030	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Magnesium	**8.78**		0.200	0.043	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Manganese	**0.0015**	J	0.0030	0.0002	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Nickel	ND		0.0100	0.0013	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Potassium	**1.47**		0.500	0.200	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Selenium	ND		0.0150	0.0087	mg/L	1.00	11/29/10 11:55	AMH	10K2374	6010B
Silver	ND		0.0030	0.0017	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: RB-2-11-18-102 (RTK1486-12 - Water) - cont.							**Sampled: 11/18/10 16:30**		**Recvd: 11/20/10 08:30**	
Total Metals by SW 846 Series Methods - cont.										
Sodium	**12.1**		1.0	0.3	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Thallium	ND		0.0200	0.0102	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Vanadium	**0.0013**	J	0.0050	0.0011	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Zinc	**0.0047**	J	0.0100	0.0017	mg/L	1.00	11/24/10 16:35	MxM	10K2374	6010B
Mercury	ND		0.0002	0.0001	mg/L	1.00	11/29/10 16:38	JRK	10K2495	7470A
General Chemistry Parameters										
Ferrous Iron	ND	~~HFT~~	0.100	0.0750	mg/L	1.00	11/20/10 16:20	RJF	10K2131	3500FE
Sulfate	**27.2**		5.0	1.5	mg/L	1.00	12/01/10 10:14	RJF	10L0071	D-516-90
Soluble Organic Carbon	ND		1.0	0.4	mg/L	1.00	12/02/10 00:40	KLD	10L0080	9060

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-3-11-18-10 (RTK1486-13 - Water)						Sampled: 11/18/10		Recvd: 11/20/10 08:30		
Volatile Organic Compounds by EPA 8260B										
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,1-Dichloroethane	ND		1.0	0.38	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,1-Dichloroethene	ND		1.0	0.29	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,2-Dibromo-3-chloropropane	ND		1.0	0.39	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,2-Dibromoethane	ND		1.0	0.73	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,2-Dichloroethane	ND		1.0	0.21	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,2-Dichloropropane	ND		1.0	0.72	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
2-Butanone	ND		5.0	1.3	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
2-Hexanone	ND		5.0	1.2	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Acetone	ND		5.0	3.0	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Benzene	ND		1.0	0.41	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Bromodichloromethane	ND		1.0	0.39	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Bromoform	ND		1.0	0.26	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Bromomethane	ND		1.0	0.69	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Carbon disulfide	ND		1.0	0.19	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Carbon Tetrachloride	ND		1.0	0.27	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Chlorobenzene	ND		1.0	0.75	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Dibromochloromethane	ND		1.0	0.32	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Chloroethane	ND		1.0	0.32	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Chloroform	ND		1.0	0.34	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Chloromethane	ND		1.0	0.35	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Cyclohexane	ND		1.0	0.18	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Dichlorodifluoromethane	ND		1.0	0.68	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Ethylbenzene	ND		1.0	0.74	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Isopropylbenzene	ND		1.0	0.79	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Methyl Acetate	ND		1.0	0.50	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.16	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Methylcyclohexane	ND		1.0	0.16	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Methylene Chloride	ND		1.0	0.44	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Styrene	ND		1.0	0.73	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Tetrachloroethene	ND		1.0	0.36	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Toluene	ND		1.0	0.51	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Trichloroethene	ND		1.0	0.46	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Trichlorofluoromethane	ND		1.0	0.88	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Vinyl chloride	ND		1.0	0.90	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B
Xylenes, total	ND		2.0	0.66	ug/L	1.00	12/01/10 12:41	PJQ	10L0031	8260B

Chevron - Environmental Mgmt Corp - Bellaire,
4800 Fournace Place
Bellaire, TX 77401

SDG Number: RTK1440

Project: Chevron-Former Gulf Oil Terminal Site - Oceanside
Project Number: CHEVRON-0038

Received: 11/19/10-11/20/
Reported: 12/15/10 12:48

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Client ID: TB-3-11-18-10 (RTK1486-13 - Water) - cont.						**Sampled: 11/18/10**			**Recvd: 11/20/10 08:30**	
Volatile Organic Compounds by EPA 8260B - cont.										
1,2-Dichloroethane-d4	*108 %*		*Surr Limits: (66-137%)*				*12/01/10 12:41*	*PJQ*	*10L0031*	*8260B*
4-Bromofluorobenzene	*106 %*		*Surr Limits: (73-120%)*				*12/01/10 12:41*	*PJQ*	*10L0031*	*8260B*
Toluene-d8	*101 %*		*Surr Limits: (71-126%)*				*12/01/10 12:41*	*PJQ*	*10L0031*	*8260B*

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron – Former Gulf Oil Terminal

Data Usability Summary Report

OCEANSIDE, NEW YORK

Volatile, Semivolatile, Metals and Miscellaneous Analyses

SDG#J1108

Analyses Performed By:
TestAmerica
Amherst, New York

Report: #13973R
Review Level: Tier III
Project: B0047517.0004.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # J1108 for samples collected in association with the Chevron – Former Gulf Oil Terminal Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-31D-1R-012111	480-1108-1	Water	1/21/2011		X	X		X	X
MW-31D-2R-012111	480-1108-2	Water	1/21/2011		X	X		X	X
MW-25-D3-012111	480-1108-3	Water	1/21/2011		X	X		X	X
TB3-012111	480-1108-4	Water	1/21/2011		X	X		X	X
MW-30D1-12411	480-1149-1	Water	1/24/2011		X	X		X	X
DUP-12411	480-1149-2	Water	1/24/2011	MW-30D1-12411	X	X		X	X
MW-26-D2-12511	480-1149-3	Water	1/25/2011		X	X		X	X
MW-30UD-12511	480-1149-4	Water	1/25/2011		X	X		X	X
MW-29UD-12511	480-1149-5	Water	1/25/2011		X	X		X	X
MW-26-D1-12511	480-1149-6	Water	1/25/2011		X	X		X	X
MW-29-D2-12511	480-1149-7	Water	1/25/2011		X	X		X	X
MW-29-D1-12511	480-1149-8	Water	1/25/2011		X	X		X	X
MW-28-D1-12511	480-1149-9	Water	1/25/2011		X	X		X	X
MW-28-D2-12511	480-1149-10	Water	1/25/2011		X	X		X	X
TB-12411	480-1149-11	Water	1/24/2011		X	X		X	X
AMW-4-12611	480-1226-1	Water	1/26/2011		X	X		X	X
AMW-5-12611	480-1226-2	Water	1/26/2011		X	X		X	X
AMW-11-12611	480-1226-3	Water	1/26/2011		X	X		X	X
AMW-DR-12611	480-1226-4	Water	1/26/2011		X	X		X	X
AMW-7-12611	480-1226-5	Water	1/26/2011		X	X		X	X
P-18R-12711	480-1226-6	Water	1/27/2011		X	X		X	X
MW-33D-12711	480-1226-7	Water	1/27/2011		X	X		X	X
MW-35D-12711	480-1226-8	Water	1/27/2011		X	X		X	X
TB	480-1226-9	Water	1/26/2011		X	X		X	X
TB	480-1226-10	Water	1/27/2011		X	X		X	X

Note:

1. Miscellaneous parameters include methane, ethane, ethene, dissolved organic carbon, alkalinity, ammonia, nitrate, nitrite, orthophosphate, sulfate, sulphide, and total dissolved solids.
2. Matrix spike/matrix spike duplicate (MS/MSD) was performed on sample locations MW-25-D3-012111 and MW-35D-12711.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) USEPA SW-846 Method 8260, 8270 and RSK-175. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.
	Soil	14 days from collection to analysis	Cool to 4°C±2°C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.
All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
TB3-012111	CCV %D	Dichlorodifluoromethane	37.0%
		1,1,2-Trichloro-1,2,2-trifluoroethane	32.5%
		Acetone	78.6%
		Methyl acetate	36.1%
		2-Butanone	46.4%
		Cyclohexane	22.2%
		Carbon tetrachloride	21.3%
		4-Methyl-2-pentanone	27.0%
		2-Hexanone	50.6%
MW-30D1-12411 DUP-12411 MW-26-D2-12511 MW-30UD-12511 MW-29UD-12511 MW-29-D2-12511 MW-29-D1-12511 MW-28-D1-12511 MW-28-D2-12511 TB-12411	CCV %D	Chloroethane	-24.6%
		Acetone	72.3%
		Methyl acetate	33.0%
		2-Butanone	41.2%
		1,2-Dichloroethane	21.9%
		4-Methyl-2-pentanone	25.2%
		2-Hexanone	43.6%
MW-31D-1R-012111 MW-31D-2R-012111 MW-25-D3-012111 MW-26-D1-12511	CCV %D	1,1,2-Trichloro-1,2,2-trifluoroethane	28.7%
		Acetone	86.2%
		2-Butanone	32.1%
		Cyclohexane	24.7%
		Carbon tetrachloride	21.5%
		1,2-Dichloroethane	20.1%
		4-Methyl-2-pentanone	23.3%
		2-Hexanone	38.9%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
MW-25-D3-012111	1,2-Dichloroethane	>UL	>UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-30D1-12411/ DUP-12411	1,1-Dichloroethane	2	2	0.0 %
	Benzene	81	87	7.1 %
	Cyclohexane	1.4	1.6	13.3 %
	Ethylbenzene	1.8	1.8	0.0 %
	Isopropylbenzene	0.97 J	1.1	AC
	Methyl tert-butyl ether	680	680	0.0 %
	Toluene	0.55 J	0.56 J	AC

AC Acceptable
U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration and/or exhibited higher concentration of a detected compound in the methanol-extracted analysis are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-30D1-12411	Methyl tert-butyl ether	560 E	680 D	680 D
DUP-12411	Methyl tert-butyl ether	540 E	680 D	680 D
MW-29-D1-12511	Benzene	120 E	130 D	130 D
	Methyl tert-butyl ether	470 E	550 D	550 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
D. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMI-VOLATILE VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
MW-28-D2-12511	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	<LL but > 10%
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC
MW-31D-1R-012111	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	AC
	Nitrobenzene-d5	<LL but > 10%
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC
AMW-4-12611 AMW-5-12611 AMW-11-12611 P-18R-12711	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	> UL
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC

UL Upper control limit
LL Lower control limit
D Diluted
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
MW-25-D3-012111	Bis(2-ethylhexyl) phthalate	<LL but > 10%	<LL but > 10%

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J

Control Limit	Sample Result	Qualification
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Acenaphthene	15	15	0.0 %
	Anthracene	0.74 J	0.63 J	AC
	Carbazole	7.5	7.7	2.6 %
	Dibenzofuran	2.1 J	2.3 J	AC
	Di-n-butyl phthalate	0.39 J	0.33 J	AC
	Naphthalene	0.92 J	1 J	AC
	Phenanthrene	6.5	6.6	1.5 %

AC Acceptable
U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration and/or exhibited higher concentration of a detected compound in the methanol-extracted analysis are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
AMW-11-12611	Acenaphthene	180 E	160 D	160 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

GENERAL GC ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
RSK-175	Water	14 days from collection to extraction to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

3.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99.

3.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

All compounds associated with calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
MW-30D1-12411 DUP-12411 MW-26-D2-12511 MW-26-D1-12511	CCV %D	Methane	-21.6%

Sample Locations	Initial/Continuing	Compound	Criteria
MW-29-D2-12511 MW-29-D1-12511 MW-28-D1-12511 MW-28-D2-12511			
AMW-4-12611 AMW-5-12611 AMW-11-12611 AMW-DR-12611 AMW-7-12611 P-18R-12711 MW-33D-12711 MW-35D-12711 MW-30UD-12511 MW-29UD-12511	CCV %D	Methane	-28.6%
		Ethane	-20.7%
		Ethene	-18.4%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial Calibration	%RSD > 20%or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >15% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >15% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

8. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Methane	1.7	1.2	34.4 %

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

9. Compound Identification

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration and/or exhibited higher concentration of a detected compound in the methanol-extracted analysis are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-30UD-12511	Methane	56 E	57 D	57 D
MW-29-D1-12511	Methane	12000 E	16000 D	16000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL GC

RSK-175	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X	X		
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) SW-846 Methods 6000/7000, 310.2, 350.1, 353.2, SM2540, SM4500 P E, SM4500 S2 D, D-516-90, and SM5310 D. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    UB Analyte considered non-detect at the listed value due to associated blank contamination.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cool to 4°C±2°C.
SW-846 7470	Water	28 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the instrument detection limit (IDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (J) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
MW-31D-1R-012111 MW-31D-2R-012111 MW-25-D3-012111	Copper (Dissolved)	Detected sample results <RL and <BAL	"UB" at the RL
MW-30D1-12411 DUP-12411 MW-26-D2-12511 MW-30UD-12511 MW-29UD-12511 MW-26-D1-12511 MW-29-D2-12511 MW-28-D1-12511	Aluminum (Dissolved)	Detected sample results <RL and <BAL	"UB" at the RL

Sample Locations	Analytes	Sample Result	Qualification
MW-30D1-12411 DUP-12411 MW-30UD-12511 MW-29UD-12511 MW-29-D2-12511	Aluminum (Total)	Detected sample results <RL and <BAL	"UB" at the RL
MW-29-D1-12511 MW-28-D1-12511	Aluminum (Total)	Detected sample results >RL and <BAL	"UB" at detected sample concentration

RL = reporting limit

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All analytes associated with CRDL standard recoveries were within control limits.

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits with the exception of the following analyte present in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
MW-25-D3-012111	Silver (Total)	132%	131%
MW-26-D2-12511	Silver (Dissolved)	133%	128%

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD was performed in place of a laboratory duplicate.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Barium	0.044	0.044	0.0 %
	Cadmium	0.0006 J	0.00079 J	AC
	Calcium	107	107	0.0 %
	Chromium	0.0039 J	0.0037 J	AC
	Cobalt	0.0011 J	0.00093 J	AC
	Copper	0.003 J	0.0025 J	AC

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Iron	0.1	0.13	26.0 %
	Magnesium	283	279	1.4 %
	Manganese	0.094	0.093	1.0 %
	Potassium	113	114	0.8 %
	Sodium	2400	2400	0.0 %
	Vanadium	0.0052	0.0054	3.7 %
	Zinc	0.0037 J	0.0018 J	AC
	Barium, Dissolved	0.044	0.044	0.0 %
	Cadmium, Dissolved	0.00073 J	0.0006 J	AC
	Calcium, Dissolved	107	107	0.0 %
	Chromium, Dissolved	0.0032 J	0.0036 J	AC
	Cobalt, Dissolved	0.00084 J	0.004	AC
	Copper, Dissolved	0.0015 J	0.0021 J	AC
	Magnesium, Dissolved	277	281	1.4 %
	Manganese, Dissolved	0.086	0.086	0.0 %
	Potassium, Dissolved	114	114	0.0 %
	Sodium, Dissolved	2230	2450	9.4 %
	Vanadium, Dissolved	0.0055	0.0045 J	AC

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits, with the exception of the analytes presented in the following table. The sample locations associated with the deviant %D are also presented in the following table.

Sample Locations	Analytes	Serial Dilution (%D)
MW-25-D3-012111	Magnesium (Total)	12%
	Sodium (Total)	14%

The criteria used to evaluate the serial dilution are presented in the following table. In the case of a serial dilution deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

8. General Assessment

The calculated %D between the total and the dissolved sample results were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	%D
MW-29-D2-12511	Magnesium	36.1%
AMW-DR-12611	Calcium	17.4%

The criteria used to evaluate total and dissolved %D are presented in the following table. In the case of a total and dissolved %D deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this SDG.

Sample Concentration	Control Limit	Sample Result	Qualification
Dissolved sample concentration > total sample concentration and > CRDL	>10%	Non-detect	UJ
		Detect	J
Dissolved sample concentration > total sample concentration and > CRDL	>50%	Non-detect	R
		Detect	R

9. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALs

METALS; SW-846 6000/7000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X	X		
C. Equipment/Field Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate (MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field Duplicate (RPD)		X		X	
ICP Serial Dilution		X	X		
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X		X	
ICP Interference Check		X		X	
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Alkalinity by 310.2	Water	14 days from collection to analysis	Cool to 4°C+2°C.
Ammonia by 350.1	Water	28 days from collection to analysis	Cool to 4°C+2°C; preserved to a pH of less than 2.
Nitrate-N by 353.2	Water	28 days from collection to analysis	Cool to 4°C+2°C; preserved to a pH of less than 2.
Nitrite by 353.2	Water	48 hours from collection to analysis	Cool to 4°C+2°C.
Total dissolved solids by SM2540	Water	7 days from collection to analysis	Cool to 4°C+2°C.
Orthophosphate by SM4500 P E	Water	48 hours from collection to analysis	Cool to 4°C+2°C.
Sulfide by SM4500 S2 D	Water	7 days from collection to analysis	Zinc acetate; preserved to a pH of greater than 9
Dissolved organic carbon by SM5310 D	Water	28 days from collection to analysis	Cool to 4°C+2°C; preserved to a pH of less than 2.
Sulfate by D-516-90	Water	28 days from collection to analysis	Cool to 4°C±2°C.

The analyses that exceeded the holding time are presented in the following table.

Sample Locations	Holding Time	Criteria
Orthophosphate: MW-30D1-12411 DUP-12411 AMW-4-12611 AMW-5-12611 AMW-11-12611 AMW-DR-12611 AMW-7-12611	50-52 hours	<48 hours

Sample results associated with sample locations analyzed by analytical methods SM4500 P E were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ
Analysis completed greater than two times holding time	J	R

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (J) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
DUP-12411 AMW-4-12611 AMW-7-12611 P-18R-12711	Sulfate	Detected sample results <RL and <BAL	"UB" at the RL
AMW-5-12611 AMW-11-12611	Sulfate	Detected sample results >RL and <BAL	"UB" at detected sample concentration
MW-29-D2-12511	Alkalinity, total Alkalinity, bicarbonate	Detected sample results >RL and <BAL	"UB" at detected sample concentration

RL = reporting limit

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All analytes associated with calibration standard recoveries were within control limits, with the exception of the analytes presented in the following table.

Sample Locations	Initial/Continuing	Analytes	Standard Recovery
MW-29-D1-12511 MW-28-D1-12511 MW-28-D2-12511	CCV	Nitrite	81%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Analytes	Control Limit	Sample Result	Qualification
All analytes except mercury	75% to 89%	Non-detect	UJ
		Detect	J
	111% to 125%	Non-detect	No Action
		Detect	J
	<75%	Non-detect	R
		Detect	J
	>125%	Non-detect	No Action
		Detect	R

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits with the exception of the following analyte present in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
MW-25-D3-012111	Dissolved organic carbon	49%	61%

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times

the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate recoveries exhibited acceptable RPD.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-31D-2R (4-6)/ DUP-111710	Alkalinity, Bicarbonate	939	898	4.4 %
	Alkalinity, Total	939	898	4.4 %
	Ammonia as N	8	7.7	3.8 %
	Total Dissolved Solids	7950	7550	5.1 %
	Orthophosphate	0.29	0.27	7.1 %
	Sulfide	0.19	0.52	92.9 %
	Dissolved Organic Carbon	12.3	12.8	3.9 %

U = Not detected
AC = Acceptable

The analyte sulfide associated with samples locations MW-31D-2R (4-6) and DUP-111710 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA 9012A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X	X		
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-1108-1	1/21/2011	SW846	MW-31D-1R-012111	Water	Yes	Yes	--	No	Yes	MET – Blank, Ser. Dil.
480-1108-1	1/21/2011	SW846	MW-31D-2R-012111	Water	Yes	Yes	--	No	Yes	MET – Blank, Ser. Dil.
480-1108-1	1/21/2011	SW846	MW-25-D3-012111	Water	Yes	No	--	No	No	SVOC – MS/MSD %R MET – Blank, Ser. Dil. MISC - MS/MSD %R
480-1108-1	1/21/2011	SW846	TB3-012111	Water	Yes	--	--	--	--	
480-1108-1	1/24/2011	SW846	MW-30D1-12411	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D, Hold time, Field dup. %D
480-1108-1	1/24/2011	SW846	DUP-12411	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D, Hold time, Blank, Field dup. %D
480-1108-1	1/25/2011	SW846	MW-26-D2-12511	Water	Yes	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D
480-1108-1	1/25/2011	SW846	MW-30UD-12511	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D
480-1108-1	1/25/2011	SW846	MW-29UD-12511	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D
480-1108-1	1/25/2011	SW846	MW-26-D1-12511	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D
480-1108-1	1/25/2011	SW846	MW-29-D2-12511	Water	No	Yes	--	No	No	VOC – CCV %D MET – Blank, Tot./Diss. %D MISC – CCV %D, Blank

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-1108-1	1/25/2011	SW846	MW-29-D1-12511	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D
480-1108-1	1/25/2011	SW846	MW-28-D1-12511	Water	No	Yes	--	No	No	VOC – CCV %D MET - Blank MISC – CCV %D
480-1108-1	1/25/2011	SW846	MW-28-D2-12511	Water	No	Yes	--	Yes	No	VOC – CCV %D MISC – CCV %D
480-1108-1	1/24/2011	SW846	TB-12411	Water	No	--	--	--	--	VOC – CCV %D
480-1108-1	1/26/2011	SW846	AMW-4-12611	Water	Yes	Yes	--	Yes	No	MISC – CCV %D, Hold time, Blank
480-1108-1	1/26/2011	SW846	AMW-5-12611	Water	Yes	Yes	--	Yes	No	MISC – CCV %D, Hold time, Blank
480-1108-1	1/26/2011	SW846	AMW-11-12611	Water	Yes	Yes	--	Yes	No	MISC – CCV %D, Hold time,Blank
480-1108-1	1/26/2011	SW846	AMW-DR-12611	Water	Yes	Yes	--	Yes	No	MISC – CCV %D, Hold time, MET –Tot./Diss. %D
480-1108-1	1/26/2011	SW846	AMW-7-12611	Water	Yes	Yes	--	Yes	No	MISC – CCV %D, Hold time, Blank
480-1108-1	1/27/2011	SW846	P-18R-12711	Water	Yes	Yes	--	Yes	No	MISC – CCV %D, Blank
480-1108-1	1/27/2011	SW846	MW-33D-12711	Water	Yes	Yes	--	Yes	No	MISC – CCV %D
480-1108-1	1/27/2011	SW846	MW-35D-12711	Water	Yes	Yes	--	Yes	No	MISC – CCV %D
480-1108-1	1/26/2011	SW846	TB	Water	Yes	--	--	--	--	
480-1108-1	1/27/2011	SW846	TB	Water	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE: 

DATE: April 15, 2011

PEER REVIEW: Dennis Capria

DATE: April 25, 2011

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	Jo Ann Robertson	1-21-11	126131
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
6723 Towpath Rd	315-446-9120		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Syracuse NY 13214	Marcus Eriksson		
Project Name and Location (State)	**Carrier/Waybill Number**		
Former Gulf Terminal - Oceanside, NY			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Solid	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Vox's	SVOC's	Methane	Ethane	Ethene	Total Dissolved Solids	Alkalinity to pH 4.5	Alkalinity to pH 8.3	Sulfide/Sulfate	Nitrate/Nitrite	Nitrogen as Ammonia	Phosphorus as Orthophosphate	Special Instructions/ Conditions of Receipt
MW-31D-1R-012111	1-21-11	0900		18		1	8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	Additional Test * Calcium
MW-31D-2R-012111	1-21-11	1030		18		1	8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	* Total Dissolved Organic Carbon
TB-012111	1-21-11	-		1						1			1												* Manganese (Total + Dissolved)
MW-25-D3-012111	1-21-11	0855		1		1	24	3	6	18		3	X	X	X	X	X	X	X	X	X	X	X	X	* Iron (Total + Dissolved)
* MS/MSD * MW-25-D3-012111																									* TAL Metals (Total + Dissolved)
																									* FF = Field Filtered

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
	1-21-11	1300	Bull	1-22-11	0800
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

3.2°

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Arcadis	Project Manager: JoAnn Robertson	Date: 1-26-11	Chain of Custody Number: 126136
Address: 6723 Towpath Rd	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number:	Page 1 of 1
City: Syracuse / State: NY / Zip Code: 13214	Site Contact: Marcus Erikson	Lab Contact:	Analysis (Attach list if more space is needed)
Project Name and Location (State): Former Gulf Terminal, Oneida, NY	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAcy/NaOH	VOC's	SVOC's	Methane	Ethane/Ethene	Total Dissolved Gases	Alkalinity	Alkalinity-bicarbonate	Sulfide/Sulfide	nitrate/nitrite	nitrogen as Ammonia	Total Dissolved Solids as Other (Not Metals)	Unknown	Special Instructions/ Conditions of Receipt
MW-30D1-12411	1-24-11	1530		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	Additional Test: Total Dissolved * Organic Carbon
Dup-12411	1-24-11	-		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	* Manganese (Total & Dissolved)
FB-12411	1-24-11	-		1			Aug 8	1	2	1			X	X											* Iron (" ")
MW-26-D2-12511	1-25-11	0830		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	* TAL Metals (" ")
MW-30VD-12511	1-25-11	0818		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-29VD-12511	1-25-11	1013		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-26-D1-12511	1-25-11	1000		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	* FF = Field Filtered
MW-29-D2-12511	1-25-11	1115		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-29D1-12511	1-25-11	1133		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-28-D1-12511	1-25-11	1400		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-28-D2-12511	1-25-11	1403		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	1-25-11	1630	1. Received By	1-26-11	0940
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

402.0

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt ____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TA-4124(1007)

Client: Arcadis	Project Manager: Jo Ann Robertson	Date: 1-26-11	Chain of Custody Number: 126118
Address: 6723 Towpath Rd.	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number	Page ____ of ____
City: Syracuse	State: NY	Zip Code: 13214	Site Contact: Marcus Eidson	Lab Contact
Project Name and Location (State): Former Gulf Terminal - Oceanside, NY	Carrier/Waybill Number	Analysis (Attach list if more space is needed)
Contract/Purchase Order/Quote No		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs	SVOCs	Methane, Ethane/Ethene	total dissolved	alkalinity	wet chem: bicarbonate	sulfate, sulfide	nitrogen, ammonia	nitrogen, as Ammonia	Calcium	Special Instructions/ Conditions of Receipt
AMW-4-12611	1-26-11	0938		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	Add. Tests
AMW-5-12611	1-26-11	1015		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	* total dissolved organic carbon
AMW-11-12611	1-26-11	1130		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	* Manganese (Total & Dissolved)
MW-DR-12611	1-26-11	1330		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	* Iron (" & ")
AMW-7-12611	1-26-11	1306		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	* TAL Metals (A & ")
																								FF - Field Filtered

Page 4704 of 4708

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	1-26-11	1230	1. Received By	1-26-11	1005
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Arcadis	Project Manager: JoAnn Robertson	Date: 1-27-11	Chain of Custody Number: 126117
Address: 6723 Towpath Rd	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number	Page 1 of 1
City: Syracuse	State: NY	Zip Code: 13214	Site Contact: Marcus Erikson	Lab Contact
Project Name and Location (State): Former Gulf Terminal	Carrier/Waybill Number	Analysis (Attach list if more space is needed)
Contract/Purchase Order/Quote No.		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC's	SVOC's	Methane/Ethane/Ethene	Total Alkalinity	Alkalinity, bicarbonate	Alkalinity, carbonate	Sulfate/Sulfide	Methane, Mineral	Nitrogen, Ammonia	Nitrogen, Nitrate-Nitrite	Chloride	Special Instructions/ Conditions of Receipt
P-18R-12711	1-27-11	0945		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	* Total Dissolved Organic Carbon
MW-33D-12711	1-27-11	0845		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	* Manganese (Total + Dissolved)
MW-35D-12711 (MS/MSD)	1-27-11	1045		42			24	3	6	6		3	X	X	X	X	X	X	X	X	X	X	X	* Iron (" ")
TB	1-27-11	-		1						1			X											* TAL Metals (" ")
																								* FF = Field Filtered

Page 4705 of 4708

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other STD

QC Requirements (Specify)

1. Relinquished By	Date: 1-27-11	Time: 15:30	1. Received By	Date: 1/27/11	Time: 1530
2. Relinquished By	Date: 1/27/11	Time: 17 00	2. Received By	Date: 1-27-11	Time: 1065
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

2 of 4

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-1R-012111**

Lab Sample ID: 480-1108-1
Client Matrix: Water

Date Sampled: 01/21/2011 0900
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5207.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 1758		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 1758		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	1.1		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	5.6		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	0.83	J	0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	2.1		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	5.3		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	20		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	2.4		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-1R-012111**

Lab Sample ID: 480-1108-1
Client Matrix: Water

Date Sampled: 01/21/2011 0900
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5207.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 1758		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 1758		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	12		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-2R-012111**

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5208.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 1822		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 1822		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	0.99	J	0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	3.9	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	0.58	J	0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-2R-012111**

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5208.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 1822		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 1822		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	122		66 - 137
Toluene-d8 (Surr)	95		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-25-D3-012111**

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5209.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 1846		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 1846		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	5.3	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	2.0		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	1.3		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	1.3		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	43		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	4.5		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-25-D3-012111**

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5209.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 1846		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 1846		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	121		66 - 137
Toluene-d8 (Surr)	95		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **TB3-012111**

Lab Sample ID: 480-1108-4TB
Client Matrix: Water

Date Sampled: 01/21/2011 0000
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3731	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5150.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/26/2011 1512		Final Weight/Volume: 5 mL
Date Prepared:	01/26/2011 1512		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **TB3-012111**

Lab Sample ID: 480-1108-4TB
Client Matrix: Water

Date Sampled: 01/21/2011 0000
Date Received: 01/22/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3731	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5150.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/26/2011 1512		Final Weight/Volume: 5 mL
Date Prepared:	01/26/2011 1512		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5169.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/26/2011 2350		Final Weight/Volume: 5 mL
Date Prepared:	01/26/2011 2350		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	2.0		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	81		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND J		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	1.4		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	1.8		0.74	1.0
Isopropylbenzene	0.97	J	0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	680 ~~560~~	J E	0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	0.55	J	0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5169.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/26/2011 2350		Final Weight/Volume: 5 mL
Date Prepared:	01/26/2011 2350		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113		66 - 137
Toluene-d8 (Surr)	99		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5213.D
Dilution:	10			Initial Weight/Volume:	5 mL
Date Analyzed:	01/27/2011 2023	Run Type:	DL	Final Weight/Volume:	5 mL
Date Prepared:	01/27/2011 2023				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		8.2	10
1,1,2,2-Tetrachloroethane	ND		2.1	10
1,1,2-Trichloroethane	ND		2.3	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	10
1,1-Dichloroethane	ND		3.8	10
1,1-Dichloroethene	ND		2.9	10
1,2,4-Trichlorobenzene	ND		4.1	10
1,2-Dibromo-3-Chloropropane	ND		3.9	10
1,2-Dibromoethane	ND		7.3	10
1,2-Dichlorobenzene	ND		7.9	10
1,2-Dichloroethane	ND		2.1	10
1,2-Dichloropropane	ND		7.2	10
1,3-Dichlorobenzene	ND		7.8	10
1,4-Dichlorobenzene	ND		8.4	10
2-Hexanone	ND		12	50
2-Butanone (MEK)	ND		13	100
4-Methyl-2-pentanone (MIBK)	ND		21	50
Acetone	ND		30	100
Benzene	100		4.1	10
Bromodichloromethane	ND		3.8	10
Bromoform	ND		2.6	10
Bromomethane	ND		6.9	10
Carbon disulfide	ND		1.9	10
Carbon tetrachloride	ND		2.7	10
Chlorobenzene	ND		7.5	10
Dibromochloromethane	ND		3.2	10
Chloroethane	ND		3.2	10
Chloroform	ND		3.4	10
Chloromethane	ND		3.5	10
cis-1,2-Dichloroethene	ND		8.1	10
cis-1,3-Dichloropropene	ND		3.6	10
Cyclohexane	ND		1.8	10
Dichlorodifluoromethane	ND		6.8	10
Ethylbenzene	ND		7.4	10
Isopropylbenzene	ND		7.9	10
Methyl acetate	ND		5.0	10
Methyl tert-butyl ether	680		1.6	10
Methylcyclohexane	ND		1.6	10
Methylene Chloride	ND		4.4	10
Styrene	ND		7.3	10
Tetrachloroethene	ND		3.6	10
Toluene	ND		5.1	10
trans-1,2-Dichloroethene	ND		9.0	10
trans-1,3-Dichloropropene	ND		3.7	10
Trichloroethene	ND		4.6	10
Trichlorofluoromethane	ND		8.8	10

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-30D1-12411

Lab Sample ID: 480-1149-1

Client Matrix: Water

Date Sampled: 01/24/2011 1530

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5213.D
Dilution:	10			Initial Weight/Volume:	5 mL
Date Analyzed:	01/27/2011 2023	Run Type:	DL	Final Weight/Volume:	5 mL
Date Prepared:	01/27/2011 2023				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		9.0	10
Xylenes, Total	ND		6.6	20

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	117		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **DUP-12411**

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Preparation: 5030B

Dilution: 1.0

Date Analyzed: 01/27/2011 0014

Date Prepared: 01/27/2011 0014

Analysis Batch: 480-3852

Instrument ID: HP5975T

Lab File ID: T5170.D

Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	2.0		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	87		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND J		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	1.6		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	1.8		0.74	1.0
Isopropylbenzene	1.1		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	~~540~~ D E		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	0.56	J	0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **DUP-12411**

Lab Sample ID: 480-1149-2FD
Client Matrix: Water

Date Sampled: 01/24/2011 0000
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5170.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0014		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0014		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		66 - 137
Toluene-d8 (Surr)	94		71 - 126
4-Bromofluorobenzene (Surr)	93		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5214.D
Dilution:	10		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 2047	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 2047		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		8.2	10
1,1,2,2-Tetrachloroethane	ND		2.1	10
1,1,2-Trichloroethane	ND		2.3	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.1	10
1,1-Dichloroethane	ND		3.8	10
1,1-Dichloroethene	ND		2.9	10
1,2,4-Trichlorobenzene	ND		4.1	10
1,2-Dibromo-3-Chloropropane	ND		3.9	10
1,2-Dibromoethane	ND		7.3	10
1,2-Dichlorobenzene	ND		7.9	10
1,2-Dichloroethane	ND		2.1	10
1,2-Dichloropropane	ND		7.2	10
1,3-Dichlorobenzene	ND		7.8	10
1,4-Dichlorobenzene	ND		8.4	10
2-Hexanone	ND		12	50
2-Butanone (MEK)	ND		13	100
4-Methyl-2-pentanone (MIBK)	ND		21	50
Acetone	ND		30	100
Benzene	94		4.1	10
Bromodichloromethane	ND		3.8	10
Bromoform	ND		2.6	10
Bromomethane	ND		6.9	10
Carbon disulfide	ND		1.9	10
Carbon tetrachloride	ND		2.7	10
Chlorobenzene	ND		7.5	10
Dibromochloromethane	ND		3.2	10
Chloroethane	ND		3.2	10
Chloroform	ND		3.4	10
Chloromethane	ND		3.5	10
cis-1,2-Dichloroethene	ND		8.1	10
cis-1,3-Dichloropropene	ND		3.6	10
Cyclohexane	ND		1.8	10
Dichlorodifluoromethane	ND		6.8	10
Ethylbenzene	ND		7.4	10
Isopropylbenzene	ND		7.9	10
Methyl acetate	ND		5.0	10
Methyl tert-butyl ether	680		1.6	10
Methylcyclohexane	ND		1.6	10
Methylene Chloride	ND		4.4	10
Styrene	ND		7.3	10
Tetrachloroethene	ND		3.6	10
Toluene	ND		5.1	10
trans-1,2-Dichloroethene	ND		9.0	10
trans-1,3-Dichloropropene	ND		3.7	10
Trichloroethene	ND		4.6	10
Trichlorofluoromethane	ND		8.8	10

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5214.D
Dilution:	10		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 2047	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 2047		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		9.0	10
Xylenes, Total	ND		6.6	20

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	100		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D2-12511**

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5171.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0038		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0038		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	0.51	J	0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND J		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D2-12511**

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5171.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0038		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0038		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	93		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30UD-12511**

Lab Sample ID: 480-1149-4
Client Matrix: Water

Date Sampled: 01/25/2011 0818
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/27/2011 0102
Date Prepared: 01/27/2011 0102

Analysis Batch: 480-3852

Instrument ID: HP5975T
Lab File ID: T5172.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	5.0		0.79	1.0
1,2-Dichloroethane	1.5	J	0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	7.1		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND	J	0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	90		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	4.1		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30UD-12511**

Lab Sample ID: 480-1149-4
Client Matrix: Water

Date Sampled: 01/25/2011 0818
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5172.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0102		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0102		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	93		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-29UD-12511

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/27/2011 0126
Date Prepared: 01/27/2011 0126

Analysis Batch: 480-3852

Instrument ID: HP5975T
Lab File ID: T5173.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	2.6		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND	J	0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	15		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29UD-12511**

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5173.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0126		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0126		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
Toluene-d8 (Surr)	99		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D1-12511**

Lab Sample ID: 480-1149-6
Client Matrix: Water

Date Sampled: 01/25/2011 1000
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 01/27/2011 2111
Date Prepared: 01/27/2011 2111

Analysis Batch: 480-3886

Instrument ID: HP5975T
Lab File ID: T5215.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	31	J	6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	74	J	15	50
Benzene	ND		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	37		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	ND		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D1-12511**

Lab Sample ID: 480-1149-6
Client Matrix: Water

Date Sampled: 01/25/2011 1000
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5215.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 2111		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 2111		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	ND		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		66 - 137
Toluene-d8 (Surr)	95		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-29-D2-12511

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5175.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0214		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0214		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.8	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	2.4		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	0.86	J	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D2-12511**

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5175.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0214		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0214		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D1-12511**

Lab Sample ID: 480-1149-8
Client Matrix: Water

Date Sampled: 01/25/2011 1133
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5176.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0238		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0238		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	8.9	J	3.0	10
Benzene	130 ~~120~~ D	E	0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND J		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	26		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	16		0.79	1.0
Methyl acetate	27 J		0.50	1.0
Methyl tert-butyl ether	580 ~~470~~ D	E	0.16	1.0
Methylcyclohexane	13		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	3.7		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D1-12511**

Lab Sample ID: 480-1149-8
Client Matrix: Water

Date Sampled: 01/25/2011 1133
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5176.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0238		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0238		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	16		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
Toluene-d8 (Surr)	99		71 - 126
4-Bromofluorobenzene (Surr)	95		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-29-D1-12511

Lab Sample ID: 480-1149-8

Client Matrix: Water

Date Sampled: 01/25/2011 1133

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5216.D
Dilution:	8.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 2135	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 2135		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		6.6	8.0
1,1,2,2-Tetrachloroethane	ND		1.7	8.0
1,1,2-Trichloroethane	ND		1.8	8.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	8.0
1,1-Dichloroethane	ND		3.0	8.0
1,1-Dichloroethene	ND		2.3	8.0
1,2,4-Trichlorobenzene	ND		3.3	8.0
1,2-Dibromo-3-Chloropropane	ND		3.1	8.0
1,2-Dibromoethane	ND		5.8	8.0
1,2-Dichlorobenzene	ND		6.3	8.0
1,2-Dichloroethane	ND		1.7	8.0
1,2-Dichloropropane	ND		5.8	8.0
1,3-Dichlorobenzene	ND		6.2	8.0
1,4-Dichlorobenzene	ND		6.7	8.0
2-Hexanone	ND		9.9	40
2-Butanone (MEK)	ND		11	80
4-Methyl-2-pentanone (MIBK)	ND		17	40
Acetone	ND		24	80
Benzene	130		3.3	8.0
Bromodichloromethane	ND		3.0	8.0
Bromoform	ND		2.1	8.0
Bromomethane	ND		5.5	8.0
Carbon disulfide	ND		1.5	8.0
Carbon tetrachloride	ND		2.2	8.0
Chlorobenzene	ND		6.0	8.0
Dibromochloromethane	ND		2.6	8.0
Chloroethane	ND		2.6	8.0
Chloroform	ND		2.7	8.0
Chloromethane	ND		2.8	8.0
cis-1,2-Dichloroethene	ND		6.5	8.0
cis-1,3-Dichloropropene	ND		2.9	8.0
Cyclohexane	28		1.4	8.0
Dichlorodifluoromethane	ND		5.4	8.0
Ethylbenzene	ND		5.9	8.0
Isopropylbenzene	14		6.3	8.0
Methyl acetate	ND		4.0	8.0
Methyl tert-butyl ether	550		1.3	8.0
Methylcyclohexane	13		1.3	8.0
Methylene Chloride	ND		3.5	8.0
Styrene	ND		5.8	8.0
Tetrachloroethene	ND		2.9	8.0
Toluene	ND		4.1	8.0
trans-1,2-Dichloroethene	ND		7.2	8.0
trans-1,3-Dichloropropene	ND		3.0	8.0
Trichloroethene	ND		3.7	8.0
Trichlorofluoromethane	ND		7.0	8.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-29-D1-12511

Lab Sample ID: 480-1149-8

Client Matrix: Water

Date Sampled: 01/25/2011 1133

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3886	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5216.D
Dilution:	8.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 2135	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 2135		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		7.2	8.0
Xylenes, Total	14	J	5.3	16

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	93		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D1-12511**

Lab Sample ID: 480-1149-9
Client Matrix: Water

Date Sampled: 01/25/2011 1400
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/27/2011 0302
Date Prepared: 01/27/2011 0302

Analysis Batch: 480-3852

Instrument ID: HP5975T
Lab File ID: T5177.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	1.1		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.2	J	3.0	10
Benzene	12		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	1.1		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	4.2		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	38		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D1-12511**

Lab Sample ID: 480-1149-9
Client Matrix: Water

Date Sampled: 01/25/2011 1400
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5177.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0302		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0302		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	1.4		0.90	1.0
Xylenes, Total	0.91	J	0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		66 - 137
Toluene-d8 (Surr)	100		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5178.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	01/27/2011 0326			Final Weight/Volume:	5 mL
Date Prepared:	01/27/2011 0326				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	0.87	J	0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.2	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	6.6		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	2.7		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	0.51	J	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10

Client Matrix: Water

Date Sampled: 01/25/2011 1403

Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3852	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5178.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/27/2011 0326		Final Weight/Volume: 5 mL
Date Prepared:	01/27/2011 0326		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: TB-12411

Lab Sample ID: 480-1149-11TB
Client Matrix: Water

Date Sampled: 01/24/2011 0000
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/27/2011 0350
Date Prepared: 01/27/2011 0350

Analysis Batch: 480-3852

Instrument ID: HP5975T
Lab File ID: T5179.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND	J	0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: TB-12411

Lab Sample ID: 480-1149-11TB
Client Matrix: Water

Date Sampled: 01/24/2011 0000
Date Received: 01/26/2011 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/27/2011 0350
Date Prepared: 01/27/2011 0350

Analysis Batch: 480-3852

Instrument ID: HP5975T
Lab File ID: T5179.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-4-12611**

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4355.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0129		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0129		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	22		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	38		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	11		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	33		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	3.0	J	2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-4-12611**

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4355.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0129		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0129		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	13		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-5-12611**

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/01/2011 0152
Date Prepared: 02/01/2011 0152

Analysis Batch: 480-4263

Instrument ID: HP5973N
Lab File ID: N4356.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	46	J	15	50
Benzene	7.0		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	6.8		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	3.2	J	0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-5-12611**

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4356.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0152		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0152		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	4.0	J	3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
Toluene-d8 (Surr)	107		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/01/2011 0215
Date Prepared: 02/01/2011 0215

Analysis Batch: 480-4263

Instrument ID: HP5973N
Lab File ID: N4357.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	68		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	49		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	5.7		3.7	5.0
Isopropylbenzene	15		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	11		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	4.8	J	2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4357.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0215		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0215		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	18		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client Sample ID: **AMW-DR-12611**

Lab Sample ID: 480-1226-4 Date Sampled: 01/26/2011 1330
Client Matrix: Water Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4358.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0238		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0238		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	9.5		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	6.9		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	7.6		0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-DR-12611**

Lab Sample ID: 480-1226-4
Client Matrix: Water

Date Sampled: 01/26/2011 1330
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4358.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0238		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0238		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	ND		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	102		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-7-12611**

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 5.0
Date Analyzed: 02/01/2011 0301
Date Prepared: 02/01/2011 0301

Analysis Batch: 480-4263

Instrument ID: HP5973N
Lab File ID: N4359.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	20	J	15	50
Benzene	6.4		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	3.5	J	0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	3.5	J	0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-7-12611**

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4359.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0301		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0301		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	4.1	J	3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **P-18R-12711**

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4360.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0324		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0324		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	160		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	30		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	3.8	J	3.7	5.0
Isopropylbenzene	36		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	14		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	4.0	J	2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **P-18R-12711**

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4360.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0324		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0324		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	9.0	J	3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		66 - 137
Toluene-d8 (Surr)	109		71 - 126
4-Bromofluorobenzene (Surr)	104		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-33D-12711**

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4361.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0347		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0347		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	4.2		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-33D-12711**

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4361.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0347		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0347		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	102		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-35D-12711**

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4362.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0410		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0410		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	3.7		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	0.87	J	0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	13		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	17		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	3.0		0.16	1.0
Methylcyclohexane	2.1		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-35D-12711**

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4362.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0410		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0410		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	0.66	J	0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: TB

Lab Sample ID: 480-1226-9TB
Client Matrix: Water

Date Sampled: 01/26/2011 0000
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/01/2011 0519
Date Prepared: 02/01/2011 0519

Analysis Batch: 480-4263

Instrument ID: HP5973N
Lab File ID: N4365.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: TB

Lab Sample ID: 480-1226-9TB
Client Matrix: Water

Date Sampled: 01/26/2011 0000
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 02/01/2011 0519
Date Prepared: 02/01/2011 0519

Analysis Batch: 480-4263

Instrument ID: HP5973N
Lab File ID: N4365.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		66 - 137
Toluene-d8 (Surr)	109		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: TB

Lab Sample ID: 480-1226-10TB
Client Matrix: Water

Date Sampled: 01/27/2011 0000
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4366.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0542		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0542		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: TB

Lab Sample ID: 480-1226-10TB
Client Matrix: Water

Date Sampled: 01/27/2011 0000
Date Received: 01/28/2011 1005

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-4263	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4366.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	02/01/2011 0542		Final Weight/Volume: 5 mL
Date Prepared:	02/01/2011 0542		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		66 - 137
Toluene-d8 (Surr)	108		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-31D-1R-012111

Lab Sample ID: 480-1108-1

Client Matrix: Water

Date Sampled: 01/21/2011 0900

Date Received: 01/22/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4809		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3617		Lab File ID:	X8211.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	02/07/2011 1445			Final Weight/Volume:	1 mL
Date Prepared:	01/25/2011 1005			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	9.4		0.62	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.58	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.50	4.8
2-Methylnaphthalene	2.8	J	0.57	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.56	4.8
4-Chlorophenyl phenyl ether	ND		0.33	4.8
4-Methylphenol	ND		0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	90		0.39	4.8
Acenaphthylene	1.8	J	0.36	4.8
Acetophenone	ND		0.51	4.8
Anthracene	1.3	J	0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.25	4.8
Benzo(a)anthracene	ND		0.34	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.32	4.8
Benzo(g,h,i)perylene	ND		0.33	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.33	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	49		0.29	4.8
Chrysene	ND		0.31	4.8
Di-n-butyl phthalate	0.39	J	0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-1R-012111**

Lab Sample ID: 480-1108-1
Client Matrix: Water

Date Sampled: 01/21/2011 0900
Date Received: 01/22/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4809	Instrument ID: HP5973X
Preparation:	3510C	Prep Batch: 480-3617	Lab File ID: X8211.D
Dilution:	1.0		Initial Weight/Volume: 1050 mL
Date Analyzed:	02/07/2011 1445		Final Weight/Volume: 1 mL
Date Prepared:	01/25/2011 1005		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	32		0.49	9.5
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.34	4.8
Fluoranthene	1.0	J	0.38	4.8
Fluorene	19		0.34	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.56	4.8
Hexachloroethane	ND		0.56	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.51	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	130		0.72	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	25		0.42	4.8
Phenol	ND		0.37	4.8
Pyrene	0.39	J	0.32	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	99		52 - 132
2-Fluorobiphenyl	56		48 - 120
2-Fluorophenol	24		20 - 120
Nitrobenzene-d5	45	X	46 - 120
p-Terphenyl-d14	49		24 - 136
Phenol-d5	21		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-2R-012111**

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4809		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3617		Lab File ID:	X8212.D
Dilution:	1.0			Initial Weight/Volume:	990 mL
Date Analyzed:	02/07/2011 1508			Final Weight/Volume:	1 mL
Date Prepared:	01/25/2011 1005			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.66	5.1
bis (2-chloroisopropyl) ether	ND		0.53	5.1
2,4,5-Trichlorophenol	ND		0.48	5.1
2,4,6-Trichlorophenol	ND		0.62	5.1
2,4-Dichlorophenol	ND		0.52	5.1
2,4-Dimethylphenol	ND		0.51	5.1
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.1
2,6-Dinitrotoluene	ND		0.40	5.1
2-Chloronaphthalene	ND		0.46	5.1
2-Chlorophenol	ND		0.54	5.1
2-Methylnaphthalene	ND		0.61	5.1
2-Methylphenol	ND		0.40	5.1
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.1
3,3'-Dichlorobenzidine	ND		0.40	5.1
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.1
4-Chloro-3-methylphenol	ND		0.45	5.1
4-Chloroaniline	ND		0.60	5.1
4-Chlorophenyl phenyl ether	ND		0.35	5.1
4-Methylphenol	ND		0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	ND		0.41	5.1
Acenaphthylene	ND		0.38	5.1
Acetophenone	ND		0.55	5.1
Anthracene	ND		0.28	5.1
Atrazine	ND		0.46	5.1
Benzaldehyde	ND		0.27	5.1
Benzo(a)anthracene	ND		0.36	5.1
Benzo(a)pyrene	ND		0.47	5.1
Benzo(b)fluoranthene	ND		0.34	5.1
Benzo(g,h,i)perylene	ND		0.35	5.1
Benzo(k)fluoranthene	ND		0.74	5.1
Bis(2-chloroethoxy)methane	ND		0.35	5.1
Bis(2-chloroethyl)ether	ND		0.40	5.1
Bis(2-ethylhexyl) phthalate	ND		1.8	5.1
Butyl benzyl phthalate	ND		0.42	5.1
Caprolactam	ND		2.2	5.1
Carbazole	ND		0.30	5.1
Chrysene	ND		0.33	5.1
Di-n-butyl phthalate	ND		0.31	5.1
Di-n-octyl phthalate	ND		0.47	5.1
Dibenz(a,h)anthracene	ND		0.42	5.1

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-2R-012111**

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4809		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3617		Lab File ID:	X8212.D
Dilution:	1.0			Initial Weight/Volume:	990 mL
Date Analyzed:	02/07/2011 1508			Final Weight/Volume:	1 mL
Date Prepared:	01/25/2011 1005			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.52	10
Diethyl phthalate	ND		0.22	5.1
Dimethyl phthalate	ND		0.36	5.1
Fluoranthene	ND		0.40	5.1
Fluorene	ND		0.36	5.1
Hexachlorobenzene	ND		0.52	5.1
Hexachlorobutadiene	ND		0.69	5.1
Hexachlorocyclopentadiene	ND		0.60	5.1
Hexachloroethane	ND		0.60	5.1
Indeno(1,2,3-cd)pyrene	ND		0.47	5.1
Isophorone	ND		0.43	5.1
N-Nitrosodi-n-propylamine	ND		0.55	5.1
N-Nitrosodiphenylamine	ND		0.52	5.1
Naphthalene	ND		0.77	5.1
Nitrobenzene	ND		0.29	5.1
Pentachlorophenol	ND		2.2	10
Phenanthrene	ND		0.44	5.1
Phenol	ND		0.39	5.1
Pyrene	ND		0.34	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	98		52 - 132
2-Fluorobiphenyl	62		48 - 120
2-Fluorophenol	35		20 - 120
Nitrobenzene-d5	55		46 - 120
p-Terphenyl-d14	56		24 - 136
Phenol-d5	34		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-25-D3-012111

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4809		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3617		Lab File ID:	X8213.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/07/2011 1531			Final Weight/Volume:	1 mL
Date Prepared:	01/25/2011 1005			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	0.53	J	0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	ND		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	ND		0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	0.36	J	0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-25-D3-012111**

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4809		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3617		Lab File ID:	X8213.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/07/2011 1531			Final Weight/Volume:	1 mL
Date Prepared:	01/25/2011 1005			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	ND		0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	ND		0.44	5.0
Phenol	6.5		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	102		52 - 132
2-Fluorobiphenyl	62		48 - 120
2-Fluorophenol	30		20 - 120
Nitrobenzene-d5	53		46 - 120
p-Terphenyl-d14	58		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5608.D
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Date Analyzed:	02/02/2011 2220			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.59	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.6
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.51	4.8
2-Methylnaphthalene	ND		0.58	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.6
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.6
4,6-Dinitro-2-methylphenol	ND		2.1	9.6
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.57	4.8
4-Chlorophenyl phenyl ether	ND		0.34	4.8
4-Methylphenol	ND		0.35	9.6
4-Nitroaniline	ND		0.24	9.6
4-Nitrophenol	ND		1.5	9.6
Acenaphthene	15		0.39	4.8
Acenaphthylene	ND		0.37	4.8
Acetophenone	ND		0.52	4.8
Anthracene	0.74	J	0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.26	4.8
Benzo(a)anthracene	ND		0.35	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.33	4.8
Benzo(g,h,i)perylene	ND		0.34	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.34	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	7.5		0.29	4.8
Chrysene	ND		0.32	4.8
Di-n-butyl phthalate	0.39	J	0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-3874	Lab File ID: V5608.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	02/02/2011 2220		Final Weight/Volume: 1 mL
Date Prepared:	01/27/2011 0812		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	2.1	J	0.49	9.6
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.35	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	ND		0.35	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.57	4.8
Hexachloroethane	ND		0.57	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.52	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	0.92	J	0.73	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.6
Phenanthrene	6.5		0.42	4.8
Phenol	ND		0.38	4.8
Pyrene	ND		0.33	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	103		52 - 132
2-Fluorobiphenyl	81		48 - 120
2-Fluorophenol	39		20 - 120
Nitrobenzene-d5	70		46 - 120
p-Terphenyl-d14	75		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5609.D
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	02/02/2011 2243			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.9
bis (2-chloroisopropyl) ether	ND		0.50	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.59	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.7
2,4-Dinitrotoluene	ND		0.43	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.51	4.9
2-Methylnaphthalene	ND		0.58	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.7
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.7
4,6-Dinitro-2-methylphenol	ND		2.1	9.7
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.57	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.7
4-Nitroaniline	ND		0.24	9.7
4-Nitrophenol	ND		1.5	9.7
Acenaphthene	15		0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.52	4.9
Anthracene	0.63	J	0.27	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.71	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	ND		1.7	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.1	4.9
Carbazole	7.7		0.29	4.9
Chrysene	ND		0.32	4.9
Di-n-butyl phthalate	0.33	J	0.30	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **DUP-12411**

Lab Sample ID: 480-1149-2FD
Client Matrix: Water

Date Sampled: 01/24/2011 0000
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5609.D
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	02/02/2011 2243			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	2.3	J	0.50	9.7
Diethyl phthalate	ND		0.21	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	ND		0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.66	4.9
Hexachlorocyclopentadiene	ND		0.57	4.9
Hexachloroethane	ND		0.57	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.52	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	1.0	J	0.74	4.9
Nitrobenzene	ND		0.28	4.9
Pentachlorophenol	ND		2.1	9.7
Phenanthrene	6.6		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	106		52 - 132
2-Fluorobiphenyl	81		48 - 120
2-Fluorophenol	40		20 - 120
Nitrobenzene-d5	71		46 - 120
p-Terphenyl-d14	79		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D2-12511**

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5610.D
Dilution:	1.0			Initial Weight/Volume:	1020 mL
Date Analyzed:	02/02/2011 2307			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.64	4.9
bis (2-chloroisopropyl) ether	ND		0.51	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.60	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.8
2,4-Dinitrotoluene	ND		0.44	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.52	4.9
2-Methylnaphthalene	ND		0.59	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.8
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.8
4,6-Dinitro-2-methylphenol	ND		2.2	9.8
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.58	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.8
4-Nitroaniline	ND		0.25	9.8
4-Nitrophenol	ND		1.5	9.8
Acenaphthene	ND		0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.53	4.9
Anthracene	ND		0.27	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.72	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	ND		1.8	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.2	4.9
Carbazole	ND		0.29	4.9
Chrysene	ND		0.32	4.9
Di-n-butyl phthalate	ND		0.30	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D2-12511**

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-3874	Lab File ID: V5610.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	02/02/2011 2307		Final Weight/Volume: 1 mL
Date Prepared:	01/27/2011 0812		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.50	9.8
Diethyl phthalate	ND		0.22	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	ND		0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.67	4.9
Hexachlorocyclopentadiene	ND		0.58	4.9
Hexachloroethane	ND		0.58	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.53	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	ND		0.75	4.9
Nitrobenzene	ND		0.28	4.9
Pentachlorophenol	ND		2.2	9.8
Phenanthrene	ND		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	64		52 - 132
2-Fluorobiphenyl	82		48 - 120
2-Fluorophenol	41		20 - 120
Nitrobenzene-d5	68		46 - 120
p-Terphenyl-d14	80		24 - 136
Phenol-d5	33		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30UD-12511**

Lab Sample ID: 480-1149-4
Client Matrix: Water

Date Sampled: 01/25/2011 0818
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5611.D
Dilution:	1.0			Initial Weight/Volume:	1045 mL
Date Analyzed:	02/02/2011 2331			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.58	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.6
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.51	4.8
2-Methylnaphthalene	ND		0.57	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.6
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.6
4,6-Dinitro-2-methylphenol	ND		2.1	9.6
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.56	4.8
4-Chlorophenyl phenyl ether	ND		0.33	4.8
4-Methylphenol	ND		0.34	9.6
4-Nitroaniline	ND		0.24	9.6
4-Nitrophenol	ND		1.5	9.6
Acenaphthene	ND		0.39	4.8
Acenaphthylene	ND		0.36	4.8
Acetophenone	ND		0.52	4.8
Anthracene	ND		0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.26	4.8
Benzo(a)anthracene	ND		0.34	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.33	4.8
Benzo(g,h,i)perylene	ND		0.33	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.33	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	ND		0.29	4.8
Chrysene	ND		0.32	4.8
Di-n-butyl phthalate	ND		0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30UD-12511**

Lab Sample ID: 480-1149-4
Client Matrix: Water

Date Sampled: 01/25/2011 0818
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5611.D
Dilution:	1.0			Initial Weight/Volume:	1045 mL
Date Analyzed:	02/02/2011 2331			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.49	9.6
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.34	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	ND		0.34	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.56	4.8
Hexachloroethane	ND		0.56	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.52	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	ND		0.73	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.6
Phenanthrene	ND		0.42	4.8
Phenol	ND		0.37	4.8
Pyrene	ND		0.33	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	52		52 - 132
2-Fluorobiphenyl	67		48 - 120
2-Fluorophenol	35		20 - 120
Nitrobenzene-d5	60		46 - 120
p-Terphenyl-d14	61		24 - 136
Phenol-d5	27		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-29UD-12511

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5612.D
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	02/02/2011 2354			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.9
bis (2-chloroisopropyl) ether	ND		0.50	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.59	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.7
2,4-Dinitrotoluene	ND		0.43	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.51	4.9
2-Methylnaphthalene	ND		0.58	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.7
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.7
4,6-Dinitro-2-methylphenol	ND		2.1	9.7
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.57	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.7
4-Nitroaniline	ND		0.24	9.7
4-Nitrophenol	ND		1.5	9.7
Acenaphthene	ND		0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.52	4.9
Anthracene	ND		0.27	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.71	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	ND		1.7	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.1	4.9
Carbazole	ND		0.29	4.9
Chrysene	ND		0.32	4.9
Di-n-butyl phthalate	ND		0.30	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29UD-12511**

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5612.D
Dilution:	1.0			Initial Weight/Volume:	1030 mL
Date Analyzed:	02/02/2011 2354			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.50	9.7
Diethyl phthalate	ND		0.21	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	ND		0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.66	4.9
Hexachlorocyclopentadiene	ND		0.57	4.9
Hexachloroethane	ND		0.57	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.52	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	ND		0.74	4.9
Nitrobenzene	ND		0.28	4.9
Pentachlorophenol	ND		2.1	9.7
Phenanthrene	ND		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	61		52 - 132
2-Fluorobiphenyl	78		48 - 120
2-Fluorophenol	39		20 - 120
Nitrobenzene-d5	64		46 - 120
p-Terphenyl-d14	70		24 - 136
Phenol-d5	32		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D1-12511**

Lab Sample ID: 480-1149-6
Client Matrix: Water

Date Sampled: 01/25/2011 1000
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5613.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/03/2011 0018			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	45		0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	ND		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	ND		0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D1-12511**

Lab Sample ID: 480-1149-6
Client Matrix: Water

Date Sampled: 01/25/2011 1000
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-3874	Lab File ID: V5613.D
Dilution:	1.0		Initial Weight/Volume: 1000 mL
Date Analyzed:	02/03/2011 0018		Final Weight/Volume: 1 mL
Date Prepared:	01/27/2011 0812		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	0.80	J	0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	ND		0.44	5.0
Phenol	14		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	82		52 - 132
2-Fluorobiphenyl	67		48 - 120
2-Fluorophenol	31		20 - 120
Nitrobenzene-d5	54		46 - 120
p-Terphenyl-d14	77		24 - 136
Phenol-d5	22		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D2-12511**

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4772		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5725.D
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	02/05/2011 1201			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.4
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.43	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.4
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.4
4,6-Dinitro-2-methylphenol	ND		2.1	9.4
4-Bromophenyl phenyl ether	ND		0.42	4.7
4-Chloro-3-methylphenol	ND		0.42	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	ND		0.34	9.4
4-Nitroaniline	ND		0.24	9.4
4-Nitrophenol	ND		1.4	9.4
Acenaphthene	ND		0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.26	4.7
Atrazine	ND		0.43	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.44	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	ND		0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.44	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D2-12511**

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4772		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5725.D
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	02/05/2011 1201			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.48	9.4
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	ND		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.44	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	ND		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.4
Phenanthrene	ND		0.42	4.7
Phenol	ND		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	125		52 - 132
2-Fluorobiphenyl	80		48 - 120
2-Fluorophenol	47		20 - 120
Nitrobenzene-d5	75		46 - 120
p-Terphenyl-d14	81		24 - 136
Phenol-d5	36		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D1-12511**

Lab Sample ID: 480-1149-8
Client Matrix: Water

Date Sampled: 01/25/2011 1133
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5615.D
Dilution:	1.0			Initial Weight/Volume:	1020 mL
Date Analyzed:	02/03/2011 0105			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.64	4.9
bis (2-chloroisopropyl) ether	ND		0.51	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.60	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.8
2,4-Dinitrotoluene	ND		0.44	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.52	4.9
2-Methylnaphthalene	1.9	J	0.59	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.8
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.8
4,6-Dinitro-2-methylphenol	ND		2.2	9.8
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.58	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.8
4-Nitroaniline	ND		0.25	9.8
4-Nitrophenol	ND		1.5	9.8
Acenaphthene	0.89	J	0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.53	4.9
Anthracene	ND		0.27	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.72	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	ND		1.8	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.2	4.9
Carbazole	ND		0.29	4.9
Chrysene	ND		0.32	4.9
Di-n-butyl phthalate	ND		0.30	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D1-12511**

Lab Sample ID: 480-1149-8
Client Matrix: Water

Date Sampled: 01/25/2011 1133
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5615.D
Dilution:	1.0			Initial Weight/Volume:	1020 mL
Date Analyzed:	02/03/2011 0105			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.50	9.8
Diethyl phthalate	ND		0.22	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	ND		0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.67	4.9
Hexachlorocyclopentadiene	ND		0.58	4.9
Hexachloroethane	ND		0.58	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.53	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	ND		0.75	4.9
Nitrobenzene	ND		0.28	4.9
Pentachlorophenol	ND		2.2	9.8
Phenanthrene	ND		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	94		52 - 132
2-Fluorobiphenyl	66		48 - 120
2-Fluorophenol	32		20 - 120
Nitrobenzene-d5	64		46 - 120
p-Terphenyl-d14	39		24 - 136
Phenol-d5	25		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D1-12511**

Lab Sample ID: 480-1149-9
Client Matrix: Water

Date Sampled: 01/25/2011 1400
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5616.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/03/2011 0129			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	ND		0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	13		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	1.4	J	0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	4.4	J	0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D1-12511**

Lab Sample ID: 480-1149-9
Client Matrix: Water

Date Sampled: 01/25/2011 1400
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5616.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/03/2011 0129			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.85	J	0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	3.6	J	0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	2.0	J	0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	9.6		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	1.8	J	0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	83		52 - 132
2-Fluorobiphenyl	80		48 - 120
2-Fluorophenol	39		20 - 120
Nitrobenzene-d5	73		46 - 120
p-Terphenyl-d14	46		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5617.D
Dilution:	1.0			Initial Weight/Volume:	1010 mL
Date Analyzed:	02/03/2011 0153			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.51	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.60	5.0
2,4-Dichlorophenol	ND		0.50	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	9.9
2,4-Dinitrotoluene	ND		0.44	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.52	5.0
2-Methylnaphthalene	ND		0.59	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	9.9
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	9.9
4,6-Dinitro-2-methylphenol	ND		2.2	9.9
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.58	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	ND		0.36	9.9
4-Nitroaniline	ND		0.25	9.9
4-Nitrophenol	ND		1.5	9.9
Acenaphthene	ND		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.53	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.26	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.72	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	ND		0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4481		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3874		Lab File ID:	V5617.D
Dilution:	1.0			Initial Weight/Volume:	1010 mL
Date Analyzed:	02/03/2011 0153			Final Weight/Volume:	1 mL
Date Prepared:	01/27/2011 0812			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.50	9.9
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.50	5.0
Hexachlorobutadiene	ND		0.67	5.0
Hexachlorocyclopentadiene	ND		0.58	5.0
Hexachloroethane	ND		0.58	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.53	5.0
N-Nitrosodiphenylamine	ND		0.50	5.0
Naphthalene	ND		0.75	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	9.9
Phenanthrene	ND		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	35	X	52 - 132
2-Fluorobiphenyl	71		48 - 120
2-Fluorophenol	36		20 - 120
Nitrobenzene-d5	62		46 - 120
p-Terphenyl-d14	39		24 - 136
Phenol-d5	29		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: AMW-4-12611

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5744.D
Dilution:	1.0			Initial Weight/Volume:	1045 mL
Date Analyzed:	02/07/2011 1017			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	0.71	J	0.62	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.58	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.6
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.51	4.8
2-Methylnaphthalene	15		0.57	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.6
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.6
4,6-Dinitro-2-methylphenol	ND		2.1	9.6
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.56	4.8
4-Chlorophenyl phenyl ether	ND		0.33	4.8
4-Methylphenol	3.2	J	0.34	9.6
4-Nitroaniline	ND		0.24	9.6
4-Nitrophenol	ND		1.5	9.6
Acenaphthene	2.5	J	0.39	4.8
Acenaphthylene	ND		0.36	4.8
Acetophenone	ND		0.52	4.8
Anthracene	ND		0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.26	4.8
Benzo(a)anthracene	ND		0.34	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.33	4.8
Benzo(g,h,i)perylene	ND		0.33	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.33	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	1.2	J	0.29	4.8
Chrysene	ND		0.32	4.8
Di-n-butyl phthalate	ND		0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-4-12611**

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5744.D
Dilution:	1.0			Initial Weight/Volume:	1045 mL
Date Analyzed:	02/07/2011 1017			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	1.3	J	0.49	9.6
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.34	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	11		0.34	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.56	4.8
Hexachloroethane	ND		0.56	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.52	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	18		0.73	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.6
Phenanthrene	0.82	J	0.42	4.8
Phenol	42		0.37	4.8
Pyrene	ND		0.33	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	134	X	52 - 132
2-Fluorobiphenyl	95		48 - 120
2-Fluorophenol	43		20 - 120
Nitrobenzene-d5	88		46 - 120
p-Terphenyl-d14	107		24 - 136
Phenol-d5	33		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: AMW-5-12611

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5745.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/07/2011 1040			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	1.5	J	0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.44	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	19		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.7
4-Chloro-3-methylphenol	ND		0.43	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	7.1	J	0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	2.6	J	0.39	4.7
Acenaphthylene	0.52	J	0.36	4.7
Acetophenone	2.6	J	0.51	4.7
Anthracene	ND		0.27	4.7
Atrazine	ND		0.44	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.45	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	3.5	J	0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.45	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-5-12611**

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-4108	Lab File ID: V5745.D
Dilution:	1.0		Initial Weight/Volume: 1055 mL
Date Analyzed:	02/07/2011 1040		Final Weight/Volume: 1 mL
Date Prepared:	01/28/2011 1745		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	2.3	J	0.48	9.5
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	1.7	J	0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.45	4.7
Isophorone	1.4	J	0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	45		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	1.5	J	0.42	4.7
Phenol	110		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	135	X	52 - 132
2-Fluorobiphenyl	89		48 - 120
2-Fluorophenol	39		20 - 120
Nitrobenzene-d5	83		46 - 120
p-Terphenyl-d14	111		24 - 136
Phenol-d5	30		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798	Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108	Lab File ID:	V5746.D
Dilution:	1.0		Initial Weight/Volume:	1005 mL
Date Analyzed:	02/07/2011 1104		Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745		Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	11		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	7.2		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.44	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	90		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	1.3	J	0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	160 ~~180~~ D	E	0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	16		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo(a)anthracene	2.9	J	0.36	5.0
Benzo(a)pyrene	0.91	J	0.47	5.0
Benzo(b)fluoranthene	1.1	J	0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	45		0.30	5.0
Chrysene	2.7	J	0.33	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	2.4	J	0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5746.D
Dilution:	1.0			Initial Weight/Volume:	1005 mL
Date Analyzed:	02/07/2011 1104			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	110		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	28		0.40	5.0
Fluorene	110		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	400 ~~440~~ D	E	0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	140		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	18		0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	135	X	52 - 132
2-Fluorobiphenyl	93		48 - 120
2-Fluorophenol	40		20 - 120
Nitrobenzene-d5	83		46 - 120
p-Terphenyl-d14	96		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4899		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5801.D
Dilution:	5.0			Initial Weight/Volume:	1005 mL
Date Analyzed:	02/08/2011 0912	Run Type: DL		Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	11	J	3.2	25
bis (2-chloroisopropyl) ether	ND		2.6	25
2,4,5-Trichlorophenol	ND		2.4	25
2,4,6-Trichlorophenol	ND		3.0	25
2,4-Dichlorophenol	ND		2.5	25
2,4-Dimethylphenol	6.2	J	2.5	25
2,4-Dinitrophenol	ND		11	50
2,4-Dinitrotoluene	ND		2.2	25
2,6-Dinitrotoluene	ND		2.0	25
2-Chloronaphthalene	ND		2.3	25
2-Chlorophenol	ND		2.6	25
2-Methylnaphthalene	77		3.0	25
2-Methylphenol	ND		2.0	25
2-Nitroaniline	ND		2.1	50
2-Nitrophenol	ND		2.4	25
3,3'-Dichlorobenzidine	ND		2.0	25
3-Nitroaniline	ND		2.4	50
4,6-Dinitro-2-methylphenol	ND		11	50
4-Bromophenyl phenyl ether	ND		2.2	25
4-Chloro-3-methylphenol	ND		2.2	25
4-Chloroaniline	ND		2.9	25
4-Chlorophenyl phenyl ether	ND		1.7	25
4-Methylphenol	ND		1.8	50
4-Nitroaniline	ND		1.2	50
4-Nitrophenol	ND		7.6	50
Acenaphthene	160		2.0	25
Acenaphthylene	ND		1.9	25
Acetophenone	ND		2.7	25
Anthracene	14	J	1.4	25
Atrazine	ND		2.3	25
Benzaldehyde	ND		1.3	25
Benzo(a)anthracene	2.7	J	1.8	25
Benzo(a)pyrene	ND		2.3	25
Benzo(b)fluoranthene	ND		1.7	25
Benzo(g,h,i)perylene	ND		1.7	25
Benzo(k)fluoranthene	ND		3.6	25
Bis(2-chloroethoxy)methane	ND		1.7	25
Bis(2-chloroethyl)ether	ND		2.0	25
Bis(2-ethylhexyl) phthalate	ND		9.0	25
Butyl benzyl phthalate	ND		2.1	25
Caprolactam	ND		11	25
Carbazole	40		1.5	25
Chrysene	2.4	J	1.6	25
Di-n-butyl phthalate	ND		1.5	25
Di-n-octyl phthalate	ND		2.3	25
Dibenz(a,h)anthracene	ND		2.1	25

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4899		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5801.D
Dilution:	5.0			Initial Weight/Volume:	1005 mL
Date Analyzed:	02/08/2011 0912	Run Type: DL		Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	95		2.5	50
Diethyl phthalate	ND		1.1	25
Dimethyl phthalate	ND		1.8	25
Fluoranthene	26		2.0	25
Fluorene	91		1.8	25
Hexachlorobenzene	ND		2.5	25
Hexachlorobutadiene	ND		3.4	25
Hexachlorocyclopentadiene	ND		2.9	25
Hexachloroethane	ND		2.9	25
Indeno(1,2,3-cd)pyrene	ND		2.3	25
Isophorone	ND		2.1	25
N-Nitrosodi-n-propylamine	ND		2.7	25
N-Nitrosodiphenylamine	ND		2.5	25
Naphthalene	400		3.8	25
Nitrobenzene	ND		1.4	25
Pentachlorophenol	ND		11	50
Phenanthrene	120		2.2	25
Phenol	ND		1.9	25
Pyrene	15	J	1.7	25

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	104		52 - 132
2-Fluorobiphenyl	83		48 - 120
2-Fluorophenol	35		20 - 120
Nitrobenzene-d5	72		46 - 120
p-Terphenyl-d14	75		24 - 136
Phenol-d5	26		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-DR-12611**

Lab Sample ID: 480-1226-4
Client Matrix: Water

Date Sampled: 01/26/2011 1330
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5747.D
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	02/07/2011 1128			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.4
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.43	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.4
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.4
4,6-Dinitro-2-methylphenol	ND		2.1	9.4
4-Bromophenyl phenyl ether	ND		0.42	4.7
4-Chloro-3-methylphenol	ND		0.42	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	ND		0.34	9.4
4-Nitroaniline	ND		0.24	9.4
4-Nitrophenol	ND		1.4	9.4
Acenaphthene	ND		0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.26	4.7
Atrazine	ND		0.43	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.44	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	ND		0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.44	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-DR-12611**

Lab Sample ID: 480-1226-4
Client Matrix: Water

Date Sampled: 01/26/2011 1330
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5747.D
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	02/07/2011 1128			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.48	9.4
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	ND		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.44	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	ND		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.4
Phenanthrene	ND		0.42	4.7
Phenol	ND		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	113		52 - 132
2-Fluorobiphenyl	76		48 - 120
2-Fluorophenol	33		20 - 120
Nitrobenzene-d5	69		46 - 120
p-Terphenyl-d14	95		24 - 136
Phenol-d5	26		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: AMW-7-12611

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5748.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/07/2011 1151			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	3.0	J	0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.44	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	4.1	J	0.57	4.7
2-Methylphenol	1.2	J	0.38	4.7
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.7
4-Chloro-3-methylphenol	ND		0.43	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	6.4	J	0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	2.7	J	0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.27	4.7
Atrazine	ND		0.44	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.45	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	1.3	J	0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	0.33	J	0.29	4.7
Di-n-octyl phthalate	ND		0.45	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-7-12611**

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5748.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/07/2011 1151			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.81	J	0.48	9.5
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	2.5	J	0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.45	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	50		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	ND		0.42	4.7
Phenol	84		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	121		52 - 132
2-Fluorobiphenyl	85		48 - 120
2-Fluorophenol	37		20 - 120
Nitrobenzene-d5	77		46 - 120
p-Terphenyl-d14	100		24 - 136
Phenol-d5	29		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: P-18R-12711

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5749.D
Dilution:	1.0			Initial Weight/Volume:	950 mL
Date Analyzed:	02/07/2011 1215			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.69	5.3
bis (2-chloroisopropyl) ether	ND		0.55	5.3
2,4,5-Trichlorophenol	ND		0.51	5.3
2,4,6-Trichlorophenol	ND		0.64	5.3
2,4-Dichlorophenol	ND		0.54	5.3
2,4-Dimethylphenol	ND		0.53	5.3
2,4-Dinitrophenol	ND		2.3	11
2,4-Dinitrotoluene	ND		0.47	5.3
2,6-Dinitrotoluene	ND		0.42	5.3
2-Chloronaphthalene	ND		0.48	5.3
2-Chlorophenol	ND		0.56	5.3
2-Methylnaphthalene	22		0.63	5.3
2-Methylphenol	ND		0.42	5.3
2-Nitroaniline	ND		0.44	11
2-Nitrophenol	ND		0.51	5.3
3,3'-Dichlorobenzidine	ND		0.42	5.3
3-Nitroaniline	ND		0.51	11
4,6-Dinitro-2-methylphenol	ND		2.3	11
4-Bromophenyl phenyl ether	ND		0.47	5.3
4-Chloro-3-methylphenol	ND		0.47	5.3
4-Chloroaniline	ND		0.62	5.3
4-Chlorophenyl phenyl ether	ND		0.37	5.3
4-Methylphenol	1.2	J	0.38	11
4-Nitroaniline	ND		0.26	11
4-Nitrophenol	ND		1.6	11
Acenaphthene	9.8		0.43	5.3
Acenaphthylene	ND		0.40	5.3
Acetophenone	ND		0.57	5.3
Anthracene	0.63	J	0.29	5.3
Atrazine	ND		0.48	5.3
Benzaldehyde	ND		0.28	5.3
Benzo(a)anthracene	ND		0.38	5.3
Benzo(a)pyrene	ND		0.49	5.3
Benzo(b)fluoranthene	ND		0.36	5.3
Benzo(g,h,i)perylene	ND		0.37	5.3
Benzo(k)fluoranthene	ND		0.77	5.3
Bis(2-chloroethoxy)methane	ND		0.37	5.3
Bis(2-chloroethyl)ether	ND		0.42	5.3
Bis(2-ethylhexyl) phthalate	ND		1.9	5.3
Butyl benzyl phthalate	ND		0.44	5.3
Caprolactam	ND		2.3	5.3
Carbazole	1.7	J	0.32	5.3
Chrysene	ND		0.35	5.3
Di-n-butyl phthalate	ND		0.33	5.3
Di-n-octyl phthalate	ND		0.49	5.3
Dibenz(a,h)anthracene	ND		0.44	5.3

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **P-18R-12711**

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-4108	Lab File ID: V5749.D
Dilution:	1.0		Initial Weight/Volume: 950 mL
Date Analyzed:	02/07/2011 1215		Final Weight/Volume: 1 mL
Date Prepared:	01/28/2011 1745		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	2.2	J	0.54	11
Diethyl phthalate	ND		0.23	5.3
Dimethyl phthalate	ND		0.38	5.3
Fluoranthene	0.65	J	0.42	5.3
Fluorene	4.0	J	0.38	5.3
Hexachlorobenzene	ND		0.54	5.3
Hexachlorobutadiene	ND		0.72	5.3
Hexachlorocyclopentadiene	ND		0.62	5.3
Hexachloroethane	ND		0.62	5.3
Indeno(1,2,3-cd)pyrene	ND		0.49	5.3
Isophorone	ND		0.45	5.3
N-Nitrosodi-n-propylamine	ND		0.57	5.3
N-Nitrosodiphenylamine	ND		0.54	5.3
Naphthalene	6.3		0.80	5.3
Nitrobenzene	ND		0.31	5.3
Pentachlorophenol	ND		2.3	11
Phenanthrene	2.3	J	0.46	5.3
Phenol	ND		0.41	5.3
Pyrene	0.46	J	0.36	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	135	X	52 - 132
2-Fluorobiphenyl	88		48 - 120
2-Fluorophenol	42		20 - 120
Nitrobenzene-d5	80		46 - 120
p-Terphenyl-d14	107		24 - 136
Phenol-d5	33		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-33D-12711

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-4108	Lab File ID: V5750.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	02/07/2011 1239		Final Weight/Volume: 1 mL
Date Prepared:	01/28/2011 1745		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.59	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.6
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.51	4.8
2-Methylnaphthalene	ND		0.58	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.6
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.6
4,6-Dinitro-2-methylphenol	ND		2.1	9.6
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.57	4.8
4-Chlorophenyl phenyl ether	ND		0.34	4.8
4-Methylphenol	ND		0.35	9.6
4-Nitroaniline	ND		0.24	9.6
4-Nitrophenol	ND		1.5	9.6
Acenaphthene	ND		0.39	4.8
Acenaphthylene	ND		0.37	4.8
Acetophenone	ND		0.52	4.8
Anthracene	ND		0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.26	4.8
Benzo(a)anthracene	ND		0.35	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.33	4.8
Benzo(g,h,i)perylene	ND		0.34	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.34	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	1.8	J	1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	ND		0.29	4.8
Chrysene	ND		0.32	4.8
Di-n-butyl phthalate	ND		0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-33D-12711**

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5750.D
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Date Analyzed:	02/07/2011 1239			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.49	9.6
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.35	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	ND		0.35	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.57	4.8
Hexachloroethane	ND		0.57	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.52	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	ND		0.73	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.6
Phenanthrene	ND		0.42	4.8
Phenol	ND		0.38	4.8
Pyrene	ND		0.33	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	122		52 - 132
2-Fluorobiphenyl	85		48 - 120
2-Fluorophenol	38		20 - 120
Nitrobenzene-d5	74		46 - 120
p-Terphenyl-d14	102		24 - 136
Phenol-d5	30		16 - 120

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-35D-12711

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798	Instrument ID: HP5973V
Preparation:	3510C	Prep Batch: 480-4108	Lab File ID: V5751.D
Dilution:	1.0		Initial Weight/Volume: 1040 mL
Date Analyzed:	02/07/2011 1302		Final Weight/Volume: 1 mL
Date Prepared:	01/28/2011 1745		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.59	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.6
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.51	4.8
2-Methylnaphthalene	ND		0.58	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.6
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.6
4,6-Dinitro-2-methylphenol	ND		2.1	9.6
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.57	4.8
4-Chlorophenyl phenyl ether	ND		0.34	4.8
4-Methylphenol	ND		0.35	9.6
4-Nitroaniline	ND		0.24	9.6
4-Nitrophenol	ND		1.5	9.6
Acenaphthene	2.3	J	0.39	4.8
Acenaphthylene	ND		0.37	4.8
Acetophenone	ND		0.52	4.8
Anthracene	ND		0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.26	4.8
Benzo(a)anthracene	ND		0.35	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.33	4.8
Benzo(g,h,i)perylene	ND		0.34	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.34	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	ND		0.29	4.8
Chrysene	ND		0.32	4.8
Di-n-butyl phthalate	0.37	J	0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-35D-12711**

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4798		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-4108		Lab File ID:	V5751.D
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Date Analyzed:	02/07/2011 1302			Final Weight/Volume:	1 mL
Date Prepared:	01/28/2011 1745			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.69	J	0.49	9.6
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.35	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	ND		0.35	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.57	4.8
Hexachloroethane	ND		0.57	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.52	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	ND		0.73	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.6
Phenanthrene	ND		0.42	4.8
Phenol	ND		0.38	4.8
Pyrene	ND		0.33	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	125		52 - 132
2-Fluorobiphenyl	93		48 - 120
2-Fluorophenol	42		20 - 120
Nitrobenzene-d5	83		46 - 120
p-Terphenyl-d14	100		24 - 136
Phenol-d5	31		16 - 120

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-31D-1R-012111 Lab Sample ID: 480-1108-1

Matrix: Water Lab File ID: 21_13165.D

Analysis Method: RSK-175 Date Collected: 01/21/2011 09:00

Sample wt/vol: 1(mL) Date Analyzed: 02/02/2011 14:37

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4421 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		300	98
74-85-1	Ethene	ND		300	100
74-82-8	Methane	590		200	44

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-31D-2R-012111 Lab Sample ID: 480-1108-2

Matrix: Water Lab File ID: 21_13166.D

Analysis Method: RSK-175 Date Collected: 01/21/2011 10:30

Sample wt/vol: 1(mL) Date Analyzed: 02/02/2011 14:52

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4421 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		300	98
74-85-1	Ethene	ND		300	100
74-82-8	Methane	270		200	44

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-25-D3-012111 Lab Sample ID: 480-1108-3

Matrix: Water Lab File ID: 21_13167.D

Analysis Method: RSK-175 Date Collected: 01/21/2011 08:55

Sample wt/vol: 1(mL) Date Analyzed: 02/02/2011 15:06

Soil Aliquot Vol: Dilution Factor: 200

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4421 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		300	98
74-85-1	Ethene	ND		300	100
74-82-8	Methane	270		200	44

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-30D1-12411 Lab Sample ID: 480-1149-1

Matrix: Water Lab File ID: 21_13208.D

Analysis Method: RSK-175 Date Collected: 01/24/2011 15:30

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 17:35

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		150	49
74-85-1	Ethene	ND		150	52
74-82-8	Methane	1700	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: DUP-12411 Lab Sample ID: 480-1149-2

Matrix: Water Lab File ID: 21_13194.D

Analysis Method: RSK-175 Date Collected: 01/24/2011 00:00

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 12:20

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		1500	490
74-85-1	Ethene	ND		1500	520
74-82-8	Methane	1200	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-26-D2-12511 Lab Sample ID: 480-1149-3

Matrix: Water Lab File ID: 21_13209.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 08:30

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 17:49

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		150	49
74-85-1	Ethene	ND		150	52
74-82-8	Methane	270	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-30UD-12511 | Lab Sample ID: 480-1149-4

Matrix: Water | Lab File ID: 21_13227.D

Analysis Method: RSK-175 | Date Collected: 01/25/2011 08:18

Sample wt/vol: 1(mL) | Date Analyzed: 02/04/2011 15:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 4660 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1.5	0.49
74-85-1	Ethene	ND	J	1.5	0.52
74-82-8	*Methane*	57 ~~56~~	P DJ	*1.0*	*0.22*

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-30UD-12511 DL Lab Sample ID: 480-1149-4 DL

Matrix: Water Lab File ID: 21_13230.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 08:18

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 16:47

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	*Ethane*	*ND*		*15*	*4.9*
74-85-1	*Ethene*	*ND*		*15*	*5.2*
74-82-8	Methane	57		10	2.2

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-29UD-12511 Lab Sample ID: 480-1149-5

Matrix: Water Lab File ID: 21_13215.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 10:13

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 11:04

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	150	49
74-85-1	Ethene	ND	J	150	52
74-82-8	Methane	420	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-26-D1-12511 Lab Sample ID: 480-1149-6

Matrix: Water Lab File ID: 21_13198.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 10:00

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 13:18

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		1500	490
74-85-1	Ethene	ND		1500	520
74-82-8	Methane	1600	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-29-D2-12511 Lab Sample ID: 480-1149-7

Matrix: Water Lab File ID: 21_13204.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 11:15

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 16:38

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		15	4.9
74-85-1	Ethene	ND		15	5.2
74-82-8	Methane	19	J	10	2.2

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-29-D1-12511 Lab Sample ID: 480-1149-8

Matrix: Water Lab File ID: 21_13201.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 11:33

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 14:54

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		150	49
74-85-1	Ethene	ND		150	52
74-82-8	*Methane*	16000 ~~12000~~	E D J	*100*	*22*

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-29-D1-12511 DL Lab Sample ID: 480-1149-8 DL

Matrix: Water Lab File ID: 21_13205.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 11:33

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 16:52

Soil Aliquot Vol: Dilution Factor: 2000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	*Ethane*	*ND*		*3000*	*980*
74-85-1	*Ethene*	*ND*		*3000*	*1000*
74-82-8	Methane	16000		2000	440

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-28-D1-12511 Lab Sample ID: 480-1149-9

Matrix: Water Lab File ID: 21_13202.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 14:00

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 15:08

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		150	49
74-85-1	Ethene	ND		150	52
74-82-8	Methane	1200	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-28-D2-12511 Lab Sample ID: 480-1149-10

Matrix: Water Lab File ID: 21_13203.D

Analysis Method: RSK-175 Date Collected: 01/25/2011 14:03

Sample wt/vol: 1(mL) Date Analyzed: 02/03/2011 15:23

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND		150	49
74-85-1	Ethene	ND		150	52
74-82-8	Methane	260	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: AMW-4-12611 Lab Sample ID: 480-1226-1

Matrix: Water Lab File ID: 21_13216.D

Analysis Method: RSK-175 Date Collected: 01/26/2011 09:38

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 11:18

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1500	490
74-85-1	Ethene	ND	J	1500	520
74-82-8	Methane	14000	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: AMW-5-12611 Lab Sample ID: 480-1226-2

Matrix: Water Lab File ID: 21_13217.D

Analysis Method: RSK-175 Date Collected: 01/26/2011 10:15

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 11:32

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1500	490
74-85-1	Ethene	ND	J	1500	520
74-82-8	Methane	9600	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: AMW-11-12611 Lab Sample ID: 480-1226-3

Matrix: Water Lab File ID: 21_13218.D

Analysis Method: RSK-175 Date Collected: 01/26/2011 11:30

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 11:47

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1500	490
74-85-1	Ethene	ND	J	1500	520
74-82-8	Methane	11000	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: AMW-DR-12611 Lab Sample ID: 480-1226-4

Matrix: Water Lab File ID: 21_13228.D

Analysis Method: RSK-175 Date Collected: 01/26/2011 13:30

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 15:59

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	U	150	49
74-85-1	Ethene	ND	U	150	52
74-82-8	Methane	1400	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: AMW-7-12611 Lab Sample ID: 480-1226-5

Matrix: Water Lab File ID: 21_13220.D

Analysis Method: RSK-175 Date Collected: 01/26/2011 13:08

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 12:16

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1500	490
74-85-1	Ethene	ND	J	1500	520
74-82-8	Methane	16000	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: P-18R-12711 Lab Sample ID: 480-1226-6

Matrix: Water Lab File ID: 21_13221.D

Analysis Method: RSK-175 Date Collected: 01/27/2011 09:45

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 12:30

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1500	490
74-85-1	Ethene	ND	J	1500	520
74-82-8	Methane	12000	J	1000	220

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-33D-12711 Lab Sample ID: 480-1226-7

Matrix: Water Lab File ID: 21_13229.D

Analysis Method: RSK-175 Date Collected: 01/27/2011 08:45

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 16:13

Soil Aliquot Vol: Dilution Factor: 100

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	150	49
74-85-1	Ethene	ND	J	150	52
74-82-8	Methane	310	J	100	22

FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Client Sample ID: MW-35D-12711 Lab Sample ID: 480-1226-8

Matrix: Water Lab File ID: 21_13224.D

Analysis Method: RSK-175 Date Collected: 01/27/2011 10:45

Sample wt/vol: 1(mL) Date Analyzed: 02/04/2011 14:02

Soil Aliquot Vol: Dilution Factor: 1000

Soil Extract Vol.: GC Column: RTX-U Plot ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 4660 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-84-0	Ethane	ND	J	1500	490
74-85-1	Ethene	ND	J	1500	520
74-82-8	Methane	12000	J	1000	220

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-1R-012111**

Lab Sample ID: 480-1108-1
Client Matrix: Water

Date Sampled: 01/21/2011 0900
Date Received: 01/22/2011 1000

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3826		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3559		Lab File ID:	I1012511B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/25/2011 1942			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1839				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.13	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0081	J	0.0056	0.010
Barium	0.059		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00061	J	0.00033	0.0010
Calcium	120		0.10	0.50
Chromium	0.0039	J	0.00087	0.0040
Cobalt	0.00080	J	0.00063	0.0040
Copper	0.0023	J	0.0015	0.010
Iron	0.17		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	273		0.043	0.20
Manganese	0.43		0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	118		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0058		0.0011	0.0050
Zinc	0.0033	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-3828		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3559		Lab File ID:	I1012611A-2.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/26/2011 1216			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1839				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2370		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3738		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3562		Lab File ID:	I2012511A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/25/2011 1756			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1851				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.059		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-1R-012111**

Lab Sample ID: 480-1108-1
Client Matrix: Water

Date Sampled: 01/21/2011 0900
Date Received: 01/22/2011 1000

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00099	J	0.00033	0.0010
Calcium, Dissolved	118		0.10	0.50
Chromium, Dissolved	0.0020	J	0.00087	0.0040
Cobalt, Dissolved	0.00081	J	0.00063	0.0040
Copper, Dissolved	~~0.0026~~ 0.010 UG	~~J B~~	0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	268		0.043	0.20
Manganese, Dissolved	0.42	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	106		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0060		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3829		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3562		Lab File ID:	I1012611A-3.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/26/2011 1242			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1851				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2460		1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3801		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3723		Lab File ID:	H11126W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/26/2011 1300			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 0749				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1417			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-1R-012111**

Lab Sample ID: 480-1108-1

Client Matrix: Water

Date Sampled: 01/21/2011 0900

Date Received: 01/22/2011 1000

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-2R-012111**

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3826		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3559		Lab File ID:	I1012511B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/25/2011 1944			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1839				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.21		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.14		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00076	J	0.00033	0.0010
Calcium	371		0.10	0.50
Chromium	0.0035	J	0.00087	0.0040
Cobalt	0.0017	J	0.00063	0.0040
Copper	0.0016	J	0.0015	0.010
Iron	0.099		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.12		0.00019	0.0030
Nickel	0.0027	J	0.0013	0.010
Potassium	222		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0039	J	0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3828		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3559		Lab File ID:	I1012611A-2.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/26/2011 1218			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1839				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	540 J		0.43	2.0
Sodium	5180 J		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3738		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3562		Lab File ID:	I2012511A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/25/2011 1758			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 1851				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.067	J	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.13		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-31D-2R-012111

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.0011		0.00033	0.0010
Calcium, Dissolved	363		0.10	0.50
Chromium, Dissolved	0.0022	J	0.00087	0.0040
Cobalt, Dissolved	0.0010	J	0.00063	0.0040
Copper, Dissolved	~~0.0023~~ 0.010 US	~~J B~~	0.0015	0.010
Iron, Dissolved	0.025	J	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.12	B	0.00019	0.0030
Nickel, Dissolved	0.0032	J	0.0013	0.010
Potassium, Dissolved	204		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0038	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3829	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3562	Lab File ID: I1012611A-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/26/2011 1244		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 1851		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	595		0.22	1.0

Method:	6010B	Analysis Batch: 480-3888	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3562	Lab File ID: I1012611B-1.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/26/2011 1540		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 1851		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	4800		3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3801	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3723	Lab File ID: H11126W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/26/2011 1302		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 0749		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-31D-2R-012111**

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1418			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-25-D3-012111**

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3826	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3559	Lab File ID: I1012511B-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/25/2011 1946		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 1839		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.14		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00080	J	0.00033	0.0010
Calcium	334		0.10	0.50
Chromium	0.0084		0.00087	0.0040
Cobalt	0.0015	J	0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.88		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.74		0.00019	0.0030
Nickel	0.0038	J	0.0013	0.010
Potassium	270		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0058		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3828	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3559	Lab File ID: I1012611A-2.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/26/2011 1221		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 1839		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	797	J	0.43	2.0
Sodium	6280	J	3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3738	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3562	Lab File ID: I2012511A-2.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/25/2011 1801		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 1851		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.14		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-25-D3-012111**

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00082	J	0.00033	0.0010
Calcium, Dissolved	317		0.10	0.50
Chromium, Dissolved	0.0041		0.00087	0.0040
Cobalt, Dissolved	0.0010	J	0.00063	0.0040
Copper, Dissolved	~~0.0030~~ 0.010 UB	~~J B~~	0.0015	0.010
Iron, Dissolved	0.64		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.72	B	0.00019	0.0030
Nickel, Dissolved	0.0025	J	0.0013	0.010
Potassium, Dissolved	244		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0080		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3829	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3562	Lab File ID: I1012611A-3.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/26/2011 1247		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 1851		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	859		0.43	2.0
Sodium, Dissolved	6940		3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3801	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3723	Lab File ID: H11126W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/26/2011 1304		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 0749		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1420		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0740		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-25-D3-012111**

Lab Sample ID: 480-1108-3

Client Matrix: Water

Date Sampled: 01/21/2011 0855

Date Received: 01/22/2011 1000

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012711B-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 1840			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.20 ~~0.11~~ UB	~~J B~~	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.044		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00060	J	0.00033	0.0010
Calcium	107		0.10	0.50
Chromium	0.0039	J	0.00087	0.0040
Cobalt	0.0011	J	0.00063	0.0040
Copper	0.0030	J	0.0015	0.010
Iron	0.10		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	283		0.043	0.20
Manganese	0.094		0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	113		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0052		0.0011	0.0050
Zinc	0.0037	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012811C-2.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2217			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2400		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012711B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 2113			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.077~~ UB	~~J B~~	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.044		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1
Client Matrix: Water

Date Sampled: 01/24/2011 1530
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00073	J	0.00033	0.0010
Calcium, Dissolved	107	B	0.10	0.50
Chromium, Dissolved	0.0032	J	0.00087	0.0040
Cobalt, Dissolved	0.00084	J	0.00063	0.0040
Copper, Dissolved	0.0015	J	0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	277		0.043	0.20
Manganese, Dissolved	0.086	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	114	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0055		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012811C-3.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2241			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2230	B	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870		Lab File ID:	H11127W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/27/2011 1245			Final Weight/Volume:	50 mL
Date Prepared:	01/27/2011 0723				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869		Lab File ID:	J11127D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/27/2011 1316			Final Weight/Volume:	50 mL
Date Prepared:	01/27/2011 0715				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30D1-12411**

Lab Sample ID: 480-1149-1

Client Matrix: Water

Date Sampled: 01/24/2011 1530

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **DUP-12411**

Lab Sample ID: 480-1149-2FD
Client Matrix: Water

Date Sampled: 01/24/2011 0000
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012711B-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 1842			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.20 ~~0.16~~ UB	~~J B~~	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.044		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00079	J	0.00033	0.0010
Calcium	107		0.10	0.50
Chromium	0.0037	J	0.00087	0.0040
Cobalt	0.00093	J	0.00063	0.0040
Copper	0.0025	J	0.0015	0.010
Iron	0.13		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	279		0.043	0.20
Manganese	0.093		0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	114		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0054		0.0011	0.0050
Zinc	0.0018	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012811C-2.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2219			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2400		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012711B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 2116			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.066~~ UB	~~J B~~	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.044		0.00050	0.0020

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD
Client Matrix: Water

Date Sampled: 01/24/2011 0000
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00060	J	0.00033	0.0010
Calcium, Dissolved	107	B	0.10	0.50
Chromium, Dissolved	0.0036	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0021	J	0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	281		0.043	0.20
Manganese, Dissolved	0.086	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	114	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0045	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012811C-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2244		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2450	B	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870	Lab File ID: H11127W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1250		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0723		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958	Instrument ID: LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869	Lab File ID: J11127D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1343		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0715		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-26-D2-12511

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID: I1012711B-1.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/27/2011 1849		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1546		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	1.1	B	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.048		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.0016		0.00033	0.0010
Calcium	299		0.10	0.50
Chromium	0.0083		0.00087	0.0040
Cobalt	0.0015	J	0.00063	0.0040
Copper	0.013		0.0015	0.010
Iron	1.3		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.14		0.00019	0.0030
Nickel	0.0015	J	0.0013	0.010
Potassium	235		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0097		0.0011	0.0050
Zinc	0.033		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID: I1012811C-2.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2226		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1546		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	681		0.43	2.0
Sodium	5620		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012711B-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/27/2011 2118		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.091~~ UB	~~J B~~	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.048		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D2-12511**

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.0011		0.00033	0.0010
Calcium, Dissolved	286	B	0.10	0.50
Chromium, Dissolved	0.0049		0.00087	0.0040
Cobalt, Dissolved	0.0014	J	0.00063	0.0040
Copper, Dissolved	0.0021	J	0.0015	0.010
Iron, Dissolved	0.25		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.13	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	235	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0066		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012811C-3.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2246		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	729		0.43	2.0
Sodium, Dissolved	5920	B	3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870	Lab File ID: H11127W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1251		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0723		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958	Instrument ID: LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869	Lab File ID: J11127D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1324		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0715		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D2-12511**

Lab Sample ID: 480-1149-3

Client Matrix: Water

Date Sampled: 01/25/2011 0830

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30UD-12511**

Lab Sample ID: 480-1149-4
Client Matrix: Water

Date Sampled: 01/25/2011 0818
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012711B-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 1851			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.20 ~~0.13~~ U8	~~J B~~	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0061	J	0.0056	0.010
Barium	0.099		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.0011		0.00033	0.0010
Calcium	289		0.10	0.50
Chromium	0.0043		0.00087	0.0040
Cobalt	0.0016	J	0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.095		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.15		0.00019	0.0030
Nickel	0.0039	J	0.0013	0.010
Potassium	258		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0080		0.0011	0.0050
Zinc	0.0023	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012811C-2.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2228			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	707		0.43	2.0
Sodium	6100		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012711B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 2134			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.081~~ U8	~~J B~~	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0078	J	0.0056	0.010
Barium, Dissolved	0.10		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-30UD-12511**

Lab Sample ID: 480-1149-4
Client Matrix: Water

Date Sampled: 01/25/2011 0818
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.0010		0.00033	0.0010
Calcium, Dissolved	280	B	0.10	0.50
Chromium, Dissolved	0.0038	J	0.00087	0.0040
Cobalt, Dissolved	0.0015	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.16	B	0.00019	0.0030
Nickel, Dissolved	0.0032	J	0.0013	0.010
Potassium, Dissolved	270	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0065		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method: 6010B
Preparation: 3005A
Dilution: 10
Date Analyzed: 01/28/2011 2301
Date Prepared: 01/26/2011 1559

Analysis Batch: 480-4161
Prep Batch: 480-3820

Instrument ID: ICAP1
Lab File ID: I1012811C-3.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	703		0.43	2.0
Sodium, Dissolved	5830	B	3.2	10.0

7470A Mercury (CVAA)

Method: 7470A
Preparation: 7470A
Dilution: 1.0
Date Analyzed: 01/27/2011 1253
Date Prepared: 01/27/2011 0723

Analysis Batch: 480-3966
Prep Batch: 480-3870

Instrument ID: LEEMAN2
Lab File ID: H11127W1.PRN
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method: 7470A
Preparation: 7470A
Dilution: 1.0
Date Analyzed: 01/27/2011 1326
Date Prepared: 01/27/2011 0715

Analysis Batch: 480-3958
Prep Batch: 480-3869

Instrument ID: LEEMAN3
Lab File ID: J11127D1.PRN
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-30UD-12511

Lab Sample ID: 480-1149-4

Client Matrix: Water

Date Sampled: 01/25/2011 0818

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29UD-12511**

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID: I1012711B-1.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/27/2011 1853		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1546		

Analyte		Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.20	~~0.11~~ UB	~~J B~~	0.045	0.20
Antimony		ND		0.0068	0.020
Arsenic		ND		0.0056	0.010
Barium		0.050		0.00050	0.0020
Beryllium		ND		0.00030	0.0020
Cadmium		0.00091	J	0.00033	0.0010
Calcium		265		0.10	0.50
Chromium		0.0040		0.00087	0.0040
Cobalt		0.0013	J	0.00063	0.0040
Copper		ND		0.0015	0.010
Iron		0.063		0.019	0.050
Lead		ND		0.0030	0.0050
Manganese		0.20		0.00019	0.0030
Nickel		ND		0.0013	0.010
Potassium		213		0.20	0.50
Selenium		ND		0.0087	0.015
Silver		ND		0.0017	0.0030
Thallium		ND		0.010	0.020
Vanadium		0.0047	J	0.0011	0.0050
Zinc		ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID: I1012811C-2.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2230		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1546		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	639		0.43	2.0
Sodium	5430		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012711B-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/27/2011 2136		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte		Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20	~~0.070~~ UB	~~J B~~	0.045	0.20
Antimony, Dissolved		ND		0.0068	0.020
Arsenic, Dissolved		ND		0.0056	0.010
Barium, Dissolved		0.050		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29UD-12511**

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00086	J	0.00033	0.0010
Calcium, Dissolved	257	B	0.10	0.50
Chromium, Dissolved	0.0037	J	0.00087	0.0040
Cobalt, Dissolved	0.0014	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	0.023	J	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.20	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	215	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0045	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012811C-3.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2303		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	617		0.43	2.0
Sodium, Dissolved	5050	B	3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870	Lab File ID: H11127W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1254		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0723		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958	Instrument ID: LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869	Lab File ID: J11127D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1332		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0715		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	0.00014	J	0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29UD-12511**

Lab Sample ID: 480-1149-5
Client Matrix: Water

Date Sampled: 01/25/2011 1013
Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D1-12511**

Lab Sample ID: 480-1149-6
Client Matrix: Water

Date Sampled: 01/25/2011 1000
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 01/27/2011 1856
Date Prepared: 01/26/2011 1546

Analysis Batch: 480-4049
Prep Batch: 480-3816

Instrument ID: ICAP1
Lab File ID: I1012711B-1.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	4.0	B	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0092	J	0.0056	0.010
Barium	0.27		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00094	J	0.00033	0.0010
Calcium	662		0.10	0.50
Chromium	0.0091		0.00087	0.0040
Cobalt	0.0030	J	0.00063	0.0040
Copper	0.0044	J	0.0015	0.010
Iron	2.4		0.019	0.050
Lead	0.0059		0.0030	0.0050
Magnesium	234		0.043	0.20
Manganese	0.39		0.00019	0.0030
Nickel	0.020		0.0013	0.010
Potassium	184		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0062		0.0011	0.0050
Zinc	0.015		0.0017	0.010

Method: 6010B
Preparation: 3005A
Dilution: 5.0
Date Analyzed: 01/28/2011 2232
Date Prepared: 01/26/2011 1546

Analysis Batch: 480-4160
Prep Batch: 480-3816

Instrument ID: ICAP1
Lab File ID: I1012811C-2.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	3700		1.6	5.0

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 01/27/2011 2138
Date Prepared: 01/26/2011 1559

Analysis Batch: 480-4052
Prep Batch: 480-3820

Instrument ID: ICAP1
Lab File ID: I1012711B-4.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.081~~ U3	~~J B~~	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.25		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-26-D1-12511

Lab Sample ID: 480-1149-6
Client Matrix: Water

Date Sampled: 01/25/2011 1000
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00088	J	0.00033	0.0010
Calcium, Dissolved	614	B	0.10	0.50
Chromium, Dissolved	0.0036	J	0.00087	0.0040
Cobalt, Dissolved	0.0015	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	252		0.043	0.20
Manganese, Dissolved	0.40	B	0.00019	0.0030
Nickel, Dissolved	0.012		0.0013	0.010
Potassium, Dissolved	185	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	ND		0.0011	0.0050
Zinc, Dissolved	0.11		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012811C-3.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2306			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	3530	B	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870		Lab File ID:	H11127W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/27/2011 1257			Final Weight/Volume:	50 mL
Date Prepared:	01/27/2011 0723				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869		Lab File ID:	J11127D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/27/2011 1334			Final Weight/Volume:	50 mL
Date Prepared:	01/27/2011 0715				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	0.00016	J	0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-26-D1-12511**

Lab Sample ID: 480-1149-6

Client Matrix: Water

Date Sampled: 01/25/2011 1000

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-29-D2-12511

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012711B-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 1858			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.077	JB	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.11		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00084	J	0.00033	0.0010
Chromium	0.0020	J	0.00087	0.0040
Cobalt	0.0012	J	0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.022	J	0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	288		0.043	0.20
Manganese	0.0086		0.00019	0.0030
Nickel	0.0057	J	0.0013	0.010
Potassium	339		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	ND		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012811C-2.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2235			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Calcium	1190		1.0	5.0
Sodium	7780		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012711B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 2141			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.11		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D2-12511**

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00068	J	0.00033	0.0010
Chromium, Dissolved	0.0013	J	0.00087	0.0040
Cobalt, Dissolved	0.0012	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	0.019	J	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	392	J	0.043	0.20
Manganese, Dissolved	0.021	B	0.00019	0.0030
Nickel, Dissolved	0.0038	J	0.0013	0.010
Potassium, Dissolved	349	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	ND		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012811C-3.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2308		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Calcium, Dissolved	1080	B	1.0	5.0
Sodium, Dissolved	7510	B	3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870	Lab File ID: H11127W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1258		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0723		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958	Instrument ID: LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869	Lab File ID: J11127D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1335		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0715		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	0.00012	J	0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D2-12511**

Lab Sample ID: 480-1149-7

Client Matrix: Water

Date Sampled: 01/25/2011 1115

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D1-12511**

Lab Sample ID: 480-1149-8
Client Matrix: Water

Date Sampled: 01/25/2011 1133
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049	Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID:	I1012711B-1.asc
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 1901		Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.20	B	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.015		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00053	J	0.00033	0.0010
Calcium	52.5		0.10	0.50
Chromium	0.0033	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0022	J	0.0015	0.010
Iron	0.29		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	112		0.043	0.20
Manganese	0.22		0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	58.8		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	903		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0032	J	0.0011	0.0050
Zinc	0.0057	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052	Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID:	I1012711B-4.asc
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 2143		Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.015		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00050	J	0.00033	0.0010
Calcium, Dissolved	51.3	B	0.10	0.50
Chromium, Dissolved	0.0035	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0025	J	0.0015	0.010
Iron, Dissolved	0.20		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	113		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-29-D1-12511**

Lab Sample ID: 480-1149-8
Client Matrix: Water

Date Sampled: 01/25/2011 1133
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.21	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	61.2	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0036	J	0.0011	0.0050
Zinc, Dissolved	0.0037	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012811C-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2310			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	907	B	0.32	1.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870		Lab File ID:	H11127W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/27/2011 1300			Final Weight/Volume:	50 mL
Date Prepared:	01/27/2011 0723				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869		Lab File ID:	J11127D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/27/2011 1338			Final Weight/Volume:	50 mL
Date Prepared:	01/27/2011 0715				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS | Job Number: 480-1108-1

Client Sample ID: MW-28-D1-12511

Lab Sample ID: 480-1149-9 | Date Sampled: 01/25/2011 1400
Client Matrix: Water | Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID: I1012711B-1.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/27/2011 1903		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1546		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.28	B	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.037		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00070	J	0.00033	0.0010
Calcium	96.8		0.10	0.50
Chromium	0.0038	J	0.00087	0.0040
Cobalt	0.00094	J	0.00063	0.0040
Copper	0.0027	J	0.0015	0.010
Iron	0.22		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	275		0.043	0.20
Manganese	0.11		0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	108		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0051		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3816	Lab File ID: I1012811C-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2237		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1546		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2310		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012711B-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/27/2011 2145		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.053~~ UB	~~J B~~	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.037		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D1-12511**

Lab Sample ID: 480-1149-9
Client Matrix: Water

Date Sampled: 01/25/2011 1400
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00088	J	0.00033	0.0010
Calcium, Dissolved	98.1	B	0.10	0.50
Chromium, Dissolved	0.0035	J	0.00087	0.0040
Cobalt, Dissolved	0.00084	J	0.00063	0.0040
Copper, Dissolved	0.0026	J	0.0015	0.010
Iron, Dissolved	0.040	J	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	283		0.043	0.20
Manganese, Dissolved	0.11	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	115	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0045	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012811C-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2313		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2280	B	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870	Lab File ID: H11127W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1302		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0723		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958	Instrument ID: LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869	Lab File ID: J11127D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1339		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0715		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D1-12511**

Lab Sample ID: 480-1149-9

Client Matrix: Water

Date Sampled: 01/25/2011 1400

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4049		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012711B-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 1905			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.37	B	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.046		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00078	J	0.00033	0.0010
Calcium	276		0.10	0.50
Chromium	0.0052		0.00087	0.0040
Cobalt	0.0012	J	0.00063	0.0040
Copper	0.0022	J	0.0015	0.010
Iron	0.53		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.19		0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	215		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0066		0.0011	0.0050
Zinc	0.0018	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-4160		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3816		Lab File ID:	I1012811C-2.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2011 2239			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1546				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	609		0.43	2.0
Sodium	5020		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4052		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3820		Lab File ID:	I1012711B-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/27/2011 2152			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2011 1559				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.044		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00097	J	0.00033	0.0010
Calcium, Dissolved	265	B	0.10	0.50
Chromium, Dissolved	0.0042		0.00087	0.0040
Cobalt, Dissolved	0.00084	J	0.00063	0.0040
Copper, Dissolved	0.0020	J	0.0015	0.010
Iron, Dissolved	0.29		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.19	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	217	B	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0062		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4161	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3820	Lab File ID: I1012811C-3.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/28/2011 2319		Final Weight/Volume: 50 mL
Date Prepared:	01/26/2011 1559		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	563		0.43	2.0
Sodium, Dissolved	4650	B	3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3966	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3870	Lab File ID: H11127W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1304		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0723		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3958	Instrument ID: LEEMAN3
Preparation:	7470A	Prep Batch: 480-3869	Lab File ID: J11127D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/27/2011 1341		Final Weight/Volume: 50 mL
Date Prepared:	01/27/2011 0715		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-28-D2-12511**

Lab Sample ID: 480-1149-10

Client Matrix: Water

Date Sampled: 01/25/2011 1403

Date Received: 01/26/2011 0940

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-4-12611**

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I2013111A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1916			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.20		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.0097		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00052	J	0.00033	0.0010
Calcium	81.5		0.10	0.50
Chromium	ND		0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	3.6		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	12.7		0.043	0.20
Manganese	0.44		0.00019	0.0030
Nickel	0.0053	J	0.0013	0.010
Potassium	25.1		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	0.0017	J	0.0017	0.0030
Sodium	277		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0061		0.0011	0.0050
Zinc	ND		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115		Lab File ID:	I2013111A-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2016			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.22		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.0097		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00051	J	0.00033	0.0010
Calcium, Dissolved	83.6		0.10	0.50
Chromium, Dissolved	ND		0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	2.7		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	12.9		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-4-12611**

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.46	B	0.00019	0.0030
Nickel, Dissolved	0.0049	J	0.0013	0.010
Potassium, Dissolved	25.4		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	280		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0063		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409		Lab File ID:	H11202W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1101			Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284		Lab File ID:	H11201D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1202			Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-5-12611**

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I2013111A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1918			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	3.8		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.013		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00045	J	0.00033	0.0010
Calcium	142		0.10	0.50
Chromium	0.0011	J	0.00087	0.0040
Cobalt	0.00076	J	0.00063	0.0040
Copper	0.0053	J	0.0015	0.010
Iron	0.16		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	0.47		0.043	0.20
Manganese	0.0042		0.00019	0.0030
Nickel	0.019		0.0013	0.010
Potassium	42.3		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	259		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0064		0.0011	0.0050
Zinc	ND		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115		Lab File ID:	I2013111A-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2018			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	3.8		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0065	J	0.0056	0.010
Barium, Dissolved	0.011		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00045	J	0.00033	0.0010
Calcium, Dissolved	142		0.10	0.50
Chromium, Dissolved	ND		0.00087	0.0040
Cobalt, Dissolved	0.00066	J	0.00063	0.0040
Copper, Dissolved	0.0028	J	0.0015	0.010
Iron, Dissolved	0.061		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	0.49		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-5-12611**

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.0019	J B	0.00019	0.0030
Nickel, Dissolved	0.020		0.0013	0.010
Potassium, Dissolved	43.9		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	266		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0052		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409		Lab File ID:	H11202W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1103			Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284		Lab File ID:	H11201D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1204			Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I2013111A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1920			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	4.3		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0062	J	0.0056	0.010
Barium	0.048		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00063	J	0.00033	0.0010
Calcium	87.4		0.10	0.50
Chromium	0.0078		0.00087	0.0040
Cobalt	0.0017	J	0.00063	0.0040
Copper	0.0033	J	0.0015	0.010
Iron	13.8		0.019	0.050
Lead	0.0082		0.0030	0.0050
Magnesium	38.7		0.043	0.20
Manganese	0.56		0.00019	0.0030
Nickel	0.0052	J	0.0013	0.010
Potassium	13.5		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	164		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.014		0.0011	0.0050
Zinc	0.035		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115		Lab File ID:	I2013111A-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2021			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.26		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.036		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00053	J	0.00033	0.0010
Calcium, Dissolved	89.9		0.10	0.50
Chromium, Dissolved	0.00094	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0017	J	0.0015	0.010
Iron, Dissolved	8.7		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	41.6		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-11-12611**

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.56	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	13.7		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	167		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0058		0.0011	0.0050
Zinc, Dissolved	0.0044	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409		Lab File ID:	H11202W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1105			Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284		Lab File ID:	H11201D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1206			Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-DR-12611**

Lab Sample ID: 480-1226-4
Client Matrix: Water

Date Sampled: 01/26/2011 1330
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I2013111A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1922			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	1.7		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.039		0.0056	0.010
Barium	0.031		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.0011		0.00033	0.0010
Calcium	46.0 J		0.10	0.50
Chromium	0.0058		0.00087	0.0040
Cobalt	0.00099	J	0.00063	0.0040
Copper	0.0093	J	0.0015	0.010
Iron	3.2		0.019	0.050
Lead	0.0094		0.0030	0.0050
Magnesium	20.4		0.043	0.20
Manganese	0.066		0.00019	0.0030
Nickel	0.0037	J	0.0013	0.010
Potassium	16.5		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	186		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0070		0.0011	0.0050
Zinc	0.032		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115		Lab File ID:	I2013111A-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2023			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.020		0.0056	0.010
Barium, Dissolved	0.030		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00055	J	0.00033	0.0010
Calcium, Dissolved	54.0 J		0.10	0.50
Chromium, Dissolved	0.0012	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0017	J	0.0015	0.010
Iron, Dissolved	1.7		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	25.8		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-DR-12611**

Lab Sample ID: 480-1226-4
Client Matrix: Water

Date Sampled: 01/26/2011 1330
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.085	B	0.00019	0.0030
Nickel, Dissolved	0.0017	J	0.0013	0.010
Potassium, Dissolved	18.5		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	206		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0032	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409		Lab File ID:	H11202W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1106			Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284		Lab File ID:	H11201D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1208			Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-7-12611**

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I2013111A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1924			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.18	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.014		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00056	J	0.00033	0.0010
Calcium	47.2		0.10	0.50
Chromium	0.0010	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.12		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	33.5		0.043	0.20
Manganese	0.035		0.00019	0.0030
Nickel	0.0063	J	0.0013	0.010
Potassium	46.0		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	491		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0063		0.0011	0.0050
Zinc	ND		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115		Lab File ID:	I2013111A-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2025			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.014		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00064	J	0.00033	0.0010
Calcium, Dissolved	46.7		0.10	0.50
Chromium, Dissolved	0.0012	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0021	J	0.0015	0.010
Iron, Dissolved	0.042	J	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	33.3		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **AMW-7-12611**

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.033	B	0.00019	0.0030
Nickel, Dissolved	0.0063	J	0.0013	0.010
Potassium, Dissolved	46.4		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	479		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0054		0.0011	0.0050
Zinc, Dissolved	0.0019	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474	Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409	Lab File ID:	H11202W1.PRN
Dilution:	1.0		Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1108		Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357	Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284	Lab File ID:	H11201D1.PRN
Dilution:	1.0		Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1210		Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **P-18R-12711**

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302	Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114	Lab File ID:	I2013111A-3.asc
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1927		Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.27		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0056	J	0.0056	0.010
Barium	0.043		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00050	J	0.00033	0.0010
Calcium	81.9		0.10	0.50
Chromium	0.0011	J	0.00087	0.0040
Cobalt	0.0015	J	0.00063	0.0040
Copper	0.0018	J	0.0015	0.010
Iron	8.7		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	16.1		0.043	0.20
Manganese	0.42		0.00019	0.0030
Nickel	0.0036	J	0.0013	0.010
Potassium	15.5		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	73.9		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0059		0.0011	0.0050
Zinc	0.0085	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303	Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115	Lab File ID:	I2013111A-4.asc
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2032		Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.060	J	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0061	J	0.0056	0.010
Barium, Dissolved	0.042		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00053	J	0.00033	0.0010
Calcium, Dissolved	80.9		0.10	0.50
Chromium, Dissolved	0.0010	J	0.00087	0.0040
Cobalt, Dissolved	0.0014	J	0.00063	0.0040
Copper, Dissolved	0.0022	J	0.0015	0.010
Iron, Dissolved	9.5		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	16.8		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: P-18R-12711

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.45	B	0.00019	0.0030
Nickel, Dissolved	0.0034	J	0.0013	0.010
Potassium, Dissolved	15.2		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	80.4		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0051		0.0011	0.0050
Zinc, Dissolved	0.0065	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409		Lab File ID:	H11202W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1109			Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284		Lab File ID:	H11201D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1211			Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-33D-12711**

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I2013111A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 1929			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.69		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.019		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00094	J	0.00033	0.0010
Calcium	74.4		0.10	0.50
Chromium	0.0032	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0025	J	0.0015	0.010
Iron	0.65		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	182		0.043	0.20
Manganese	0.048		0.00019	0.0030
Nickel	0.0013	J	0.0013	0.010
Potassium	74.0		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0056		0.0011	0.0050
Zinc	0.0038	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-4494		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-4114		Lab File ID:	I1020111A-1.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/01/2011 1925			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1932				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	1690		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-4115		Lab File ID:	I2013111A-4.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/31/2011 2034			Final Weight/Volume:	50 mL
Date Prepared:	01/28/2011 1941				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.073	J	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.019		0.00050	0.0020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-33D-12711

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00077	J	0.00033	0.0010
Calcium, Dissolved	73.0		0.10	0.50
Chromium, Dissolved	0.0014	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0036	J	0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	186		0.043	0.20
Manganese, Dissolved	0.040	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	75.3		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0027	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4495	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-4115	Lab File ID: I1020111A-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	02/01/2011 1959		Final Weight/Volume: 50 mL
Date Prepared:	01/28/2011 1941		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	1660		1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409	Lab File ID: H11202W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	02/02/2011 1114		Final Weight/Volume: 50 mL
Date Prepared:	02/02/2011 0731		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284	Lab File ID: H11201D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	02/01/2011 1213		Final Weight/Volume: 50 mL
Date Prepared:	02/01/2011 0724		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-33D-12711**

Lab Sample ID: 480-1226-7

Client Matrix: Water

Date Sampled: 01/27/2011 0845

Date Received: 01/28/2011 1005

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: MW-35D-12711

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-4302	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-4114	Lab File ID: I2013111A-3.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/31/2011 1931		Final Weight/Volume: 50 mL
Date Prepared:	01/28/2011 1932		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	6.2		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0076	J	0.0056	0.010
Barium	0.033		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00065	J	0.00033	0.0010
Calcium	111		0.10	0.50
Chromium	0.015		0.00087	0.0040
Cobalt	0.0027	J	0.00063	0.0040
Copper	0.0077	J	0.0015	0.010
Iron	8.1		0.019	0.050
Lead	0.0084		0.0030	0.0050
Magnesium	30.5		0.043	0.20
Manganese	0.16		0.00019	0.0030
Nickel	0.0077	J	0.0013	0.010
Potassium	21.3		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	273		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.017		0.0011	0.0050
Zinc	0.026		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4303	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-4115	Lab File ID: I2013111A-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/31/2011 2036		Final Weight/Volume: 50 mL
Date Prepared:	01/28/2011 1941		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.011		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00048	J	0.00033	0.0010
Calcium, Dissolved	97.1		0.10	0.50
Chromium, Dissolved	0.0010	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0023	J	0.0015	0.010
Iron, Dissolved	0.25		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	27.3		0.043	0.20

Client: ARCADIS

Job Number: 480-1108-1

Client Sample ID: **MW-35D-12711**

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.063	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	20.6		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	281		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0018	J	0.0011	0.0050
Zinc, Dissolved	0.0020	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-4474	Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4409	Lab File ID:	H11202W1.PRN
Dilution:	1.0		Initial Weight/Volume:	30 mL
Date Analyzed:	02/02/2011 1116		Final Weight/Volume:	50 mL
Date Prepared:	02/02/2011 0731			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-4357	Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-4284	Lab File ID:	H11201D1.PRN
Dilution:	1.0		Initial Weight/Volume:	30 mL
Date Analyzed:	02/01/2011 1214		Final Weight/Volume:	50 mL
Date Prepared:	02/01/2011 0724			

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

General Chemistry

Client Sample ID: MW-31D-1R-012111

Lab Sample ID: 480-1108-1

Client Matrix: Water

Date Sampled: 01/21/2011 0900

Date Received: 01/22/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	854		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Alkalinity, Bicarbonate	854		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Ammonia as N	5.1		mg/L	0.036	0.080	4.0	350.1
Analysis Batch: 480-3631	Analysis Date: 01/25/2011 1051						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3547	Analysis Date: 01/22/2011 1723						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3457	Analysis Date: 01/22/2011 1723						
Sulfate	149	B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-4085	Analysis Date: 01/28/2011 1313						
Total Dissolved Solids	7590		mg/L	16.0	40.0	1.0	SM 2540C
Analysis Batch: 480-3836	Analysis Date: 01/26/2011 1718						
Orthophosphate	ND		mg/L	0.30	1.0	50	SM 4500 P E
Analysis Batch: 480-3443	Analysis Date: 01/22/2011 1735						
Sulfide	0.12		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Analysis Date: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	13.1		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-31D-2R-012111

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	537		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Alkalinity, Bicarbonate	537		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Ammonia as N	1.9		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-3631	Analysis Date: 01/25/2011 1025						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3547	Analysis Date: 01/22/2011 1726						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3457	Analysis Date: 01/22/2011 1726						
Sulfate	1360	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-4085	Analysis Date: 01/28/2011 1313						
Total Dissolved Solids	17300		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3836	Analysis Date: 01/26/2011 1718						
Orthophosphate	0.27		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3443	Analysis Date: 01/22/2011 1735						
Sulfide	5.5		mg/L	1.0	2.0	20	SM 4500 S2 D
Analysis Batch: 480-3653	Analysis Date: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	20.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-25-D3-012111

Lab Sample ID: 480-1108-3
Client Matrix: Water

Date Sampled: 01/21/2011 0855
Date Received: 01/22/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	1100	B	mg/L	400	1000	100	310.2
Analysis Batch: 480-4593	Analysis Date: 02/03/2011 1246						
Alkalinity, Bicarbonate	1100	B	mg/L	400	1000	100	310.2
Analysis Batch: 480-4593	Analysis Date: 02/03/2011 1246						
Ammonia as N	1.2		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-3631	Analysis Date: 01/25/2011 1026						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3547	Analysis Date: 01/22/2011 1727						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3457	Analysis Date: 01/22/2011 1727						
Sulfate	1850	B	mg/L	150	500	100	D516-90, 02
Analysis Batch: 480-4598	Analysis Date: 02/03/2011 1206						
Total Dissolved Solids	23300		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3836	Analysis Date: 01/26/2011 1718						
Orthophosphate	0.27		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3443	Analysis Date: 01/22/2011 1735						
Sulfide	7.1		mg/L	1.0	2.0	20	SM 4500 S2 D
Analysis Batch: 480-3653	Analysis Date: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	29.2	J	mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-30D1-12411

Lab Sample ID: 480-1149-1

Client Matrix: Water

Date Sampled: 01/24/2011 1530

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	939		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Alkalinity, Bicarbonate	939		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Ammonia as N	8.0		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1150						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1948						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1948						
Sulfate	ND		mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1608						
Total Dissolved Solids	7950	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3840	Analysis Date: 01/26/2011 1730						
Orthophosphate	0.29	J	mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.19	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	12.3		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	898	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Alkalinity, Bicarbonate	898	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Ammonia as N	7.7		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1151						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1949						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1949						
Sulfate	25 ~~7.7~~	U8 ~~J B~~	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1608						
Total Dissolved Solids	7550	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3840	Analysis Date: 01/26/2011 1730						
Orthophosphate	0.27	J	mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.52	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	12.8		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-26-D2-12511

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	487	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	487	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	3.5		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1152						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1950						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1950						
Sulfate	1420	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1347						
Total Dissolved Solids	19000		mg/L	80.0	200	1.0	SM 2540C
Run Type: RADL Analysis Batch: 480-4100	Analysis Date: 01/28/2011 1638						
Orthophosphate	0.44		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	1.3		mg/L	0.26	0.50	5.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	6.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-30UD-12511

Lab Sample ID: 480-1149-4

Client Matrix: Water

Date Sampled: 01/25/2011 0818

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	778	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	778	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	2.6		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1153						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1951						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1951						
Sulfate	1280	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1348						
Total Dissolved Solids	19900	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3840	Analysis Date: 01/26/2011 1730						
Orthophosphate	0.29		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.17		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	6.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-29UD-12511

Lab Sample ID: 480-1149-5

Client Matrix: Water

Date Sampled: 01/25/2011 1013

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	637	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	637	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	5.1		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1242						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1952						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1952						
Sulfate	1170	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1348						
Total Dissolved Solids	16900		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.43		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	17.2		mg/L	1.3	2.5	25	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	7.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-26-D1-12511

Lab Sample ID: 480-1149-6

Client Matrix: Water

Date Sampled: 01/25/2011 1000

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	455	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	455	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	1.3		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1046						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1953						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1953						
Sulfate	466	B	mg/L	30.0	100	20	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1334						
Total Dissolved Solids	12500		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.23		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.85		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	46.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-29-D2-12511

Lab Sample ID: 480-1149-7

Client Matrix: Water

Date Sampled: 01/25/2011 1115

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	12.6	U B	mg/L	4.0	10.0	1.0	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1336						
Alkalinity, Bicarbonate	12.6	U B	mg/L	4.0	10.0	1.0	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1336						
Ammonia as N	4.9		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1242						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1955						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1955						
Sulfate	1850	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1336						
Total Dissolved Solids	30100		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.060		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	1.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-29-D1-12511

Lab Sample ID: 480-1149-8

Client Matrix: Water

Date Sampled: 01/25/2011 1133

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	519	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	519	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	7.3		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1147						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1958						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1958						
Sulfate	ND		mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1331						
Total Dissolved Solids	2840		mg/L	16.0	40.0	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.14		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.078	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	15.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-28-D1-12511

Lab Sample ID: 480-1149-9

Client Matrix: Water

Date Sampled: 01/25/2011 1400

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	882	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Alkalinity, Bicarbonate	882	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Ammonia as N	6.3		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1156						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1959						
Nitrite as N	ND	J	mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1959						
Sulfate	134	B	mg/L	15.0	50.0	10	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1309						
Total Dissolved Solids	7380		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.37		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.14		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	12.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-28-D2-12511

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	503	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Alkalinity, Bicarbonate	503	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Ammonia as N	3.8		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1157						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 2000						
Nitrite as N	ND	J	mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 2000						
Sulfate	1290	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1213						
Total Dissolved Solids	18700		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.49		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.85		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	7.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: AMW-4-12611

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	292		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	292		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	13.9		mg/L	0.18	0.40	20	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1352						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1909						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1909						
Sulfate	5.0 ~~2.8~~	UB ~~J B~~	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1010		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.54	J	mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	36.8		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-5-12611

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	338		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	338		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	18.7		mg/L	0.18	0.40	20	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1355						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1910						
Nitrite as N	0.16	H	mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4271	Analysis Date: 01/31/2011 2042						
Sulfate	11.0	U B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1170		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.28	J	mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	41.5		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-11-12611

Lab Sample ID: 480-1226-3

Client Matrix: Water

Date Sampled: 01/26/2011 1130

Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	414		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	414		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	3.9		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1356						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1911						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1911						
Sulfate	6.5	U B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	829		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.84	J	mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	28.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-DR-12611

Lab Sample ID: 480-1226-4

Client Matrix: Water

Date Sampled: 01/26/2011 1330

Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	228		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	228		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	1.1		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1317						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1913						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1913						
Sulfate	31.4	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	730		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.33	J	mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	14.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-7-12611

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	309		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	309		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	17.0		mg/L	0.18	0.40	20	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1357						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1914						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1914						
Sulfate	5.0 ~~3.6~~	U B ~~J B~~	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1600		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	1.5	J	mg/L	0.018	0.060	3.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	0.31		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	37.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: P-18R-12711

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	270		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	270		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	5.1	B	mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1402						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1915						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1915						
Sulfate	~~3.2~~ 5.0	UB ~~JB~~	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	493		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.39		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	14.3		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: MW-33D-12711

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	597		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Alkalinity, Bicarbonate	597		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Ammonia as N	2.9	B	mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1403						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1916						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1916						
Sulfate	181	B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1605						
Total Dissolved Solids	4920		mg/L	16.0	40.0	1.0	SM 2540C
Run Type: RADL Analysis Batch: 480-4362	Analysis Date: 02/01/2011 1607						
Orthophosphate	0.59		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	13.2		mg/L	1.3	2.5	25	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	11.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: MW-35D-12711

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	282		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Alkalinity, Bicarbonate	282		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Ammonia as N	5.1	B	mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1404						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1917						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1917						
Sulfate	6.1	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1050		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	1.3		mg/L	0.018	0.060	3.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	1.0		mg/L	0.26	0.50	5.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	19.1		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron – Former Gulf Oil Terminal

Data Usability Summary Report

OCEANSIDE, NEW YORK

Volatile, Semivolatile, Metals and Miscellaneous Analyses

SDG#J3544

Analyses Performed By:
TestAmerica
Amherst, New York

Report: #14101R
Review Level: Tier III
Project: B0047517.0004.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # J3544 for samples collected in association with the Chevron – Former Gulf Oil Terminal Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-P10	480-3544-1	Water	4/7/2011		X			X	X
MW-30D-2	480-3544-2	Water	4/7/2011		X			X	X
DUP 040711	480-3544-3	Water	4/7/2011	MW-30D-2	X			X	X
TRIP BLANK	480-3544-4	Water	4/7/2011		X			X	X

Note:
1. Miscellaneous parameters include chloride.
2. Matrix spike/matrix spike duplicate (MS/MSD) was performed on sample location MW-P10.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.
	Soil	14 days from collection to analysis	Cool to 4°C±2°C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.
All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
MW-30D-2 DUP 040711 TRIP BLANK	CCV %D	Dichlorodifluoromethane	27.5%
		Trichlorofluoromethane	27.7%
		1,1,1-Trichloroethane	28.8%
MW-P10	CCV %D	Bromomethane	51.1%
		Methyl acetate	31.7%
		1,1,1-Trichloroethane	28.2%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
MW-P10	1,1-Dichloroethane	>UL	>UL

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-30D-2/ DUP 040711	Methyl tert-butyl ether	1 U	0.42 J	AC

AC Acceptable
U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
D. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) SW-846 Methods 6000/7000 and SM4500 Cl-. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    UB Analyte considered non-detect at the listed value due to associated blank contamination.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cool to 4°C±2°C.
SW-846 7470	Water	28 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the instrument detection limit (IDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (J) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
MW-30D-2	Iron (Dissolved)	Detected sample results <RL and <BAL	"UB" at the RL

RL = reporting limit

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All analytes associated with CRDL standard recoveries were within control limits.

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD was performed in place of a laboratory duplicate.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-30D-2/ DUP 040711	Aluminum	0.55	0.38	36.5 %
	Arsenic	0.0061 J	0.01 U	AC
	Barium	0.047	0.047	0.0 %
	Cadmium	0.001	0.0012	18.1 %
	Calcium	133	134	0.7 %
	Chromium	0.0056	0.0051	9.3 %
	Cobalt	0.00086 J	0.001 J	AC
	Copper	0.0032 J	0.0016 J	AC
	Iron	0.5	0.38	27.2 %
	Lead	0.0036 J	0.005 U	AC
	Magnesium	304	303	0.3 %
	Manganese	0.15	0.15	0.0 %
	Nickel	0.0014 J	0.01 U	AC
	Potassium	123	123	0.0 %
	Sodium	2900	2870	1.0 %
	Vanadium	0.0042 J	0.0047 J	AC
	Zinc	0.0044 J	0.0023 J	AC
	Barium, Dissolved	0.047	0.047	0.0 %
	Cadmium, Dissolved	0.00089 J	0.00066 J	AC
	Calcium, Dissolved	138	137	0.7 %
	Chromium, Dissolved	0.0031 J	0.0026 J	AC
	Magnesium, Dissolved	315	310	1.6 %
	Manganese, Dissolved	0.15	0.15	0.0 %
	Nickel, Dissolved	0.01 U	0.0013 J	AC
	Potassium, Dissolved	138	138	0.0 %
	Sodium, Dissolved	2940	2890	1.7 %
	Vanadium, Dissolved	0.0035 J	0.0036 J	AC
	Zinc, Dissolved	0.0025 J	0.0019 J	AC

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits.

8. General Assessment

The calculated %D between the total and the dissolved sample results were within the control limit.

9. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALs

METALS; SW-846 6000/7000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X	X		
C. Equipment/Field Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field Duplicate (RPD)		X		X	
ICP Serial Dilution		X		X	
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X		X	
ICP Interference Check		X		X	
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Chloride by SM4500 Cl E	Water	28 days from collection to analysis	Cool to 4°C+2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. Therefore, sample results greater than the BAL resulted in the removal of the laboratory qualifier (J). No other qualification of the sample results was required.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All analytes associated with calibration standard recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate recoveries exhibited acceptable RPD.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-30D-2/ DUP 040711	Chloride	5720	5620	1.7 %

U = Not detected
AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: EPA 9012A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-3544-1	4/7/2011	SW846	MW-P10	Water	Yes	--	--	Yes	Yes	.
480-3544-1	4/7/2011	SW846	MW-30D-2	Water	Yes	--	--	No	Yes	MET – Blank
480-3544-1	4/7/2011	SW846	DUP 040711	Water	Yes	--	--	Yes	Yes	
480-3544-1	4/7/2011	SW846	TRIP BLANK	Water	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Andrew Korycinski

SIGNATURE: 

DATE: May 3, 2011

PEER REVIEW: Dennis Capria

DATE: May 5, 2011

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____
Drinking Water? Yes ☐ No ☒

TAL-4124 (1007)

Client: AECOM
Address: 2634 TOLOPATH RD
City: Syracuse | State: NY | Zip Code: 13214
Project Name and Location (State): CHEVRON - OCEANSIDE, New York
Contract/Purchase Order/Quote No.: 60047617.0004.0001

Project Manager: ~~JoAnn Robertson~~ TONY BOGDLIN
Telephone Number (Area Code)/Fax Number: 315-671-9143 716-504-9822
Site Contact: JoAnn Robertson | Lab Contact:
Carrier/Waybill Number: 8731 2013 2651

Date: 4/7/11 | Lab Number:
Chain of Custody Number: 173946
Page 1 of 1

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	Zn Acet./NaOH	VOCs	Chloride	Total TAL Metals	Dissolved TAL Metals
MW-PID	4/7/11	0915		X			1		2	3			3	1	1	1
MW-PID MS/MSD	4/7/11	0915		X			2		4	6			6	2	2	2
MW-300-2	4/7/11	1315		X			1		2	3			3	1	1	1
DUP 040711	4/7/11	—		X			1		2	3			3	1	1	1
Trip Blank	1/22/11	—		X						1			1			

Special Instructions/ Conditions of Receipt: Dissolved TAL Metals Filtered by field staff

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown
Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard
QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	4/7/11	1745	1. Received By	4/8/11	1000
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: 2.4

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: MW-P10

Lab Sample ID: 480-3544-1

Client Matrix: Water

Date Sampled: 04/07/2011 0915

Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12442	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S1921.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/16/2011 2206			Final Weight/Volume:	5 mL
Prep Date:	04/16/2011 2206				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	23		3.0	10
Benzene	3.1		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	8.6		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	2.6		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	11		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	0.72	J	0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: MW-P10

Lab Sample ID: 480-3544-1
Client Matrix: Water

Date Sampled: 04/07/2011 0915
Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12442	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S1921.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/16/2011 2206			Final Weight/Volume:	5 mL
Prep Date:	04/16/2011 2206				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	0.86	J	0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	130		66 - 137
Toluene-d8 (Surr)	105		71 - 126
4-Bromofluorobenzene (Surr)	91		73 - 120

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **MW-30D-2**

Lab Sample ID: 480-3544-2
Client Matrix: Water

Date Sampled: 04/07/2011 1315
Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12649	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N6463.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/19/2011 1439			Final Weight/Volume:	5 mL
Prep Date:	04/19/2011 1439				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **MW-30D-2**

Lab Sample ID: 480-3544-2
Client Matrix: Water

Date Sampled: 04/07/2011 1315
Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12649	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N6463.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/19/2011 1439			Final Weight/Volume:	5 mL
Prep Date:	04/19/2011 1439				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	101		73 - 120

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **DUP 040711**

Lab Sample ID: 480-3544-3FD
Client Matrix: Water

Date Sampled: 04/07/2011 0000
Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12649	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N6464.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/19/2011 1502			Final Weight/Volume:	5 mL
Prep Date:	04/19/2011 1502				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	0.42	J	0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: DUP 040711

Lab Sample ID: 480-3544-3FD

Client Matrix: Water

Date Sampled: 04/07/2011 0000

Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12649	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N6464.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/19/2011 1502			Final Weight/Volume:	5 mL
Prep Date:	04/19/2011 1502				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
Toluene-d8 (Surr)	105		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-3544-4TB

Client Matrix: Water

Date Sampled: 04/07/2011 0000

Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12649	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N6465.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/19/2011 1525			Final Weight/Volume:	5 mL
Prep Date:	04/19/2011 1525				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	0.68	J	0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-3544-4TB
Client Matrix: Water

Date Sampled: 04/07/2011 0000
Date Received: 04/09/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-12649	Instrument ID:	HP5973N
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	N6465.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/19/2011 1525			Final Weight/Volume:	5 mL
Prep Date:	04/19/2011 1525				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	101		73 - 120

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: MW-P10

Lab Sample ID: 480-3544-1
Client Matrix: Water

Date Sampled: 04/07/2011 0915
Date Received: 04/09/2011 1000

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-11808	Instrument ID:	ICAP1
Prep Method:	3005A	Prep Batch:	480-11575	Lab File ID:	I1041211B-6.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/12/2011 1931			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 0920				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.11	J	0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.022		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00033	0.0010
Calcium	138		0.10	0.50
Chromium	0.0072		0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	3.5		0.019	0.050
Lead	0.0049	J	0.0030	0.0050
Magnesium	10.7		0.043	0.20
Manganese	0.26		0.00030	0.0030
Nickel	0.0061	J	0.0013	0.010
Potassium	8.6		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	53.6		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0034	J	0.0011	0.0050
Zinc	0.0063	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-11994	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11580	Lab File ID:	I2041311A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/13/2011 1934			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1225				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.060	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.022		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	ND		0.00033	0.0010
Calcium, Dissolved	136		0.10	0.50
Chromium, Dissolved	ND		0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0017	J	0.0015	0.010
Iron, Dissolved	2.8	B	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	10.0		0.043	0.20

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **MW-P10**

Lab Sample ID: 480-3544-1
Client Matrix: Water

Date Sampled: 04/07/2011 0915
Date Received: 04/09/2011 1000

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.25		0.00030	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	7.9		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	44.5		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0015	J	0.0011	0.0050
Zinc, Dissolved	0.0020	J	0.0017	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-11649	Instrument ID:	LEEMAN3
Prep Method:	7470A	Prep Batch:	480-11550	Lab File ID:	J04111W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1812			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1300				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	480-11781	Instrument ID:	LEEMAN3
Prep Method:	7470A	Prep Batch:	480-11739	Lab File ID:	J04121D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/12/2011 1902			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1608				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **MW-30D-2**

Lab Sample ID: 480-3544-2
Client Matrix: Water

Date Sampled: 04/07/2011 1315
Date Received: 04/09/2011 1000

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-11808	Instrument ID:	ICAP1
Prep Method:	3005A	Prep Batch:	480-11575	Lab File ID:	I1041211B-6.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/12/2011 1946			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 0920				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.55		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0061	J	0.0056	0.010
Barium	0.047		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.0010		0.00033	0.0010
Calcium	133		0.10	0.50
Chromium	0.0056		0.00087	0.0040
Cobalt	0.00086	J	0.00063	0.0040
Copper	0.0032	J	0.0015	0.010
Iron	0.50		0.019	0.050
Lead	0.0036	J	0.0030	0.0050
Magnesium	304		0.043	0.20
Manganese	0.15		0.00030	0.0030
Nickel	0.0014	J	0.0013	0.010
Potassium	123		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0042	J	0.0011	0.0050
Zinc	0.0044	J	0.0017	0.010

Analysis Method:	6010B	Analysis Batch:	480-11997	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11575	Lab File ID:	I2041311A-8.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Analysis Date:	04/13/2011 2130			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 0920				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2900		3.2	10.0

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-11994	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11580	Lab File ID:	I2041311A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/13/2011 1944			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1225				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.060	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.047		0.00050	0.0020

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: MW-30D-2

Lab Sample ID: 480-3544-2
Client Matrix: Water

Date Sampled: 04/07/2011 1315
Date Received: 04/09/2011 1000

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00089	J	0.00033	0.0010
Calcium, Dissolved	138		0.10	0.50
Chromium, Dissolved	0.0031	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	0.050 ~~0.042~~ UB	J B	0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	315		0.043	0.20
Manganese, Dissolved	0.15		0.00030	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	138		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0035	J	0.0011	0.0050
Zinc, Dissolved	0.0025	J	0.0017	0.010

Analysis Method:	6010B	Analysis Batch:	480-12265	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11580	Lab File ID:	I2041411A-20.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/14/2011 1629			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1225				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2940		1.6	5.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-11649	Instrument ID:	LEEMAN3
Prep Method:	7470A	Prep Batch:	480-11550	Lab File ID:	J04111W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1823			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1300				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	480-11781	Instrument ID:	LEEMAN3
Prep Method:	7470A	Prep Batch:	480-11739	Lab File ID:	J04121D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/12/2011 1910			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1608				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: **DUP 040711**

Lab Sample ID: 480-3544-3FD
Client Matrix: Water

Date Sampled: 04/07/2011 0000
Date Received: 04/09/2011 1000

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	480-11808	Instrument ID:	ICAP1
Prep Method:	3005A	Prep Batch:	480-11575	Lab File ID:	I1041211B-6.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/12/2011 1948			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 0920				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.38		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.047		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.0012		0.00033	0.0010
Calcium	134		0.10	0.50
Chromium	0.0051		0.00087	0.0040
Cobalt	0.0010	J	0.00063	0.0040
Copper	0.0016	J	0.0015	0.010
Iron	0.38		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	303		0.043	0.20
Manganese	0.15		0.00030	0.0030
Nickel	ND		0.0013	0.010
Potassium	123		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0047	J	0.0011	0.0050
Zinc	0.0023	J	0.0017	0.010

Analysis Method:	6010B	Analysis Batch:	480-11997	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11575	Lab File ID:	I2041311A-8.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Analysis Date:	04/13/2011 2133			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 0920				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2870		3.2	10.0

6010B Metals (ICP)-Dissolved

Analysis Method:	6010B	Analysis Batch:	480-11994	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11580	Lab File ID:	I2041311A-5.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/13/2011 1947			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1225				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.060	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.047		0.00050	0.0020

Client: ARCADIS

Job Number: 480-3544-1

Client Sample ID: DUP 040711

Lab Sample ID: 480-3544-3FD

Client Matrix: Water

Date Sampled: 04/07/2011 0000

Date Received: 04/09/2011 1000

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00066	J	0.00033	0.0010
Calcium, Dissolved	137		0.10	0.50
Chromium, Dissolved	0.0026	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	310		0.043	0.20
Manganese, Dissolved	0.15		0.00030	0.0030
Nickel, Dissolved	0.0013	J	0.0013	0.010
Potassium, Dissolved	138		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0036	J	0.0011	0.0050
Zinc, Dissolved	0.0019	J	0.0017	0.010

Analysis Method:	6010B	Analysis Batch:	480-12265	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-11580	Lab File ID:	I2041411A-20.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/14/2011 1631			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1225				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2890		1.6	5.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-11649	Instrument ID:	LEEMAN3
Prep Method:	7470A	Prep Batch:	480-11550	Lab File ID:	J04111W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/11/2011 1826			Final Weight/Volume:	50 mL
Prep Date:	04/11/2011 1300				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Analysis Method:	7470A	Analysis Batch:	480-11781	Instrument ID:	LEEMAN3
Prep Method:	7470A	Prep Batch:	480-11739	Lab File ID:	J04121D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/12/2011 1911			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1608				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

General Chemistry

Client Sample ID: **MW-P10**

Lab Sample ID: 480-3544-1
Client Matrix: Water

Date Sampled: 04/07/2011 0915
Date Received: 04/09/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride	59.3		mg/L	9.2	20.0	20	SM 4500 Cl- E

Analysis Batch: 480-12383 Analysis Date: 04/15/2011 1916

General Chemistry

Client Sample ID: **MW-30D-2**

Lab Sample ID: 480-3544-2
Client Matrix: Water

Date Sampled: 04/07/2011 1315
Date Received: 04/09/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride	5720		mg/L	55.7	121	121	SM 4500 Cl- E

Analysis Batch: 480-12383 Analysis Date: 04/15/2011 1825

General Chemistry

Client Sample ID: **DUP 040711**

Lab Sample ID: 480-3544-3FD
Client Matrix: Water

Date Sampled: 04/07/2011 0000
Date Received: 04/09/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride	5620		mg/L	55.7	121	121	SM 4500 Cl- E

Analysis Batch: 480-12383 Analysis Date: 04/15/2011 1825

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron – Former Gulf Oil Terminal

Data Usability Summary Report

OCEANSIDE, NEW YORK

Volatile, Semivolatile, Metals and Miscellaneous Analyses

SDG#480-972

Analyses Performed By:
TestAmerica
Amherst, New York

Report: #14173R
Review Level: Tier III
Project: B0047517.0004.00001

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 480-972 for samples collected in association with the Chevron – Former Gulf Oil Terminal Site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
MW-25VD	480-1004-1	Ground water	1/19/2011		X	X		X	X
MW-24-D2	480-1004-2	Ground water	1/19/2011		X	X		X	X
MW-24-D1	480-1004-3	Ground water	1/19/2011		X	X		X	X
MW-25-D1	480-1004-4	Ground water	1/19/2011		X	X		X	X
MW-25-D2	480-1004-5	Ground water	1/19/2011		X	X		X	X
MW-23D-1R	480-1004-6	Ground water	1/19/2011		X	X		X	X
MW-24VD	480-1004-7	Ground water	1/19/2011		X	X		X	X
MW-32D	480-1004-8	Ground water	1/19/2011		X	X		X	X
TRIP BLANK	480-1004-9	Water	1/19/2011		X				
MW-23D-2R-012011	480-1054-1	Ground water	1/20/2011		X	X		X	X
DUP-1-20-11	480-1054-2	Ground water	1/20/2011	MW-23D-2R-012011	X	X		X	X
AMW-10-012011	480-1054-3	Ground water	1/20/2011		X	X		X	X
AMW-1-012011	480-1054-4	Ground water	1/20/2011		X	X		X	X
AMW-9-012011	480-1054-5	Ground water	1/20/2011		X	X		X	X
AMW-2-012011	480-1054-6	Ground water	1/20/2011		X	X		X	X
AMW-8-012011	480-1054-7	Ground water	1/20/2011		X	X		X	X
TB-3-012011	480-1054-8	Water	1/20/2011		X	X		X	X
AMW-3-012011	480-1054-9	Ground water	1/20/2011		X	X		X	X
MW-27-D2	480-972-1	Ground water	1/18/2011		X	X		X	X
MW-26VD	480-972-2	Ground water	1/18/2011		X	X		X	X
MW-27-D1	480-972-3	Ground water	1/18/2011		X	X		X	X

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TB	480-972-4	Water	1/18/2011		X				

Note:
1. Miscellaneous parameters include methane, ethane, ethene, dissolved organic carbon, alkalinity, ammonia, nitrate, nitrite, orthophosphate, sulfate, sulphide, and total dissolved solids.
2. Matrix spike/matrix spike duplicate (MS/MSD) was performed on sample locations MW-24-D1 and AMW-10-012011.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) USEPA SW-846 Method 8260, 8270 and RSK-175. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.
	Soil	14 days from collection to analysis	Cool to 4°C±2°C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. No qualification of the sample results was required.

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.
All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
MW-25VD MW-24-D2 MW-24-D1 MW-25-D1 MW-25-D2 TRIP BLANK 1/19/11	CCV %D	Carbon tetrachloride	-22.9%
		Trans-1,3-Dichloropropene	-22.4%
		Bromoform	-30.1%
MW-23D-1R MW-24VD MW-32D	CCV %D	Dichlorodifluoromethane	23.7%
		1,1,2-Trichloro-1,2,2-trifluoroethane	25.6%
AMW-10-012011 AMW-9-012011 AMW-8-012011	CCV %D	Acetone	67.1%
		Methyl acetate	25.4%
		2-Butanone	44.7%
		4-Methyl-2-pentanone	31.9%
		2-Hexanone	64.0%
AMW-1-012011 AMW-2-012011 TB-3-012011 AMW-3-012011	CCV %D	Trichlorofluoromethane	25.0%
		1,1,2-Trichloro-1,2,2-trifluoroethane	28.5%
		Acetone	73.9%
		Methyl acetate	31.9%
		2-Butanone	49.5%
		1,1,1-Trichloroethane	21.4%
		Carbon tetrachloride	23.6%
		4-Methyl-2-pentanone	27.4%
		2-Hexanone	50.4%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01[1]	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01[1]	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-23D-2R-012011/ DUP-1-20-11	Carbon disulfide	1.3	1.2	AC
	Methyl tert-butyl ether	200	190	5.1%
	Vinyl chloride	7.8	6.5	18.2%

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-25VD	Trichloroethene	190 E	180 D	180 D
MW-24-D2	cis-1,2-Dichloroethene	900 E	1200 D	1200 D
	Methyl tert-butyl ether	240 E	280 D	280 D
	Vinyl chloride	280 E	300 D	300 D
MW-24-D1	cis-1,2-Dichloroethene	1700 E	7400 D	7400 D
	Methyl tert-butyl ether	760 E	1100 D	1100 D
	Vinyl chloride	1300 E	1800 D	1800 D
MW-25-D1	cis-1,2-Dichloroethene	1600 E	5100 D	5100 D
	Methyl tert-butyl ether	700 E	960 D	960 D
	Methylene chloride	260 E	340 D	340 D
	Trichloroethene	110 E	110 D	110 D

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
	Vinyl chloride	2300 E	5900 D	5900 D
MW-25-D2	cis-1,2-Dichloroethene	1500 E	3500 D	3500 D
	Methyl tert-butyl ether	130 E	400 U	130 EJ
	Methylene chloride	1800 E	3700 D	3700 D
	Trichloroethene	2500 E	17000 D	17000 D
	Vinyl chloride	140 E	400 U	140 EJ
MW-23D-1R	Methyl tert-butyl ether	140 E	100 D	100 D
MW-23D-2R-012011	Methyl tert-butyl ether	180 E	200 D	200 D
DUP-1-20-11	Methyl tert-butyl ether	170 E	190 D	190 D
AMW-10-012011	cis-1,2-Dichloroethene	92000 E	240000 D	240000 D
	Trichloroethene	50000 E	58000 D	58000 D
	Vinyl chloride	19000 E	20000 D	20000 D
AMW-9-012011	cis-1,2-Dichloroethene	88000 E	98000 D	98000 D
AMW-2-012011	Xylenes	6700 E	7200 D	7200 D
AMW-8-012011	cis-1,2-Dichloroethene	29000 E	29000 D	29000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)		X		X	
Matrix Spike Duplicate(MSD)		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
D. Transcription/calculation errors present				X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMI-VOLATILE VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (B) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
MW-23D-2R-012011 DUP-1-20-11 AMW-10-012011 AMW-1-012011 AMW-9-012011 AMW-8-012011	Bis(2-ethylhexyl) phthalate	Detected sample results <RL and <BAL	"UB" at the RL

RL Reporting limit

3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
AMW-3-012011	Phenol-d6	AC
	2-Fluorophenol	AC
	2,4,6-Tribromophenol	>UL
	Nitrobenzene-d5	AC
	2-Fluorobiphenyl	AC
	Terphenyl-d14	AC

UL Upper control limit
AC Acceptable

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the SVOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample location associated with this SDG.

8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

9. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-23D-2R-012011/ DUP-1-20-11	Acenaphthene	1.3 J	1.2 J	AC
	Carbazole	0.50 J	0.52 J	AC
	Di-n-butyl phthalate	0.41 J	0.53 J	AC
	Dibenzofuran	0.53 J	0.54 J	AC
	Fluorene	0.54 J	0.58 J	AC

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R					X
Matrix Spike Duplicate(MSD) %R					X
MS/MSD Precision (RPD)					X
Field Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X		X	
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

GENERAL GC ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
RSK-175	Water	14 days from collection to extraction to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

3.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99.

3.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

All compounds associated with calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
MW-25-D2 MW-24-D2 MW-24-D1 MW-25-D1	CCV %D	Methane	-15.7%

Sample Locations	Initial/Continuing	Compound	Criteria
MW-25VD			
MW-23D-1R MW-24VD MW-32D	CCV %D	Methane	-29.5%
MW-23D-2R-012011 DUP-1-20-11 AMW-10-012011 AMW-1-012011 AMW-9-012011 AMW-2-012011	CCV %D	Methane	15.2%
		Ethene	18.1%
		Ethane	18.0%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial Calibration	%RSD > 20%or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
Continuing Calibration	%D >15% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >15% (decrease in sensitivity)	Non-detect	UJ
		Detect	J

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
AMW-3-012011	Ethene	AC	>UL

AC = Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
MW-23D-2R-012011 AMW-3-012011 AMW-10-012011 AMW-1-012011 AMW-9-012011 AMW-2-012011 AMW-8-012011 DUP-1-20-11	Ethene	>UL	NA

NA – Not analyzed

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS/LCSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent

sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-23D-2R-012011/ DUP-1-20-11	Methane	420	1400	107.7%

AC Acceptable

The compound methane associated with sample locations MW-23D-2R-012011and DUP-1-20-11 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed analyte were qualified as estimated.

7. Compound Identification

Sample results associated with compounds that exhibited a concentration greater than the linear range of the instrument calibration and/or exhibited higher concentration of a detected compound in the methanol-extracted analysis are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
MW-27-D2	Methane	200 E	210 D	210 D
MW-26VD	Methane	520 E	260 D	260 D
MW-27-D1	Methane	1100 E	9300 D	9300 D
MW-25VD	Methane	290 E	330 D	330 D
MW-24-D2	Methane	1000 E	1100 D	1100 D
MW-24-D1	Methane	3000 E	1900 D	1900 D
	Ethene	120 E	110 D	110 D
MW-25-D1	Methane	2800 E	4200 D	4200 D
MW-25-D2	Methane	1100 E	2700 D	2700 D
MW-23D-1R	Methane	1100 E	7800 D	7800 D
MW-24VD	Methane	1400 E	170 D	170 D
MW-32D	Methane	280 E	1700 D	1700 D
AMW-10-012011	Methane	4900 E	3700 D	3700 D
AMW-3-012011	Methane	16000 E	12000 D	12000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL GC

RSK-175	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/FID)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X	X		
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X	X		
Dilution Factor		X		X	
Moisture Content					X
Tier III Validation					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X	X		
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to (United States Environmental Protection Agency) SW-846 Methods 6000/7000, 310.2, 350.1, 353.2, SM2540, SM4500 P E, SM4500 S2 D, D-516-90, and SM5310 D. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    UB Analyte considered non-detect at the listed value due to associated blank contamination.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010B	Water	180 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cool to 4°C±2°C.
SW-846 7470	Water	28 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the instrument detection limit (IDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (J) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
MW-27-D2	Beryllium (Dissolved)	Detected sample results <RL and <BAL	"UB" at the RL
MW-26VD	Cadmium (Total)	Detected sample results <RL and <BAL	"UB" at the RL
	Manganese (Total)	Detected sample results >RL and <BAL	"UB" at detected sample concentration
	Manganese (Dissolved)	Detected sample results <RL and <BAL	"UB" at the RL
MW-23D-2R-012011 DUP-1-20-11 AMW-10-012011	Aluminum (Dissolved)	Detected sample results <RL and <BAL	"UB" at the RL

Sample Locations	Analytes	Sample Result	Qualification
AMW-1-012011 AMW-9-012011 AMW-8-012011 AMW-3-012011			

RL = reporting limit

3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard analysis are presented below in the CRDL standards evaluation table.

All analytes associated with CRDL standard recoveries were within control limits with the exception of the analytes presented in the following table.

Sample Locations	Analytes	CRDL Recovery
MW-27-D2 (Total) MW-26VD (Total) MW-27-D1 (Total)	Antimony	66%
MW-23D-2R-012011 (Dissolved) DUP-1-20-11 (Dissolved) AMW-10-012011 (Dissolved) AMW-1-012011 (Dissolved) AMW-9-012011(Dissolved) AMW-2-012011 (Dissolved) AMW-8-012011 (Dissolved) AMW-3-012011 (Dissolved)	Selenium	61%
MW-23D-2R-012011 (Total) DUP-1-20-11 (Total) AMW-10-012011 (Total) AMW-1-012011 (Total) AMW-9-012011(Total) AMW-2-012011 (Total) AMW-8-012011 (Total) AMW-3-012011 (Total)	Mercury	131%

The criteria applied to evaluate the CRDL Standard criteria are presented below. In the case of a calibration deviation, the sample results are qualified.

CRDL Standard Recovery Criteria			
Analytes	**Control Limit**	**Sample Result**	**Qualification**
All analytes, with the exception of Al, Ba, Ca, Fe, Mg, Na, and K	CRDL %R <50% (<30% for Sb, Pb, Tl)	Sample results ≥ MDL but <2x CRDL	R
		Non-detect sample results	R
		Detected sample results ≥ 2x CRDL	J
	CRDL %R 50-69% (30-49% for Sb, Pb, Tl)	Sample results ≥ MDL but <2x CRDL	J
		Non-detect sample results	UJ
		Detected sample results ≥ 2x CRDL	No Action
	%R >130% but <180% (>150% but <200% for Sb, Pb, Tl)	Sample results ≥ MDL but <2x CRDL	J
		Non-detect sample results	No Action
		Detected sample results ≥ 2x CRDL	No Action
	CRI %R >180% (>200% for Sb, Pb, Tl)	Sample results ≥ MDL	R

3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate

sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water

matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD was performed in place of a laboratory duplicate.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
MW-23D-2R-012011/ DUP-1-20-11 (Total)	Barium	110	110	0%
	Cadmium	0.58 J	0.64 J	AC
	Calcium	166000	163000	1.8%
	Chromium	2 J	1.9 J	AC
	Iron	65	60	AC
	Magnesium	286000	284000	0.7%
	Manganese	890	850	4.5%
	Potassium	95100	95400	0.3%
	Sodium	2570000	2550000	0.7%
	Vanadium	11	10	AC
MW-23D-2R-012011/ DUP-1-20-11 (Dissolved)	Arsenic, Dissolved	9.5 J	7.2 J	AC
	Barium, Dissolved	120	120	0%
	Cadmium, Dissolved	0.62 J	0.65 J	AC
	Calcium, Dissolved	185000	186000	0.5%
	Chromium, Dissolved	3.8 J	4	AC
	Cobalt, Dissolved	1.1 J	0.77 J	AC
	Iron, Dissolved	75	87	AC
	Magnesium, Dissolved	319000	326000	2.1%
	Manganese, Dissolved	880	910	3.3%
	Potassium, Dissolved	107000	108000	0.9%
	Sodium, Dissolved	2990000	3030000	1.3%
	Vanadium, Dissolved	6.8	6.7	AC

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

The serial dilution exhibited a %D within the control limit.

8. General Assessment

The calculated %D between the total and the dissolved sample results were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	%D
MW-23D-2R-012011	Calcium	13.5%
	Magnesium	14.8%
	Potassium	13.2%
	Sodium	17.3%
DUP-1-20-11	Calcium	13.2%
	Magnesium	13.8%
	Potassium	12.4%
	Sodium	17.2%
AMW-3-012011	Magnesium	11.2%

The criteria used to evaluate total and dissolved %D are presented in the following table. In the case of a total and dissolved %D deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this SDG.

Sample Concentration	Control Limit	Sample Result	Qualification
Dissolved sample concentration > total sample concentration and > 5x RL	>10%	Non-detect	UJ
		Detect	J
Dissolved sample concentration > total sample concentration and > 5x RL	>50%	Non-detect	R
		Detect	R

9. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALs

METALS; SW-846 6000/7000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP) Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X	X		
B. Method Blanks		X	X		
C. Equipment/Field Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field Duplicate (RPD)		X		X	
ICP Serial Dilution		X		X	
Reporting Limit Verification		X		X	
Raw Data		X		X	
Tier III Validation					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X	X		
ICP Interference Check		X		X	
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery
RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Alkalinity by 310.2	Water	14 days from collection to analysis	Cool to 4°C+2°C.
Ammonia by 350.1	Water	28 days from collection to analysis	Cool to 4°C+2°C; preserved to a pH of less than 2.
Nitrate-N by 353.2	Water	28 days from collection to analysis	Cool to 4°C+2°C; preserved to a pH of less than 2.
Nitrite by 353.2	Water	48 hours from collection to analysis	Cool to 4°C+2°C.
Total dissolved solids by SM2540	Water	7 days from collection to analysis	Cool to 4°C+2°C.
Orthophosphate by SM4500 P E	Water	48 hours from collection to analysis	Cool to 4°C+2°C.
Sulfide by SM4500 S2 D	Water	7 days from collection to analysis	Zinc acetate; preserved to a pH of greater than 9
Dissolved organic carbon by SM5310 D	Water	28 days from collection to analysis	Cool to 4°C+2°C; preserved to a pH of less than 2.
Sulfate by D-516-90	Water	28 days from collection to analysis	Cool to 4°C$\pm$2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All analytes associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the analytes listed in the following table. Sample results associated with QA blank contamination that were greater than the BAL resulted in the removal of the laboratory qualifier (J) of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
AMW-10-012011 AMW-9-012011 AMW-8-012011 AMW-3-012011	Sulfate	Detected sample results <RL and <BAL	"UB" at the RL

RL = reporting limit

3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS/MSD recoveries were within control limits with the exception of the following analyte present in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
MW-27-D1	Sulfide	< 30%	NA

NA- Not Analyzed

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
	Detect	J

4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate recoveries exhibited acceptable RPD.

5. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
MW-23D-2R-012011/ DUP-1-20-11	Alkalinity, Bicarbonate	717	725	1.1%
	Alkalinity, Total	717	725	1.1%
	Ammonia as N	3.3	3.7	11.4%
	Sulfate	436	438	0.5%
	Total Dissolved Solids	9010	8600	4.7%
	Orthophosphate	0.52	0.43	18.9%
	Sulfide	18.8	19.2	2.1%
	Dissolved Organic Carbon	11.2	11.0	1.8%

The calculated RPDs between the parent sample and field duplicate were acceptable.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: 310.2, 350.1, 353.2, SM2540, SM4500 P E, SM4500 S2 D, D-516-90, and SM5310 D	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X	X		
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R		X	X		
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
Tier III Validation					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present				X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

SAMPLE COMPLIANCE REPORT

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-972-1	1/19/2011	SW846	MW-25VD	Water	No	Yes	--	Yes	No	VOC – CCV %D MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-24-D2	Water	No	Yes	--	Yes	No	VOC – CCV %D MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-24-D1	Water	No	Yes	--	Yes	No	VOC – CCV %D MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-25-D1	Water	No	Yes	--	Yes	No	VOC – CCV %D MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-25-D2	Water	No	Yes	--	Yes	No	VOC – CCV %D MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-23D-1R	Water	Yes	Yes	--	Yes	No	MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-24VD	Water	Yes	Yes	--	Yes	No	MISC – CCV %D
480-972-1	1/19/2011	SW846	MW-32D	Water	Yes	Yes	--	Yes	No	MISC – CCV %D
480-972-1	1/19/2011	SW846	TRIP BLANK	Water	No	--	--	--	--	VOC – CCV %D
480-972-1	1/20/2011	SW846	MW-23D-2R-012011	Water	Yes	No	--	No	No	SVOC – Blank MET – Tot/Diss%D, Blank, CRDL MISC – LCS %R, Field Dup RPD
480-972-1	1/20/2011	SW846	DUP-1-20-11	Water	Yes	No	--	No	No	SVOC – Blank MET – Tot/Diss%D, Blank, CRDL MISC – LCS %R, Field Dup RPD
480-972-1	1/20/2011	SW846	AMW-10-012011	Water	Yes	No	--	No	No	SVOC – Blank MET – CRDL %R, Blank MISC – LCS %R, Blank
480-972-1	1/20/2011	SW846	AMW-1-012011	Water	Yes	No	--	No	No	SVOC – Blank MET – CRDL %R, Blank MISC – CCV %D
480-972-1	1/20/2011	SW846	AMW-9-012011	Water	Yes	No	--	No	No	SVOC – Blank MET – CRDL %R, Blank MISC – CCV %D, Blank

Sample Delivery Group	Sampling Date	Protocol	Sample ID	Matrix	Compliancy[1]					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-972-1	1/20/2011	SW846	AMW-2-012011	Water	Yes	Yes	--	No	No	MET – CRDL %R, Blank MISC – CCV %D
480-972-1	1/20/2011	SW846	AMW-8-012011	Water	Yes	No	--	No	No	SVOC – Blank MET – CRDL %R, Blank MISC – LCS %R, Blank
480-972-1	1/20/2011	SW846	TB-3-012011	Water	Yes	--	--	--	--	
480-972-1	1/20/2011	SW846	AMW-3-012011	Water	Yes	Yes	--	No	No	MET – Tot/Diss%D, Blank, CRDL MISC – Blank
480-972-1	1/18/2011	SW846	MW-27-D2	Water	Yes	Yes	--	No	Yes	MET – CRDL %R, Blank
480-972-1	1/18/2011	SW846	MW-26VD	Water	Yes	Yes	--	No	Yes	MET – CRDL %R, Blank
480-972-1	1/18/2011	SW846	MW-27-D1	Water	Yes	Yes	--	No	No	MET – CRDL %R MISC – MS %R
480-972-1	1/18/2011	SW846	TB	Water	Yes	--	--	--	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Jeffrey L. Davin

SIGNATURE: 

DATE: May 13, 2011

PEER REVIEW: Dennis Capria

DATE: May 16, 2011

CHAIN OF CUSTODY/
CORRECTED SAMPLE ANALYSIS DATA SHEETS

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2073.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1551		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1551		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	0.44	J	0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2073.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1551		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1551		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		66 - 137
Toluene-d8 (Surr)	101		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2074.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1613		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1613		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	53		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	84		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	59		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	5.5		0.50	1.0
Methyl tert-butyl ether	1.5		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	0.93	J	0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2074.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1613		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1613		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
Toluene-d8 (Surr)	100		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2075.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1634		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1634		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	29		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	26		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2075.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1634		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1634		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		66 - 137
Toluene-d8 (Surr)	100		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: TB

Lab Sample ID: 480-972-4TB
Client Matrix: Water

Date Sampled: 01/18/2011 0000
Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2076.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1655		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1655		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: TB

Lab Sample ID: 480-972-4TB

Client Matrix: Water

Date Sampled: 01/18/2011 0000

Date Received: 01/19/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3331	Instrument ID: HP5973G
Preparation:	5030B		Lab File ID: G2076.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/21/2011 1655		Final Weight/Volume: 5 mL
Date Prepared:	01/21/2011 1655		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		66 - 137
Toluene-d8 (Surr)	102		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4216.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0027		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0027		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND J		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	13		0.19	1.0
Carbon tetrachloride	ND J		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	11		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	3.4		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND J		0.37	1.0
Trichloroethene	180 ~~190~~	E J	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 01/22/2011 0027
Date Prepared: 01/22/2011 0027

Analysis Batch: 480-3404

Instrument ID: HP5973N
Lab File ID: N4216.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447		Instrument ID:	HP5973N
Preparation:	5030B			Lab File ID:	N4243.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Date Analyzed:	01/23/2011 1537	Run Type:	DL	Final Weight/Volume:	5 mL
Date Prepared:	01/23/2011 1537				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Hexanone	ND		6.2	25
2-Butanone (MEK)	ND		6.6	50
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	ND		2.1	5.0
Bromodichloromethane	ND		1.9	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	13		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Dibromochloromethane	ND		1.6	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	10		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	ND		0.90	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	4.1	J	2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	180		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1

Client Matrix: Water

Date Sampled: 01/19/2011 0845

Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4243.D
Dilution:	5.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1537	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1537		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	ND		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4217.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0050		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0050		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	3.8		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	3.5		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND J		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND J		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	1200 ~~900~~	~~E~~ D	0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	1.9		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	280 ~~240~~	~~E~~ D	0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	3.0		0.51	1.0
trans-1,2-Dichloroethene	6.7		0.90	1.0
trans-1,3-Dichloropropene	ND J		0.37	1.0
Trichloroethene	2.5		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4217.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0050		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0050		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	~~280~~ 300	~~E~~ D	0.90	1.0
Xylenes, Total	4.8		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: MW-24-D2

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447		Instrument ID:	HP5973N
Preparation:	5030B			Lab File ID:	N4244.D
Dilution:	20			Initial Weight/Volume:	5 mL
Date Analyzed:	01/23/2011 1600	Run Type:	DL	Final Weight/Volume:	5 mL
Date Prepared:	01/23/2011 1600				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		16	20
1,1,2,2-Tetrachloroethane	ND		4.2	20
1,1,2-Trichloroethane	ND		4.6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	20
1,1-Dichloroethane	ND		7.6	20
1,1-Dichloroethene	ND		5.8	20
1,2,4-Trichlorobenzene	ND		8.2	20
1,2-Dibromo-3-Chloropropane	ND		7.8	20
1,2-Dibromoethane	ND		15	20
1,2-Dichlorobenzene	ND		16	20
1,2-Dichloroethane	ND		4.2	20
1,2-Dichloropropane	ND		14	20
1,3-Dichlorobenzene	ND		16	20
1,4-Dichlorobenzene	ND		17	20
2-Hexanone	ND		25	100
2-Butanone (MEK)	ND		26	200
4-Methyl-2-pentanone (MIBK)	ND		42	100
Acetone	ND		60	200
Benzene	ND		8.2	20
Bromodichloromethane	ND		7.6	20
Bromoform	ND		5.2	20
Bromomethane	ND		14	20
Carbon disulfide	ND		3.8	20
Carbon tetrachloride	ND		5.4	20
Chlorobenzene	ND		15	20
Dibromochloromethane	ND		6.4	20
Chloroethane	ND		6.4	20
Chloroform	ND		6.8	20
Chloromethane	ND		7.0	20
cis-1,2-Dichloroethene	1200		16	20
cis-1,3-Dichloropropene	ND		7.2	20
Cyclohexane	ND		3.6	20
Dichlorodifluoromethane	ND		14	20
Ethylbenzene	ND		15	20
Isopropylbenzene	ND		16	20
Methyl acetate	ND		10	20
Methyl tert-butyl ether	280		3.2	20
Methylcyclohexane	ND		3.2	20
Methylene Chloride	ND		8.8	20
Styrene	ND		15	20
Tetrachloroethene	ND		7.2	20
Toluene	ND		10	20
trans-1,2-Dichloroethene	ND		18	20
trans-1,3-Dichloropropene	ND		7.4	20
Trichloroethene	ND		9.2	20
Trichlorofluoromethane	ND		18	20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4244.D
Dilution:	20		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1600	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1600		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	300		18	20
Xylenes, Total	ND		13	40

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4218.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0113		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0113		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	23		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	22		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND J		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND J		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	7400 ~~1700~~	~~E~~ D	0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	11		0.74	1.0
Isopropylbenzene	1.1		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	1100 ~~760~~	~~E~~ D	0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	0.76	J	0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	19		0.51	1.0
trans-1,2-Dichloroethene	44		0.90	1.0
trans-1,3-Dichloropropene	ND J		0.37	1.0
Trichloroethene	65		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4218.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0113		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0113		

Analyte		Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	1800	~~1300~~	~~E~~ D	0.90	1.0
Xylenes, Total		31		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5060.D
Dilution:	200		Initial Weight/Volume: 5 mL
Date Analyzed:	01/24/2011 2255	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/24/2011 2255		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		160	200
1,1,2,2-Tetrachloroethane	ND		42	200
1,1,2-Trichloroethane	ND		46	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		62	200
1,1-Dichloroethane	ND		76	200
1,1-Dichloroethene	ND		58	200
1,2,4-Trichlorobenzene	ND		82	200
1,2-Dibromo-3-Chloropropane	ND		78	200
1,2-Dibromoethane	ND		150	200
1,2-Dichlorobenzene	ND		160	200
1,2-Dichloroethane	ND		42	200
1,2-Dichloropropane	ND		140	200
1,3-Dichlorobenzene	ND		160	200
1,4-Dichlorobenzene	ND		170	200
2-Hexanone	ND		250	1000
2-Butanone (MEK)	ND		260	2000
4-Methyl-2-pentanone (MIBK)	ND		420	1000
Acetone	ND		600	2000
Benzene	ND		82	200
Bromodichloromethane	ND		76	200
Bromoform	ND		52	200
Bromomethane	ND		140	200
Carbon disulfide	ND		38	200
Carbon tetrachloride	ND		54	200
Chlorobenzene	ND		150	200
Dibromochloromethane	ND		64	200
Chloroethane	ND		64	200
Chloroform	ND		68	200
Chloromethane	ND		70	200
cis-1,2-Dichloroethene	7400		160	200
cis-1,3-Dichloropropene	ND		72	200
Cyclohexane	ND		36	200
Dichlorodifluoromethane	ND		140	200
Ethylbenzene	ND		150	200
Isopropylbenzene	ND		160	200
Methyl acetate	ND		100	200
Methyl tert-butyl ether	1100		32	200
Methylcyclohexane	ND		32	200
Methylene Chloride	150	J	88	200
Styrene	ND		150	200
Tetrachloroethene	ND		72	200
Toluene	ND		100	200
trans-1,2-Dichloroethene	ND		180	200
trans-1,3-Dichloropropene	ND		74	200
Trichloroethene	ND		92	200
Trichlorofluoromethane	ND		180	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5060.D
Dilution:	200		Initial Weight/Volume: 5 mL
Date Analyzed:	01/24/2011 2255	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/24/2011 2255		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	1800		180	200
Xylenes, Total	ND		130	400

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	90		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4219.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0136		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0136		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	2.3		0.38	1.0
1,1-Dichloroethene	23		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	25		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND J		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	12		0.19	1.0
Carbon tetrachloride	ND J		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	5700 ~~1600~~	~~E~~ D	0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	12		0.74	1.0
Isopropylbenzene	1.5		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	960 ~~700~~	~~E~~ D	0.16	1.0
Methylcyclohexane	5.0		0.16	1.0
Methylene Chloride	340 ~~260~~	~~E~~ D	0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	31		0.51	1.0
trans-1,2-Dichloroethene	58		0.90	1.0
trans-1,3-Dichloropropene	ND J		0.37	1.0
Trichloroethene	110 ~~110~~	~~E~~ D	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4219.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0136		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0136		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	5900 ~~2300~~	~~E~~ D	0.90	1.0
Xylenes, Total	40		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
Toluene-d8 (Surr)	102		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5063.D
Dilution:	100			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 0007	Run Type: DL		Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 0007				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		82	100
1,1,2,2-Tetrachloroethane	ND		21	100
1,1,2-Trichloroethane	ND		23	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		31	100
1,1-Dichloroethane	ND		38	100
1,1-Dichloroethene	ND		29	100
1,2,4-Trichlorobenzene	ND		41	100
1,2-Dibromo-3-Chloropropane	ND		39	100
1,2-Dibromoethane	ND		73	100
1,2-Dichlorobenzene	ND		79	100
1,2-Dichloroethane	ND		21	100
1,2-Dichloropropane	ND		72	100
1,3-Dichlorobenzene	ND		78	100
1,4-Dichlorobenzene	ND		84	100
2-Hexanone	ND		120	500
2-Butanone (MEK)	ND		130	1000
4-Methyl-2-pentanone (MIBK)	ND		210	500
Acetone	ND		300	1000
Benzene	ND		41	100
Bromodichloromethane	ND		38	100
Bromoform	ND		26	100
Bromomethane	ND		69	100
Carbon disulfide	ND		19	100
Carbon tetrachloride	ND		27	100
Chlorobenzene	ND		75	100
Dibromochloromethane	ND		32	100
Chloroethane	ND		32	100
Chloroform	ND		34	100
Chloromethane	ND		35	100
cis-1,2-Dichloroethene	5100		81	100
cis-1,3-Dichloropropene	ND		36	100
Cyclohexane	ND		18	100
Dichlorodifluoromethane	ND		68	100
Ethylbenzene	ND		74	100
Isopropylbenzene	ND		79	100
Methyl acetate	ND		50	100
Methyl tert-butyl ether	960		16	100
Methylcyclohexane	ND		16	100
Methylene Chloride	340		44	100
Styrene	ND		73	100
Tetrachloroethene	ND		36	100
Toluene	ND		51	100
trans-1,2-Dichloroethene	ND		90	100
trans-1,3-Dichloropropene	ND		37	100
Trichloroethene	110		46	100
Trichlorofluoromethane	ND		88	100

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5063.D
Dilution:	100		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0007	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0007		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	5900		90	100
Xylenes, Total	ND		66	200

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		66 - 137
Toluene-d8 (Surr)	93		71 - 126
4-Bromofluorobenzene (Surr)	89		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4220.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0159		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0159		

Analyte		Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.82	1.0
1,1,2,2-Tetrachloroethane		ND		0.21	1.0
1,1,2-Trichloroethane		0.57	J	0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.31	1.0
1,1-Dichloroethane		2.0		0.38	1.0
1,1-Dichloroethene		5.7		0.29	1.0
1,2,4-Trichlorobenzene		ND		0.41	1.0
1,2-Dibromo-3-Chloropropane		ND		0.39	1.0
1,2-Dibromoethane		ND		0.73	1.0
1,2-Dichlorobenzene		ND		0.79	1.0
1,2-Dichloroethane		ND		0.21	1.0
1,2-Dichloropropane		ND		0.72	1.0
1,3-Dichlorobenzene		ND		0.78	1.0
1,4-Dichlorobenzene		ND		0.84	1.0
2-Hexanone		ND		1.2	5.0
2-Butanone (MEK)		ND		1.3	10
4-Methyl-2-pentanone (MIBK)		ND		2.1	5.0
Acetone		ND		3.0	10
Benzene		9.5		0.41	1.0
Bromodichloromethane		ND		0.39	1.0
Bromoform		ND J		0.26	1.0
Bromomethane		ND		0.69	1.0
Carbon disulfide		1.2		0.19	1.0
Carbon tetrachloride		ND J		0.27	1.0
Chlorobenzene		ND		0.75	1.0
Dibromochloromethane		ND		0.32	1.0
Chloroethane		ND		0.32	1.0
Chloroform		ND		0.34	1.0
Chloromethane		ND		0.35	1.0
cis-1,2-Dichloroethene	3500	~~1500~~	~~E~~ D	0.81	1.0
cis-1,3-Dichloropropene		ND		0.36	1.0
Cyclohexane		1.8		0.18	1.0
Dichlorodifluoromethane		ND		0.68	1.0
Ethylbenzene		3.9		0.74	1.0
Isopropylbenzene		0.86	J	0.79	1.0
Methyl acetate		ND		0.50	1.0
Methyl tert-butyl ether		130	E J	0.16	1.0
Methylcyclohexane		0.94	J	0.16	1.0
Methylene Chloride	3700	~~1800~~	~~E~~ D	0.44	1.0
Styrene		ND		0.73	1.0
Tetrachloroethene		4.5		0.36	1.0
Toluene		24		0.51	1.0
trans-1,2-Dichloroethene		ND		0.90	1.0
trans-1,3-Dichloropropene		ND J		0.37	1.0
Trichloroethene	17000	~~2500~~	~~E~~ D	0.46	1.0
Trichlorofluoromethane		ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4220.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0159		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0159		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	140	E J	0.90	1.0
Xylenes, Total	16		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5064.D
Dilution:	400			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 0031	Run Type:	DL	Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 0031				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		330	400
1,1,2,2-Tetrachloroethane	ND		84	400
1,1,2-Trichloroethane	ND		92	400
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		120	400
1,1-Dichloroethane	ND		150	400
1,1-Dichloroethene	ND		120	400
1,2,4-Trichlorobenzene	ND		160	400
1,2-Dibromo-3-Chloropropane	ND		160	400
1,2-Dibromoethane	ND		290	400
1,2-Dichlorobenzene	ND		320	400
1,2-Dichloroethane	ND		84	400
1,2-Dichloropropane	ND		290	400
1,3-Dichlorobenzene	ND		310	400
1,4-Dichlorobenzene	ND		340	400
2-Hexanone	ND		500	2000
2-Butanone (MEK)	ND		530	4000
4-Methyl-2-pentanone (MIBK)	ND		840	2000
Acetone	ND		1200	4000
Benzene	ND		160	400
Bromodichloromethane	ND		150	400
Bromoform	ND		100	400
Bromomethane	ND		280	400
Carbon disulfide	ND		76	400
Carbon tetrachloride	ND		110	400
Chlorobenzene	ND		300	400
Dibromochloromethane	ND		130	400
Chloroethane	ND		130	400
Chloroform	ND		140	400
Chloromethane	ND		140	400
cis-1,2-Dichloroethene	3500		320	400
cis-1,3-Dichloropropene	ND		140	400
Cyclohexane	ND		72	400
Dichlorodifluoromethane	ND		270	400
Ethylbenzene	ND		300	400
Isopropylbenzene	ND		320	400
Methyl acetate	ND		200	400
Methyl tert-butyl ether	ND		64	400
Methylcyclohexane	ND		64	400
Methylene Chloride	3700		180	400
Styrene	ND		290	400
Tetrachloroethene	ND		140	400
Toluene	ND		200	400
trans-1,2-Dichloroethene	ND		360	400
trans-1,3-Dichloropropene	ND		150	400
Trichloroethene	17000		180	400
Trichlorofluoromethane	ND		350	400

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5064.D
Dilution:	400		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0031	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0031		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		360	400
Xylenes, Total	ND		260	800

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	89		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4248.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1733		Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1733		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	21		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	1.8		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	2.4		0.74	1.0
Isopropylbenzene	18		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	~~140~~ 100	~~E~~ D	0.16	1.0
Methylcyclohexane	2.3		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	2.6		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4248.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1733		Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1733		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	1.3	J	0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
Toluene-d8 (Surr)	102		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5065.D
Dilution:	2.0			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 0055	Run Type: DL		Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 0055				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1.6	2.0
1,1,2,2-Tetrachloroethane	ND		0.42	2.0
1,1,2-Trichloroethane	ND		0.46	2.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.62	2.0
1,1-Dichloroethane	ND		0.76	2.0
1,1-Dichloroethene	ND		0.58	2.0
1,2,4-Trichlorobenzene	ND		0.82	2.0
1,2-Dibromo-3-Chloropropane	ND		0.78	2.0
1,2-Dibromoethane	ND		1.5	2.0
1,2-Dichlorobenzene	ND		1.6	2.0
1,2-Dichloroethane	ND		0.42	2.0
1,2-Dichloropropane	ND		1.4	2.0
1,3-Dichlorobenzene	ND		1.6	2.0
1,4-Dichlorobenzene	ND		1.7	2.0
2-Hexanone	ND		2.5	10
2-Butanone (MEK)	ND		2.6	20
4-Methyl-2-pentanone (MIBK)	ND		4.2	10
Acetone	ND		6.0	20
Benzene	22		0.82	2.0
Bromodichloromethane	ND		0.76	2.0
Bromoform	ND		0.52	2.0
Bromomethane	ND		1.4	2.0
Carbon disulfide	ND		0.38	2.0
Carbon tetrachloride	ND		0.54	2.0
Chlorobenzene	ND		1.5	2.0
Dibromochloromethane	ND		0.64	2.0
Chloroethane	ND		0.64	2.0
Chloroform	ND		0.68	2.0
Chloromethane	ND		0.70	2.0
cis-1,2-Dichloroethene	ND		1.6	2.0
cis-1,3-Dichloropropene	ND		0.72	2.0
Cyclohexane	2.8		0.36	2.0
Dichlorodifluoromethane	ND		1.4	2.0
Ethylbenzene	2.9		1.5	2.0
Isopropylbenzene	20		1.6	2.0
Methyl acetate	ND		1.0	2.0
Methyl tert-butyl ether	100		0.32	2.0
Methylcyclohexane	2.8		0.32	2.0
Methylene Chloride	2.4		0.88	2.0
Styrene	ND		1.5	2.0
Tetrachloroethene	ND		0.72	2.0
Toluene	ND		1.0	2.0
trans-1,2-Dichloroethene	ND		1.8	2.0
trans-1,3-Dichloropropene	ND		0.74	2.0
Trichloroethene	2.5		0.92	2.0
Trichlorofluoromethane	ND		1.8	2.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5065.D
Dilution:	2.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0055	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0055		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		1.8	2.0
Xylenes, Total	1.6	J	1.3	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	99		71 - 126
4-Bromofluorobenzene (Surr)	95		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4249.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1756		Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1756		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	0.61	J	0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4249.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1756		Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1756		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	102		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4250.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1819		Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1819		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	1.0		0.74	1.0
Isopropylbenzene	1.3		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	13		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	0.65	J	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3447	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4250.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/23/2011 1819		Final Weight/Volume: 5 mL
Date Prepared:	01/23/2011 1819		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 480-1004-9TB

Client Matrix: Water

Date Sampled: 01/19/2011 0000

Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4224.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0332		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0332		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND J		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND J		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND J		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-1004-9TB
Client Matrix: Water

Date Sampled: 01/19/2011 0000
Date Received: 01/20/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3404	Instrument ID: HP5973N
Preparation:	5030B		Lab File ID: N4224.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 0332		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 0332		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	98		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3431	Instrument ID: HP5973S
Preparation:	5030B		Lab File ID: S0196.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 1635		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 1635		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	1.3		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	200 ~~180~~	E D	0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3431	Instrument ID: HP5973S
Preparation:	5030B		Lab File ID: S0196.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 1635		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 1635		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	7.8		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
Toluene-d8 (Surr)	101		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1

Client Matrix: Water

Date Sampled: 01/20/2011 0900

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5066.D
Dilution:	4.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0119	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0119		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	4.0
1,1,2,2-Tetrachloroethane	ND		0.84	4.0
1,1,2-Trichloroethane	ND		0.92	4.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	4.0
1,1-Dichloroethane	ND		1.5	4.0
1,1-Dichloroethene	ND		1.2	4.0
1,2,4-Trichlorobenzene	ND		1.6	4.0
1,2-Dibromo-3-Chloropropane	ND		1.6	4.0
1,2-Dibromoethane	ND		2.9	4.0
1,2-Dichlorobenzene	ND		3.2	4.0
1,2-Dichloroethane	ND		0.84	4.0
1,2-Dichloropropane	ND		2.9	4.0
1,3-Dichlorobenzene	ND		3.1	4.0
1,4-Dichlorobenzene	ND		3.4	4.0
2-Hexanone	ND		5.0	20
2-Butanone (MEK)	ND		5.3	40
4-Methyl-2-pentanone (MIBK)	ND		8.4	20
Acetone	ND		12	40
Benzene	ND		1.6	4.0
Bromodichloromethane	ND		1.5	4.0
Bromoform	ND		1.0	4.0
Bromomethane	ND		2.8	4.0
Carbon disulfide	2.0	J	0.76	4.0
Carbon tetrachloride	ND		1.1	4.0
Chlorobenzene	ND		3.0	4.0
Dibromochloromethane	ND		1.3	4.0
Chloroethane	ND		1.3	4.0
Chloroform	ND		1.4	4.0
Chloromethane	ND		1.4	4.0
cis-1,2-Dichloroethene	ND		3.2	4.0
cis-1,3-Dichloropropene	ND		1.4	4.0
Cyclohexane	ND		0.72	4.0
Dichlorodifluoromethane	ND		2.7	4.0
Ethylbenzene	ND		3.0	4.0
Isopropylbenzene	ND		3.2	4.0
Methyl acetate	ND		2.0	4.0
Methyl tert-butyl ether	200		0.64	4.0
Methylcyclohexane	ND		0.64	4.0
Methylene Chloride	4.1		1.8	4.0
Styrene	ND		2.9	4.0
Tetrachloroethene	ND		1.4	4.0
Toluene	ND		2.0	4.0
trans-1,2-Dichloroethene	ND		3.6	4.0
trans-1,3-Dichloropropene	ND		1.5	4.0
Trichloroethene	ND		1.8	4.0
Trichlorofluoromethane	ND		3.5	4.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1

Client Matrix: Water

Date Sampled: 01/20/2011 0900

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5066.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 0119	Run Type:	DL	Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 0119				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	8.8		3.6	4.0
Xylenes, Total	ND		2.6	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
Toluene-d8 (Surr)	93		71 - 126
4-Bromofluorobenzene (Surr)	92		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3431	Instrument ID: HP5973S
Preparation:	5030B		Lab File ID: S0197.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 1657		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 1657		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	1.2		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	190 ~~170~~	E D	0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3431	Instrument ID: HP5973S
Preparation:	5030B		Lab File ID: S0197.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/22/2011 1657		Final Weight/Volume: 5 mL
Date Prepared:	01/22/2011 1657		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	6.5		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		66 - 137
Toluene-d8 (Surr)	101		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5067.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 0143	Run Type: DL		Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 0143				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	4.0
1,1,2,2-Tetrachloroethane	ND		0.84	4.0
1,1,2-Trichloroethane	ND		0.92	4.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	4.0
1,1-Dichloroethane	ND		1.5	4.0
1,1-Dichloroethene	ND		1.2	4.0
1,2,4-Trichlorobenzene	ND		1.6	4.0
1,2-Dibromo-3-Chloropropane	ND		1.6	4.0
1,2-Dibromoethane	ND		2.9	4.0
1,2-Dichlorobenzene	ND		3.2	4.0
1,2-Dichloroethane	ND		0.84	4.0
1,2-Dichloropropane	ND		2.9	4.0
1,3-Dichlorobenzene	ND		3.1	4.0
1,4-Dichlorobenzene	ND		3.4	4.0
2-Hexanone	ND		5.0	20
2-Butanone (MEK)	ND		5.3	40
4-Methyl-2-pentanone (MIBK)	ND		8.4	20
Acetone	ND		12	40
Benzene	ND		1.6	4.0
Bromodichloromethane	ND		1.5	4.0
Bromoform	ND		1.0	4.0
Bromomethane	ND		2.8	4.0
Carbon disulfide	ND		0.76	4.0
Carbon tetrachloride	ND		1.1	4.0
Chlorobenzene	ND		3.0	4.0
Dibromochloromethane	ND		1.3	4.0
Chloroethane	ND		1.3	4.0
Chloroform	ND		1.4	4.0
Chloromethane	ND		1.4	4.0
cis-1,2-Dichloroethene	ND		3.2	4.0
cis-1,3-Dichloropropene	ND		1.4	4.0
Cyclohexane	ND		0.72	4.0
Dichlorodifluoromethane	ND		2.7	4.0
Ethylbenzene	ND		3.0	4.0
Isopropylbenzene	ND		3.2	4.0
Methyl acetate	ND		2.0	4.0
Methyl tert-butyl ether	190		0.64	4.0
Methylcyclohexane	ND		0.64	4.0
Methylene Chloride	4.3		1.8	4.0
Styrene	ND		2.9	4.0
Tetrachloroethene	ND		1.4	4.0
Toluene	ND		2.0	4.0
trans-1,2-Dichloroethene	ND		3.6	4.0
trans-1,3-Dichloropropene	ND		1.5	4.0
Trichloroethene	ND		1.8	4.0
Trichlorofluoromethane	ND		3.5	4.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD

Client Matrix: Water

Date Sampled: 01/20/2011 0000

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5067.D
Dilution:	4.0			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 0143	Run Type: DL		Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 0143				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	8.2		3.6	4.0
Xylenes, Total	ND		2.6	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	92		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 25
Date Analyzed: 01/25/2011 0207
Date Prepared: 01/25/2011 0207

Analysis Batch: 480-3556

Instrument ID: HP5975T
Lab File ID: T5068.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte		Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		21	25
1,1,2,2-Tetrachloroethane		ND		5.3	25
1,1,2-Trichloroethane		ND		5.8	25
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		7.8	25
1,1-Dichloroethane		25		9.5	25
1,1-Dichloroethene		300		7.3	25
1,2,4-Trichlorobenzene		ND		10	25
1,2-Dibromo-3-Chloropropane		ND		9.8	25
1,2-Dibromoethane		ND		18	25
1,2-Dichlorobenzene		ND		20	25
1,2-Dichloroethane		ND		5.3	25
1,2-Dichloropropane		ND		18	25
1,3-Dichlorobenzene		ND		20	25
1,4-Dichlorobenzene		ND		21	25
2-Hexanone		ND		31	130
2-Butanone (MEK)		ND		33	250
4-Methyl-2-pentanone (MIBK)		ND		53	130
Acetone		ND		75	250
Benzene		260		10	25
Bromodichloromethane		ND		9.5	25
Bromoform		ND		6.5	25
Bromomethane		ND		17	25
Carbon disulfide		27		4.8	25
Carbon tetrachloride		ND		6.8	25
Chlorobenzene		ND		19	25
Dibromochloromethane		ND		8.0	25
Chloroethane		ND		8.0	25
Chloroform		ND		8.5	25
Chloromethane		ND		8.8	25
cis-1,2-Dichloroethene	240000	~~92000~~	~~E~~ D	20	25
cis-1,3-Dichloropropene		ND		9.0	25
Cyclohexane		85		4.5	25
Dichlorodifluoromethane		ND		17	25
Ethylbenzene		250		19	25
Isopropylbenzene		24	J	20	25
Methyl acetate		ND		13	25
Methyl tert-butyl ether		1900		4.0	25
Methylcyclohexane		80		4.0	25
Methylene Chloride		810		11	25
Styrene		ND		18	25
Tetrachloroethene		ND		9.0	25
Toluene		590		13	25
trans-1,2-Dichloroethene		ND		23	25
trans-1,3-Dichloropropene		ND		9.3	25
Trichloroethene	58000	~~50000~~	~~E~~ D	12	25
Trichlorofluoromethane		ND		22	25

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5068.D
Dilution:	25		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0207		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0207		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	20000 ~~19000~~	~~E~~ D	23	25
Xylenes, Total	560		17	50

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	90		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3708		Instrument ID:	HP5975T
Preparation:	5030B			Lab File ID:	T5114.D
Dilution:	4000			Initial Weight/Volume:	5 mL
Date Analyzed:	01/25/2011 2339	Run Type: DL		Final Weight/Volume:	5 mL
Date Prepared:	01/25/2011 2339				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3300	4000
1,1,2,2-Tetrachloroethane	ND		840	4000
1,1,2-Trichloroethane	ND		920	4000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1200	4000
1,1-Dichloroethane	ND		1500	4000
1,1-Dichloroethene	ND		1200	4000
1,2,4-Trichlorobenzene	ND		1600	4000
1,2-Dibromo-3-Chloropropane	ND		1600	4000
1,2-Dibromoethane	ND		2900	4000
1,2-Dichlorobenzene	ND		3200	4000
1,2-Dichloroethane	ND		840	4000
1,2-Dichloropropane	ND		2900	4000
1,3-Dichlorobenzene	ND		3100	4000
1,4-Dichlorobenzene	ND		3400	4000
2-Hexanone	ND		5000	20000
2-Butanone (MEK)	ND		5300	40000
4-Methyl-2-pentanone (MIBK)	ND		8400	20000
Acetone	ND		12000	40000
Benzene	ND		1600	4000
Bromodichloromethane	ND		1500	4000
Bromoform	ND		1000	4000
Bromomethane	ND		2800	4000
Carbon disulfide	ND		760	4000
Carbon tetrachloride	ND		1100	4000
Chlorobenzene	ND		3000	4000
Dibromochloromethane	ND		1300	4000
Chloroethane	ND		1300	4000
Chloroform	ND		1400	4000
Chloromethane	ND		1400	4000
cis-1,2-Dichloroethene	240000		3200	4000
cis-1,3-Dichloropropene	ND		1400	4000
Cyclohexane	ND		720	4000
Dichlorodifluoromethane	ND		2700	4000
Ethylbenzene	ND		3000	4000
Isopropylbenzene	ND		3200	4000
Methyl acetate	ND		2000	4000
Methyl tert-butyl ether	ND		640	4000
Methylcyclohexane	ND		640	4000
Methylene Chloride	ND		1800	4000
Styrene	ND		2900	4000
Tetrachloroethene	ND		1400	4000
Toluene	ND		2000	4000
trans-1,2-Dichloroethene	ND		3600	4000
trans-1,3-Dichloropropene	ND		1500	4000
Trichloroethene	58000		1800	4000
Trichlorofluoromethane	ND		3500	4000

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3

Client Matrix: Water

Date Sampled: 01/20/2011 0856

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3708	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5114.D
Dilution:	4000		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 2339	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 2339		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	20000		3600	4000
Xylenes, Total	ND		2600	8000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	90		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5088.D
Dilution:	4.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1223		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1223		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		3.3	4.0
1,1,2,2-Tetrachloroethane	ND		0.84	4.0
1,1,2-Trichloroethane	ND		0.92	4.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.2	4.0
1,1-Dichloroethane	ND		1.5	4.0
1,1-Dichloroethene	ND		1.2	4.0
1,2,4-Trichlorobenzene	ND		1.6	4.0
1,2-Dibromo-3-Chloropropane	ND		1.6	4.0
1,2-Dibromoethane	ND		2.9	4.0
1,2-Dichlorobenzene	ND		3.2	4.0
1,2-Dichloroethane	ND		0.84	4.0
1,2-Dichloropropane	ND		2.9	4.0
1,3-Dichlorobenzene	ND		3.1	4.0
1,4-Dichlorobenzene	ND		3.4	4.0
2-Hexanone	ND		5.0	20
2-Butanone (MEK)	ND		5.3	40
4-Methyl-2-pentanone (MIBK)	ND		8.4	20
Acetone	ND		12	40
Benzene	ND		1.6	4.0
Bromodichloromethane	ND		1.5	4.0
Bromoform	ND		1.0	4.0
Bromomethane	ND		2.8	4.0
Carbon disulfide	ND		0.76	4.0
Carbon tetrachloride	ND		1.1	4.0
Chlorobenzene	ND		3.0	4.0
Dibromochloromethane	ND		1.3	4.0
Chloroethane	ND		1.3	4.0
Chloroform	ND		1.4	4.0
Chloromethane	ND		1.4	4.0
cis-1,2-Dichloroethene	22		3.2	4.0
cis-1,3-Dichloropropene	ND		1.4	4.0
Cyclohexane	49		0.72	4.0
Dichlorodifluoromethane	ND		2.7	4.0
Ethylbenzene	25		3.0	4.0
Isopropylbenzene	6.3		3.2	4.0
Methyl acetate	ND		2.0	4.0
Methyl tert-butyl ether	6.7		0.64	4.0
Methylcyclohexane	31		0.64	4.0
Methylene Chloride	ND		1.8	4.0
Styrene	ND		2.9	4.0
Tetrachloroethene	ND		1.4	4.0
Toluene	8.6		2.0	4.0
trans-1,2-Dichloroethene	ND		3.6	4.0
trans-1,3-Dichloropropene	ND		1.5	4.0
Trichloroethene	2.6	J	1.8	4.0
Trichlorofluoromethane	ND		3.5	4.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5088.D
Dilution:	4.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1223		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1223		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	13		3.6	4.0
Xylenes, Total	70		2.6	8.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	94		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5070.D
Dilution:	200		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0254		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0254		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		160	200
1,1,2,2-Tetrachloroethane	ND		42	200
1,1,2-Trichloroethane	ND		46	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		62	200
1,1-Dichloroethane	ND		76	200
1,1-Dichloroethene	ND		58	200
1,2,4-Trichlorobenzene	ND		82	200
1,2-Dibromo-3-Chloropropane	ND		78	200
1,2-Dibromoethane	ND		150	200
1,2-Dichlorobenzene	ND		160	200
1,2-Dichloroethane	ND		42	200
1,2-Dichloropropane	ND		140	200
1,3-Dichlorobenzene	ND		160	200
1,4-Dichlorobenzene	ND		170	200
2-Hexanone	ND		250	1000
2-Butanone (MEK)	ND		260	2000
4-Methyl-2-pentanone (MIBK)	ND		420	1000
Acetone	ND		600	2000
Benzene	ND		82	200
Bromodichloromethane	ND		76	200
Bromoform	ND		52	200
Bromomethane	ND		140	200
Carbon disulfide	ND		38	200
Carbon tetrachloride	ND		54	200
Chlorobenzene	ND		150	200
Dibromochloromethane	ND		64	200
Chloroethane	ND		64	200
Chloroform	ND		68	200
Chloromethane	ND		70	200
cis-1,2-Dichloroethene	98000 ~~88000~~	~~E~~ D	160	200
cis-1,3-Dichloropropene	ND		72	200
Cyclohexane	120	J	36	200
Dichlorodifluoromethane	ND		140	200
Ethylbenzene	ND		150	200
Isopropylbenzene	ND		160	200
Methyl acetate	ND		100	200
Methyl tert-butyl ether	890		32	200
Methylcyclohexane	130	J	32	200
Methylene Chloride	830		88	200
Styrene	ND		150	200
Tetrachloroethene	ND		72	200
Toluene	190	J	100	200
trans-1,2-Dichloroethene	ND		180	200
trans-1,3-Dichloropropene	ND		74	200
Trichloroethene	1900		92	200
Trichlorofluoromethane	ND		180	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5070.D
Dilution:	200		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0254		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0254		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	12000		180	200
Xylenes, Total	170	J	130	400

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	93		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5

Client Matrix: Water

Date Sampled: 01/20/2011 1120

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5089.D
Dilution:	2000		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1246	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1246		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		1600	2000
1,1,2,2-Tetrachloroethane	ND		420	2000
1,1,2-Trichloroethane	ND		460	2000
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		620	2000
1,1-Dichloroethane	ND		760	2000
1,1-Dichloroethene	ND		580	2000
1,2,4-Trichlorobenzene	ND		820	2000
1,2-Dibromo-3-Chloropropane	ND		780	2000
1,2-Dibromoethane	ND		1500	2000
1,2-Dichlorobenzene	ND		1600	2000
1,2-Dichloroethane	ND		420	2000
1,2-Dichloropropane	ND		1400	2000
1,3-Dichlorobenzene	ND		1600	2000
1,4-Dichlorobenzene	ND		1700	2000
2-Hexanone	ND		2500	10000
2-Butanone (MEK)	ND		2600	20000
4-Methyl-2-pentanone (MIBK)	ND		4200	10000
Acetone	ND		6000	20000
Benzene	ND		820	2000
Bromodichloromethane	ND		760	2000
Bromoform	ND		520	2000
Bromomethane	ND		1400	2000
Carbon disulfide	ND		380	2000
Carbon tetrachloride	ND		540	2000
Chlorobenzene	ND		1500	2000
Dibromochloromethane	ND		640	2000
Chloroethane	ND		640	2000
Chloroform	ND		680	2000
Chloromethane	ND		700	2000
cis-1,2-Dichloroethene	98000		1600	2000
cis-1,3-Dichloropropene	ND		720	2000
Cyclohexane	ND		360	2000
Dichlorodifluoromethane	ND		1400	2000
Ethylbenzene	ND		1500	2000
Isopropylbenzene	ND		1600	2000
Methyl acetate	ND		1000	2000
Methyl tert-butyl ether	1200	J	320	2000
Methylcyclohexane	ND		320	2000
Methylene Chloride	1700	J	880	2000
Styrene	ND		1500	2000
Tetrachloroethene	ND		720	2000
Toluene	ND		1000	2000
trans-1,2-Dichloroethene	ND		1800	2000
trans-1,3-Dichloropropene	ND		740	2000
Trichloroethene	1800	J	920	2000
Trichlorofluoromethane	ND		1800	2000

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5089.D
Dilution:	2000		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1246	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1246		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	13000		1800	2000
Xylenes, Total	ND		1300	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5090.D
Dilution:	20		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1310		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1310		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		16	20
1,1,2,2-Tetrachloroethane	ND		4.2	20
1,1,2-Trichloroethane	ND		4.6	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	20
1,1-Dichloroethane	ND		7.6	20
1,1-Dichloroethene	ND		5.8	20
1,2,4-Trichlorobenzene	ND		8.2	20
1,2-Dibromo-3-Chloropropane	ND		7.8	20
1,2-Dibromoethane	ND		15	20
1,2-Dichlorobenzene	ND		16	20
1,2-Dichloroethane	ND		4.2	20
1,2-Dichloropropane	ND		14	20
1,3-Dichlorobenzene	ND		16	20
1,4-Dichlorobenzene	ND		17	20
2-Hexanone	ND		25	100
2-Butanone (MEK)	ND		26	200
4-Methyl-2-pentanone (MIBK)	ND		42	100
Acetone	ND		60	200
Benzene	ND		8.2	20
Bromodichloromethane	ND		7.6	20
Bromoform	ND		5.2	20
Bromomethane	ND		14	20
Carbon disulfide	ND		3.8	20
Carbon tetrachloride	ND		5.4	20
Chlorobenzene	ND		15	20
Dibromochloromethane	ND		6.4	20
Chloroethane	ND		6.4	20
Chloroform	ND		6.8	20
Chloromethane	ND		7.0	20
cis-1,2-Dichloroethene	62		16	20
cis-1,3-Dichloropropene	ND		7.2	20
Cyclohexane	210		3.6	20
Dichlorodifluoromethane	ND		14	20
Ethylbenzene	1300		15	20
Isopropylbenzene	130		16	20
Methyl acetate	ND		10	20
Methyl tert-butyl ether	ND		3.2	20
Methylcyclohexane	130		3.2	20
Methylene Chloride	ND		8.8	20
Styrene	ND		15	20
Tetrachloroethene	ND		7.2	20
Toluene	69		10	20
trans-1,2-Dichloroethene	ND		18	20
trans-1,3-Dichloropropene	ND		7.4	20
Trichloroethene	ND		9.2	20
Trichlorofluoromethane	ND		18	20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5090.D
Dilution:	20		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1310		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1310		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	26		18	20
Xylenes, Total	7200 ~~6700~~	~~E~~ D	13	40

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		66 - 137
Toluene-d8 (Surr)	100		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3708	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5115.D
Dilution:	40		Initial Weight/Volume: 5 mL
Date Analyzed:	01/26/2011 0002	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/26/2011 0002		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		33	40
1,1,2,2-Tetrachloroethane	ND		8.4	40
1,1,2-Trichloroethane	ND		9.2	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		12	40
1,1-Dichloroethane	ND		15	40
1,1-Dichloroethene	ND		12	40
1,2,4-Trichlorobenzene	ND		16	40
1,2-Dibromo-3-Chloropropane	ND		16	40
1,2-Dibromoethane	ND		29	40
1,2-Dichlorobenzene	ND		32	40
1,2-Dichloroethane	ND		8.4	40
1,2-Dichloropropane	ND		29	40
1,3-Dichlorobenzene	ND		31	40
1,4-Dichlorobenzene	ND		34	40
2-Hexanone	ND		50	200
2-Butanone (MEK)	ND		53	400
4-Methyl-2-pentanone (MIBK)	ND		84	200
Acetone	ND		120	400
Benzene	ND		16	40
Bromodichloromethane	ND		15	40
Bromoform	ND		10	40
Bromomethane	ND		28	40
Carbon disulfide	ND		7.6	40
Carbon tetrachloride	ND		11	40
Chlorobenzene	ND		30	40
Dibromochloromethane	ND		13	40
Chloroethane	ND		13	40
Chloroform	ND		14	40
Chloromethane	ND		14	40
cis-1,2-Dichloroethene	64		32	40
cis-1,3-Dichloropropene	ND		14	40
Cyclohexane	170		7.2	40
Dichlorodifluoromethane	ND		27	40
Ethylbenzene	1400		30	40
Isopropylbenzene	140		32	40
Methyl acetate	ND		20	40
Methyl tert-butyl ether	ND		6.4	40
Methylcyclohexane	100		6.4	40
Methylene Chloride	ND		18	40
Styrene	ND		29	40
Tetrachloroethene	ND		14	40
Toluene	80		20	40
trans-1,2-Dichloroethene	ND		36	40
trans-1,3-Dichloropropene	ND		15	40
Trichloroethene	ND		18	40
Trichlorofluoromethane	ND		35	40

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6

Client Matrix: Water

Date Sampled: 01/20/2011 1430

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3708	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5115.D
Dilution:	40		Initial Weight/Volume: 5 mL
Date Analyzed:	01/26/2011 0002	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/26/2011 0002		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		36	40
Xylenes, Total	7200		26	80

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	94		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5072.D
Dilution:	200		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0342		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0342		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		160	200
1,1,2,2-Tetrachloroethane	ND		42	200
1,1,2-Trichloroethane	ND		46	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		62	200
1,1-Dichloroethane	ND		76	200
1,1-Dichloroethene	ND		58	200
1,2,4-Trichlorobenzene	ND		82	200
1,2-Dibromo-3-Chloropropane	ND		78	200
1,2-Dibromoethane	ND		150	200
1,2-Dichlorobenzene	ND		160	200
1,2-Dichloroethane	ND		42	200
1,2-Dichloropropane	ND		140	200
1,3-Dichlorobenzene	ND		160	200
1,4-Dichlorobenzene	ND		170	200
2-Hexanone	ND		250	1000
2-Butanone (MEK)	ND		260	2000
4-Methyl-2-pentanone (MIBK)	ND		420	1000
Acetone	ND		600	2000
Benzene	ND		82	200
Bromodichloromethane	ND		76	200
Bromoform	ND		52	200
Bromomethane	ND		140	200
Carbon disulfide	ND		38	200
Carbon tetrachloride	ND		54	200
Chlorobenzene	ND		150	200
Dibromochloromethane	ND		64	200
Chloroethane	ND		64	200
Chloroform	ND		68	200
Chloromethane	ND		70	200
cis-1,2-Dichloroethene	29000 ~~29000~~	~~E~~ D	160	200
cis-1,3-Dichloropropene	ND		72	200
Cyclohexane	ND		36	200
Dichlorodifluoromethane	ND		140	200
Ethylbenzene	ND		150	200
Isopropylbenzene	ND		160	200
Methyl acetate	ND		100	200
Methyl tert-butyl ether	790		32	200
Methylcyclohexane	ND		32	200
Methylene Chloride	1700		88	200
Styrene	ND		150	200
Tetrachloroethene	ND		72	200
Toluene	110	J	100	200
trans-1,2-Dichloroethene	ND		180	200
trans-1,3-Dichloropropene	ND		74	200
Trichloroethene	110	J	92	200
Trichlorofluoromethane	ND		180	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3556	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5072.D
Dilution:	200		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 0342		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 0342		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	10000		180	200
Xylenes, Total	ND		130	400

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		66 - 137
Toluene-d8 (Surr)	96		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5091.D
Dilution:	500		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1334	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1334		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		410	500
1,1,2,2-Tetrachloroethane	ND		110	500
1,1,2-Trichloroethane	ND		120	500
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		160	500
1,1-Dichloroethane	ND		190	500
1,1-Dichloroethene	ND		150	500
1,2,4-Trichlorobenzene	ND		210	500
1,2-Dibromo-3-Chloropropane	ND		200	500
1,2-Dibromoethane	ND		370	500
1,2-Dichlorobenzene	ND		400	500
1,2-Dichloroethane	ND		110	500
1,2-Dichloropropane	ND		360	500
1,3-Dichlorobenzene	ND		390	500
1,4-Dichlorobenzene	ND		420	500
2-Hexanone	ND		620	2500
2-Butanone (MEK)	ND		660	5000
4-Methyl-2-pentanone (MIBK)	ND		1100	2500
Acetone	ND		1500	5000
Benzene	ND		210	500
Bromodichloromethane	ND		190	500
Bromoform	ND		130	500
Bromomethane	ND		350	500
Carbon disulfide	ND		95	500
Carbon tetrachloride	ND		140	500
Chlorobenzene	ND		380	500
Dibromochloromethane	ND		160	500
Chloroethane	ND		160	500
Chloroform	ND		170	500
Chloromethane	ND		180	500
cis-1,2-Dichloroethene	29000		410	500
cis-1,3-Dichloropropene	ND		180	500
Cyclohexane	ND		90	500
Dichlorodifluoromethane	ND		340	500
Ethylbenzene	ND		370	500
Isopropylbenzene	ND		400	500
Methyl acetate	ND		250	500
Methyl tert-butyl ether	830		80	500
Methylcyclohexane	ND		80	500
Methylene Chloride	1700		220	500
Styrene	ND		370	500
Tetrachloroethene	ND		180	500
Toluene	ND		260	500
trans-1,2-Dichloroethene	ND		450	500
trans-1,3-Dichloropropene	ND		190	500
Trichloroethene	ND		230	500
Trichlorofluoromethane	ND		440	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5091.D
Dilution:	500		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1334	Run Type: DL	Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1334		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	11000		450	500
Xylenes, Total	ND		330	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
Toluene-d8 (Surr)	100		71 - 126
4-Bromofluorobenzene (Surr)	96		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: TB-3-012011

Lab Sample ID: 480-1054-8TB

Client Matrix: Water

Date Sampled: 01/20/2011 0000

Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5092.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1358		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1358		

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Hexanone	ND		1.2	5.0
2-Butanone (MEK)	ND		1.3	10
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.38	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	0.76	J	0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **TB-3-012011**

Lab Sample ID: 480-1054-8TB
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5092.D
Dilution:	1.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1358		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1358		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	116		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	100		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 8.0
Date Analyzed: 01/25/2011 1421
Date Prepared: 01/25/2011 1421

Analysis Batch: 480-3600

Instrument ID: HP5975T
Lab File ID: T5093.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		6.6	8.0
1,1,2,2-Tetrachloroethane	ND		1.7	8.0
1,1,2-Trichloroethane	ND		1.8	8.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	8.0
1,1-Dichloroethane	ND		3.0	8.0
1,1-Dichloroethene	ND		2.3	8.0
1,2,4-Trichlorobenzene	ND		3.3	8.0
1,2-Dibromo-3-Chloropropane	ND		3.1	8.0
1,2-Dibromoethane	ND		5.8	8.0
1,2-Dichlorobenzene	ND		6.3	8.0
1,2-Dichloroethane	ND		1.7	8.0
1,2-Dichloropropane	ND		5.8	8.0
1,3-Dichlorobenzene	ND		6.2	8.0
1,4-Dichlorobenzene	ND		6.7	8.0
2-Hexanone	ND		9.9	40
2-Butanone (MEK)	ND		11	80
4-Methyl-2-pentanone (MIBK)	ND		17	40
Acetone	34	J	24	80
Benzene	510		3.3	8.0
Bromodichloromethane	ND		3.0	8.0
Bromoform	ND		2.1	8.0
Bromomethane	ND		5.5	8.0
Carbon disulfide	ND		1.5	8.0
Carbon tetrachloride	ND		2.2	8.0
Chlorobenzene	ND		6.0	8.0
Dibromochloromethane	ND		2.6	8.0
Chloroethane	ND		2.6	8.0
Chloroform	ND		2.7	8.0
Chloromethane	ND		2.8	8.0
cis-1,2-Dichloroethene	ND		6.5	8.0
cis-1,3-Dichloropropene	ND		2.9	8.0
Cyclohexane	130		1.4	8.0
Dichlorodifluoromethane	ND		5.4	8.0
Ethylbenzene	140		5.9	8.0
Isopropylbenzene	110		6.3	8.0
Methyl acetate	ND		4.0	8.0
Methyl tert-butyl ether	26		1.3	8.0
Methylcyclohexane	50		1.3	8.0
Methylene Chloride	ND		3.5	8.0
Styrene	ND		5.8	8.0
Tetrachloroethene	ND		2.9	8.0
Toluene	36		4.1	8.0
trans-1,2-Dichloroethene	ND		7.2	8.0
trans-1,3-Dichloropropene	ND		3.0	8.0
Trichloroethene	ND		3.7	8.0
Trichlorofluoromethane	ND		7.0	8.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 480-3600	Instrument ID: HP5975T
Preparation:	5030B		Lab File ID: T5093.D
Dilution:	8.0		Initial Weight/Volume: 5 mL
Date Analyzed:	01/25/2011 1421		Final Weight/Volume: 5 mL
Date Prepared:	01/25/2011 1421		

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		7.2	8.0
Xylenes, Total	100		5.3	16

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
Toluene-d8 (Surr)	99		71 - 126
4-Bromofluorobenzene (Surr)	97		73 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3435		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3317		Lab File ID:	V5275.D
Dilution:	1.0			Initial Weight/Volume:	970 mL
Date Analyzed:	01/24/2011 1213			Final Weight/Volume:	1 mL
Date Prepared:	01/21/2011 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.67	5.2
bis (2-chloroisopropyl) ether	ND		0.54	5.2
2,4,5-Trichlorophenol	ND		0.49	5.2
2,4,6-Trichlorophenol	ND		0.63	5.2
2,4-Dichlorophenol	ND		0.53	5.2
2,4-Dimethylphenol	ND		0.52	5.2
2,4-Dinitrophenol	ND		2.3	10
2,4-Dinitrotoluene	ND		0.46	5.2
2,6-Dinitrotoluene	ND		0.41	5.2
2-Chloronaphthalene	ND		0.47	5.2
2-Chlorophenol	ND		0.55	5.2
2-Methylnaphthalene	ND		0.62	5.2
2-Methylphenol	ND		0.41	5.2
2-Nitroaniline	ND		0.43	10
2-Nitrophenol	ND		0.49	5.2
3,3'-Dichlorobenzidine	ND		0.41	5.2
3-Nitroaniline	ND		0.49	10
4,6-Dinitro-2-methylphenol	ND		2.3	10
4-Bromophenyl phenyl ether	ND		0.46	5.2
4-Chloro-3-methylphenol	ND		0.46	5.2
4-Chloroaniline	ND		0.61	5.2
4-Chlorophenyl phenyl ether	ND		0.36	5.2
4-Methylphenol	ND		0.37	10
4-Nitroaniline	ND		0.26	10
4-Nitrophenol	ND		1.6	10
Acenaphthene	ND		0.42	5.2
Acenaphthylene	ND		0.39	5.2
Acetophenone	ND		0.56	5.2
Anthracene	ND		0.29	5.2
Atrazine	ND		0.47	5.2
Benzaldehyde	ND		0.28	5.2
Benzo(a)anthracene	ND		0.37	5.2
Benzo(a)pyrene	ND		0.48	5.2
Benzo(b)fluoranthene	ND		0.35	5.2
Benzo(g,h,i)perylene	ND		0.36	5.2
Benzo(k)fluoranthene	ND		0.75	5.2
Bis(2-chloroethoxy)methane	ND		0.36	5.2
Bis(2-chloroethyl)ether	ND		0.41	5.2
Bis(2-ethylhexyl) phthalate	ND		1.9	5.2
Butyl benzyl phthalate	ND		0.43	5.2
Caprolactam	ND		2.3	5.2
Carbazole	ND		0.31	5.2
Chrysene	ND		0.34	5.2
Di-n-butyl phthalate	ND		0.32	5.2
Di-n-octyl phthalate	ND		0.48	5.2
Dibenz(a,h)anthracene	ND		0.43	5.2

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3435		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3317		Lab File ID:	V5275.D
Dilution:	1.0			Initial Weight/Volume:	970 mL
Date Analyzed:	01/24/2011 1213			Final Weight/Volume:	1 mL
Date Prepared:	01/21/2011 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.53	10
Diethyl phthalate	ND		0.23	5.2
Dimethyl phthalate	ND		0.37	5.2
Fluoranthene	ND		0.41	5.2
Fluorene	ND		0.37	5.2
Hexachlorobenzene	ND		0.53	5.2
Hexachlorobutadiene	ND		0.70	5.2
Hexachlorocyclopentadiene	ND		0.61	5.2
Hexachloroethane	ND		0.61	5.2
Indeno(1,2,3-cd)pyrene	ND		0.48	5.2
Isophorone	ND		0.44	5.2
N-Nitrosodi-n-propylamine	ND		0.56	5.2
N-Nitrosodiphenylamine	ND		0.53	5.2
Naphthalene	ND		0.78	5.2
Nitrobenzene	ND		0.30	5.2
Pentachlorophenol	ND		2.3	10
Phenanthrene	ND		0.45	5.2
Phenol	ND		0.40	5.2
Pyrene	ND		0.35	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	103		52 - 132
2-Fluorobiphenyl	58		48 - 120
2-Fluorophenol	40		20 - 120
Nitrobenzene-d5	62		46 - 120
p-Terphenyl-d14	62		24 - 136
Phenol-d5	32		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3435		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3317		Lab File ID:	V5279.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	01/24/2011 1420			Final Weight/Volume:	1 mL
Date Prepared:	01/21/2011 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.58	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.50	4.8
2-Methylnaphthalene	ND		0.57	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.56	4.8
4-Chlorophenyl phenyl ether	ND		0.33	4.8
4-Methylphenol	47		0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	ND		0.39	4.8
Acenaphthylene	ND		0.36	4.8
Acetophenone	1.1	J	0.51	4.8
Anthracene	ND		0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.25	4.8
Benzo(a)anthracene	ND		0.34	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.32	4.8
Benzo(g,h,i)perylene	ND		0.33	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.33	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	ND		0.29	4.8
Chrysene	ND		0.31	4.8
Di-n-butyl phthalate	0.48	J	0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3435		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3317		Lab File ID:	V5279.D
Dilution:	1.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	01/24/2011 1420			Final Weight/Volume:	1 mL
Date Prepared:	01/21/2011 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.49	9.5
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.34	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	ND		0.34	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.56	4.8
Hexachloroethane	ND		0.56	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.51	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	1.7	J	0.72	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	ND		0.42	4.8
Phenol	8.4		0.37	4.8
Pyrene	ND		0.32	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	104		52 - 132
2-Fluorobiphenyl	61		48 - 120
2-Fluorophenol	40		20 - 120
Nitrobenzene-d5	66		46 - 120
p-Terphenyl-d14	64		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3435		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3317		Lab File ID:	V5277.D
Dilution:	1.0			Initial Weight/Volume:	950 mL
Date Analyzed:	01/24/2011 1300			Final Weight/Volume:	1 mL
Date Prepared:	01/21/2011 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.69	5.3
bis (2-chloroisopropyl) ether	ND		0.55	5.3
2,4,5-Trichlorophenol	ND		0.51	5.3
2,4,6-Trichlorophenol	ND		0.64	5.3
2,4-Dichlorophenol	ND		0.54	5.3
2,4-Dimethylphenol	ND		0.53	5.3
2,4-Dinitrophenol	ND		2.3	11
2,4-Dinitrotoluene	ND		0.47	5.3
2,6-Dinitrotoluene	ND		0.42	5.3
2-Chloronaphthalene	ND		0.48	5.3
2-Chlorophenol	ND		0.56	5.3
2-Methylnaphthalene	ND		0.63	5.3
2-Methylphenol	ND		0.42	5.3
2-Nitroaniline	ND		0.44	11
2-Nitrophenol	ND		0.51	5.3
3,3'-Dichlorobenzidine	ND		0.42	5.3
3-Nitroaniline	ND		0.51	11
4,6-Dinitro-2-methylphenol	ND		2.3	11
4-Bromophenyl phenyl ether	ND		0.47	5.3
4-Chloro-3-methylphenol	ND		0.47	5.3
4-Chloroaniline	ND		0.62	5.3
4-Chlorophenyl phenyl ether	ND		0.37	5.3
4-Methylphenol	ND		0.38	11
4-Nitroaniline	ND		0.26	11
4-Nitrophenol	ND		1.6	11
Acenaphthene	ND		0.43	5.3
Acenaphthylene	ND		0.40	5.3
Acetophenone	ND		0.57	5.3
Anthracene	ND		0.29	5.3
Atrazine	ND		0.48	5.3
Benzaldehyde	ND		0.28	5.3
Benzo(a)anthracene	ND		0.38	5.3
Benzo(a)pyrene	ND		0.49	5.3
Benzo(b)fluoranthene	ND		0.36	5.3
Benzo(g,h,i)perylene	ND		0.37	5.3
Benzo(k)fluoranthene	ND		0.77	5.3
Bis(2-chloroethoxy)methane	ND		0.37	5.3
Bis(2-chloroethyl)ether	ND		0.42	5.3
Bis(2-ethylhexyl) phthalate	ND		1.9	5.3
Butyl benzyl phthalate	ND		0.44	5.3
Caprolactam	14		2.3	5.3
Carbazole	ND		0.32	5.3
Chrysene	ND		0.35	5.3
Di-n-butyl phthalate	0.44	J	0.33	5.3
Di-n-octyl phthalate	ND		0.49	5.3
Dibenz(a,h)anthracene	ND		0.44	5.3

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3435		Instrument ID:	HP5973V
Preparation:	3510C	Prep Batch: 480-3317		Lab File ID:	V5277.D
Dilution:	1.0			Initial Weight/Volume:	950 mL
Date Analyzed:	01/24/2011 1300			Final Weight/Volume:	1 mL
Date Prepared:	01/21/2011 1034			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.54	11
Diethyl phthalate	ND		0.23	5.3
Dimethyl phthalate	ND		0.38	5.3
Fluoranthene	ND		0.42	5.3
Fluorene	ND		0.38	5.3
Hexachlorobenzene	ND		0.54	5.3
Hexachlorobutadiene	ND		0.72	5.3
Hexachlorocyclopentadiene	ND		0.62	5.3
Hexachloroethane	ND		0.62	5.3
Indeno(1,2,3-cd)pyrene	ND		0.49	5.3
Isophorone	ND		0.45	5.3
N-Nitrosodi-n-propylamine	ND		0.57	5.3
N-Nitrosodiphenylamine	ND		0.54	5.3
Naphthalene	ND		0.80	5.3
Nitrobenzene	ND		0.31	5.3
Pentachlorophenol	ND		2.3	11
Phenanthrene	ND		0.46	5.3
Phenol	ND		0.41	5.3
Pyrene	ND		0.36	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	94		52 - 132
2-Fluorobiphenyl	52		48 - 120
2-Fluorophenol	33		20 - 120
Nitrobenzene-d5	52		46 - 120
p-Terphenyl-d14	75		24 - 136
Phenol-d5	28		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7936.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/01/2011 0424			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.44	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.7
4-Chloro-3-methylphenol	ND		0.43	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	ND		0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	ND		0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.27	4.7
Atrazine	ND		0.44	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.45	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	ND		0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.45	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7936.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/01/2011 0424			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.48	9.5
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	ND		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.45	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	ND		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	ND		0.42	4.7
Phenol	ND		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	108		52 - 132
2-Fluorobiphenyl	73		48 - 120
2-Fluorophenol	43		20 - 120
Nitrobenzene-d5	72		46 - 120
p-Terphenyl-d14	82		24 - 136
Phenol-d5	31		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7937.D
Dilution:	1.0			Initial Weight/Volume:	1010 mL
Date Analyzed:	02/01/2011 0447			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.51	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.60	5.0
2,4-Dichlorophenol	ND		0.50	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	9.9
2,4-Dinitrotoluene	ND		0.44	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.52	5.0
2-Methylnaphthalene	ND		0.59	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	9.9
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	9.9
4,6-Dinitro-2-methylphenol	ND		2.2	9.9
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.58	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	ND		0.36	9.9
4-Nitroaniline	ND		0.25	9.9
4-Nitrophenol	ND		1.5	9.9
Acenaphthene	7.8		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.53	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.26	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.72	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	3.2	J	0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	0.33	J	0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269	Instrument ID: HP5973X
Preparation:	3510C	Prep Batch: 480-3428	Lab File ID: X7937.D
Dilution:	1.0		Initial Weight/Volume: 1010 mL
Date Analyzed:	02/01/2011 0447		Final Weight/Volume: 1 mL
Date Prepared:	01/22/2011 0855		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.56	J	0.50	9.9
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.50	5.0
Hexachlorobutadiene	ND		0.67	5.0
Hexachlorocyclopentadiene	ND		0.58	5.0
Hexachloroethane	ND		0.58	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.53	5.0
N-Nitrosodiphenylamine	ND		0.50	5.0
Naphthalene	2.9	J	0.75	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	9.9
Phenanthrene	0.87	J	0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	81		52 - 132
2-Fluorobiphenyl	69		48 - 120
2-Fluorophenol	30		20 - 120
Nitrobenzene-d5	62		46 - 120
p-Terphenyl-d14	78		24 - 136
Phenol-d5	27		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: MW-24-D1

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7938.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/01/2011 0510			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	2.5	J	0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	ND		0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	53		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	0.50	J	0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo(a)anthracene	ND		0.36	5.0
Benzo(a)pyrene	ND		0.47	5.0
Benzo(b)fluoranthene	ND		0.34	5.0
Benzo(g,h,i)perylene	ND		0.35	5.0
Benzo(k)fluoranthene	ND		0.73	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		1.8	5.0
Butyl benzyl phthalate	ND		0.42	5.0
Caprolactam	ND		2.2	5.0
Carbazole	22		0.30	5.0
Chrysene	ND		0.33	5.0
Di-n-butyl phthalate	0.51	J	0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7938.D
Dilution:	1.0			Initial Weight/Volume:	1000 mL
Date Analyzed:	02/01/2011 0510			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	19		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	6.9		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno(1,2,3-cd)pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Naphthalene	21		0.76	5.0
Nitrobenzene	ND		0.29	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	6.7		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	101		52 - 132
2-Fluorobiphenyl	76		48 - 120
2-Fluorophenol	36		20 - 120
Nitrobenzene-d5	72		46 - 120
p-Terphenyl-d14	81		24 - 136
Phenol-d5	29		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7939.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/01/2011 0533			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	3.4	J	0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	1.1	J	0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.44	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.7
4-Chloro-3-methylphenol	ND		0.43	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	ND		0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	76		0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	1.6	J	0.27	4.7
Atrazine	ND		0.44	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.45	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	42		0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	0.50	J	0.29	4.7
Di-n-octyl phthalate	ND		0.45	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269	Instrument ID: HP5973X
Preparation:	3510C	Prep Batch: 480-3428	Lab File ID: X7939.D
Dilution:	1.0		Initial Weight/Volume: 1055 mL
Date Analyzed:	02/01/2011 0533		Final Weight/Volume: 1 mL
Date Prepared:	01/22/2011 0855		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	40		0.48	9.5
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	0.52	J	0.38	4.7
Fluorene	20		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.45	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	23		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	26		0.42	4.7
Phenol	ND		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	112		52 - 132
2-Fluorobiphenyl	83		48 - 120
2-Fluorophenol	43		20 - 120
Nitrobenzene-d5	82		46 - 120
p-Terphenyl-d14	89		24 - 136
Phenol-d5	33		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7940.D
Dilution:	5.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	02/01/2011 0635			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		3.1	24
bis (2-chloroisopropyl) ether	ND		2.5	24
2,4,5-Trichlorophenol	ND		2.3	24
2,4,6-Trichlorophenol	ND		2.9	24
2,4-Dichlorophenol	ND		2.4	24
2,4-Dimethylphenol	ND		2.4	24
2,4-Dinitrophenol	ND		11	48
2,4-Dinitrotoluene	ND		2.1	24
2,6-Dinitrotoluene	ND		1.9	24
2-Chloronaphthalene	ND		2.2	24
2-Chlorophenol	ND		2.5	24
2-Methylnaphthalene	ND		2.9	24
2-Methylphenol	ND		1.9	24
2-Nitroaniline	ND		2.0	48
2-Nitrophenol	ND		2.3	24
3,3'-Dichlorobenzidine	ND		1.9	24
3-Nitroaniline	ND		2.3	48
4,6-Dinitro-2-methylphenol	ND		10	48
4-Bromophenyl phenyl ether	ND		2.1	24
4-Chloro-3-methylphenol	ND		2.1	24
4-Chloroaniline	ND		2.8	24
4-Chlorophenyl phenyl ether	ND		1.7	24
4-Methylphenol	ND		1.7	48
4-Nitroaniline	ND		1.2	48
4-Nitrophenol	ND		7.2	48
Acenaphthene	7.7	J	2.0	24
Acenaphthylene	ND		1.8	24
Acetophenone	ND		2.6	24
Anthracene	ND		1.3	24
Atrazine	ND		2.2	24
Benzaldehyde	ND		1.3	24
Benzo(a)anthracene	ND		1.7	24
Benzo(a)pyrene	ND		2.2	24
Benzo(b)fluoranthene	ND		1.6	24
Benzo(g,h,i)perylene	ND		1.7	24
Benzo(k)fluoranthene	ND		3.5	24
Bis(2-chloroethoxy)methane	ND		1.7	24
Bis(2-chloroethyl)ether	ND		1.9	24
Bis(2-ethylhexyl) phthalate	ND		8.6	24
Butyl benzyl phthalate	ND		2.0	24
Caprolactam	ND		10	24
Carbazole	ND		1.4	24
Chrysene	ND		1.6	24
Di-n-butyl phthalate	ND		1.5	24
Di-n-octyl phthalate	ND		2.2	24
Dibenz(a,h)anthracene	ND		2.0	24

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7940.D
Dilution:	5.0			Initial Weight/Volume:	1050 mL
Date Analyzed:	02/01/2011 0635			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		2.4	48
Diethyl phthalate	ND		1.0	24
Dimethyl phthalate	ND		1.7	24
Fluoranthene	ND		1.9	24
Fluorene	ND		1.7	24
Hexachlorobenzene	ND		2.4	24
Hexachlorobutadiene	ND		3.2	24
Hexachlorocyclopentadiene	ND		2.8	24
Hexachloroethane	ND		2.8	24
Indeno(1,2,3-cd)pyrene	ND		2.2	24
Isophorone	ND		2.0	24
N-Nitrosodi-n-propylamine	ND		2.6	24
N-Nitrosodiphenylamine	ND		2.4	24
Naphthalene	ND		3.6	24
Nitrobenzene	ND		1.4	24
Pentachlorophenol	ND		10	48
Phenanthrene	ND		2.1	24
Phenol	ND		1.9	24
Pyrene	ND		1.6	24

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	83		52 - 132
2-Fluorobiphenyl	74		48 - 120
2-Fluorophenol	34		20 - 120
Nitrobenzene-d5	70		46 - 120
p-Terphenyl-d14	63		24 - 136
Phenol-d5	29		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7941.D
Dilution:	1.0			Initial Weight/Volume:	960 mL
Date Analyzed:	02/01/2011 0658			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.68	5.2
bis (2-chloroisopropyl) ether	ND		0.54	5.2
2,4,5-Trichlorophenol	ND		0.50	5.2
2,4,6-Trichlorophenol	ND		0.64	5.2
2,4-Dichlorophenol	ND		0.53	5.2
2,4-Dimethylphenol	ND		0.52	5.2
2,4-Dinitrophenol	ND		2.3	10
2,4-Dinitrotoluene	ND		0.47	5.2
2,6-Dinitrotoluene	ND		0.42	5.2
2-Chloronaphthalene	ND		0.48	5.2
2-Chlorophenol	ND		0.55	5.2
2-Methylnaphthalene	0.94	J	0.63	5.2
2-Methylphenol	ND		0.42	5.2
2-Nitroaniline	ND		0.44	10
2-Nitrophenol	ND		0.50	5.2
3,3'-Dichlorobenzidine	ND		0.42	5.2
3-Nitroaniline	ND		0.50	10
4,6-Dinitro-2-methylphenol	ND		2.3	10
4-Bromophenyl phenyl ether	ND		0.47	5.2
4-Chloro-3-methylphenol	ND		0.47	5.2
4-Chloroaniline	ND		0.61	5.2
4-Chlorophenyl phenyl ether	ND		0.36	5.2
4-Methylphenol	ND		0.38	10
4-Nitroaniline	ND		0.26	10
4-Nitrophenol	ND		1.6	10
Acenaphthene	1.3	J	0.43	5.2
Acenaphthylene	ND		0.40	5.2
Acetophenone	ND		0.56	5.2
Anthracene	ND		0.29	5.2
Atrazine	ND		0.48	5.2
Benzaldehyde	ND		0.28	5.2
Benzo(a)anthracene	ND		0.38	5.2
Benzo(a)pyrene	ND		0.49	5.2
Benzo(b)fluoranthene	ND		0.35	5.2
Benzo(g,h,i)perylene	ND		0.36	5.2
Benzo(k)fluoranthene	ND		0.76	5.2
Bis(2-chloroethoxy)methane	ND		0.36	5.2
Bis(2-chloroethyl)ether	ND		0.42	5.2
Bis(2-ethylhexyl) phthalate	ND		1.9	5.2
Butyl benzyl phthalate	ND		0.44	5.2
Caprolactam	ND		2.3	5.2
Carbazole	ND		0.31	5.2
Chrysene	ND		0.34	5.2
Di-n-butyl phthalate	ND		0.32	5.2
Di-n-octyl phthalate	ND		0.49	5.2
Dibenz(a,h)anthracene	ND		0.44	5.2

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269	Instrument ID: HP5973X
Preparation:	3510C	Prep Batch: 480-3428	Lab File ID: X7941.D
Dilution:	1.0		Initial Weight/Volume: 960 mL
Date Analyzed:	02/01/2011 0658		Final Weight/Volume: 1 mL
Date Prepared:	01/22/2011 0855		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.53	10
Diethyl phthalate	ND		0.23	5.2
Dimethyl phthalate	ND		0.38	5.2
Fluoranthene	ND		0.42	5.2
Fluorene	ND		0.38	5.2
Hexachlorobenzene	ND		0.53	5.2
Hexachlorobutadiene	ND		0.71	5.2
Hexachlorocyclopentadiene	ND		0.61	5.2
Hexachloroethane	ND		0.61	5.2
Indeno(1,2,3-cd)pyrene	ND		0.49	5.2
Isophorone	ND		0.45	5.2
N-Nitrosodi-n-propylamine	ND		0.56	5.2
N-Nitrosodiphenylamine	ND		0.53	5.2
Naphthalene	1.3	J	0.79	5.2
Nitrobenzene	ND		0.30	5.2
Pentachlorophenol	ND		2.3	10
Phenanthrene	ND		0.46	5.2
Phenol	ND		0.41	5.2
Pyrene	ND		0.35	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	115		52 - 132
2-Fluorobiphenyl	89		48 - 120
2-Fluorophenol	49		20 - 120
Nitrobenzene-d5	88		46 - 120
p-Terphenyl-d14	67		24 - 136
Phenol-d5	38		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7942.D
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Date Analyzed:	02/01/2011 0721			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.8
bis (2-chloroisopropyl) ether	ND		0.50	4.8
2,4,5-Trichlorophenol	ND		0.46	4.8
2,4,6-Trichlorophenol	ND		0.59	4.8
2,4-Dichlorophenol	ND		0.49	4.8
2,4-Dimethylphenol	ND		0.48	4.8
2,4-Dinitrophenol	ND		2.1	9.6
2,4-Dinitrotoluene	ND		0.43	4.8
2,6-Dinitrotoluene	ND		0.38	4.8
2-Chloronaphthalene	ND		0.44	4.8
2-Chlorophenol	ND		0.51	4.8
2-Methylnaphthalene	ND		0.58	4.8
2-Methylphenol	ND		0.38	4.8
2-Nitroaniline	ND		0.40	9.6
2-Nitrophenol	ND		0.46	4.8
3,3'-Dichlorobenzidine	ND		0.38	4.8
3-Nitroaniline	ND		0.46	9.6
4,6-Dinitro-2-methylphenol	ND		2.1	9.6
4-Bromophenyl phenyl ether	ND		0.43	4.8
4-Chloro-3-methylphenol	ND		0.43	4.8
4-Chloroaniline	ND		0.57	4.8
4-Chlorophenyl phenyl ether	ND		0.34	4.8
4-Methylphenol	ND		0.35	9.6
4-Nitroaniline	ND		0.24	9.6
4-Nitrophenol	ND		1.5	9.6
Acenaphthene	ND		0.39	4.8
Acenaphthylene	ND		0.37	4.8
Acetophenone	ND		0.52	4.8
Anthracene	ND		0.27	4.8
Atrazine	ND		0.44	4.8
Benzaldehyde	ND		0.26	4.8
Benzo(a)anthracene	ND		0.35	4.8
Benzo(a)pyrene	ND		0.45	4.8
Benzo(b)fluoranthene	ND		0.33	4.8
Benzo(g,h,i)perylene	ND		0.34	4.8
Benzo(k)fluoranthene	ND		0.70	4.8
Bis(2-chloroethoxy)methane	ND		0.34	4.8
Bis(2-chloroethyl)ether	ND		0.38	4.8
Bis(2-ethylhexyl) phthalate	ND		1.7	4.8
Butyl benzyl phthalate	ND		0.40	4.8
Caprolactam	ND		2.1	4.8
Carbazole	ND		0.29	4.8
Chrysene	ND		0.32	4.8
Di-n-butyl phthalate	ND		0.30	4.8
Di-n-octyl phthalate	ND		0.45	4.8
Dibenz(a,h)anthracene	ND		0.40	4.8

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7942.D
Dilution:	1.0			Initial Weight/Volume:	1040 mL
Date Analyzed:	02/01/2011 0721			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.49	9.6
Diethyl phthalate	ND		0.21	4.8
Dimethyl phthalate	ND		0.35	4.8
Fluoranthene	ND		0.38	4.8
Fluorene	ND		0.35	4.8
Hexachlorobenzene	ND		0.49	4.8
Hexachlorobutadiene	ND		0.65	4.8
Hexachlorocyclopentadiene	ND		0.57	4.8
Hexachloroethane	ND		0.57	4.8
Indeno(1,2,3-cd)pyrene	ND		0.45	4.8
Isophorone	ND		0.41	4.8
N-Nitrosodi-n-propylamine	ND		0.52	4.8
N-Nitrosodiphenylamine	ND		0.49	4.8
Naphthalene	ND		0.73	4.8
Nitrobenzene	ND		0.28	4.8
Pentachlorophenol	ND		2.1	9.6
Phenanthrene	ND		0.42	4.8
Phenol	ND		0.38	4.8
Pyrene	ND		0.33	4.8

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	86		52 - 132
2-Fluorobiphenyl	67		48 - 120
2-Fluorophenol	45		20 - 120
Nitrobenzene-d5	71		46 - 120
p-Terphenyl-d14	57		24 - 136
Phenol-d5	41		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7943.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/01/2011 0744			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.5
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.44	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.5
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.5
4,6-Dinitro-2-methylphenol	ND		2.1	9.5
4-Bromophenyl phenyl ether	ND		0.43	4.7
4-Chloro-3-methylphenol	ND		0.43	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	ND		0.34	9.5
4-Nitroaniline	ND		0.24	9.5
4-Nitrophenol	ND		1.4	9.5
Acenaphthene	1.5	J	0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	1.8	J	0.27	4.7
Atrazine	ND		0.44	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.45	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	21		0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.45	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4269		Instrument ID:	HP5973X
Preparation:	3510C	Prep Batch: 480-3428		Lab File ID:	X7943.D
Dilution:	1.0			Initial Weight/Volume:	1055 mL
Date Analyzed:	02/01/2011 0744			Final Weight/Volume:	1 mL
Date Prepared:	01/22/2011 0855			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.48	9.5
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	1.2	J	0.38	4.7
Fluorene	ND		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.45	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	ND		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.5
Phenanthrene	25		0.42	4.7
Phenol	ND		0.37	4.7
Pyrene	0.46	J	0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	103		52 - 132
2-Fluorobiphenyl	74		48 - 120
2-Fluorophenol	44		20 - 120
Nitrobenzene-d5	78		46 - 120
p-Terphenyl-d14	66		24 - 136
Phenol-d5	32		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: MW-23D-2R-012011

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID:	W5339.D
Dilution:	1.0		Initial Weight/Volume:	1030 mL
Date Analyzed:	01/25/2011 1434		Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752		Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.63	4.9
bis (2-chloroisopropyl) ether	ND		0.50	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.59	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.7
2,4-Dinitrotoluene	ND		0.43	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.51	4.9
2-Methylnaphthalene	ND		0.58	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.7
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.7
4,6-Dinitro-2-methylphenol	ND		2.1	9.7
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.57	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.7
4-Nitroaniline	ND		0.24	9.7
4-Nitrophenol	ND		1.5	9.7
Acenaphthene	1.3	J	0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.52	4.9
Anthracene	ND		0.27	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.71	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	4.9 ~~2.4~~	~~J B~~ JB	1.7	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.1	4.9
Carbazole	0.50	J	0.29	4.9
Chrysene	ND		0.32	4.9
Di-n-butyl phthalate	0.41	J	0.30	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5339.D
Dilution:	1.0		Initial Weight/Volume: 1030 mL
Date Analyzed:	01/25/2011 1434		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.53	J	0.50	9.7
Diethyl phthalate	ND		0.21	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	0.54	J	0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.66	4.9
Hexachlorocyclopentadiene	ND		0.57	4.9
Hexachloroethane	ND		0.57	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.52	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	ND		0.74	4.9
Nitrobenzene	ND		0.28	4.9
Pentachlorophenol	ND		2.1	9.7
Phenanthrene	ND		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	108		52 - 132
2-Fluorobiphenyl	68		48 - 120
2-Fluorophenol	34		20 - 120
Nitrobenzene-d5	61		46 - 120
p-Terphenyl-d14	66		24 - 136
Phenol-d5	25		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5340.D
Dilution:	1.0		Initial Weight/Volume: 1020 mL
Date Analyzed:	01/25/2011 1459		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.64	4.9
bis (2-chloroisopropyl) ether	ND		0.51	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.60	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.8
2,4-Dinitrotoluene	ND		0.44	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.52	4.9
2-Methylnaphthalene	ND		0.59	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.8
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.8
4,6-Dinitro-2-methylphenol	ND		2.2	9.8
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.58	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.8
4-Nitroaniline	ND		0.25	9.8
4-Nitrophenol	ND		1.5	9.8
Acenaphthene	1.2	J	0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.53	4.9
Anthracene	ND		0.27	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.72	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	4.9 ~~2.4~~	~~J B~~ UB	1.8	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.2	4.9
Carbazole	0.52	J	0.29	4.9
Chrysene	ND		0.32	4.9
Di-n-butyl phthalate	0.53	J	0.30	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID:	W5340.D
Dilution:	1.0		Initial Weight/Volume:	1020 mL
Date Analyzed:	01/25/2011 1459		Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752		Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	0.54	J	0.50	9.8
Diethyl phthalate	ND		0.22	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	0.58	J	0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.67	4.9
Hexachlorocyclopentadiene	ND		0.58	4.9
Hexachloroethane	ND		0.58	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.53	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	ND		0.75	4.9
Nitrobenzene	ND		0.28	4.9
Pentachlorophenol	ND		2.2	9.8
Phenanthrene	ND		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	101		52 - 132
2-Fluorobiphenyl	68		48 - 120
2-Fluorophenol	35		20 - 120
Nitrobenzene-d5	62		46 - 120
p-Terphenyl-d14	60		24 - 136
Phenol-d5	25		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627		Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470		Lab File ID:	W5341.D
Dilution:	1.0			Initial Weight/Volume:	960 mL
Date Analyzed:	01/25/2011 1523			Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	1.5	J	0.68	5.2
bis (2-chloroisopropyl) ether	ND		0.54	5.2
2,4,5-Trichlorophenol	ND		0.50	5.2
2,4,6-Trichlorophenol	ND		0.64	5.2
2,4-Dichlorophenol	ND		0.53	5.2
2,4-Dimethylphenol	ND		0.52	5.2
2,4-Dinitrophenol	ND		2.3	10
2,4-Dinitrotoluene	ND		0.47	5.2
2,6-Dinitrotoluene	ND		0.42	5.2
2-Chloronaphthalene	ND		0.48	5.2
2-Chlorophenol	ND		0.55	5.2
2-Methylnaphthalene	26		0.63	5.2
2-Methylphenol	ND		0.42	5.2
2-Nitroaniline	ND		0.44	10
2-Nitrophenol	ND		0.50	5.2
3,3'-Dichlorobenzidine	ND		0.42	5.2
3-Nitroaniline	ND		0.50	10
4,6-Dinitro-2-methylphenol	ND		2.3	10
4-Bromophenyl phenyl ether	ND		0.47	5.2
4-Chloro-3-methylphenol	ND		0.47	5.2
4-Chloroaniline	ND		0.61	5.2
4-Chlorophenyl phenyl ether	ND		0.36	5.2
4-Methylphenol	49		0.38	10
4-Nitroaniline	ND		0.26	10
4-Nitrophenol	ND		1.6	10
Acenaphthene	5.3		0.43	5.2
Acenaphthylene	ND		0.40	5.2
Acetophenone	ND		0.56	5.2
Anthracene	ND		0.29	5.2
Atrazine	ND		0.48	5.2
Benzaldehyde	ND		0.28	5.2
Benzo(a)anthracene	ND		0.38	5.2
Benzo(a)pyrene	ND		0.49	5.2
Benzo(b)fluoranthene	ND		0.35	5.2
Benzo(g,h,i)perylene	ND		0.36	5.2
Benzo(k)fluoranthene	ND		0.76	5.2
Bis(2-chloroethoxy)methane	ND		0.36	5.2
Bis(2-chloroethyl)ether	ND		0.42	5.2
Bis(2-ethylhexyl) phthalate	5.2 ~~3.4~~	~~JB~~ UB	1.9	5.2
Butyl benzyl phthalate	ND		0.44	5.2
Caprolactam	ND		2.3	5.2
Carbazole	3.0	J	0.31	5.2
Chrysene	ND		0.34	5.2
Di-n-butyl phthalate	0.75	J	0.32	5.2
Di-n-octyl phthalate	ND		0.49	5.2
Dibenz(a,h)anthracene	ND		0.44	5.2

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5341.D
Dilution:	1.0		Initial Weight/Volume: 960 mL
Date Analyzed:	01/25/2011 1523		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	1.5	J	0.53	10
Diethyl phthalate	0.60	J	0.23	5.2
Dimethyl phthalate	ND		0.38	5.2
Fluoranthene	ND		0.42	5.2
Fluorene	1.7	J	0.38	5.2
Hexachlorobenzene	ND		0.53	5.2
Hexachlorobutadiene	ND		0.71	5.2
Hexachlorocyclopentadiene	ND		0.61	5.2
Hexachloroethane	ND		0.61	5.2
Indeno(1,2,3-cd)pyrene	ND		0.49	5.2
Isophorone	ND		0.45	5.2
N-Nitrosodi-n-propylamine	ND		0.56	5.2
N-Nitrosodiphenylamine	ND		0.53	5.2
Naphthalene	81		0.79	5.2
Nitrobenzene	ND		0.30	5.2
Pentachlorophenol	ND		2.3	10
Phenanthrene	0.83	J	0.46	5.2
Phenol	12		0.41	5.2
Pyrene	ND		0.35	5.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	130		52 - 132
2-Fluorobiphenyl	80		48 - 120
2-Fluorophenol	36		20 - 120
Nitrobenzene-d5	70		46 - 120
p-Terphenyl-d14	82		24 - 136
Phenol-d5	26		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627		Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470		Lab File ID:	W5342.D
Dilution:	1.0			Initial Weight/Volume:	1015 mL
Date Analyzed:	01/25/2011 1548			Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.64	4.9
bis (2-chloroisopropyl) ether	ND		0.51	4.9
2,4,5-Trichlorophenol	ND		0.47	4.9
2,4,6-Trichlorophenol	ND		0.60	4.9
2,4-Dichlorophenol	ND		0.50	4.9
2,4-Dimethylphenol	ND		0.49	4.9
2,4-Dinitrophenol	ND		2.2	9.9
2,4-Dinitrotoluene	ND		0.44	4.9
2,6-Dinitrotoluene	ND		0.39	4.9
2-Chloronaphthalene	ND		0.45	4.9
2-Chlorophenol	ND		0.52	4.9
2-Methylnaphthalene	11		0.59	4.9
2-Methylphenol	ND		0.39	4.9
2-Nitroaniline	ND		0.41	9.9
2-Nitrophenol	ND		0.47	4.9
3,3'-Dichlorobenzidine	ND		0.39	4.9
3-Nitroaniline	ND		0.47	9.9
4,6-Dinitro-2-methylphenol	ND		2.2	9.9
4-Bromophenyl phenyl ether	ND		0.44	4.9
4-Chloro-3-methylphenol	ND		0.44	4.9
4-Chloroaniline	ND		0.58	4.9
4-Chlorophenyl phenyl ether	ND		0.34	4.9
4-Methylphenol	ND		0.35	9.9
4-Nitroaniline	ND		0.25	9.9
4-Nitrophenol	ND		1.5	9.9
Acenaphthene	ND		0.40	4.9
Acenaphthylene	ND		0.37	4.9
Acetophenone	ND		0.53	4.9
Anthracene	ND		0.28	4.9
Atrazine	ND		0.45	4.9
Benzaldehyde	ND		0.26	4.9
Benzo(a)anthracene	ND		0.35	4.9
Benzo(a)pyrene	ND		0.46	4.9
Benzo(b)fluoranthene	ND		0.33	4.9
Benzo(g,h,i)perylene	ND		0.34	4.9
Benzo(k)fluoranthene	ND		0.72	4.9
Bis(2-chloroethoxy)methane	ND		0.34	4.9
Bis(2-chloroethyl)ether	ND		0.39	4.9
Bis(2-ethylhexyl) phthalate	4.9 ~~2.5~~	~~J B~~ UB	1.8	4.9
Butyl benzyl phthalate	ND		0.41	4.9
Caprolactam	ND		2.2	4.9
Carbazole	ND		0.30	4.9
Chrysene	ND		0.33	4.9
Di-n-butyl phthalate	0.56	J	0.31	4.9
Di-n-octyl phthalate	ND		0.46	4.9
Dibenz(a,h)anthracene	ND		0.41	4.9

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627		Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470		Lab File ID:	W5342.D
Dilution:	1.0			Initial Weight/Volume:	1015 mL
Date Analyzed:	01/25/2011 1548			Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.50	9.9
Diethyl phthalate	ND		0.22	4.9
Dimethyl phthalate	ND		0.35	4.9
Fluoranthene	ND		0.39	4.9
Fluorene	ND		0.35	4.9
Hexachlorobenzene	ND		0.50	4.9
Hexachlorobutadiene	ND		0.67	4.9
Hexachlorocyclopentadiene	ND		0.58	4.9
Hexachloroethane	ND		0.58	4.9
Indeno(1,2,3-cd)pyrene	ND		0.46	4.9
Isophorone	ND		0.42	4.9
N-Nitrosodi-n-propylamine	ND		0.53	4.9
N-Nitrosodiphenylamine	ND		0.50	4.9
Naphthalene	10		0.75	4.9
Nitrobenzene	ND		0.29	4.9
Pentachlorophenol	ND		2.2	9.9
Phenanthrene	ND		0.43	4.9
Phenol	ND		0.38	4.9
Pyrene	ND		0.33	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	130		52 - 132
2-Fluorobiphenyl	78		48 - 120
2-Fluorophenol	37		20 - 120
Nitrobenzene-d5	68		46 - 120
p-Terphenyl-d14	77		24 - 136
Phenol-d5	28		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID:	W5343.D
Dilution:	1.0		Initial Weight/Volume:	1060 mL
Date Analyzed:	01/25/2011 1612		Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752		Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	2.0	J	0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.4
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.43	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	19		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.4
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.4
4,6-Dinitro-2-methylphenol	ND		2.1	9.4
4-Bromophenyl phenyl ether	ND		0.42	4.7
4-Chloro-3-methylphenol	ND		0.42	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	27		0.34	9.4
4-Nitroaniline	ND		0.24	9.4
4-Nitrophenol	ND		1.4	9.4
Acenaphthene	11		0.39	4.7
Acenaphthylene	0.36	J	0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.26	4.7
Atrazine	ND		0.43	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.44	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	~~2.7~~ 4.7	~~JB~~ JB	1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	3.3	J	0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	0.51	J	0.29	4.7
Di-n-octyl phthalate	ND		0.44	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5343.D
Dilution:	1.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	01/25/2011 1612		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	2.2	J	0.48	9.4
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	2.1	J	0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.44	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	84		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.4
Phenanthrene	ND		0.42	4.7
Phenol	5.3		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	127		52 - 132
2-Fluorobiphenyl	75		48 - 120
2-Fluorophenol	35		20 - 120
Nitrobenzene-d5	67		46 - 120
p-Terphenyl-d14	79		24 - 136
Phenol-d5	22		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4231	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5492.D
Dilution:	4.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	01/31/2011 2330		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		2.5	19
bis (2-chloroisopropyl) ether	ND		2.0	19
2,4,5-Trichlorophenol	ND		1.8	19
2,4,6-Trichlorophenol	ND		2.3	19
2,4-Dichlorophenol	ND		1.9	19
2,4-Dimethylphenol	2.9	J	1.9	19
2,4-Dinitrophenol	ND		8.4	38
2,4-Dinitrotoluene	ND		1.7	19
2,6-Dinitrotoluene	ND		1.5	19
2-Chloronaphthalene	ND		1.7	19
2-Chlorophenol	ND		2.0	19
2-Methylnaphthalene	96		2.3	19
2-Methylphenol	ND		1.5	19
2-Nitroaniline	ND		1.6	38
2-Nitrophenol	ND		1.8	19
3,3'-Dichlorobenzidine	ND		1.5	19
3-Nitroaniline	ND		1.8	38
4,6-Dinitro-2-methylphenol	ND		8.3	38
4-Bromophenyl phenyl ether	ND		1.7	19
4-Chloro-3-methylphenol	ND		1.7	19
4-Chloroaniline	ND		2.2	19
4-Chlorophenyl phenyl ether	ND		1.3	19
4-Methylphenol	10	J	1.4	38
4-Nitroaniline	ND		0.94	38
4-Nitrophenol	ND		5.7	38
Acenaphthene	3.6	J	1.5	19
Acenaphthylene	ND		1.4	19
Acetophenone	81		2.0	19
Anthracene	ND		1.1	19
Atrazine	ND		1.7	19
Benzaldehyde	ND		1.0	19
Benzo(a)anthracene	ND		1.4	19
Benzo(a)pyrene	ND		1.8	19
Benzo(b)fluoranthene	ND		1.3	19
Benzo(g,h,i)perylene	ND		1.3	19
Benzo(k)fluoranthene	ND		2.8	19
Bis(2-chloroethoxy)methane	ND		1.3	19
Bis(2-chloroethyl)ether	ND		1.5	19
Bis(2-ethylhexyl) phthalate	ND		6.8	19
Butyl benzyl phthalate	ND		1.6	19
Caprolactam	ND		8.3	19
Carbazole	1.8	J	1.1	19
Chrysene	ND		1.2	19
Di-n-butyl phthalate	ND		1.2	19
Di-n-octyl phthalate	ND		1.8	19
Dibenz(a,h)anthracene	ND		1.6	19

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-4231	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5492.D
Dilution:	4.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	01/31/2011 2330		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		1.9	38
Diethyl phthalate	ND		0.83	19
Dimethyl phthalate	ND		1.4	19
Fluoranthene	ND		1.5	19
Fluorene	2.4	J	1.4	19
Hexachlorobenzene	ND		1.9	19
Hexachlorobutadiene	ND		2.6	19
Hexachlorocyclopentadiene	ND		2.2	19
Hexachloroethane	ND		2.2	19
Indeno(1,2,3-cd)pyrene	ND		1.8	19
Isophorone	ND		1.6	19
N-Nitrosodi-n-propylamine	ND		2.0	19
N-Nitrosodiphenylamine	ND		1.9	19
Naphthalene	220		2.9	19
Nitrobenzene	ND		1.1	19
Pentachlorophenol	ND		8.3	38
Phenanthrene	2.2	J	1.7	19
Phenol	ND		1.5	19
Pyrene	ND		1.3	19

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	97		52 - 132
2-Fluorobiphenyl	90		48 - 120
2-Fluorophenol	28		20 - 120
Nitrobenzene-d5	79		46 - 120
p-Terphenyl-d14	72		24 - 136
Phenol-d5	29		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627		Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470		Lab File ID:	W5345.D
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	01/25/2011 1700			Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.4
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.43	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.4
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.4
4,6-Dinitro-2-methylphenol	ND		2.1	9.4
4-Bromophenyl phenyl ether	ND		0.42	4.7
4-Chloro-3-methylphenol	ND		0.42	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	5.7	J	0.34	9.4
4-Nitroaniline	ND		0.24	9.4
4-Nitrophenol	ND		1.4	9.4
Acenaphthene	3.6	J	0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.26	4.7
Atrazine	ND		0.43	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.44	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	4.7 ~~3.0~~	~~J B~~ 48	1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	0.40	J	0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	0.39	J	0.29	4.7
Di-n-octyl phthalate	ND		0.44	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID: HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID: W5345.D
Dilution:	1.0		Initial Weight/Volume: 1060 mL
Date Analyzed:	01/25/2011 1700		Final Weight/Volume: 1 mL
Date Prepared:	01/24/2011 0752		Injection Volume: 1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.48	9.4
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	0.39	J	0.38	4.7
Fluorene	ND		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.44	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	ND		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.4
Phenanthrene	ND		0.42	4.7
Phenol	3.9	J	0.37	4.7
Pyrene	0.36	J	0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	128		52 - 132
2-Fluorobiphenyl	76		48 - 120
2-Fluorophenol	38		20 - 120
Nitrobenzene-d5	70		46 - 120
p-Terphenyl-d14	86		24 - 136
Phenol-d5	27		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627		Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470		Lab File ID:	W5346.D
Dilution:	1.0			Initial Weight/Volume:	1060 mL
Date Analyzed:	01/25/2011 1725			Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.4
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.43	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	99		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.4
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.4
4,6-Dinitro-2-methylphenol	ND		2.1	9.4
4-Bromophenyl phenyl ether	ND		0.42	4.7
4-Chloro-3-methylphenol	ND		0.42	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	12		0.34	9.4
4-Nitroaniline	ND		0.24	9.4
4-Nitrophenol	ND		1.4	9.4
Acenaphthene	2.4	J	0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.26	4.7
Atrazine	ND		0.43	4.7
Benzaldehyde	ND		0.25	4.7
Benzo(a)anthracene	ND		0.34	4.7
Benzo(a)pyrene	ND		0.44	4.7
Benzo(b)fluoranthene	ND		0.32	4.7
Benzo(g,h,i)perylene	ND		0.33	4.7
Benzo(k)fluoranthene	ND		0.69	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		1.7	4.7
Butyl benzyl phthalate	ND		0.40	4.7
Caprolactam	ND		2.1	4.7
Carbazole	1.0	J	0.28	4.7
Chrysene	ND		0.31	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.44	4.7
Dibenz(a,h)anthracene	ND		0.40	4.7

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Method:	8270C	Analysis Batch: 480-3627	Instrument ID:	HP5973W
Preparation:	3510C	Prep Batch: 480-3470	Lab File ID:	W5346.D
Dilution:	1.0		Initial Weight/Volume:	1060 mL
Date Analyzed:	01/25/2011 1725		Final Weight/Volume:	1 mL
Date Prepared:	01/24/2011 0752		Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenzofuran	ND		0.48	9.4
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	3.0	J	0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno(1,2,3-cd)pyrene	ND		0.44	4.7
Isophorone	ND		0.41	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Naphthalene	120		0.72	4.7
Nitrobenzene	ND		0.27	4.7
Pentachlorophenol	ND		2.1	9.4
Phenanthrene	2.1	J	0.42	4.7
Phenol	15		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	155	X	52 - 132
2-Fluorobiphenyl	83		48 - 120
2-Fluorophenol	42		20 - 120
Nitrobenzene-d5	72		46 - 120
p-Terphenyl-d14	67		24 - 136
Phenol-d5	32		16 - 120

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2005		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		0.49	1.5
Ethene	ND		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2005		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	~~200~~ 210	~~E~~ D	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	100		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2129	Run Type: DL	Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	210	D	22	100

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	100			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/24/2011 2129	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		49	150
Ethene	ND		52	150

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2019		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		0.49	1.5
Ethene	13		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2019		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	520	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	100			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/24/2011 2143	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	260	D	22	100

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	100			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/24/2011 2143	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		49	150
Ethene	ND		52	150

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2033		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		0.49	1.5
Ethene	ND		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/24/2011 2033		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1100	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	1000			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/24/2011 2158	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	9300	D	220	1000

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3530		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	1000			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/24/2011 2158	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		490	1500
Ethene	ND		520	1500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1

Client Matrix: Water

Date Sampled: 01/19/2011 0845

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1644		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		0.49	1.5
Ethene	ND		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1

Client Matrix: Water

Date Sampled: 01/19/2011 0845

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1644		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	290	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	50			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 1940	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	330	DJ	11	50

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1

Client Matrix: Water

Date Sampled: 01/19/2011 0845

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	50			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 1940	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		25	75
Ethene	ND		26	75

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1659		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	4.1		0.49	1.5
Ethene	23		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1659		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1000	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2006		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1100	DJ	44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2006		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	ND		100	300

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1713		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	21		0.49	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3

Client Matrix: Water

Date Sampled: 01/19/2011 1100

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1713		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethene	120	E	0.52	1.5
Methane	1200	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	10			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 2047	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethene	110	D	5.2	15

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3

Client Matrix: Water

Date Sampled: 01/19/2011 1100

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	10		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2047	Run Type: DL	Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	11	J	4.9	15
Methane	3000	E	2.2	10

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	100		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2032	Run Type: DL2	Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1900	D J	22	100

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3

Client Matrix: Water

Date Sampled: 01/19/2011 1100

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	100			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 2032	Run Type: DL2		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		49	150
Ethene	ND		52	150

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	10		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2202		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	29		4.9	15
Ethene	97		5.2	15

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	10		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2202		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	2800	E	2.2	10

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 2148	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	4200	DJ	110	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4

Client Matrix: Water

Date Sampled: 01/19/2011 1045

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 2148	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		250	750
Ethene	ND		260	750

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1742		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	6.4		0.49	1.5
Ethene	21		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1742		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1100	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	500		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 2217	Run Type: DL	Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	2700	DJ	110	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 2217	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		250	750
Ethene	ND		260	750

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1756		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		0.49	1.5
Ethene	ND		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6

Client Matrix: Water

Date Sampled: 01/19/2011 1430

Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1756		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1100	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3825		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	1000			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/26/2011 1957	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	7800	DJ	220	1000

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3825		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	1000			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/26/2011 1957	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		490	1500
Ethene	ND		520	1500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1810		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	4.6		0.49	1.5
Ethene	ND		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	1.0			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/25/2011 1810			Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1400	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3825		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	100			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/26/2011 2023	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	170	DJ	22	100

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3825		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	100			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/26/2011 2023	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		49	150
Ethene	ND		52	150

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1825		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		0.49	1.5
Ethene	ND		0.52	1.5

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3668	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	1.0		Final Weight/Volume: 1.0 mL
Date Analyzed:	01/25/2011 1825		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	280	E	0.22	1.0

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3825		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/26/2011 2047	Run Type:	DL	Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	1700	DJ	110	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-3825		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	01/26/2011 2047	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		250	750
Ethene	ND		260	750

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 1817		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	ND		100	300
Methane	420	J	44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	200			Final Weight/Volume:	1.0 mL
Date Analyzed:	02/01/2011 1938			Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	ND		100	300
Methane	1400	J	44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	200			Final Weight/Volume:	1.0 mL
Date Analyzed:	02/01/2011 1911			Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	630	J	100	300

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 1911		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	4900	E	44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	02/01/2011 2007	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	3700	DJ	110	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3

Client Matrix: Water

Date Sampled: 01/20/2011 0856

Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	500			Final Weight/Volume:	1.0 mL
Date Analyzed:	02/01/2011 2007	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		250	750
Ethene	ND	*	260	750

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 2021		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	ND		100	300
Methane	3300	J	44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 2045		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	210	J	100	300
Methane	2900	J	44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	500		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 2113		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		250	750
Ethene	ND		260	750
Methane	5100	J	110	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	200		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 2222		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		98	300
Ethene	390	J	100	300
Methane	1600		44	200

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	500		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 2236		Injection Volume: 1 uL
Date Prepared:			Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		250	750
Ethene	ND		260	750

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4352	Instrument ID: HP5890-21
Preparation:	N/A		Initial Weight/Volume: 1 mL
Dilution:	500		Final Weight/Volume: 1.0 mL
Date Analyzed:	02/01/2011 2236		Injection Volume: 1 uL
Date Prepared:			Result Type: SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	16000	E	110	500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4421		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	2500			Final Weight/Volume:	1.0 mL
Date Analyzed:	02/02/2011 1150	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	12000	D	560	2500

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

RSK-175 Dissolved Gases (GC)

Method:	RSK-175	Analysis Batch: 480-4421		Instrument ID:	HP5890-21
Preparation:	N/A			Initial Weight/Volume:	1 mL
Dilution:	2500			Final Weight/Volume:	1.0 mL
Date Analyzed:	02/02/2011 1150	Run Type: DL		Injection Volume:	1 uL
Date Prepared:				Result Type:	SECONDARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethane	ND		1200	3800
Ethene	ND		1300	3800

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

6010B Metals (ICP)

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 01/21/2011 1947
Date Prepared: 01/20/2011 1616

Analysis Batch: 480-3476
Prep Batch: 480-3230

Instrument ID: ICAP1
Lab File ID: I1012111B-4.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.12	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.049		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00079	J	0.00033	0.0010
Calcium	293		0.10	0.50
Chromium	0.0054		0.00087	0.0040
Cobalt	0.0011	J	0.00063	0.0040
Copper	0.0021	J	0.0015	0.010
Iron	0.17		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.60	B7	0.00019	0.0030
Nickel	0.0020	J	0.0013	0.010
Potassium	226		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0071		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method: 6010B
Preparation: 3005A
Dilution: 10
Date Analyzed: 01/24/2011 1818
Date Prepared: 01/20/2011 1616

Analysis Batch: 480-3596
Prep Batch: 480-3230

Instrument ID: ICAP1
Lab File ID: I1012411A-7.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	731		0.43	2.0
Sodium	5750		3.2	10.0

6010B Metals (ICP)-Dissolved

Method: 6010B
Preparation: 3005A
Dilution: 1.0
Date Analyzed: 01/21/2011 1757
Date Prepared: 01/20/2011 1604

Analysis Batch: 480-3474
Prep Batch: 480-3228

Instrument ID: ICAP1
Lab File ID: I1012111B-2.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.047		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

6010B Metals (ICP)-Dissolved

Analyte		Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	0.002	~~0.00030~~	~~J~~ uB	0.00030	0.0020
Cadmium, Dissolved		0.00042	J	0.00033	0.0010
Calcium, Dissolved		290	~~B~~	0.10	0.50
Chromium, Dissolved		0.0046		0.00087	0.0040
Cobalt, Dissolved		0.0013	J	0.00063	0.0040
Copper, Dissolved		ND		0.0015	0.010
Iron, Dissolved		ND		0.019	0.050
Lead, Dissolved		ND		0.0030	0.0050
Manganese, Dissolved		0.57	~~B~~	0.00019	0.0030
Nickel, Dissolved		ND		0.0013	0.010
Potassium, Dissolved		221		0.20	0.50
Selenium, Dissolved		ND		0.0087	0.015
Silver, Dissolved		ND		0.0017	0.0030
Thallium, Dissolved		ND		0.010	0.020
Vanadium, Dissolved		0.0058		0.0011	0.0050
Zinc, Dissolved		ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3597		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3228		Lab File ID:	I1012411A-8.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 1831			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1604				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	693		0.43	2.0
Sodium, Dissolved	5620		3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3376		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3275		Lab File ID:	H11121W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/21/2011 1216			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1312			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0732				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1
Client Matrix: Water

Date Sampled: 01/18/2011 1000
Date Received: 01/19/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3476	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3230	Lab File ID: I1012111B-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 1950		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1616		

Analyte		Result (mg/L)	Qualifier	MDL	RL
Aluminum		ND		0.045	0.20
Antimony		ND	J	0.0068	0.020
Arsenic		ND		0.0056	0.010
Barium		0.39		0.00050	0.0020
Beryllium		ND		0.00030	0.0020
Cadmium	0.001	~~0.00050~~	~~J~~ UB	0.00033	0.0010
Calcium		996		0.10	0.50
Chromium		0.0048		0.00087	0.0040
Cobalt		0.0047		0.00063	0.0040
Copper		0.0070	J	0.0015	0.010
Iron		0.090		0.019	0.050
Lead		ND		0.0030	0.0050
Magnesium		13.3		0.043	0.20
Manganese	0.0039	~~0.0039~~	~~B~~ UB	0.00019	0.0030
Nickel		0.043		0.0013	0.010
Potassium		216		0.20	0.50
Selenium		ND		0.0087	0.015
Silver		ND		0.0017	0.0030
Thallium		ND		0.010	0.020
Vanadium		ND		0.0011	0.0050
Zinc		0.0044	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-3596	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3230	Lab File ID: I1012411A-7.asc
Dilution:	100		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1820		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1616		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	4670		32.4	100

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3474	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3228	Lab File ID: I1012111B-2.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 1800		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1604		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.37		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: MW-26VD

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	ND		0.00033	0.0010
Calcium, Dissolved	987	B	0.10	0.50
Chromium, Dissolved	0.0024	J	0.00087	0.0040
Cobalt, Dissolved	0.0042		0.00063	0.0040
Copper, Dissolved	0.0029	J	0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	12.4		0.043	0.20
Manganese, Dissolved	~~0.0015~~ 0.003	~~J B~~ UB	0.00019	0.0030
Nickel, Dissolved	0.041		0.0013	0.010
Potassium, Dissolved	210		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	ND		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3597	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3228	Lab File ID: I1012411A-8.asc
Dilution:	100		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1833		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1604		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	4710		32.4	100

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3376	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3275	Lab File ID: H11121W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/21/2011 1222		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 0805		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1314		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0732		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3476	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3230	Lab File ID: I1012111B-4.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 1952		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1616		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.097	J	0.045	0.20
Antimony	ND	J	0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.034		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00045	J	0.00033	0.0010
Calcium	97.8		0.10	0.50
Chromium	0.0045		0.00087	0.0040
Cobalt	0.00065	J	0.00063	0.0040
Copper	0.0038	J	0.0015	0.010
Iron	0.11		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	294		0.043	0.20
Manganese	0.077	B7	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	103		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0047	J	0.0011	0.0050
Zinc	0.0022	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-3596	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3230	Lab File ID: I1012411A-7.asc
Dilution:	20		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1822		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1616		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2230		6.5	20.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3474	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3228	Lab File ID: I1012111B-2.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 1802		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1604		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.033		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: MW-27-D1

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00053	J	0.00033	0.0010
Calcium, Dissolved	102	B	0.10	0.50
Chromium, Dissolved	0.0038	J	0.00087	0.0040
Cobalt, Dissolved	0.00068	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	291		0.043	0.20
Manganese, Dissolved	0.072	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	105		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0045	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3597	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3228	Lab File ID: I1012411A-8.asc
Dilution:	20		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1840		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1604		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2220		6.5	20.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3376	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3275	Lab File ID: H11121W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/21/2011 1223		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 0805		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1315		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0732		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3231		Lab File ID:	I2012111A-6.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/21/2011 2029			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.055	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0060	J	0.0056	0.010
Barium	0.11		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00084	J	0.00033	0.0010
Calcium	359		0.10	0.50
Chromium	ND		0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	14.5		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.81	B7	0.00019	0.0030
Nickel	0.0021	J	0.0013	0.010
Potassium	283		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0052		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3231		Lab File ID:	I1012411A-2.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 1458			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	1090		0.43	2.0
Sodium	7760		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3229		Lab File ID:	I2012111A-7.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/21/2011 2105			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1611				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.096		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00089	J	0.00033	0.0010
Calcium, Dissolved	324		0.10	0.50
Chromium, Dissolved	ND		0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	1.7		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.88	B7	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	234	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0046	J	0.0011	0.0050
Zinc, Dissolved	0.0017	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3229		Lab File ID:	I1012411A-3.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 1526			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1611				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	865		0.43	2.0
Sodium, Dissolved	6250	B7	3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467		Lab File ID:	H11124W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/24/2011 1353			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 0737				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1317			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0732				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1

Client Matrix: Water

Date Sampled: 01/19/2011 0845

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I2012111A-6.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2032		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.020		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00086	J	0.00033	0.0010
Calcium	106		0.10	0.50
Chromium	0.0025	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0017	J	0.0015	0.010
Iron	0.065		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	297		0.043	0.20
Manganese	0.063	B7	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	98.7		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0071		0.0011	0.0050
Zinc	0.0017	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I1012411A-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1500		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2330		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I2012111A-7.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2108		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.020		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2
Client Matrix: Water

Date Sampled: 01/19/2011 0905
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00064	J	0.00033	0.0010
Calcium, Dissolved	102		0.10	0.50
Chromium, Dissolved	0.0021	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	289		0.043	0.20
Manganese, Dissolved	0.062	B7	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	97.0	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0056		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I1012411A-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1528		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2150	B7	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467	Lab File ID: H11124W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/24/2011 1354		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 0737		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1319		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0732		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2

Client Matrix: Water

Date Sampled: 01/19/2011 0905

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I2012111A-6.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2034		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.020		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00086	J	0.00033	0.0010
Calcium	109		0.10	0.50
Chromium	0.0024	J	0.00087	0.0040
Cobalt	0.00076	J	0.00063	0.0040
Copper	0.0020	J	0.0015	0.010
Iron	ND		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	365		0.043	0.20
Manganese	0.043	B7	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	101		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0059		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I1012411A-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1502		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2530		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I2012111A-7.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2115		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.020		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3
Client Matrix: Water

Date Sampled: 01/19/2011 1100
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00080	J	0.00033	0.0010
Calcium, Dissolved	108		0.10	0.50
Chromium, Dissolved	0.0024	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	365		0.043	0.20
Manganese, Dissolved	0.043	B7	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	101	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0055		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3229		Lab File ID:	I1012411A-3.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 1531			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1611				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2460	B7	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467		Lab File ID:	H11124W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/24/2011 1356			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 0737				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1321			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0732				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3

Client Matrix: Water

Date Sampled: 01/19/2011 1100

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I2012111A-6.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2050		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0060	J	0.0056	0.010
Barium	0.018		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00077	J	0.00033	0.0010
Calcium	102		0.10	0.50
Chromium	0.0029	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	ND		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	362		0.043	0.20
Manganese	0.058	B7	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	105		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0062		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I1012411A-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1517		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2530		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I2012111A-7.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2117		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.018		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00079	J	0.00033	0.0010
Calcium, Dissolved	102		0.10	0.50
Chromium, Dissolved	0.0030	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	370		0.043	0.20
Manganese, Dissolved	0.059	B7	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	109	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0058		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I1012411A-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1533		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2720	B7	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467	Lab File ID: H11124W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/24/2011 1402		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 0737		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1322		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0732		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D1**

Lab Sample ID: 480-1004-4

Client Matrix: Water

Date Sampled: 01/19/2011 1045

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I2012111A-6.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2052		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.076	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.023		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00085	J	0.00033	0.0010
Calcium	137		0.10	0.50
Chromium	0.0025	J	0.00087	0.0040
Cobalt	0.00077	J	0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.14		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	331		0.043	0.20
Manganese	0.12	B7	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	112		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0080		0.0011	0.0050
Zinc	0.0030	J	0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I1012411A-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1520		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2670		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I2012111A-7.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2119		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.024		0.00050	0.0020

Client: ARCADIS | Job Number: 480-972-1

Client Sample ID: MW-25-D2

Lab Sample ID: 480-1004-5 | Date Sampled: 01/19/2011 1200

Client Matrix: Water | Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00070	J	0.00033	0.0010
Calcium, Dissolved	139		0.10	0.50
Chromium, Dissolved	0.0022	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	339		0.043	0.20
Manganese, Dissolved	0.12	B7	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	117	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0073		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I1012411A-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1539		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2780	B7	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467	Lab File ID: H11124W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/24/2011 1404		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 0737		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1324		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0732		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5

Client Matrix: Water

Date Sampled: 01/19/2011 1200

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3231		Lab File ID:	I2012111A-6.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/21/2011 2054			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.38		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.079		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00041	J	0.00033	0.0010
Calcium	145		0.10	0.50
Chromium	ND		0.00087	0.0040
Cobalt	0.00064	J	0.00063	0.0040
Copper	0.0022	J	0.0015	0.010
Iron	4.0		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	49.3		0.043	0.20
Manganese	3.3	B7	0.00019	0.0030
Nickel	0.0027	J	0.0013	0.010
Potassium	23.6		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	349		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.011		0.0011	0.0050
Zinc	0.0042	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3229		Lab File ID:	I2012111A-7.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/21/2011 2121			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1611				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.066		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00044	J	0.00033	0.0010
Calcium, Dissolved	145		0.10	0.50
Chromium, Dissolved	ND		0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	3.0		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	44.7		0.043	0.20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-1R**

Lab Sample ID: 480-1004-6
Client Matrix: Water

Date Sampled: 01/19/2011 1430
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	2.5	B7	0.00019	0.0030
Nickel, Dissolved	0.0020	J	0.0013	0.010
Potassium, Dissolved	23.7	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	286	B7	0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0078		0.0011	0.0050
Zinc, Dissolved	0.0020	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467		Lab File ID:	H11124W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/24/2011 1406			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 0737				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1329			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0732				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I2012111A-6.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2057		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.067		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00099	J	0.00033	0.0010
Calcium	342		0.10	0.50
Chromium	ND		0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	29.3		0.019	0.050
Lead	ND		0.0030	0.0050
Manganese	0.67	B7	0.00019	0.0030
Nickel	0.0015	J	0.0013	0.010
Potassium	306		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0067		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I1012411A-2.asc
Dilution:	10		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1522		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium	1210		0.43	2.0
Sodium	8710		3.2	10.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I2012111A-7.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2124		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.065		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00077	J	0.00033	0.0010
Calcium, Dissolved	333		0.10	0.50
Chromium, Dissolved	ND		0.00087	0.0040
Cobalt, Dissolved	0.00093	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	27.4		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Manganese, Dissolved	0.60	B7	0.00019	0.0030
Nickel, Dissolved	0.0022	J	0.0013	0.010
Potassium, Dissolved	317	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0051		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3229		Lab File ID:	I1012411A-3.asc
Dilution:	10			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 1542			Final Weight/Volume:	50 mL
Date Prepared:	01/20/2011 1611				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Magnesium, Dissolved	1180		0.43	2.0
Sodium, Dissolved	8550	B7	3.2	10.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467		Lab File ID:	H11124W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/24/2011 1408			Final Weight/Volume:	50 mL
Date Prepared:	01/24/2011 0737				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1331			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0732				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7

Client Matrix: Water

Date Sampled: 01/19/2011 1310

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3486	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I2012111A-6.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2059		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.029		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00078	J	0.00033	0.0010
Calcium	89.9		0.10	0.50
Chromium	0.0024	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.044	J	0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	209		0.043	0.20
Manganese	0.040	B7	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	84.5		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.0053		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3591	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3231	Lab File ID: I1012411A-2.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1524		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	1840		1.6	5.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-3488	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I2012111A-7.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/21/2011 2126		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.028		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00095	J	0.00033	0.0010
Calcium, Dissolved	90.5		0.10	0.50
Chromium, Dissolved	0.0025	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0017	J	0.0015	0.010
Iron, Dissolved	ND		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	215		0.043	0.20
Manganese, Dissolved	0.037	B7	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	92.4	B7	0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0048	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3592	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3229	Lab File ID: I1012411A-3.asc
Dilution:	5.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1544		Final Weight/Volume: 50 mL
Date Prepared:	01/20/2011 1611		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	1890	B7	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3535	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3467	Lab File ID: H11124W1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/24/2011 1409		Final Weight/Volume: 50 mL
Date Prepared:	01/24/2011 0737		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682	Instrument ID: LEEMAN2
Preparation:	7470A	Prep Batch: 480-3586	Lab File ID: H11125D1.PRN
Dilution:	1.0		Initial Weight/Volume: 30 mL
Date Analyzed:	01/25/2011 1333		Final Weight/Volume: 50 mL
Date Prepared:	01/25/2011 0732		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8

Client Matrix: Water

Date Sampled: 01/19/2011 1455

Date Received: 01/20/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3382	Lab File ID: I2012411A-3.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 1958		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.11		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00058	J	0.00033	0.0010
Calcium	166	J	0.10	0.50
Chromium	0.0020	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.065		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	286	J	0.043	0.20
Manganese	0.89	~~B~~	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	95.1	J	0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.011		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3670	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3382	Lab File ID: I1012511A-2.asc
Dilution:	20		Initial Weight/Volume: 50 mL
Date Analyzed:	01/25/2011 1325		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2570	J	6.5	20.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3386	Lab File ID: I1020311A-1.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	02/03/2011 1344		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1632		

Analyte		Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.2	~~0.055~~	~~J B~~ UB	0.045	0.20
Antimony, Dissolved		ND		0.0068	0.020
Arsenic, Dissolved		0.0095	J	0.0056	0.010
Barium, Dissolved		0.12		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00062	J	0.00033	0.0010
Calcium, Dissolved	185	B J	0.10	0.50
Chromium, Dissolved	0.0038	J	0.00087	0.0040
Cobalt, Dissolved	0.0011	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	0.075		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	319	J	0.043	0.20
Manganese, Dissolved	0.88	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	107	J	0.20	0.50
Selenium, Dissolved	ND	J	0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0068		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method: 6010B
Preparation: 3005A
Dilution: 5.0
Date Analyzed: 02/03/2011 2159
Date Prepared: 01/21/2011 1632

Analysis Batch: 480-4701
Prep Batch: 480-3386

Instrument ID: ICAP1
Lab File ID: I1020311A-12.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	2990	J	1.6	5.0

7470A Mercury (CVAA)

Method: 7470A
Preparation: 7470A
Dilution: 1.0
Date Analyzed: 01/25/2011 1158
Date Prepared: 01/25/2011 0726

Analysis Batch: 480-3656
Prep Batch: 480-3581

Instrument ID: LEEMAN3
Lab File ID: J11125W1.PRN
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method: 7470A
Preparation: 7470A
Dilution: 1.0
Date Analyzed: 01/25/2011 1355
Date Prepared: 01/25/2011 0740

Analysis Batch: 480-3682
Prep Batch: 480-3588

Instrument ID: LEEMAN2
Lab File ID: H11125D1.PRN
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1

Client Matrix: Water

Date Sampled: 01/20/2011 0900

Date Received: 01/21/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS | Job Number: 480-972-1

Client Sample ID: DUP-1-20-11

Lab Sample ID: 480-1054-2FD | Date Sampled: 01/20/2011 0000
Client Matrix: Water | Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3382	Lab File ID: I2012411A-3.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 2001		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.11		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00064	J	0.00033	0.0010
Calcium	163	J	0.10	0.50
Chromium	0.0019	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	0.060		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	284	J	0.043	0.20
Manganese	0.85	~~B~~	0.00019	0.0030
Nickel	ND		0.0013	0.010
Potassium	95.4	J	0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Thallium	ND		0.010	0.020
Vanadium	0.010		0.0011	0.0050
Zinc	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-3670	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3382	Lab File ID: I1012511A-2.asc
Dilution:	20		Initial Weight/Volume: 50 mL
Date Analyzed:	01/25/2011 1327		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium	2550	J	6.5	20.0

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3386	Lab File ID: I1020311A-1.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	02/03/2011 1346		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1632		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.067~~	~~J B~~ UB	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0072	J	0.0056	0.010
Barium, Dissolved	0.12		0.00050	0.0020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: DUP-1-20-11

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00065	J	0.00033	0.0010
Calcium, Dissolved	186	~~B~~ J	0.10	0.50
Chromium, Dissolved	0.0040		0.00087	0.0040
Cobalt, Dissolved	0.00077	J	0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	0.087		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	326	J	0.043	0.20
Manganese, Dissolved	0.91	~~B~~	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	108	J	0.20	0.50
Selenium, Dissolved	ND	J	0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0067		0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

Method:	6010B	Analysis Batch: 480-4701		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3386		Lab File ID:	I1020311A-12.asc
Dilution:	5.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/03/2011 2201			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1632				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Sodium, Dissolved	3030	J	1.6	5.0

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1200			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1357			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD

Client Matrix: Water

Date Sampled: 01/20/2011 0000

Date Received: 01/21/2011 0900

7470A Mercury (CVAA)-Dissolved

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3382		Lab File ID:	I2012411A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 2003			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.075	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.063		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00033	0.0010
Calcium	71.8		0.10	0.50
Chromium	0.0014	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	4.7		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	36.8		0.043	0.20
Manganese	0.30	~~B~~	0.00019	0.0030
Nickel	0.0023	J	0.0013	0.010
Potassium	31.3		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	289		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0057		0.0011	0.0050
Zinc	0.0023	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3386		Lab File ID:	I1020311A-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/03/2011 1349			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1632				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.083~~	~~JB~~ UB	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	ND		0.0056	0.010
Barium, Dissolved	0.063		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	ND		0.00033	0.0010
Calcium, Dissolved	69.0	~~B~~	0.10	0.50
Chromium, Dissolved	0.0026	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	4.2		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	39.0		0.043	0.20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3

Client Matrix: Water

Date Sampled: 01/20/2011 0856

Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.28	B	0.00019	0.0030
Nickel, Dissolved	0.0013	J	0.0013	0.010
Potassium, Dissolved	31.0		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	306		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0035	J	0.0011	0.0050
Zinc, Dissolved	0.0042	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1201			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1358			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3382		Lab File ID:	I2012411A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 2005			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.069	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.038		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00033	0.0010
Calcium	123		0.10	0.50
Chromium	ND		0.00087	0.0040
Cobalt	0.0012	J	0.00063	0.0040
Copper	0.0064	J	0.0015	0.010
Iron	1.7		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	11.0		0.043	0.20
Manganese	0.91	B	0.00019	0.0030
Nickel	0.0020	J	0.0013	0.010
Potassium	14.0		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	53.0		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0059		0.0011	0.0050
Zinc	0.0043	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3386		Lab File ID:	I1020311A-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/03/2011 1351			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1632				

Analyte		Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20	~~0.090~~	~~J B~~ UB	0.045	0.20
Antimony, Dissolved		ND		0.0068	0.020
Arsenic, Dissolved		ND		0.0056	0.010
Barium, Dissolved		0.039		0.00050	0.0020
Beryllium, Dissolved		ND		0.00030	0.0020
Cadmium, Dissolved		ND		0.00033	0.0010
Calcium, Dissolved		114	B	0.10	0.50
Chromium, Dissolved		0.0014	J	0.00087	0.0040
Cobalt, Dissolved		0.00080	J	0.00063	0.0040
Copper, Dissolved		ND		0.0015	0.010
Iron, Dissolved		1.5		0.019	0.050
Lead, Dissolved		ND		0.0030	0.0050
Magnesium, Dissolved		11.1		0.043	0.20

Client: ARCADIS | Job Number: 480-972-1

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4 | Date Sampled: 01/20/2011 1100
Client Matrix: Water | Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.92	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	13.3		0.20	0.50
Selenium, Dissolved	ND	J	0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	53.2		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0026	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1203			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1400			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3382		Lab File ID:	I2012411A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 2007			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.18	J	0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.028		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00033	0.0010
Calcium	58.0		0.10	0.50
Chromium	0.0020	J	0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	6.1		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	21.5		0.043	0.20
Manganese	0.24	~~B~~	0.00019	0.0030
Nickel	0.0022	J	0.0013	0.010
Potassium	22.9		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	165		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0051		0.0011	0.0050
Zinc	0.0019	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3386		Lab File ID:	I1020311A-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/03/2011 1353			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1632				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	~~0.080~~ 0.20	~~J B~~ UB	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0057	J	0.0056	0.010
Barium, Dissolved	0.026		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	0.00038	J	0.00033	0.0010
Calcium, Dissolved	55.8	~~B~~	0.10	0.50
Chromium, Dissolved	0.0019	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	5.9		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	21.2		0.043	0.20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.25	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	21.5		0.20	0.50
Selenium, Dissolved	ND	J	0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	163		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0038	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1204			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1402			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582	Instrument ID: ICAP2
Preparation:	3005A	Prep Batch: 480-3382	Lab File ID: I2012411A-3.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	01/24/2011 2009		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1621		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.010
Barium	0.069		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00033	0.0010
Calcium	93.3		0.10	0.50
Chromium	ND		0.00087	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	10.8		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	16.1		0.043	0.20
Manganese	0.45	B	0.00019	0.0030
Nickel	0.0017	J	0.0013	0.010
Potassium	18.4		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	43.0		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0038	J	0.0011	0.0050
Zinc	ND		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698	Instrument ID: ICAP1
Preparation:	3005A	Prep Batch: 480-3386	Lab File ID: I1020311A-1.asc
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	02/03/2011 1355		Final Weight/Volume: 50 mL
Date Prepared:	01/21/2011 1632		

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	ND		0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0076	J	0.0056	0.010
Barium, Dissolved	0.069		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	ND		0.00033	0.0010
Calcium, Dissolved	87.2	B	0.10	0.50
Chromium, Dissolved	0.0013	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	0.0016	J	0.0015	0.010
Iron, Dissolved	10.6		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	16.2		0.043	0.20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6
Client Matrix: Water

Date Sampled: 01/20/2011 1430
Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.45	B	0.00019	0.0030
Nickel, Dissolved	ND		0.0013	0.010
Potassium, Dissolved	17.5		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	42.1		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0025	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1206			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1403			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: AMW-8-012011

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3382		Lab File ID:	I2012411A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 2016			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.48		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0097	J	0.0056	0.010
Barium	0.15		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00033	J	0.00033	0.0010
Calcium	34.6		0.10	0.50
Chromium	0.0017	J	0.00087	0.0040
Cobalt	0.00092	J	0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	2.9		0.019	0.050
Lead	ND		0.0030	0.0050
Magnesium	17.3		0.043	0.20
Manganese	0.14	B	0.00019	0.0030
Nickel	0.0035	J	0.0013	0.010
Potassium	19.7		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	248		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0048	J	0.0011	0.0050
Zinc	0.0030	J	0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3386		Lab File ID:	I1020311A-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/03/2011 1357			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1632				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	0.20 ~~0.063~~	~~J B~~ UB	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.011		0.0056	0.010
Barium, Dissolved	0.14		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	ND		0.00033	0.0010
Calcium, Dissolved	30.9	B	0.10	0.50
Chromium, Dissolved	0.0015	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	2.4		0.019	0.050
Lead, Dissolved	ND		0.0030	0.0050
Magnesium, Dissolved	16.3		0.043	0.20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-8-012011**

Lab Sample ID: 480-1054-7
Client Matrix: Water

Date Sampled: 01/20/2011 1335
Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.11	B	0.00019	0.0030
Nickel, Dissolved	0.0019	J	0.0013	0.010
Potassium, Dissolved	18.2		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	242		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0038	J	0.0011	0.0050
Zinc, Dissolved	0.0018	J	0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1208			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1405			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: AMW-3-012011

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 480-3582		Instrument ID:	ICAP2
Preparation:	3005A	Prep Batch: 480-3382		Lab File ID:	I2012411A-3.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	01/24/2011 2018			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1621				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.37		0.045	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0056	J	0.0056	0.010
Barium	0.027		0.00050	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00033	0.0010
Calcium	104		0.10	0.50
Chromium	0.025		0.00087	0.0040
Cobalt	0.00069	J	0.00063	0.0040
Copper	ND		0.0015	0.010
Iron	6.3		0.019	0.050
Lead	0.010		0.0030	0.0050
Magnesium	13.4	J	0.043	0.20
Manganese	0.30	~~B~~	0.00019	0.0030
Nickel	0.016		0.0013	0.010
Potassium	18.3		0.20	0.50
Selenium	ND		0.0087	0.015
Silver	ND		0.0017	0.0030
Sodium	90.8		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0061		0.0011	0.0050
Zinc	ND		0.0017	0.010

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch: 480-4698		Instrument ID:	ICAP1
Preparation:	3005A	Prep Batch: 480-3386		Lab File ID:	I1020311A-1.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	02/03/2011 1400			Final Weight/Volume:	50 mL
Date Prepared:	01/21/2011 1632				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum, Dissolved	~~0.13~~ 0.20	~~J B~~ UB	0.045	0.20
Antimony, Dissolved	ND		0.0068	0.020
Arsenic, Dissolved	0.0083	J	0.0056	0.010
Barium, Dissolved	0.026		0.00050	0.0020
Beryllium, Dissolved	ND		0.00030	0.0020
Cadmium, Dissolved	ND		0.00033	0.0010
Calcium, Dissolved	101	~~B~~	0.10	0.50
Chromium, Dissolved	0.0019	J	0.00087	0.0040
Cobalt, Dissolved	ND		0.00063	0.0040
Copper, Dissolved	ND		0.0015	0.010
Iron, Dissolved	5.9		0.019	0.050
Lead, Dissolved	0.0069		0.0030	0.0050
Magnesium, Dissolved	14.9	J	0.043	0.20

Client: ARCADIS

Job Number: 480-972-1

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9
Client Matrix: Water

Date Sampled: 01/20/2011 1550
Date Received: 01/21/2011 0900

6010B Metals (ICP)-Dissolved

Analyte	Result (mg/L)	Qualifier	MDL	RL
Manganese, Dissolved	0.29	B	0.00019	0.0030
Nickel, Dissolved	0.0034	J	0.0013	0.010
Potassium, Dissolved	18.2		0.20	0.50
Selenium, Dissolved	ND		0.0087	0.015
Silver, Dissolved	ND		0.0017	0.0030
Sodium, Dissolved	96.4		0.32	1.0
Thallium, Dissolved	ND		0.010	0.020
Vanadium, Dissolved	0.0040	J	0.0011	0.0050
Zinc, Dissolved	ND		0.0017	0.010

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch: 480-3656		Instrument ID:	LEEMAN3
Preparation:	7470A	Prep Batch: 480-3581		Lab File ID:	J11125W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1220			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0726				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.00013	J	0.00012	0.00020

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch: 480-3682		Instrument ID:	LEEMAN2
Preparation:	7470A	Prep Batch: 480-3588		Lab File ID:	H11125D1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Date Analyzed:	01/25/2011 1410			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2011 0740				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury, Dissolved	ND		0.00012	0.00020

General Chemistry

Client Sample ID: **MW-27-D2**

Lab Sample ID: 480-972-1 Date Sampled: 01/18/2011 1000
Client Matrix: Water Date Received: 01/19/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	451	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1722						
Alkalinity, Bicarbonate	451	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1722						
Ammonia as N	2.9		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3251	Date Analyzed: 01/20/2011 1439						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3098	Date Analyzed: 01/19/2011 1913						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3096	Date Analyzed: 01/19/2011 1908						
Sulfate	1350	B	mg/L	63.0	210	42	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2041						
Total Dissolved Solids	19000		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.33		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3105	Date Analyzed: 01/19/2011 2103						
Sulfide	0.14		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3203	Date Analyzed: 01/20/2011 1200						
Dissolved Organic Carbon-Dissolved	6.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4063	Date Analyzed: 01/28/2011 1215						

General Chemistry

Client Sample ID: **MW-26VD**

Lab Sample ID: 480-972-2
Client Matrix: Water

Date Sampled: 01/18/2011 1030
Date Received: 01/19/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	219	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1722						
Alkalinity, Bicarbonate	219	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1722						
Ammonia as N	4.7		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3251	Date Analyzed: 01/20/2011 1440						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3098	Date Analyzed: 01/19/2011 1913						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3096	Date Analyzed: 01/19/2011 1908						
Sulfate	708	B	mg/L	63.0	210	42	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2041						
Total Dissolved Solids	17700		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3103	Date Analyzed: 01/19/2011 2025						
Orthophosphate	0.059		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3105	Date Analyzed: 01/19/2011 2103						
Sulfide	8.0		mg/L	0.52	1.0	10	SM 4500 S2 D
Analysis Batch: 480-3203	Date Analyzed: 01/20/2011 1200						
Dissolved Organic Carbon-Dissolved	193		mg/L	4.3	10.0	10	SM5310_D
Analysis Batch: 480-4147	Date Analyzed: 01/27/2011 1011						

General Chemistry

Client Sample ID: **MW-27-D1**

Lab Sample ID: 480-972-3
Client Matrix: Water

Date Sampled: 01/18/2011 1200
Date Received: 01/19/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	897		mg/L	136	340	34	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1746						
Alkalinity, Bicarbonate	897		mg/L	136	340	34	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1746						
Ammonia as N	6.7		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3251	Date Analyzed: 01/20/2011 1441						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3098	Date Analyzed: 01/19/2011 1913						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3096	Date Analyzed: 01/19/2011 1908						
Sulfate	311	B	mg/L	37.5	125	25	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2041						
Total Dissolved Solids	6870		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3103	Date Analyzed: 01/19/2011 2025						
Orthophosphate	0.44		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3105	Date Analyzed: 01/19/2011 2103						
Sulfide	0.25	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3203	Date Analyzed: 01/20/2011 1200						
Dissolved Organic Carbon-Dissolved	13.8		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4063	Date Analyzed: 01/28/2011 1215						

General Chemistry

Client Sample ID: **MW-25VD**

Lab Sample ID: 480-1004-1
Client Matrix: Water

Date Sampled: 01/19/2011 0845
Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	564		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Alkalinity, Bicarbonate	564		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Ammonia as N	3.9		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1430						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	1310	B	mg/L	61.5	205	41	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2041						
Total Dissolved Solids	25200		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3707	Date Analyzed: 01/25/2011 2115						
Orthophosphate	0.39		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.21		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	4.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **MW-24-D2**

Lab Sample ID: 480-1004-2 Date Sampled: 01/19/2011 0905
Client Matrix: Water Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	931		mg/L	60.0	150	15	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Alkalinity, Bicarbonate	931		mg/L	60.0	150	15	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Ammonia as N	4.9		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1500						
Nitrate as N	0.12		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3263	Date Analyzed: 01/20/2011 2148						
Sulfate	359	B	mg/L	42.0	140	28	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2043						
Total Dissolved Solids	8080	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.58		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.30		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	12.5		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **MW-24-D1**

Lab Sample ID: 480-1004-3 Date Sampled: 01/19/2011 1100
Client Matrix: Water Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	1400		mg/L	160	400	40	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Alkalinity, Bicarbonate	1400		mg/L	160	400	40	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Ammonia as N	5.5		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1501						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	128	B	mg/L	15.0	50.0	10	D516-90, 02
Analysis Batch: 480-3786	Date Analyzed: 01/26/2011 1158						
Total Dissolved Solids	8300		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.89		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.078	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	18.1		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-25-D1

Lab Sample ID: 480-1004-4
Client Matrix: Water

Date Sampled: 01/19/2011 1045
Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	1160		mg/L	120	300	30	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Alkalinity, Bicarbonate	1160		mg/L	120	300	30	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Ammonia as N	6.1		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1502						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	434	B	mg/L	40.5	135	27	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2037						
Total Dissolved Solids	8670		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.44		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.053	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	15.6		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **MW-25-D2**

Lab Sample ID: 480-1004-5
Client Matrix: Water

Date Sampled: 01/19/2011 1200
Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	866		mg/L	80.0	200	20	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Alkalinity, Bicarbonate	866		mg/L	80.0	200	20	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1756						
Ammonia as N	6.4		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1503						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	404	B	mg/L	40.5	135	27	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2037						
Total Dissolved Solids	9670		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.59		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.30		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	12.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-23D-1R

Lab Sample ID: 480-1004-6 Date Sampled: 01/19/2011 1430
Client Matrix: Water Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	308	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1734						
Alkalinity, Bicarbonate	308	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1734						
Ammonia as N	2.7		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1437						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	260	B	mg/L	40.5	135	27	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2037						
Total Dissolved Solids	1740		mg/L	16.0	40.0	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.17		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.22		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	14.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **MW-24VD**

Lab Sample ID: 480-1004-7
Client Matrix: Water

Date Sampled: 01/19/2011 1310
Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	408	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1734						
Alkalinity, Bicarbonate	408	B	mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1734						
Ammonia as N	3.7		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1438						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	1800	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3786	Date Analyzed: 01/26/2011 1130						
Total Dissolved Solids	30100		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.11		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	5.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **MW-32D**

Lab Sample ID: 480-1004-8
Client Matrix: Water

Date Sampled: 01/19/2011 1455
Date Received: 01/20/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	924		mg/L	80.0	200	20	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1757						
Alkalinity, Bicarbonate	924		mg/L	80.0	200	20	310.2
Analysis Batch: 480-3266	Date Analyzed: 01/20/2011 1757						
Ammonia as N	5.8		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1504						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3361	Date Analyzed: 01/21/2011 1449						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3359	Date Analyzed: 01/20/2011 2146						
Sulfate	15.2	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3267	Date Analyzed: 01/20/2011 2051						
Total Dissolved Solids	6040		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3260	Date Analyzed: 01/20/2011 2006						
Orthophosphate	0.38		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3270	Date Analyzed: 01/20/2011 2315						
Sulfide	0.47		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3363	Date Analyzed: 01/21/2011 1200						
Dissolved Organic Carbon-Dissolved	13.3		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **MW-23D-2R-012011**

Lab Sample ID: 480-1054-1
Client Matrix: Water

Date Sampled: 01/20/2011 0900
Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	717		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2057						
Alkalinity, Bicarbonate	717		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2057						
Ammonia as N	3.3		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1441						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	436	B	mg/L	37.5	125	25	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1815						
Total Dissolved Solids	9010		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.52		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	18.8		mg/L	1.0	2.0	20	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	11.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **DUP-1-20-11**

Lab Sample ID: 480-1054-2FD
Client Matrix: Water

Date Sampled: 01/20/2011 0000
Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	725		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2058						
Alkalinity, Bicarbonate	725		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2058						
Ammonia as N	3.7		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1451						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	438	B	mg/L	37.5	125	25	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1815						
Total Dissolved Solids	8600		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.43		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	19.2		mg/L	1.0	2.0	20	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	11.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **AMW-10-012011**

Lab Sample ID: 480-1054-3
Client Matrix: Water

Date Sampled: 01/20/2011 0856
Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	150		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Alkalinity, Bicarbonate	150		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Ammonia as N	7.1		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1452						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	~~3.4~~ 5.0	~~J~~ UB	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1728						
Total Dissolved Solids	1210		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.79		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	0.62		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	16.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **AMW-1-012011**

Lab Sample ID: 480-1054-4
Client Matrix: Water

Date Sampled: 01/20/2011 1100
Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	259		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Alkalinity, Bicarbonate	259		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Ammonia as N	3.2		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1453						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	195	B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1809						
Total Dissolved Solids	624		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.26		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	16.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **AMW-9-012011**

Lab Sample ID: 480-1054-5
Client Matrix: Water

Date Sampled: 01/20/2011 1120
Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	159		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Alkalinity, Bicarbonate	159		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Ammonia as N	7.4		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1454						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	5.0 ~~3.1~~	UB ~~J B~~	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1737						
Total Dissolved Solids	803		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.75		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	15.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **AMW-2-012011**

Lab Sample ID: 480-1054-6 Date Sampled: 01/20/2011 1430
Client Matrix: Water Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	216		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Alkalinity, Bicarbonate	216		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Ammonia as N	3.0		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1455						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	143	B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1809						
Total Dissolved Solids	540		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.35		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	29.4		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: AMW-8-012011

Lab Sample ID: 480-1054-7 Date Sampled: 01/20/2011 1335
Client Matrix: Water Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	250		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Alkalinity, Bicarbonate	250		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Ammonia as N	3.8		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1456						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	5.0 ~~3.4~~	UB ~~JB~~	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1737						
Total Dissolved Solids	839		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.43		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	14.8		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

General Chemistry

Client Sample ID: **AMW-3-012011**

Lab Sample ID: 480-1054-9 Date Sampled: 01/20/2011 1550
Client Matrix: Water Date Received: 01/21/2011 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	425		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Alkalinity, Bicarbonate	425		mg/L	20.0	50.0	5.0	310.2
Analysis Batch: 480-3421	Date Analyzed: 01/21/2011 2123						
Ammonia as N	11.0		mg/L	0.090	0.20	10	350.1
Analysis Batch: 480-3442	Date Analyzed: 01/22/2011 1457						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3410	Date Analyzed: 01/21/2011 2048						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3413	Date Analyzed: 01/21/2011 2049						
Sulfate	5.0 ~~3.6~~	4B ~~J B~~	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3422	Date Analyzed: 01/21/2011 1737						
Total Dissolved Solids	628		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-3398	Date Analyzed: 01/21/2011 1744						
Orthophosphate	0.40		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3407	Date Analyzed: 01/21/2011 2000						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Date Analyzed: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	37.4		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Date Analyzed: 01/29/2011 1059						

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

VTC

TAL-4124 (1007)

Client: Arcadis / Chevron	Project Manager: Jo Ann Robertson	Date: 1-19-11	Chain of Custody Number: 126119
Address: 6723 Towpath Rd.	Telephone Number (Area Code)/Fax Number: 315-446-9120	Lab Number	Page 1 of 1
City: Syracuse	State: NY Zip Code: 13214	Site Contact: Marcus Finkbeiner	Lab Contact
Project Name and Location (State): Former Gulf Terminal - Oceanside, NY	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): VOC's	SVOC's	Methane	Ethane	Ethene	Total Dissolved Solids	Alkalinity	Alkalinity, bicarb	Sulfate/Sulfide	nitrate/nitrite	Nitrogen as Ammonia	Phosphorus as Orthophosphate	Special Instructions/ Conditions of Receipt
																									Additional Test
MW-25VD	1-19-11	0845		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	*Calcium
TB-2-11911	1-19-11	-		1						1			X												*total dissolved organic Carbon
MW-24-D2	1-19-11	0905		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	*Manganese (total & Dissolved)
MW-24-D1	1-19-11	1100		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	*Iron (total & Dissolved)
MW-25-D1	1-19-11	1045		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	*TAL Metals (total & Dissolved)
MW-25-D2	1-19-11	1200		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-23D-1R	1-19-11	1430		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	
MW-24VD	1-19-11	1310		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	*Ft on label
MW-32D	1-19-11	1455		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	= Field Filtered

Page 599 of

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date: 1-19-11	Time: 1700	1. Received By: FEDEX	Date: 01/20/11	Time: 0900
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

He 2.0°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt . . . .

Drinking Water? Yes ☐ No ☑

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TC

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
Arcadis	JoAnn Robertson	1-20-11	126130
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
6723 Towpath Rd.	315-446-9120		
City	**State** / **Zip Code**	**Site Contact**	**Lab Contact**
Syracuse	NY / 13214	Marus Eriksson	
Project Name and Location (State)	**Carrier/Waybill Number**		
former Gulf Terminal - Oceanside, NY			
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH/ ZnAc NaOH	Analysis: VOCs	SVOC	Methane	Ethane	Ethene	Alkalinity	Alkalinity-bicarbonate	Sulfate & Sulfide	nitrate as Ammonia	Phosphorous as orthophosphate	Special Instructions/ Conditions of Receipt
MW-23D-2R-012011 ~~1-20-11~~	1-20-11	0900		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	Additional Test
Dup-1-20-11	1-20-11	—		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	* Calcium
AMW-10-012011 ~~1-20-11~~	1-20-11	0856		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	* Organic Carbon (Total / Dissolved)
AMW-1-012011 ~~1-20-11~~	1-20-11	1100		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	* Manganese (total / dissolved)
AMW-9-012011	1-20-11	1120		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	* Iron (total / dissolved)
AMW-2-012011	1-20-11	1430		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	* TAL Metals (total / dissolved)
AMW-8-012011	1-20-11	1335		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	
TB-3-012011	1-20-11	—		1						1		X											
AMW-3-012011	1-20-11	1550		18			8	1	2	6	1	X	X	X	X	X	X	X	X	X	X	X	* FF = Field Filtered

Page 5990 of 5994

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For . . Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	1-20-11	1700	1. Received By	1.21.11	0900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

202-0

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Chain of Custody Record

Temperature on Receipt .... ____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

(TC)

TAL-412 (1007)

Client: Arcadis

Address: 6723 Towpath Rd.

City: Syracuse | State: NY | Zip Code: 13214

Project Name and Location (State): Former Gulf Terminal, Oceanside - NY

Contract/Purchase Order/Quote No.

Project Manager: Jo Ann Robertson

Telephone Number (Area Code)/Fax Number: 315-446-9120

Site Contact: Marcus Erikson | Lab Contact

Carrier/Waybill Number

Date: 1-18-11

Chain of Custody Number: 126111

Lab Number

Page 1 of 1

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Solid	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC's	SVOC's	Methane	Ethane	Ethene	Total dissolved solids	Alkalinity	Alkalinity - Bicarbonate	Alkalinity - Carbonate	Nitrate/Nitrite	Nitrogen as Ammonia	Total Kjeldahl Nitrogen as Orthophosphate	Special Instructions/ Conditions of Receipt
MW-27-D2	1-18-11	1000		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	Additional Test
MW-26VD	1-18-11	1030		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	* Calcium
MW-27-D1	1-18-11	1200		18			8	1	2	6		1	X	X	X	X	X	X	X	X	X	X	X	X	* Total dissolved Organic Carbon
TB	-	-		1							1		X												* Manganese (total + dissolved)
																									* Iron (total + dissolved)
																									* Metals (total + dissolved)
																									* FF is Field Filtered

Page 5991 of 5994

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time
1. Relinquished By	1-18-11	16:00
2. Relinquished By		
3. Relinquished By		

	Date	Time
1. Received By		
2. Received By	1-19-11	0900
3. Received By		

Comments

2020-0

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

General Chemistry

Client Sample ID: MW-31D-1R-012111

Lab Sample ID: 480-1108-1
Client Matrix: Water

Date Sampled: 01/21/2011 0900
Date Received: 01/22/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	854		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Alkalinity, Bicarbonate	854		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Ammonia as N	5.1		mg/L	0.036	0.080	4.0	350.1
Analysis Batch: 480-3631	Analysis Date: 01/25/2011 1051						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3547	Analysis Date: 01/22/2011 1723						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3457	Analysis Date: 01/22/2011 1723						
Sulfate	149	B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-4085	Analysis Date: 01/28/2011 1313						
Total Dissolved Solids	7590		mg/L	16.0	40.0	1.0	SM 2540C
Analysis Batch: 480-3836	Analysis Date: 01/26/2011 1718						
Orthophosphate	ND		mg/L	0.30	1.0	50	SM 4500 P E
Analysis Batch: 480-3443	Analysis Date: 01/22/2011 1735						
Sulfide	0.12		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-3653	Analysis Date: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	13.1		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-31D-2R-012111

Lab Sample ID: 480-1108-2
Client Matrix: Water

Date Sampled: 01/21/2011 1030
Date Received: 01/22/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	537		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Alkalinity, Bicarbonate	537		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3652	Analysis Date: 01/25/2011 1117						
Ammonia as N	1.9		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-3631	Analysis Date: 01/25/2011 1025						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3547	Analysis Date: 01/22/2011 1726						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3457	Analysis Date: 01/22/2011 1726						
Sulfate	1360	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-4085	Analysis Date: 01/28/2011 1313						
Total Dissolved Solids	17300		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3836	Analysis Date: 01/26/2011 1718						
Orthophosphate	0.27		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3443	Analysis Date: 01/22/2011 1735						
Sulfide	5.5		mg/L	1.0	2.0	20	SM 4500 S2 D
Analysis Batch: 480-3653	Analysis Date: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	20.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-25-D3-012111

Lab Sample ID: 480-1108-3

Client Matrix: Water

Date Sampled: 01/21/2011 0855

Date Received: 01/22/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	1100	B	mg/L	400	1000	100	310.2
Analysis Batch: 480-4593	Analysis Date: 02/03/2011 1246						
Alkalinity, Bicarbonate	1100	B	mg/L	400	1000	100	310.2
Analysis Batch: 480-4593	Analysis Date: 02/03/2011 1246						
Ammonia as N	1.2		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-3631	Analysis Date: 01/25/2011 1026						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-3547	Analysis Date: 01/22/2011 1727						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-3457	Analysis Date: 01/22/2011 1727						
Sulfate	1850	B	mg/L	150	500	100	D516-90, 02
Analysis Batch: 480-4598	Analysis Date: 02/03/2011 1206						
Total Dissolved Solids	23300		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3836	Analysis Date: 01/26/2011 1718						
Orthophosphate	0.27		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3443	Analysis Date: 01/22/2011 1735						
Sulfide	7.1		mg/L	1.0	2.0	20	SM 4500 S2 D
Analysis Batch: 480-3653	Analysis Date: 01/25/2011 1145						
Dissolved Organic Carbon-Dissolved	29.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-30D1-12411

Lab Sample ID: 480-1149-1

Client Matrix: Water

Date Sampled: 01/24/2011 1530

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	939		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Alkalinity, Bicarbonate	939		mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Ammonia as N	8.0		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1150						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1948						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1948						
Sulfate	ND		mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1608						
Total Dissolved Solids	7950	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3840	Analysis Date: 01/26/2011 1730						
Orthophosphate	0.29		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.19		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	12.3		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: DUP-12411

Lab Sample ID: 480-1149-2FD

Client Matrix: Water

Date Sampled: 01/24/2011 0000

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	898	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Alkalinity, Bicarbonate	898	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1244						
Ammonia as N	7.7		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1151						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1949						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1949						
Sulfate	7.7	J B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1608						
Total Dissolved Solids	7550	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3840	Analysis Date: 01/26/2011 1730						
Orthophosphate	0.27		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.52		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	12.8		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-26-D2-12511

Lab Sample ID: 480-1149-3
Client Matrix: Water

Date Sampled: 01/25/2011 0830
Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	487	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	487	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	3.5		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1152						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1950						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1950						
Sulfate	1420	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1347						
Total Dissolved Solids	19000		mg/L	80.0	200	1.0	SM 2540C
Run Type: RADL Analysis Batch: 480-4100	Analysis Date: 01/28/2011 1638						
Orthophosphate	0.44		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	1.3		mg/L	0.26	0.50	5.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	6.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-30UD-12511

Lab Sample ID: 480-1149-4

Client Matrix: Water

Date Sampled: 01/25/2011 0818

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	778	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	778	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	2.6		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1153						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1951						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1951						
Sulfate	1280	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1348						
Total Dissolved Solids	19900	B	mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3840	Analysis Date: 01/26/2011 1730						
Orthophosphate	0.29		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.17		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	6.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-29UD-12511

Lab Sample ID: 480-1149-5

Client Matrix: Water

Date Sampled: 01/25/2011 1013

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	637	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	637	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	5.1		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1242						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1952						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1952						
Sulfate	1170	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1348						
Total Dissolved Solids	16900		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.43		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	17.2		mg/L	1.3	2.5	25	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	7.9		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-26-D1-12511

Lab Sample ID: 480-1149-6

Client Matrix: Water

Date Sampled: 01/25/2011 1000

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	455	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	455	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	1.3		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1046						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1953						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1953						
Sulfate	466	B	mg/L	30.0	100	20	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1334						
Total Dissolved Solids	12500		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.23		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.85		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	46.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-29-D2-12511

Lab Sample ID: 480-1149-7
Client Matrix: Water

Date Sampled: 01/25/2011 1115
Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	12.6	B	mg/L	4.0	10.0	1.0	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1336						
Alkalinity, Bicarbonate	12.6	B	mg/L	4.0	10.0	1.0	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1336						
Ammonia as N	4.9		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1242						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1955						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1955						
Sulfate	1850	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1336						
Total Dissolved Solids	30100		mg/L	80.0	200	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.060		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	1.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-29-D1-12511

Lab Sample ID: 480-1149-8

Client Matrix: Water

Date Sampled: 01/25/2011 1133

Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	519	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Alkalinity, Bicarbonate	519	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1258						
Ammonia as N	7.3		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1147						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1958						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1958						
Sulfate	ND		mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1331						
Total Dissolved Solids	2840		mg/L	16.0	40.0	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.14		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.078	J	mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	15.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-28-D1-12511

Lab Sample ID: 480-1149-9
Client Matrix: Water

Date Sampled: 01/25/2011 1400
Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	882	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Alkalinity, Bicarbonate	882	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Ammonia as N	6.3		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1156						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 1959						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 1959						
Sulfate	134	B	mg/L	15.0	50.0	10	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1309						
Total Dissolved Solids	7380		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.37		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.14		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	12.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: MW-28-D2-12511

Lab Sample ID: 480-1149-10
Client Matrix: Water

Date Sampled: 01/25/2011 1403
Date Received: 01/26/2011 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	503	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Alkalinity, Bicarbonate	503	B	mg/L	40.0	100	10	310.2
Analysis Batch: 480-3975	Analysis Date: 01/27/2011 1311						
Ammonia as N	3.8		mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-3930	Analysis Date: 01/27/2011 1157						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4348	Analysis Date: 01/26/2011 2000						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4346	Analysis Date: 01/26/2011 2000						
Sulfate	1290	B	mg/L	75.0	250	50	D516-90, 02
Analysis Batch: 480-3976	Analysis Date: 01/27/2011 1213						
Total Dissolved Solids	18700		mg/L	40.0	100	1.0	SM 2540C
Analysis Batch: 480-3842	Analysis Date: 01/26/2011 1734						
Orthophosphate	0.49		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-3851	Analysis Date: 01/26/2011 1941						
Sulfide	0.85		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4056	Analysis Date: 01/28/2011 1030						
Dissolved Organic Carbon-Dissolved	7.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4138	Analysis Date: 01/29/2011 1059						

General Chemistry

Client Sample ID: AMW-4-12611

Lab Sample ID: 480-1226-1
Client Matrix: Water

Date Sampled: 01/26/2011 0938
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	292		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	292		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	13.9		mg/L	0.18	0.40	20	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1352						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1909						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1909						
Sulfate	2.8	J B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1010		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.54		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	36.8		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-5-12611

Lab Sample ID: 480-1226-2
Client Matrix: Water

Date Sampled: 01/26/2011 1015
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	338		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	338		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	18.7		mg/L	0.18	0.40	20	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1355						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1910						
Nitrite as N	0.16	H	mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4271	Analysis Date: 01/31/2011 2042						
Sulfate	11.0	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1170		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.28		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	41.5		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-11-12611

Lab Sample ID: 480-1226-3
Client Matrix: Water

Date Sampled: 01/26/2011 1130
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	414		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	414		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	3.9		mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1356						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1911						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1911						
Sulfate	6.5	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	829		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.84		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	28.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: AMW-DR-12611

Lab Sample ID: 480-1226-4
Client Matrix: Water

Date Sampled: 01/26/2011 1330
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	228		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	228		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	1.1		mg/L	0.0090	0.020	1.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1317						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1913						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1913						
Sulfate	31.4	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	730		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.33		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	14.7		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: **AMW-7-12611**

Lab Sample ID: 480-1226-5
Client Matrix: Water

Date Sampled: 01/26/2011 1308
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	309		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	309		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	17.0		mg/L	0.18	0.40	20	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1357						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1914						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1914						
Sulfate	3.6	J B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1600		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	1.5		mg/L	0.018	0.060	3.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	0.31		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	37.2		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: P-18R-12711

Lab Sample ID: 480-1226-6
Client Matrix: Water

Date Sampled: 01/27/2011 0945
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	270		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Alkalinity, Bicarbonate	270		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1248						
Ammonia as N	5.1	B	mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1402						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1915						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1915						
Sulfate	3.2	J B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	493		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	0.39		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	ND		mg/L	0.052	0.10	1.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	14.3		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: MW-33D-12711

Lab Sample ID: 480-1226-7
Client Matrix: Water

Date Sampled: 01/27/2011 0845
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	597		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Alkalinity, Bicarbonate	597		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Ammonia as N	2.9	B	mg/L	0.018	0.040	2.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1403						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1916						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1916						
Sulfate	181	B	mg/L	7.5	25.0	5.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1605						
Total Dissolved Solids	4920		mg/L	16.0	40.0	1.0	SM 2540C
Run Type: RADL Analysis Batch: 480-4362	Analysis Date: 02/01/2011 1607						
Orthophosphate	0.59		mg/L	0.0060	0.020	1.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	13.2		mg/L	1.3	2.5	25	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	11.0		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

General Chemistry

Client Sample ID: MW-35D-12711

Lab Sample ID: 480-1226-8
Client Matrix: Water

Date Sampled: 01/27/2011 1045
Date Received: 01/28/2011 1005

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Alkalinity, Total	282		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Alkalinity, Bicarbonate	282		mg/L	40.0	100	10	310.2
Analysis Batch: 480-4784	Analysis Date: 02/05/2011 1250						
Ammonia as N	5.1	B	mg/L	0.045	0.10	5.0	350.1
Analysis Batch: 480-4152	Analysis Date: 01/29/2011 1404						
Nitrate as N	ND		mg/L	0.011	0.050	1.0	353.2
Analysis Batch: 480-4276	Analysis Date: 01/28/2011 1917						
Nitrite as N	ND		mg/L	0.020	0.050	1.0	353.2
Analysis Batch: 480-4273	Analysis Date: 01/28/2011 1917						
Sulfate	6.1	B	mg/L	1.5	5.0	1.0	D516-90, 02
Analysis Batch: 480-4877	Analysis Date: 02/07/2011 1546						
Total Dissolved Solids	1050		mg/L	4.0	10.0	1.0	SM 2540C
Analysis Batch: 480-4101	Analysis Date: 01/28/2011 1700						
Orthophosphate	1.3		mg/L	0.018	0.060	3.0	SM 4500 P E
Analysis Batch: 480-4129	Analysis Date: 01/28/2011 1510						
Sulfide	1.0		mg/L	0.26	0.50	5.0	SM 4500 S2 D
Analysis Batch: 480-4467	Analysis Date: 02/02/2011 1100						
Dissolved Organic Carbon-Dissolved	19.1		mg/L	0.43	1.0	1.0	SM5310_D
Analysis Batch: 480-4363	Analysis Date: 02/01/2011 1607						

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Instrument ID: LACHAT2 Method: 353.2

Start Date: 01/26/2011 19:10 End Date: 01/26/2011 20:00

Lab Sample ID	D/F	Type	Time	Analytes																				
				N-No2																				
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
ZZZZZZ			19:10																					
480-1149-1	1	T	19:48	X																				
480-1149-2	1	T	19:49	X																				
480-1149-3	1	T	19:50	X																				
480-1149-4	1	T	19:51	X																				
480-1149-5	1	T	19:52	X																				
480-1149-6	1	T	19:53	X																				
480-1149-7	1	T	19:55	X																				
480-1149-8	1	T	19:58	X																				
480-1149-9	1	T	19:59	X																				
480-1149-10	1	T	20:00	X																				

Prep Types
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Instrument ID: LACHAT2 Method: 353.2

Start Date: 01/31/2011 20:08 End Date: 01/31/2011 20:51

Lab Sample ID	D/F	Type	Time	Analytes																				
				N-No2																				
ZZZZZZ			20:08																					
ZZZZZZ			20:09																					
CCB 480-4271/3			20:10																					
CCV 480-4271/4			20:12																					
ZZZZZZ			20:13																					
ZZZZZZ			20:14																					
ZZZZZZ			20:16																					
ZZZZZZ			20:17																					
ZZZZZZ			20:18																					
ZZZZZZ			20:19																					
ZZZZZZ			20:20																					
ZZZZZZ			20:21																					
ZZZZZZ			20:22																					
ZZZZZZ			20:23																					
CCB 480-4271/15	1		20:24	X																				
CCV 480-4271/16	1		20:25	X																				
ZZZZZZ			20:27																					
ZZZZZZ			20:28																					
ZZZZZZ			20:29																					
ZZZZZZ			20:30																					
ZZZZZZ			20:31																					
ZZZZZZ			20:32																					
ZZZZZZ			20:33																					
ZZZZZZ			20:34																					
ZZZZZZ			20:35																					
ZZZZZZ			20:36																					
MB 480-4271/27	1	T	20:37	X																				
LCS 480-4271/28	1	T	20:39	X																				
CCB 480-4271/29	1		20:40	X																				
CCV 480-4271/30	1		20:41	X																				
480-1226-2	1	T	20:42	X																				
ZZZZZZ			20:43																					
CCV 480-4271/33			20:44																					
CCB 480-4271/34			20:45																					
ZZZZZZ			20:48																					
CCB 480-4271/36			20:50																					
CCV 480-4271/37			20:51																					

Prep Types
T = Total/NA

FORM XIII-IN

44546 Rot 4708

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Instrument ID: NOEQUIP Method: 353.2

Start Date: 01/28/2011 19:09 End Date: 01/31/2011 21:14

Lab Sample ID	D/F	Type	Time	Analytes																				
				N-No2																				
480-1226-1	1	T	19:09	X																				
ZZZZZZ			19:09																					
480-1226-3	1	T	19:11	X																				
480-1226-4	1	T	19:13	X																				
480-1226-5	1	T	19:14	X																				
480-1226-6	1	T	19:15	X																				
480-1226-7	1	T	19:16	X																				
480-1226-8	1	T	19:17	X																				
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			19:19																					
ZZZZZZ			21:14																					
ZZZZZZ			21:14																					
ZZZZZZ			21:14																					

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 480-1108-1

SDG No.:

Instrument ID: LACHAT2 Method: 353.2

Start Date: 01/26/2011 19:48 End Date: 02/01/2011 14:40

Lab Sample ID	D/F	Type	Time	Analytes																			
				NO3																			
480-1149-1	1	T	19:48	X																			
480-1149-2	1	T	19:49	X																			
480-1149-3	1	T	19:50	X																			
480-1149-4	1	T	19:51	X																			
480-1149-5	1	T	19:52	X																			
480-1149-6	1	T	19:53	X																			
480-1149-7	1	T	19:55	X																			
480-1149-8	1	T	19:58	X																			
480-1149-9	1	T	19:59	X																			
480-1149-10	1	T	20:00	X																			
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				

Prep Types
T = Total/NA

FORM XIII-IN

APPENDIX B

Interim Remedial Measure Completion Report

ARCADIS
Infrastructure · Water · Environment · Buildings

Imagine the result

Chevron Environmental Management Company

Interim Remedial Measure Completion Report

Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York
(NYSDEC Site #130165)

November 2014

ARCADIS

William T McCune
Principal Geologist/Project Manager

Joseph Molina, P.E.
Project Engineer

Interim Remedial Measure Completion Report

Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York
(NYSDEC Site #130165)

Prepared for:
Chevron Environmental Management Company

Prepared by:
ARCADIS of New York, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315 446 9120
Fax 315 446 8053

Our Ref.:
B0047517.0010

Date:
November 2014

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Acronyms and Abbreviations iv

1. Introduction 1

1.1 Site Description and History 1

1.1.1 Site Description 1

1.1.2 Site History 2

1.2 Interim Remedial Measure Remedial Action Objectives 2

2. Project Organization and Responsibilities 4

2.1 Chevron Environmental Management Company 4

2.2 ARCADIS 4

2.3 Remedial Construction Services, Inc. 4

2.4 Waste Management, Inc. 4

2.5 Heritage Environmental Services, LLC 4

2.6 TestAmerica Laboratories, Inc. 4

2.7 New York State Department of Environmental Conservation 5

3. Summary of Interim Remedial Measure Activities 6

3.1 Pre-Mobilization Activities 6

3.1.1 Permitting 6

3.1.1.1 Stormwater Pollution Prevention Plan 6

3.1.1.2 Soil Erosion and Sediment Control Plan 6

3.1.1.3 Local “Use” Permit 7

3.1.2 Wetland Jurisdictional Determination 7

3.1.3 Qualifications of Imported Backfill Materials 7

3.1.4 Monitoring Well Protection/Abandonment 8

3.2 Mobilization and Site Preparation Activities 8

3.2.1 Utilities Stakeout 8

3.2.2 Locating Excavation Limits 8

3.2.3 Stormwater Pollution Prevention Plan Implementation 9

3.3 Removal Activities 9

3.3.1 Interim Remedial Measure Activities 9

3.3.2 Interim Remedial Measure Addendum Activities 10

3.4 Materials Handling 10

3.5 IRM Waste Characterization and Disposal 10

3.5.1 Characterization, Profiling, Approval 11

3.6 Air Monitoring Plan 14

3.6.1 Airborne Particulate Monitoring 14

3.6.2 Airborne Volatile Organic Compound Monitoring 16

3.7 Backfilling and Restoration 16

4. Conclusions and Recommendations 17

5. Remedial Costs Incurred 18

6. References 19

Tables

1 Backfill Qualification Analytical Summary

2 Waste Characterization Analytical Summary

Figures

1 Site Location Map

2 Site Map

3 IRM Excavation Limits and Site Layout

4 VRU Excavation Limits (Cross Section)

5 IRM Addendum Excavation Limits

Appendices

A Daily Reports (with Photos)

B Backfill Qualification Analytical Report

C SWPPP Inspections

D Stockpile Inspections

E Waste Characterization Analytical Reports

F Contained In Determinations

G Waste Disposal Documentation

H Air Monitoring Data

Acronyms and Abbreviations

ARCADIS	ARCADIS U.S., Inc.
AST	aboveground storage tank
BCP	Brownfield Cleanup Program
bgs	below ground surface
CAMP	Community Air Monitoring Program
Catamount	Catamount Petroleum LP
CEMC	Chevron Environmental Management Company
CFI	Cumberland Farms, Inc.
CFR	Code of Federal Regulations
COC	constituents of concern
GC	Gas Chromatograph
Gulf	Gulf Oil Limited Partnership
HASP	Health and Safety Plan
Heritage	Heritage Environmental Services, LLC
IRM	interim remedial measure
IRM Completion Report	Interim Remedial Measure Completion Report
LDR	land disposal restriction
Lowe's	Lowe's Home Centers, Inc.
MS	Mass Spectrometer

NYSDEC	New York State Department of Environmental Conservation
NFA	No Further Action
PCB	polychlorinated biphenyl
PID	photoionization detector
RECON	Remedial Construction Services, Inc.
SCOs	Soil Cleanup Objectives
Site	former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York
SVOC	semivolatile organic compound
SWPPP	Stormwater Pollution Prevention Plan
TAGM	Technical and Administrative Guidance Memorandum
TAL	Target Analyte List
TCE	trichloroethene
TCLP	toxicity characteristic leaching procedure
TestAmerica	TestAmerica Laboratories, Inc.
TWA	time-weighted average
USEPA	United States Environmental Protection Agency
VRU	Vapor Recovery Unit
VOC	volatile organic compound
WM	Waste Management, Inc.

1. Introduction

On behalf of Chevron Environmental Management Company (CEMC), ARCADIS U.S., Inc. (ARCADIS) is submitting this Interim Remedial Measure Completion Report (IRM Completion Report) to the New York State Department of Environmental Conservation (NYSDEC) in accordance with the Order on Consent and Administrative Settlement for the former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York (Site; NYSDEC Site #130165).

This IRM Completion Report identifies methodologies and tactics that were used during the implementation of IRM and IRM Addendum activities, and is organized into the following five sections:

- Section 1 – Introduction
- Section 2 – Project Organization and Responsibilities
- Section 3 – Summary of Interim Remedial Measure Activities
- Section 4 – Conclusions and Recommendations
- Section 5 – Remedial Costs Incurred
- Section 6 – References

1.1 Site Description and History

1.1.1 Site Description

The 7.2-acre site is located at 1 Industrial Place in Oceanside, Township of Hempstead, Nassau County, New York. **Figure 1** presents a Site Location Map. The Site is currently unoccupied and former buildings have been demolished with the exception of a small shed and an adjacent former storm water retention basin located in the northeastern corner of the site.

The Site is bound to the south by Barnum's Channel, to the east by the Long Island Rail Road, to the north by the former Mobil Petroleum Terminal, and to the west by Hampton Road. An auto recycler, construction company yard and marine construction company office building are located west of Hampton Road. Daly Boulevard is located north of the former Mobil Petroleum Terminal and another petroleum terminal (Sprague) is located north of Daly Boulevard.

1.1.2 Site History

The Site consists of three lots. In 1931, Gulf Oil Corporation developed a portion of the Site (Lot 504) as a petroleum terminal. Gulf Oil Corporation purchased Lots 503 and 502 in 1950 and 1956, respectively. Chevron acquired Gulf Oil Corporation in the mid-1980s. In 1986, Cumberland Farms, Inc. (CFI) purchased Chevron's northeast marketing assets. The purchase included the Oceanside Terminal, which was transferred to CFI in May 1986.

Operation of the petroleum terminal was ceased in the early 1990s. Demolition of the aboveground storage tanks (ASTs) at the former petroleum terminal was completed in 2003. The remaining on-site buildings (maintenance building, office building, and several small buildings associated with historical petroleum terminal operations) were demolished in 2005. The Site is currently vacant and **Figure 2** presents former historical structures.

The Site has undergone extensive investigation and remediation since the 1990s under NYSDEC oversight (Spill No. 92-03883). In January 2007, NYSDEC accepted Lowe's Home Centers, Inc. (Lowe's) as a volunteer under the Brownfield Cleanup Program (BCP) – Site No. C130165. Following Lowe's decision to withdraw from the BCP in 2009, NYSDEC transferred the Site into the Hazardous Waste Program (State Superfund Site). An Order on Consent and Administrative Settlement was executed between the NYSDEC and CEMC on December 23, 2009 (Index #W3-1142-09-08, Site #130165).

1.2 Interim Remedial Measure Remedial Action Objectives

The IRM and IRM Addendum were proposed as initial components of the remediation strategy to be implemented at the Site for remediation of source areas. The goal of the IRM and IRM Addendum were to excavate and/or stabilize, to the extent practicable, the soil impacts identified within a limited pre-defined area encompassing the former Vapor Recovery Unit (VRU) and three additional small areas unrelated to the VRU area, which warranted remediation such that a No Further Action (NFA) determination may be issued with regard to soil at the site.

The IRM objectives for soil were as follows:

- prevent ingestion/direct contact with impacted soil
- prevent inhalation of or exposure to constituents of concern (COCs) volatilizing from impacted soil

- prevent migration of COCs that would result in groundwater or surface-water impacts

- prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain

Available data indicated that implementation of a soil excavation IRM at the Site was appropriate to address an anticipated source area of impacted soil that would likely be encountered during the commercial redevelopment of the Site. Excavation and removal of impacted soil served to protect human health and the environment through contaminant mass removal and elimination or control of potential exposure.

2. Project Organization and Responsibilities

2.1 Chevron Environmental Management Company

In accordance with the Order on Consent and Administrative Settlement for the site (NYSDEC Site #130165), CEMC is responsible for the implementation of the IRM activities for the site.

2.2 ARCADIS

ARCADIS was retained by CEMC to provide remedial investigation, engineering, design, and IRM construction oversight associated with this project. In addition, during implementation of IRM Addendum activities, ARCADIS provided labor and equipment to implement removal and restoration activities.

2.3 Remedial Construction Services, Inc.

Remedial Construction Services, Inc. (RECON) provided labor and equipment to implement removal and restoration activities for the initial IRM activities.

2.4 Waste Management, Inc.

Waste Management, Inc. (WM) provided off-site transportation and disposal services for non-hazardous waste materials generated at the Site during IRM activities.

2.5 Heritage Environmental Services, LLC

Heritage Environmental Services, LLC (Heritage) provided off-site transportation, treatment and disposal services for hazardous waste materials generated at the Site during IRM activities.

2.6 TestAmerica Laboratories, Inc.

TestAmerica Laboratories, Inc. (TestAmerica) provided all laboratory analytical services for the project.

2.7 New York State Department of Environmental Conservation

The NYSDEC served as the primary regulatory agency for this project and interacted and communicated with CEMC and ARCADIS to confirm compliance with the approved *Interim Remedial Measure Work Plan* (IRM Work Plan; ARCADIS 2012).

3. Summary of Interim Remedial Measure Activities

During IRM and IRM Addendum activities, ARCADIS documented Site activities by completing Daily Reports, which included photographic documentation of Site activities. **Appendix A** provides copies of the Daily Reports (with photographs) for IRM and IRM Addendum activities. A summary of IRM activities completed at the site is presented below.

3.1 Pre-Mobilization Activities

The pre-mobilization activities are presented below.

3.1.1 Permitting

ARCADIS acquired the following required permits and approvals during pre-design activities for implementation of the IRM in accordance with all applicable federal, state and local rules/regulations.

3.1.1.1 *Stormwater Pollution Prevention Plan*

ARCADIS prepared a Stormwater Pollution Plan (SWPPP) under a separate cover for review by the NYSDEC in accordance with the New York State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities (Permit No. GP-0-10-001).

The SWPPP was required due to the disturbance of 1 or more acres of land during construction. The SWPPP was implemented in the field by RECON utilizing best management practices in a manner consistent with the New York State Standards and Specifications for Soil Erosion and Sediment Control (SESC).

3.1.1.2 *Soil Erosion and Sediment Control Plan*

SESC were installed at the Site to minimize the potential for erosion and migration of excavated soil and to control precipitation and storm water runoff. Controls included silt fence and hay bales around the excavation, grading, and soil staging areas as illustrated on **Figure 3**.

3.1.1.3 *Local "Use" Permit*

The Township of Hempstead required a "Use" Permit be issued prior to commencement of work. ARCADIS submitted a completed application requesting approval of the planned remediation activities to the Township of Hempstead prior to implementation of the IRM activities. The duration of the Use Permit was extended, as needed, to accommodate the completion of the IRM and IRM Addendum excavations.

3.1.2 Wetland Jurisdictional Determination

Based on knowledge of the site and a search of NYSDEC records and/or other sources, ARCADIS has identified no jurisdictional wetlands present within the Limits of Work. ARCADIS submitted a letter requesting confirmation of these findings to USACE prior to implementation of the IRM activities. Although USACE subsequently issued a letter based on their preliminary jurisdictional determination confirming that a Department of the Army permit would not be required provided the work was executed in accordance with the referenced materials.

3.1.3 Qualifications of Imported Backfill Materials

Stoney Creek Industries, Inc., located in Oceanside, New York, was identified as the source for imported general fill materials. On November 12, 2013, samples of imported backfill were collected and submitted to TestAmerica for chemical analyses. Chemical analyses included volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), herbicides, and pesticides and were compared to the NYSDEC 6 New York Code, Rules, and Regulations Part 375 Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Use-Commercial SCOs to confirm that the material was suitable to be placed within excavated areas. The laboratory analytical results of the backfill sampling indicated that the material was acceptable for use at the Site. **Appendix B** presents the analytical results, which are summarized in **Table 1**. The sampled material was imported to the Site and was utilized for IRM and IRM Addendum activities.

Benimax, Inc., located in Miller Place, New York was identified as the source for imported stone products. However, the only stone products used at the Site were washed products that did not contain any fine materials, so sampling was not required.

3.1.4 Monitoring Well Protection/Abandonment

Monitoring wells located in the VRU excavation area, including well cluster MW-25, and wells MW-24 VD, AMW-1, AMW-2, AMW-8, AMW-9, AMW-10, and IW-1, as well as monitoring well AMW-5, located within one of the IRM Addendum excavation areas, were all abandoned in accordance with the Groundwater Monitoring Well Decommissioning Procedures (NYSDEC 2009a) in preparation for the respective excavations.

3.2 Mobilization and Site Preparation Activities

Mobilization and site preparation activities are presented below.

3.2.1 Utilities Stakeout

Prior to initiation of ground-disturbance activities for IRM and IRM Addendum activities, Dig Safely New York was contacted to identify subsurface utilities near the limits of disturbance for each phase of the IRM. In addition, a geophysical survey was conducted prior to each phase of remedial activity to assist in locating utilities within the limits of disturbance. During the utility location for the IRM Addendum activities, an anomaly (i.e., possible utility) was identified in the GS-2/GP-NORTH excavation. ARCADIS hand cleared the area of the anomaly to verify that no utilities were present.

3.2.2 Locating Excavation Limits

Prior to initiation of each phase of excavation activities, American Engineering and Land Surveying mobilized to the Site and located the horizontal limits of each respective excavation, as identified in the IRM Work Plan and IRM Addendum Work Plan (ARCADIS 2012 and 2014, respectively).

During the IRM activities, the remedial contractor determined the vertical limits of excavation by establishing depth markings on the arm of the excavator, and documented the removal depth at each area of the excavation. During IRM Addendum activities, a tape measure was dropped over the side of the excavation to directly measure/document the depth of excavation.

3.2.3 Stormwater Pollution Prevention Plan Implementation

The stormwater pollution prevention plan (SWPPP) was implemented in accordance with the project SWPPP (ARCADIS 2013). The SWPPP consisted of silt fencing installed by RECON, under the direction of ARCADIS, around the areas of ground disturbance. The silt fence was installed on September 23 and 24, 2013, and removed from the immediate area of the IRM excavation area on February 20 and 21, 2014. Silt fence at the site perimeter remained in place in anticipation of IRM Addendum activities. Inspections were completed on a weekly basis by RECON and the inspection forms are provided in **Appendix C**. Due to the limited nature of IRM Addendum activities (i.e., less than 1 acre of disturbance), implementation of the SWPPP was not required.

3.3 Removal Activities

3.3.1 Interim Remedial Measure Activities

The former Vapor Recovery Unit (VRU) area measured approximately 60 feet by 65 feet, and was excavated to the final depth that varied from 9 to 14 feet below ground surface (bgs). The excavation was performed using a cement-bentonite slurry to minimize the need for dewatering and provide downward pressure to prevent water infiltration and failure of the minimal remaining clay zone above the lower sand. The cement-bentonite slurry was produced using a batch plant to mix dry materials with public water. Cement-bentonite slurry from the batch plant was transferred to a surge tank for additional mixing, which was then pumped into the excavation while excavation was occurring. The cement-bentonite slurry prevented the trench sides from collapsing by providing outward and downward pressure(s), which balanced the inward and upward hydraulic force(s) and reduced ground water flow into the trench.

Impacted material was excavated using traditional construction equipment to the limits shown on **Figures 3 and 4**. Excavated material was removed from the excavation, laid on drainage pads adjacent to the excavation and then loaded into trucks, and transported to the staging area for waste characterization sampling and analysis prior to subsequent off-site disposal. After sampling of the excavated soils was complete, they were covered with polyethylene sheeting to prevent storm water from contacting stockpiled waste materials. All stockpiles were kept covered with plastic and secured to minimize potential air emissions and to prevent erosion during rain events until loading and transportation to the designated waste facility.

3.3.2 Interim Remedial Measure Addendum Activities

The three IRM Addendum excavation areas were excavated to their respective final design depths using traditional soil excavation methods (i.e., cement-bentonite slurry was not utilized). The AMW-5 excavation measured 10 feet by 10 feet and was excavated to 9 feet bgs. The GS-2/GP-NORTH excavation measured 10 feet by 15 feet and was excavated to 4 feet bgs. The SP-6 excavation measured 5 feet by 5 feet and was excavated to 3 feet bgs. Impacted material was excavated using traditional construction equipment to the limits shown on **Figure 5**. Material was removed from the excavation, staged adjacent to the excavation, and then loaded into trucks for off-site disposal.

3.4 Materials Handling

All material excavated during IRM activities was staged on site allowing for drainage, the addition and mixing of solidification amendment, and waste classification (as discussed below). Upon approval from the waste disposal facility, the staged material was placed into transport vehicles and transported to the appropriately licensed off-site disposal facility. Solidification amendment consisted of mixing Portland cement with the excavated material to verify the material would pass the paint filter test prior to load out.

For IRM Addendum activities, the waste materials were characterized prior to excavation. However, material from the AMW-5 and GS-2/GP-NORTH excavations were pre-excavated and staged prior to load out operations to be more efficient with the load out operations.

3.5 IRM Waste Characterization and Disposal

The soil excavated as part of the IRM and any associated liquid waste was classified as U228 listed hazardous waste under 40 Code of Federal Regulation (CFR) 261.31 due to trichloroethene (TCE) detected in the soil. Technical and Administrative Guidance Memorandum (TAGM) 3028 contained-in rule was used for soils that are hazardous by rule, but do not have hazardous levels of TCE or related constituents. As part of the sustainability program, the soils were evaluated to determine if the waste could be disposed as non-hazardous waste using the contained-in rule under TAGM 3028. By using the contained-in rule, part of the excavated soil was disposed as non-hazardous, which reduced the carbon footprint of the program by reducing the travel distances to the treatment facility and disposing the soil in a landfill instead of incineration.

As part of the Site-Specific Waste Management Procedures, inspections of the stockpiles and hazardous waste storage area (when in use) were completed on a weekly basis. **Appendix D** provides copies of the inspection forms.

The IRM Addendum excavation did not did not necessitate the level of soil characterization as prior site sampling data exhibited non-hazardous constituents and very low concentrations.

3.5.1 Characterization, Profiling, Approval

For IRM activities, the excavated soil was stockpiled into piles of approximately 70 to 180 cubic yards. Once a soil pile had been completed, ARCADIS collected 3 discrete and 1 composite waste profile samples from each of the piles. As each pile was separately samples and profiled, it was then characterized/defined and transported off to the waste specific facility.

For IRM Addendum activities, in-situ waste characterization samples were collected from each excavation area prior to mobilization to the Site. Al IRM addendum soils were shipped off to the same non-hazardous waste facility.

All waste characterization samples were submitted for analysis to TestAmerica for the following as requested by WM:

- 8260C Target Compound List VOCs by Gas Chromatograph/Mass Spectrometer (GC/MS) SW846 (grab)
- 8260C toxicity characteristic leaching procedure (TCLP) VOCs by GC/MS SW846 (grab)
- 8270D TCLP SVOCs (GC/MS) SW846
- Moisture Percent Moisture United States Environmental Protection Agency (USEPA) Target Analyte List (TAL)
- 8081B TCLP Organochlorine Pesticides (GC) SW846 TAL
- 8082A PCBs by GC SW846 TAL
- 8151 TCLP Herbicides SW846 TAL

- 6010C TCLP Metals (Inductively Coupled Plasma [ICP]) SW846 TAL
- 7470A TCLP Mercury (Cold Vapor Atomic Absorption [CVAA]) SW846 TAL
- 1010A Ignitability, Pensky-Martens Closed Cup
- 9071B HEM and SGT-HEM SW846 TAL (as received)
- 1664A HEM and SGT-HEM 1664A
- 350.1 Nitrogen, Ammonia MCAWW TAL410.4 COD MCAWW TAL
- 9012 Cyanide, Reactive SW846 TAL
- 9034 Sulfide, Reactive SW846 TAL
- 9045D pH SW846 TAL (as received)
- 9095B Paint Filter SW846 TAL
- Moisture Percent Moisture USEPA TAL
- SM 2540B Solids, Total SM TAL
- SM 2540G Total, Fixed, and Volatile Solids SM TAL

The frequency and sampling methods were in accordance with NYSDEC DER-10/Technical Guidance for Site Investigation and Remediation Table 5.4(e)10 - Recommended Number of Soil Samples for Soil Imported To or Exported from a Site (below).

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

The results of the waste characterization are presented in Appendix E and summarized in **Table 2**, and were compared to the following criteria:

- Toxicity Characteristic Levels (TCL) from CFR Title 40 Section 261.24, dated July 2, 2011

- Contained-in level and groundwater action levels from TAGM 3028 – "Contained-In" Criteria for Environmental Media (dated November 30, 1992) [For TCE only]

- Land disposal restrictions for wastewater and non-waste water from NYSDEC Part 376(j) Table UTS-Universal Treatment Standards and 40 CFR 268.49. [For TCE only]

All waste characterization results were compared to the Toxicity Characteristic Levels, and if the results are above the Toxicity Characteristic Levels criteria, the waste was profiled as hazardous.

During the IRM activities, if the waste was not characteristically hazardous, the waste was evaluated using the contained-in criteria and land disposal restriction (LDR) criteria. The contained-in criteria and LDR criteria were only applied to TCE. **Appendix F** presents all contained-in determinations. During IRM Addendum activities, three additional soil excavation areas were unrelated to the VRU area in which TCE-impacted soil was delineated. As the soil excavated from these additional areas were not considered listed hazardous waste, contained-in determinations were not necessary.

Using the criteria discussed above, during IRM activities, 1,161.91 tons of soil were disposed as hazardous waste at Heritage's East Liverpool, Ohio facility, and 2,301.90 tons of non-hazardous waste disposed under the contained-in criteria. The non-hazardous waste was disposed at one of three facilities: 2,072.14 tons at WM's GROWS North Landfill in Morrisville, Pennsylvania; 131.45 tons at WM's Tullytown Resource Recovery Facility in Tullytown, Pennsylvania; and 98.31 tons at WM's Chaffee Landfill in Chaffee, New York. The waste disposed as non-hazardous was contained out by approval of the NYSDEC and where applicable, the Pennsylvania Department of Environmental Protection. During IRM Addendum activities, an additional 109.81 tons of soil were disposed as non-hazardous waste (89.88 tons were disposed at GROWS North, and 19.93 tons were disposed at Tullytown). The disposal documentation (e.g., completed manifests, certificates of disposal) for IRM and IRM Addendum activities is presented in **Appendix G**.

3.6 Air Monitoring Plan

Air monitoring was performed at the Site to evaluate the potential for worker exposure and contaminant migration from the work zone. Air monitoring activities were performed in accordance with the procedures specified in the approved IRM Work Plan (ARCADIS 2012), the *Community Air Monitoring Plan* (CAMP), and the *Health and Safety Plan* (HASP).

3.6.1 Airborne Particulate Monitoring

Continuous particulate dust monitoring was performed utilizing TSI 8530 DustTrak II monitors at three discrete on-site monitoring stations: one upwind of the work area and two downwind of the work activities. Particulate meters were positioned such that the sample inlet was located at a height approximating the breathing zone and provided a continuous readable particulate dust concentration. A 15-minute time-weighted average (TWA) was recorded for each meter. All monitors were equipped with networking capability, such that field personnel would be notified, by text message and e-mail, of potential exceedances.

The locations of the three particulate meters were established each day, prior to commencing Site activities, depending on the predominant wind direction at the start of the day's activities. During the day, the monitors were relocated, as necessary, to maintain their respective positions upwind or downwind.

Appendix H presents the air monitoring data for airborne particulate. Several exceedances of the action levels were observed during the course of the project, as summarized below:

- September 30 through October 7, 2013: Landscaping crews adjacent to the Site sorted dirt prior to shipping, generating dust that interfered with on-site dust monitoring. After stopping work and implementing dust suppression, the off-site source was confirmed as the problem and work resumed.

- October 10, 2013: A short-term exceedance was caused by the discharge of a truck's brakes on site; work resumed after readings returned to normal.

- October 21, 2013: Brief exceedance appeared to occur on startup prior to work commencing; normal levels observed after recalibration.

- October 30, 2013: Exceedance observed on return from lunch; work was stopped and dust suppression implemented. Work resumed after levels returned to normal.

- November 15, 2013: Brief exceedance after a bag of Portland cement was opened to mix in with the waste. The operator was cautioned to use more care while mixing, and work resumed.

- August 25, 2014: brief exceedance along the northern property boundary. No Site activities were being conducted; therefore, this exceedance was the result of an off-site source migrating onto the Site.

- August 26, 2014: Exceedances were observed sporadically throughout the day. Each exceedance was brief and was directly attributed to vehicle traffic travelling too fast and/or too close to the monitoring stations. In each instance, the driver was reminded to observe the Site speed limit and remain on the established roadways, and work resumed.

- August 27, 2014: Exceedances were observed sporadically throughout the day. Each exceedance was brief and was directly attributed to vehicle traffic travelling too fast and/or in close proximity to the monitoring station. In each instance, the driver was reminded to observe the Site speed limit and remain on the established roadways, and work resumed upon confirming the exceedance conditions observed had been resolved.

3.6.2 Airborne Volatile Organic Compound Monitoring

Continuous VOC monitoring was conducted during intrusive activities by mounting RAE Systems Minirae 3000 photoionization detectors (PIDs) at three discrete on-site monitoring stations: one upwind of the work area and two downwind of the work activities perimeter. The PIDs were positioned such that the sample inlet was located at a height approximating the breathing zone and provided a continuous readable total VOC concentration. A 15-minute TWA was also recorded for each PID. All monitors were equipped with networking capability, such that field personnel would be notified, by text message and e-mail, of potential exceedances.

The locations of the three PIDs were established each day, prior to commencing Site activities, depending on the predominant wind direction at the start of the day's activities. During the day, the monitors were relocated, as necessary, to maintain their respective positions upwind or downwind.

Appendix H presents air monitoring data for VOCs. No exceedances of the action levels presented in the HASP or CAMP were observed.

3.7 Backfilling and Restoration

For IRM activities, the cement-bentonite slurry was left in place upon completion of the excavation to stabilize. The remainder of the open excavation was backfilled utilizing approximately 6 inches of 1- to 2-inch clean stone to match existing grade.

For IRM Addendum activities, each excavation was backfilled with clean fill materials. At the AMW-5 and GS-2/GP-NORTH excavations, clean stone was placed in the bottom of the excavation to bridge the saturated zone. The top of each excavation, as well as the entire GP-6 excavation, was backfilled with compacted general fill materials to match the existing grades.

4. Conclusions and Recommendations

IRM and IRM Addendum activities were completed as an initial component of the remedial strategy to be implemented at the Site for remediation of source areas. By completing IRM and IRM Addendum excavation activities as planned, soil impacts identified within the pre-defined areas successfully achieved the objectives of the IRM and IRM Addendum. Specifically, the excavation activities served to:

- prevent ingestion/direct contact with impacted soil
- prevent inhalation of or exposure to the COCs volatilizing from impacted soil
- prevent migration of COCs that would result in groundwater or surface-water impacts
- prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain

As discussed in the IRM Work Plan (ARCADIS 2012), available data indicates that the implementation of IRM at the Site was appropriate to address anticipated source areas of impacted soil that will likely be encountered during the commercial redevelopment of the Site. Excavation and removal of impacted soil has successfully facilitated protection of human health and the environment through recovery of contaminant mass and elimination or control of potential exposure.

In addition, IRM Addendum activities successfully addressed remaining soil (outside of the VRU area) impacted in excess of the relevant SCOs.

Based on the successful completion of the IRM and IRM Addendum activities and submission of this IRM Completion Report, it is recommended that (soil) NFAs under the Consent Order be developed (with regard to soil) for the Site.

5. Remedial Costs Incurred

During implementation of IRM and IRM Addendum activities, CEMC incurred costs totaling approximately $2,500,000.

6. References

ARCADIS U.S., Inc. 2012. Interim Remedial Measure Work Plan. Former Gulf Oil Terminal Oceanside, Township of Hempstead, New York. NYSDEC Site #1301365.

ARCADIS U.S., Inc. 2014. Interim Remedial Measure Addendum Work Plan. Former Gulf Oil Terminal Oceanside, Township of Hempstead, New York. NYSDEC Site #1301365.

ARCADIS U.S., Inc. 2013. Stormwater Pollution Prevention Plan. Former Gulf Oil Terminal Oceanside, Township of Hempstead, New York. NYSDEC Site #1301365. August 2013.

New York State Department of Environmental Conservation. 2009a. Groundwater Monitoring Well Decommissioning Procedures. December 23, 2009.

New York State Department of Environmental Conservation. 2009b. Order on Consent/Administrative Settlement. December 23, 2009.

New York State Department of Environmental Conservation. 2010. Division of Environmental Remediation-10 – Technical Guidance for Site Investigation and Remediation.

ARCADIS

Tables

Table 1
Backfill Qualification Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	FILL-COMP-1 11/12/13	FILL-COMP-2 11/12/13	FILL-VOC-1 11/12/13	FILL-VOC-2 11/12/13	FILL-VOC-3 11/12/13	FILL-VOC-4 11/12/13	FILL-VOC-5 11/12/13	FILL-VOC-6 11/12/13
PCBs											
Aroclor-1016	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Aroclor-1221	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Aroclor-1232	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Aroclor-1242	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Aroclor-1248	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Aroclor-1254	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Aroclor-1260	- -	- -	mg/kg	<0.23	<0.25	NA	NA	NA	NA	NA	NA
Volatile Organics											
1,1,1-Trichloroethane	0.68	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,1-Dichloroethane	0.27	240	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,1-Dichloroethene	0.33	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,2,4-Trimethylbenzene	3.6	190	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,2-Dichlorobenzene	1.1	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,2-Dichloroethane	0.02	30	mg/kg	NA	NA	0.0014 JB	<0.0046	<0.0068	0.0035 JB	0.0012 JB	<0.053
1,3,5-Trimethylbenzene	8.4	190	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,3-Dichlorobenzene	2.4	280	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,4-Dichlorobenzene	1.8	130	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
1,4-Dioxane	0.1	130	mg/kg	NA	NA	<0.19	<0.19	<0.27	<0.49	<0.19	<2.1
2-Butanone	0.12	500	mg/kg	NA	NA	<0.024 *	<0.023 *	<0.034 *	<0.061 *	<0.023 *	<0.26
Acetone	0.05	500	mg/kg	NA	NA	<0.024	<0.023	<0.034	<0.061	<0.023	<0.26
Benzene	0.06	44	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Carbon Tetrachloride	0.76	22	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Chlorobenzene	1.1	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Chloroform	0.37	350	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
cis-1,2-Dichloroethene	0.25	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Ethylbenzene	1	390	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Isopropylbenzene	- -	- -	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Methyl tert-butyl ether	0.93	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Methylene Chloride	0.05	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	**0.12 B**
n-Butylbenzene	12	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
n-Propylbenzene	3.9	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
sec-Butylbenzene	11	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
tert-Butylbenzene	5.9	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Tetrachloroethene	1.3	150	mg/kg	NA	NA	0.00098 J	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Toluene	0.7	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
trans-1,2-Dichloroethene	0.19	500	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Trichloroethene	0.47	200	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Vinyl Chloride	0.02	13	mg/kg	NA	NA	<0.0048	<0.0046	<0.0068	<0.012	<0.0047	<0.053
Xylenes (total)	0.26	500	mg/kg	NA	NA	<0.0096	<0.0093	<0.014	<0.024	<0.0094	<0.11

See Notes on Page 3.

Table 1
Backfill Qualification Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	FILL-COMP-1 11/12/13	FILL-COMP-2 11/12/13	FILL-VOC-1 11/12/13	FILL-VOC-2 11/12/13	FILL-VOC-3 11/12/13	FILL-VOC-4 11/12/13	FILL-VOC-5 11/12/13	FILL-VOC-6 11/12/13
Semivolatile Organics											
2-Methylphenol	0.33	500	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
3-Methylphenol	0.33	500	mg/kg	<1.7	<0.36	NA	NA	NA	NA	NA	NA
4-Methylphenol	0.33	500	mg/kg	<1.7	<0.36	NA	NA	NA	NA	NA	NA
Acenaphthene	20	500	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	500	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Anthracene	100	500	mg/kg	0.054 J	0.035 J	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	mg/kg	<0.90	0.15 J	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	mg/kg	0.15 J	0.15 J	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	5.6	mg/kg	0.20 J	0.19	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	500	mg/kg	0.10 J	0.071 J	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	56	mg/kg	0.10 J	0.085 J	NA	NA	NA	NA	NA	NA
Chrysene	1	56	mg/kg	0.19 J	0.16 J	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	mg/kg	<0.90	0.018 J	NA	NA	NA	NA	NA	NA
Dibenzofuran	7	350	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Fluoranthene	100	500	mg/kg	0.36 J	0.29	NA	NA	NA	NA	NA	NA
Fluorene	30	500	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	0.33	6	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	mg/kg	0.088 J	0.064 J	NA	NA	NA	NA	NA	NA
Naphthalene	12	500	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.8	6.7	mg/kg	<1.7	<0.36	NA	NA	NA	NA	NA	NA
Phenanthrene	100	500	mg/kg	0.26 J	0.13 J	NA	NA	NA	NA	NA	NA
Phenol	0.33	500	mg/kg	<0.90	<0.18	NA	NA	NA	NA	NA	NA
Pyrene	100	500	mg/kg	0.31 J	0.23	NA	NA	NA	NA	NA	NA
Organochlorine Pesticides											
4,4'-DDD	0.0033	92	mg/kg	**0.0050 J**	<0.018	NA	NA	NA	NA	NA	NA
4,4'-DDE	0.0033	62	mg/kg	**0.0052 J**	<0.018	NA	NA	NA	NA	NA	NA
4,4'-DDT	0.0033	47	mg/kg	**0.0089 J**	**0.0089 J**	NA	NA	NA	NA	NA	NA
Aldrin	0.005	0.68	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Alpha-BHC	0.02	3.4	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Alpha-Chlordane	0.094	24	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Beta-BHC	0.036	3	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Delta-BHC	0.04	500	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Dieldrin	0.005	1.4	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Endosulfan I	2.4	200	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Endosulfan II	2.4	200	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Endosulfan Sulfate	2.4	200	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Endrin	0.014	89	mg/kg	<0.018	0.0039 J	NA	NA	NA	NA	NA	NA
Gamma-BHC (Lindane)	0.1	9.2	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA
Heptachlor	0.042	15	mg/kg	<0.018	<0.018	NA	NA	NA	NA	NA	NA

See Notes on Page 3.

Table 1
Backfill Qualification Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Date Collected:	Unrestricted Use SCOs	Restricted Use SCOs Commercial	Units	FILL-COMP-1 11/12/13	FILL-COMP-2 11/12/13	FILL-VOC-1 11/12/13	FILL-VOC-2 11/12/13	FILL-VOC-3 11/12/13	FILL-VOC-4 11/12/13	FILL-VOC-5 11/12/13	FILL-VOC-6 11/12/13
Herbicides											
2,4,5-TP	3.8	500	mg/kg	<0.018 *	<0.018 *	NA	NA	NA	NA	NA	NA
Inorganics											
Arsenic	13	16	mg/kg	3.70	2.90	NA	NA	NA	NA	NA	NA
Barium	350	400	mg/kg	169	157	NA	NA	NA	NA	NA	NA
Beryllium	7.2	590	mg/kg	0.940	0.870	NA	NA	NA	NA	NA	NA
Cadmium	2.5	9.3	mg/kg	0.0690 J	<0.200	NA	NA	NA	NA	NA	NA
Copper	50	270	mg/kg	41.4	44.1	NA	NA	NA	NA	NA	NA
Lead	63	1,000	mg/kg	22.6	23.3	NA	NA	NA	NA	NA	NA
Manganese	1,600	10,000	mg/kg	335 B	340 B	NA	NA	NA	NA	NA	NA
Mercury	0.18	2.8	mg/kg	0.0450	0.0550 H	NA	NA	NA	NA	NA	NA
Nickel	30	310	mg/kg	**30.6**	**30.2**	NA	NA	NA	NA	NA	NA
Selenium	3.9	1,500	mg/kg	<4.60	<4.10	NA	NA	NA	NA	NA	NA
Silver	2	1,500	mg/kg	<0.580	<0.510	NA	NA	NA	NA	NA	NA
Zinc	109	10,000	mg/kg	85.8 B	83.7 B	NA	NA	NA	NA	NA	NA
Miscellaneous											
Chromium, hexavalent	1	400	mg/kg	<0.86	<0.88	NA	NA	NA	NA	NA	NA
Chromium, trivalent	30	1,500	mg/kg	**36.1**	**36.9**	NA	NA	NA	NA	NA	NA
Cyanide	27	27	mg/kg	<0.97	<1.1	NA	NA	NA	NA	NA	NA
Percent Solids Dry Weight											
Percent Moisture	- -	- -	%	7.4	8.9	NA	NA	NA	NA	NA	NA
Percent Solids	- -	- -	%	93	91	92	92	73	93	92	93

Notes:
Bold results indicate results above Unrestricted Use SCOs.
- - = Information not included in table. Refer to applicable reference.
< = less than.
% = percent.
* = Laboratory control sample or laboratory control sample duplicate exceeds the control limit.
B = Analyte was also detected in the associated method blank.
BHC = benzene hexachloride.
H = Sample was prepped or analyzed beyond the specified holding time.
J = Indicates an estimated value.
mg/kg = milligrams per kilogram.
NA = not analyzed.
SCO = Soil Cleanup Objective.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	Toxicity Characteristic Level	Contained-In Level - Soil/ Sediment Action Level	Land Disposal - Nonwastewater Standard	Alternative Land Disposal - Nonwastewater Standard	SP-1-COMP 10/23/13	SP-1-VOC-1 10/23/13	SP-1-VOC-1 11/04/13	SP-1-VOC-2 10/23/13	SP-1-VOC-2 11/04/13	SP-2-COMP 10/30/13
Volatile Organics											
1,1,1-Trichloroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,1,2,2-Tetrachloroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,1,2-Trichloroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,1-Dichloroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,1-Dichloroethene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,2,4-Trichlorobenzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	- -	- -	- -	- -	NA	<0.76	NA	<0.42	NA	NA
1,2-Dibromoethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,2-Dichlorobenzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,2-Dichloroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,2-Dichloropropane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,3-Dichlorobenzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
1,4-Dichlorobenzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
2-Butanone	mg/kg	- -	- -	- -	- -	NA	<1.5	NA	<0.85	NA	NA
2-Hexanone	mg/kg	- -	- -	- -	- -	NA	<1.5	NA	<0.85	NA	NA
4-Methyl-2-pentanone	mg/kg	- -	- -	- -	- -	NA	<1.5	NA	<0.85	NA	NA
Acetone	mg/kg	- -	- -	- -	- -	NA	<1.5	NA	<0.85	NA	NA
Benzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Bromodichloromethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Bromoform	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Bromomethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Carbon Disulfide	mg/kg	- -	- -	- -	- -	NA	0.12 J	NA	0.11 J	NA	NA
Carbon Tetrachloride	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Chlorobenzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Chloroethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Chloroform	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Chloromethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
cis-1,2-Dichloroethene	mg/kg	- -	780	- -	- -	NA	1.3	NA	1.3	NA	NA
cis-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Cyclohexane	mg/kg	- -	- -	- -	- -	NA	<0.76	NA	<0.42	NA	NA
Dibromochloromethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Dichlorodifluoromethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Ethylbenzene	mg/kg	- -	- -	- -	- -	NA	0.055 J	NA	<0.21	NA	NA
Isopropylbenzene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Methyl acetate	mg/kg	- -	- -	- -	- -	NA	0.32 J	NA	0.046 J	NA	NA
Methyl tert-butyl ether	mg/kg	- -	- -	- -	- -	NA	0.36 J	NA	0.077 J	NA	NA
Methylcyclohexane	mg/kg	- -	- -	- -	- -	NA	0.056 J	NA	<0.42	NA	NA
Methylene Chloride	mg/kg	- -	85	30	300	NA	0.22 J	NA	6.1	NA	NA
Styrene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Tetrachloroethene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Toluene	mg/kg	- -	- -	- -	- -	NA	0.059 J	NA	<0.21	NA	NA
Total VOCs	mg/kg	- -	- -	- -	- -	NA	3.8 J	NA	13 J	NA	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	Toxicity Characteristic Level	Contained-In Level - Soil/ Sediment Action Level	Land Disposal - Nonwastewater Standard	Alternative Land Disposal - Nonwastewater Standard	SP-1-COMP 10/23/13	SP-1-VOC-1 10/23/13	SP-1-VOC-1 11/04/13	SP-1-VOC-2 10/23/13	SP-1-VOC-2 11/04/13	SP-2-COMP 10/30/13
Volatile Organics (Cont.)											
trans-1,2-Dichloroethene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
trans-1,3-Dichloropropene	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Trichloroethene	mg/kg	- -	58	6	60	NA	0.78	NA	5.7	NA	NA
Trichlorofluoromethane	mg/kg	- -	- -	- -	- -	NA	<0.38	NA	<0.21	NA	NA
Vinyl Chloride	mg/kg	- -	0.34	6	60	NA	0.34 J	NA	<0.21	NA	NA
Xylenes (total)	mg/kg	- -	- -	- -	- -	NA	0.17 J	NA	<0.42	NA	NA
Volatile Organics-TCLP											
1,1-Dichloroethene	mg/L	0.7	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
1,2-Dichloroethane	mg/L	0.5	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
2-Butanone	mg/L	200	- -	- -	- -	NA	NA	<0.050	NA	<0.050	NA
Benzene	mg/L	0.5	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
Carbon Tetrachloride	mg/L	0.5	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
Chlorobenzene	mg/L	100	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
Chloroform	mg/L	6	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
Tetrachloroethene	mg/L	0.7	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
Trichloroethene	mg/L	0.5	- -	- -	- -	NA	NA	0.084	NA	0.19	NA
Vinyl Chloride	mg/L	0.2	- -	- -	- -	NA	NA	<0.010	NA	<0.010	NA
Semivolatile Organics-TCLP											
1,4-Dichlorobenzene	mg/L	7.5	- -	- -	- -	<0.010	NA	NA	NA	NA	<0.010
2,4,5-Trichlorophenol	mg/L	400	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
2,4,6-Trichlorophenol	mg/L	2	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
2,4-Dinitrotoluene	mg/L	0.13	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
2-Methylphenol	mg/L	200	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
3&4-Methylphenol	mg/L	200	- -	- -	- -	0.0022 J	NA	NA	NA	NA	<0.010
Hexachlorobenzene	mg/L	0.13	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
Hexachlorobutadiene	mg/L	0.5	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
Hexachloroethane	mg/L	3	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
Nitrobenzene	mg/L	2	- -	- -	- -	<0.0050	NA	NA	NA	NA	<0.0050
Pentachlorophenol	mg/L	100	- -	- -	- -	<0.010	NA	NA	NA	NA	<0.010
Pyridine	mg/L	5	- -	- -	- -	<0.025	NA	NA	NA	NA	<0.025
Organochlorine Pesticides-TCLP											
Endrin	mg/L	0.02	- -	- -	- -	<0.00020	NA	NA	NA	NA	<0.00020
Gamma-BHC (Lindane)	mg/L	0.4	- -	- -	- -	0.000041 JB	NA	NA	NA	NA	0.000069 JB
Heptachlor	mg/L	0.008	- -	- -	- -	<0.00020	NA	NA	NA	NA	0.000058 JB
Heptachlor Epoxide	mg/L	0.008	- -	- -	- -	<0.00020	NA	NA	NA	NA	<0.00020
Methoxychlor	mg/L	10	- -	- -	- -	<0.00020	NA	NA	NA	NA	<0.00020
Technical Chlordane	mg/L	0.03	- -	- -	- -	<0.0020	NA	NA	NA	NA	<0.0020
Toxaphene	mg/L	0.5	- -	- -	- -	<0.0020	NA	NA	NA	NA	<0.0020
Herbicides-TCLP											
2,4,5-TP	mg/L	1	- -	- -	- -	<0.0020	NA	NA	NA	NA	<0.0020
2,4-D	mg/L	10	- -	- -	- -	<0.0020	NA	NA	NA	NA	<0.0020

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	Toxicity Characteristic Level	Contained-In Level - Soil/ Sediment Action Level	Land Disposal - Nonwastewater Standard	Alternative Land Disposal - Nonwastewater Standard	SP-1-COMP 10/23/13	SP-1-VOC-1 10/23/13	SP-1-VOC-1 11/04/13	SP-1-VOC-2 10/23/13	SP-1-VOC-2 11/04/13	SP-2-COMP 10/30/13
Inorganics-TCLP											
Arsenic	mg/L	5	- -	- -	- -	0.00970 J	NA	NA	NA	NA	0.00780 J
Barium	mg/L	100	- -	- -	- -	0.210 B	NA	NA	NA	NA	0.170 B
Cadmium	mg/L	1	- -	- -	- -	0.00120	NA	NA	NA	NA	0.00110
Chromium	mg/L	5	- -	- -	- -	0.00320 JB	NA	NA	NA	NA	0.00510 B
Copper	mg/L	167	- -	- -	- -	0.00240 JB	NA	NA	NA	NA	0.00250 JB
Lead	mg/L	5	- -	- -	- -	<0.00500	NA	NA	NA	NA	0.0300
Mercury	mg/L	0.2	- -	- -	- -	0.000120 J	NA	NA	NA	NA	<0.000200
Nickel	mg/L	242	- -	- -	- -	0.0130 B	NA	NA	NA	NA	0.0140
Selenium	mg/L	1	- -	- -	- -	<0.0150	NA	NA	NA	NA	<0.0150
Silver	mg/L	5	- -	- -	- -	<0.00300	NA	NA	NA	NA	<0.00300
Zinc	mg/L	1,875	- -	- -	- -	0.0810 B	NA	NA	NA	NA	0.0900 B
PCBs											
Aroclor-1016	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Aroclor-1221	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Aroclor-1232	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Aroclor-1242	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Aroclor-1248	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Aroclor-1254	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Aroclor-1260	mg/kg	- -	- -	- -	- -	<0.32	NA	NA	NA	NA	<0.22
Total PCBs	mg/kg	50 (TSCA)	- -	- -	- -	ND	NA	NA	NA	NA	ND
Miscellaneous											
Ammonia as NH_3	mg/L	- -	- -	- -	- -	0.072 B	NA	NA	NA	NA	0.077
Ammonia Nitrogen	mg/L	111,111	- -	- -	- -	0.059 B	NA	NA	NA	NA	0.063
Chemical Oxygen Demand	mg/L	- -	- -	- -	- -	14	NA	NA	NA	NA	11.2
Corrosivity	SU	- -	- -	- -	- -	8.71	NA	NA	NA	NA	8.42
Flashpoint	°F	> 140	- -	- -	- -	>176	NA	NA	NA	NA	>176
Free Liquid	mL/100g	0	- -	- -	- -	0	NA	NA	NA	NA	0
Leachate pH	SU	- -				NA	NA	NA	NA	NA	NA
Oil & Grease	mg/kg	- -	- -	- -	- -	530 H	NA	NA	NA	NA	NA
Oil & Grease	mg/L	88,550	- -	- -	- -	27.5 J	NA	NA	NA	NA	160
Reactive Cyanide	mg/kg	100	- -	- -	- -	<10	NA	NA	NA	NA	<10
Reactive Sulfide	mg/kg	500	- -	- -	- -	20	NA	NA	NA	NA	36.1
Total Solids	mg/L	- -	- -	- -	- -	320 H	NA	NA	NA	NA	230 H
Total Volatile Solids	%	- -	- -	- -	- -	3.6	NA	NA	NA	NA	3.2
Percent Solids Dry Weight											
Percent Moisture	%	- -	- -	- -	- -	NA	38	NA	19	NA	NA
Percent Solids	%	- -	- -	- -	- -	78	62	NA	81	NA	96

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Sample Depth (Feet): / Date Collected:	Units	SP-2-VOC-1 10/30/13	SP-2-VOC-1 11/04/13	SP-2-VOC-2 10/30/13	SP-2-VOC-2 11/04/13	SP-3-COMP 10/30/13	SP-3-VOC-1 10/30/13	SP-3-VOC-1 11/04/13	SP-3-VOC-2 10/30/13	SP-3-VOC-2 11/04/13	SP-4-COMP 10/30/13	SP-4-VOC-1 10/30/13
Volatile Organics												
1,1,1-Trichloroethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,1,2,2-Tetrachloroethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,1,2-Trichloroethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,1-Dichloroethane	mg/kg	<0.87	NA	<0.0049	NA	NA	0.011	NA	0.013	NA	NA	0.010
1,1-Dichloroethene	mg/kg	<0.87	NA	<0.0049	NA	NA	0.017	NA	0.020	NA	NA	0.022
1,2,4-Trichlorobenzene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,2-Dibromo-3-chloropropane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,2-Dibromoethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,2-Dichlorobenzene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,2-Dichloroethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	0.00055 J	NA	NA	<0.0047
1,2-Dichloropropane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,3-Dichlorobenzene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
1,4-Dichlorobenzene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
2-Butanone	mg/kg	<4.3	NA	<0.025	NA	NA	<0.019	NA	<0.020	NA	NA	<0.023
2-Hexanone	mg/kg	<4.3	NA	<0.025	NA	NA	<0.019	NA	<0.020	NA	NA	<0.023
4-Methyl-2-pentanone	mg/kg	<4.3	NA	<0.025	NA	NA	<0.019	NA	<0.020	NA	NA	<0.023
Acetone	mg/kg	<4.3 *	NA	<0.025	NA	NA	<0.019	NA	<0.020	NA	NA	0.056
Benzene	mg/kg	<0.87	NA	0.0038 J	NA	NA	0.029	NA	0.015	NA	NA	0.034
Bromodichloromethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Bromoform	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Bromomethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Carbon Disulfide	mg/kg	<0.87	NA	0.043	NA	NA	0.17 E	NA	0.62	NA	NA	0.21 E
Carbon Tetrachloride	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Chlorobenzene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Chloroethane	mg/kg	<0.87 *	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Chloroform	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Chloromethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
cis-1,2-Dichloroethene	mg/kg	4.8	NA	4.3	NA	NA	12	NA	4.8	NA	NA	7.7
cis-1,3-Dichloropropene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Cyclohexane	mg/kg	<0.87	NA	0.026	NA	NA	0.10	NA	<0.0040	NA	NA	0.052
Dibromochloromethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Dichlorodifluoromethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Ethylbenzene	mg/kg	<0.87	NA	0.014	NA	NA	0.081	NA	0.012	NA	NA	0.038
Isopropylbenzene	mg/kg	<0.87	NA	0.0034 J	NA	NA	0.014	NA	0.0031 J	NA	NA	0.0078
Methyl acetate	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Methyl tert-butyl ether	mg/kg	<0.87	NA	0.035	NA	NA	0.23 E	NA	0.056	NA	NA	0.20 E
Methylcyclohexane	mg/kg	<0.87	NA	0.032	NA	NA	0.11	NA	0.046	NA	NA	0.053
Methylene Chloride	mg/kg	5.6	NA	1.2	NA	NA	11	NA	1.3	NA	NA	<0.0047
Styrene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Tetrachloroethene	mg/kg	<0.87	NA	0.0041 J	NA	NA	0.086	NA	0.0052	NA	NA	0.048
Toluene	mg/kg	<0.87	NA	0.011	NA	NA	0.14	NA	0.020	NA	NA	0.10
Total VOCs	mg/kg	64	NA	27 J	NA	NA	180	NA	26 J	NA	NA	87

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Sample Depth (Feet): / Date Collected:	Units	SP-2-VOC-1 10/30/13	SP-2-VOC-1 11/04/13	SP-2-VOC-2 10/30/13	SP-2-VOC-2 11/04/13	SP-3-COMP 10/30/13	SP-3-VOC-1 10/30/13	SP-3-VOC-1 11/04/13	SP-3-VOC-2 10/30/13	SP-3-VOC-2 11/04/13	SP-4-COMP 10/30/13	SP-4-VOC-1 10/30/13
Volatile Organics (Cont.)												
trans-1,2-Dichloroethene	mg/kg	<0.87	NA	0.028	NA	NA	0.074	NA	0.13	NA	NA	0.063
trans-1,3-Dichloropropene	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Trichloroethene	mg/kg	**54**	NA	**21**	NA	NA	**160**	NA	**18**	NA	NA	**78**
Trichlorofluoromethane	mg/kg	<0.87	NA	<0.0049	NA	NA	<0.0037	NA	<0.0040	NA	NA	<0.0047
Vinyl Chloride	mg/kg	<0.87	NA	0.28 E	NA	NA	**0.49 E**	NA	**0.42 E**	NA	NA	**0.57 E**
Xylenes (total)	mg/kg	<1.7	NA	0.068	NA	NA	0.33	NA	0.049	NA	NA	0.16
Volatile Organics-TCLP												
1,1-Dichloroethene	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
1,2-Dichloroethane	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
2-Butanone	mg/L	NA	<0.050	NA	<0.050	NA	NA	<0.050	NA	<0.050	NA	NA
Benzene	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
Carbon Tetrachloride	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
Chlorobenzene	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
Chloroform	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
Tetrachloroethene	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
Trichloroethene	mg/L	NA	0.036	NA	0.067	NA	NA	0.22	NA	0.13	NA	NA
Vinyl Chloride	mg/L	NA	<0.010	NA	<0.010	NA	NA	<0.010	NA	<0.010	NA	NA
Semivolatile Organics-TCLP												
1,4-Dichlorobenzene	mg/L	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	<0.010	NA
2,4,5-Trichlorophenol	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
2,4,6-Trichlorophenol	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
2,4-Dinitrotoluene	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
2-Methylphenol	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
3&4-Methylphenol	mg/L	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	<0.010	NA
Hexachlorobenzene	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
Hexachlorobutadiene	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
Hexachloroethane	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
Nitrobenzene	mg/L	NA	NA	NA	NA	<0.0050	NA	NA	NA	NA	<0.0050	NA
Pentachlorophenol	mg/L	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	<0.010	NA
Pyridine	mg/L	NA	NA	NA	NA	<0.025	NA	NA	NA	NA	<0.025	NA
Organochlorine Pesticides-TCLP												
Endrin	mg/L	NA	NA	NA	NA	<0.00020	NA	NA	NA	NA	<0.00020	NA
Gamma-BHC (Lindane)	mg/L	NA	NA	NA	NA	0.000068 JB	NA	NA	NA	NA	<0.00020	NA
Heptachlor	mg/L	NA	NA	NA	NA	0.000040 JB	NA	NA	NA	NA	0.000042 JB	NA
Heptachlor Epoxide	mg/L	NA	NA	NA	NA	0.000011 JB	NA	NA	NA	NA	<0.00020	NA
Methoxychlor	mg/L	NA	NA	NA	NA	<0.00020	NA	NA	NA	NA	<0.00020	NA
Technical Chlordane	mg/L	NA	NA	NA	NA	<0.0020	NA	NA	NA	NA	<0.0020	NA
Toxaphene	mg/L	NA	NA	NA	NA	<0.0020	NA	NA	NA	NA	<0.0020	NA
Herbicides-TCLP												
2,4,5-TP	mg/L	NA	NA	NA	NA	<0.0020	NA	NA	NA	NA	<0.0020	NA
2,4-D	mg/L	NA	NA	NA	NA	<0.0020	NA	NA	NA	NA	<0.0020	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Sample Depth (Feet): / Date Collected:	Units	SP-2-VOC-1 10/30/13	SP-2-VOC-1 11/04/13	SP-2-VOC-2 10/30/13	SP-2-VOC-2 11/04/13	SP-3-COMP 10/30/13	SP-3-VOC-1 10/30/13	SP-3-VOC-1 11/04/13	SP-3-VOC-2 10/30/13	SP-3-VOC-2 11/04/13	SP-4-COMP 10/30/13	SP-4-VOC-1 10/30/13
Inorganics-TCLP												
Arsenic	mg/L	NA	NA	NA	NA	0.0100	NA	NA	NA	NA	<0.0100	NA
Barium	mg/L	NA	NA	NA	NA	0.190 B	NA	NA	NA	NA	0.210 B	NA
Cadmium	mg/L	NA	NA	NA	NA	0.000770 J	NA	NA	NA	NA	0.00140	NA
Chromium	mg/L	NA	NA	NA	NA	0.00450 B	NA	NA	NA	NA	0.00270 JB	NA
Copper	mg/L	NA	NA	NA	NA	0.00280 JB	NA	NA	NA	NA	<0.0100	NA
Lead	mg/L	NA	NA	NA	NA	0.0160	NA	NA	NA	NA	0.0310	NA
Mercury	mg/L	NA	NA	NA	NA	<0.000200	NA	NA	NA	NA	<0.000200	NA
Nickel	mg/L	NA	NA	NA	NA	0.0120	NA	NA	NA	NA	0.0110	NA
Selenium	mg/L	NA	NA	NA	NA	<0.0150	NA	NA	NA	NA	<0.0150	NA
Silver	mg/L	NA	NA	NA	NA	<0.00300	NA	NA	NA	NA	<0.00300	NA
Zinc	mg/L	NA	NA	NA	NA	0.0700 B	NA	NA	NA	NA	0.110 B	NA
PCBs												
Aroclor-1016	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Aroclor-1221	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Aroclor-1232	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Aroclor-1242	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Aroclor-1248	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Aroclor-1254	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Aroclor-1260	mg/kg	NA	NA	NA	NA	<0.25	NA	NA	NA	NA	<0.21	NA
Total PCBs	mg/kg	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA
Miscellaneous												
Ammonia as NH_3	mg/L	NA	NA	NA	NA	0.084	NA	NA	NA	NA	0.039	NA
Ammonia Nitrogen	mg/L	NA	NA	NA	NA	0.069	NA	NA	NA	NA	0.032	NA
Chemical Oxygen Demand	mg/L	NA	NA	NA	NA	11.2	NA	NA	NA	NA	10.8	NA
Corrosivity	SU	NA	NA	NA	NA	9.13	NA	NA	NA	NA	8.15	NA
Flashpoint	°F	NA	NA	NA	NA	>176	NA	NA	NA	NA	>176	NA
Free Liquid	mL/100g	NA	NA	NA	NA	0	NA	NA	NA	NA	0	NA
Leachate pH	SU	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease	mg/L	NA	NA	NA	NA	136	NA	NA	NA	NA	97.6 J	NA
Reactive Cyanide	mg/kg	NA	NA	NA	NA	<10	NA	NA	NA	NA	<10	NA
Reactive Sulfide	mg/kg	NA	NA	NA	NA	18	NA	NA	NA	NA	16	NA
Total Solids	mg/L	NA	NA	NA	NA	298 H	NA	NA	NA	NA	217 H	NA
Total Volatile Solids	%	NA	NA	NA	NA	2.7	NA	NA	NA	NA	2.3	NA
Percent Solids Dry Weight												
Percent Moisture	%	9.8	NA	12	NA	NA	9.1	NA	11	NA	NA	18
Percent Solids	%	90	NA	88	NA	93	91	NA	89	NA	92	82

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-4-VOC-1 11/04/13	SP-4-VOC-2 10/30/13	SP-4-VOC-2 11/04/13	SP-5-COMP 11/04/13	SP-5-VOC-1 11/04/13	SP-5-VOC-2 11/04/13	SP-6-COMP 11/04/13	SP-6-VOC-1 11/04/13	SP-6-VOC-2 11/04/13	SP-7-COMP 11/06/13	SP-7-VOC-1 11/06/13
Volatile Organics												
1,1,1-Trichloroethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,1,2,2-Tetrachloroethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,1,2-Trichloroethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,1-Dichloroethane	mg/kg	NA	<0.053	NA	NA	<0.054	0.019 J	NA	<0.085	<0.085	NA	<0.15
1,1-Dichloroethene	mg/kg	NA	<0.053	NA	NA	<0.054	0.019 J	NA	<0.085	<0.085	NA	<0.15
1,2,4-Trichlorobenzene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,2-Dibromo-3-chloropropane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,2-Dibromoethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,2-Dichlorobenzene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,2-Dichloroethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,2-Dichloropropane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,3-Dichlorobenzene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
1,4-Dichlorobenzene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
2-Butanone	mg/kg	NA	<0.27	NA	NA	<0.27	<0.25	NA	<0.42	<0.42	NA	<0.74
2-Hexanone	mg/kg	NA	<0.27	NA	NA	<0.27	0.15 J	NA	<0.42	<0.42	NA	<0.74
4-Methyl-2-pentanone	mg/kg	NA	<0.27	NA	NA	<0.27	<0.25	NA	<0.42	<0.42	NA	<0.74
Acetone	mg/kg	NA	<0.27	NA	NA	<0.27	<0.25	NA	<0.42	<0.42	NA	<0.74
Benzene	mg/kg	NA	<0.053	NA	NA	<0.054	0.044 J	NA	0.019 J	<0.085	NA	0.031 J
Bromodichloromethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Bromoform	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Bromomethane	mg/kg	NA	<0.053	NA	NA	<0.054 *	<0.050 *	NA	<0.085	<0.085 *	NA	<0.15
Carbon Disulfide	mg/kg	NA	<0.053	NA	NA	0.025 J	0.39	NA	0.060 J	0.043 J	NA	0.17
Carbon Tetrachloride	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Chlorobenzene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Chloroethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Chloroform	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Chloromethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
cis-1,2-Dichloroethene	mg/kg	NA	4.2	NA	NA	3.4	11	NA	2.4	0.025 J	NA	2.4
cis-1,3-Dichloropropene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Cyclohexane	mg/kg	NA	<0.053	NA	NA	0.015 J	0.18	NA	<0.085	<0.085	NA	<0.15
Dibromochloromethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Dichlorodifluoromethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Ethylbenzene	mg/kg	NA	<0.053	NA	NA	0.019 J	0.15	NA	0.15	<0.085	NA	0.066 J
Isopropylbenzene	mg/kg	NA	<0.053	NA	NA	<0.054	0.045 J	NA	0.059 J	<0.085	NA	<0.15
Methyl acetate	mg/kg	NA	0.051 J	NA	NA	0.079	<0.050	NA	0.42	0.052 J	NA	0.27
Methyl tert-butyl ether	mg/kg	NA	0.13	NA	NA	0.16	0.29	NA	0.40	0.063 J	NA	0.47
Methylcyclohexane	mg/kg	NA	<0.053	NA	NA	<0.054	0.22	NA	0.14	<0.085	NA	<0.15
Methylene Chloride	mg/kg	NA	0.33	NA	NA	3.4	12	NA	0.16	0.099	NA	8.7
Styrene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Tetrachloroethene	mg/kg	NA	<0.053	NA	NA	<0.054	0.21	NA	<0.085	<0.085	NA	<0.15
Toluene	mg/kg	NA	<0.053	NA	NA	<0.054	0.31	NA	<0.085	<0.085	NA	0.087 J
Total VOCs	mg/kg	NA	7.8 J	NA	NA	17 J	250 J	NA	5.5 J	0.28 J	NA	13 J

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Sample Depth (Feet): / Date Collected:	Units	SP-4-VOC-1 11/04/13	SP-4-VOC-2 10/30/13	SP-4-VOC-2 11/04/13	SP-5-COMP 11/04/13	SP-5-VOC-1 11/04/13	SP-5-VOC-2 11/04/13	SP-6-COMP 11/04/13	SP-6-VOC-1 11/04/13	SP-6-VOC-2 11/04/13	SP-7-COMP 11/06/13	SP-7-VOC-1 11/06/13
Volatile Organics (Cont.)												
trans-1,2-Dichloroethene	mg/kg	NA	0.14	NA	NA	<0.054	0.089	NA	<0.085	<0.085	NA	<0.15
trans-1,3-Dichloropropene	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Trichloroethene	mg/kg	NA	2.9	NA	NA	**10**	**220**	NA	0.89	<0.085	NA	0.29
Trichlorofluoromethane	mg/kg	NA	<0.053	NA	NA	<0.054	<0.050	NA	<0.085	<0.085	NA	<0.15
Vinyl Chloride	mg/kg	NA	0.054	NA	NA	0.023 J	**0.37**	NA	**0.53**	<0.085	NA	**0.39**
Xylenes (total)	mg/kg	NA	<0.11	NA	NA	<0.11	0.98	NA	0.26	<0.17	NA	0.28 J
Volatile Organics-TCLP												
1,1-Dichloroethene	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
1,2-Dichloroethane	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
2-Butanone	mg/L	<0.050	NA	<0.050	NA	<0.050	<0.050	NA	<0.050	<0.050	NA	<0.050
Benzene	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Carbon Tetrachloride	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Chlorobenzene	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Chloroform	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Tetrachloroethene	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Trichloroethene	mg/L	0.19	NA	0.12	NA	**1.7**	0.052	NA	<0.010	<0.010	NA	0.0091 J
Vinyl Chloride	mg/L	<0.010	NA	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Semivolatile Organics-TCLP												
1,4-Dichlorobenzene	mg/L	NA	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA
2,4,5-Trichlorophenol	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2,4,6-Trichlorophenol	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2,4-Dinitrotoluene	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2-Methylphenol	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
3&4-Methylphenol	mg/L	NA	NA	NA	<0.010	NA	NA	0.00095 J	NA	NA	<0.010	NA
Hexachlorobenzene	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Hexachlorobutadiene	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Hexachloroethane	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Nitrobenzene	mg/L	NA	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Pentachlorophenol	mg/L	NA	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA
Pyridine	mg/L	NA	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA
Organochlorine Pesticides-TCLP												
Endrin	mg/L	NA	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Gamma-BHC (Lindane)	mg/L	NA	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	0.000037 J	NA
Heptachlor	mg/L	NA	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Heptachlor Epoxide	mg/L	NA	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Methoxychlor	mg/L	NA	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Technical Chlordane	mg/L	NA	NA	NA	<0.0020	NA	NA	0.00037 JB	NA	NA	<0.0020	NA
Toxaphene	mg/L	NA	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
Herbicides-TCLP												
2,4,5-TP	mg/L	NA	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
2,4-D	mg/L	NA	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-4-VOC-1 11/04/13	SP-4-VOC-2 10/30/13	SP-4-VOC-2 11/04/13	SP-5-COMP 11/04/13	SP-5-VOC-1 11/04/13	SP-5-VOC-2 11/04/13	SP-6-COMP 11/04/13	SP-6-VOC-1 11/04/13	SP-6-VOC-2 11/04/13	SP-7-COMP 11/06/13	SP-7-VOC-1 11/06/13
Inorganics-TCLP												
Arsenic	mg/L	NA	NA	NA	0.0130	NA	NA	0.0140	NA	NA	0.0430	NA
Barium	mg/L	NA	NA	NA	0.140 B	NA	NA	0.250 B	NA	NA	0.450 B	NA
Cadmium	mg/L	NA	NA	NA	0.00150	NA	NA	0.00130	NA	NA	0.00140	NA
Chromium	mg/L	NA	NA	NA	0.00510 B	NA	NA	0.00600 B	NA	NA	0.120 B	NA
Copper	mg/L	NA	NA	NA	0.00300 JB	NA	NA	0.00930 JB	NA	NA	0.0590 B	NA
Lead	mg/L	NA	NA	NA	0.0120	NA	NA	0.0400	NA	NA	0.140	NA
Mercury	mg/L	NA	NA	NA	0.000210 B	NA	NA	<0.000200	NA	NA	<0.000200	NA
Nickel	mg/L	NA	NA	NA	0.0150	NA	NA	0.0120	NA	NA	0.0750	NA
Selenium	mg/L	NA	NA	NA	<0.0150	NA	NA	<0.0150	NA	NA	0.0100 J	NA
Silver	mg/L	NA	NA	NA	<0.00300	NA	NA	<0.00300	NA	NA	<0.00300	NA
Zinc	mg/L	NA	NA	NA	0.0720 B	NA	NA	0.0760 B	NA	NA	0.230 B	NA
PCBs												
Aroclor-1016	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Aroclor-1221	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Aroclor-1232	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Aroclor-1242	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Aroclor-1248	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Aroclor-1254	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Aroclor-1260	mg/kg	NA	NA	NA	<0.29	NA	NA	<0.35	NA	NA	<0.29	NA
Total PCBs	mg/kg	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Miscellaneous												
Ammonia as NH_3	mg/L	NA	NA	NA	0.062	NA	NA	0.069	NA	NA	<0.024	NA
Ammonia Nitrogen	mg/L	NA	NA	NA	0.051	NA	NA	0.057	NA	NA	<0.02	NA
Chemical Oxygen Demand	mg/L	NA	NA	NA	8 J	NA	NA	9.3 J	NA	NA	9.9 J	NA
Corrosivity	SU	NA	NA	NA	7.83	NA	NA	8.11	NA	NA	9.22	NA
Flashpoint	°F	NA	NA	NA	>176	NA	NA	>176	NA	NA	>176	NA
Free Liquid	mL/100g	NA	NA	NA	0	NA	NA	0	NA	NA	0	NA
Leachate pH	SU	NA	NA	NA	NA	NA	NA	5.35	NA	NA	5.36	NA
Oil & Grease	mg/kg	NA	NA	NA	NA	NA	NA	537	NA	NA	131	NA
Oil & Grease	mg/L	NA	NA	NA	<99.5	NA	NA	43.3 J	NA	NA	<99.2	NA
Reactive Cyanide	mg/kg	NA	NA	NA	<10	NA	NA	<10	NA	NA	<10	NA
Reactive Sulfide	mg/kg	NA	NA	NA	2 J	NA	NA	6 J	NA	NA	50.1	NA
Total Solids	mg/L	NA	NA	NA	301 H	NA	NA	324 H	NA	NA	202	NA
Total Volatile Solids	%	NA	NA	NA	3.3	NA	NA	4.2	NA	NA	2.4	NA
Percent Solids Dry Weight												
Percent Moisture	%	NA	18	NA	28	18	24	41	38	41	NA	25
Percent Solids	%	NA	82	NA	72	82	76	59	62	59	70	75

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-7-VOC-2 11/06/13	SP-8-COMP 11/06/13	SP-8-VOC-1 11/06/13	SP-8-VOC-2 11/06/13	SP-9-COMP 11/07/13	SP-9-VOC-1 11/07/13	SP-9-VOC-2 11/07/13	SP-10-COMP 11/07/13	SP-10-VOC-1 11/07/13	SP-10-VOC-2 11/07/13	SP-11-COMP 11/11/13
Volatile Organics												
1,1,1-Trichloroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,1,2,2-Tetrachloroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,1,2-Trichloroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,1-Dichloroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,1-Dichloroethene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,2,4-Trichlorobenzene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,2-Dibromo-3-chloropropane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,2-Dibromoethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,2-Dichlorobenzene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,2-Dichloroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,2-Dichloropropane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,3-Dichlorobenzene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
1,4-Dichlorobenzene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
2-Butanone	mg/kg	<0.30	NA	<0.31	<0.29	NA	<1.6	<0.92	NA	<5.6	<4.6	NA
2-Hexanone	mg/kg	<0.30	NA	<0.31	<0.29	NA	<1.6	<0.92	NA	<5.6	<4.6	NA
4-Methyl-2-pentanone	mg/kg	<0.30	NA	<0.31	<0.29	NA	<1.6	<0.92	NA	<5.6	<4.6	NA
Acetone	mg/kg	<0.30	NA	<0.31	<0.29	NA	<1.6	<0.92	NA	<5.6	<4.6	NA
Benzene	mg/kg	0.063	NA	0.014 J	0.029 J	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Bromodichloromethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Bromoform	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Bromomethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Carbon Disulfide	mg/kg	0.041 J	NA	0.11	0.095	NA	<0.31	<0.18	NA	<1.1	1.9	NA
Carbon Tetrachloride	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Chlorobenzene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Chloroethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Chloroform	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Chloromethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
cis-1,2-Dichloroethene	mg/kg	0.71	NA	1.5	2.7	NA	2.2	4.1	NA	20	27	NA
cis-1,3-Dichloropropene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Cyclohexane	mg/kg	<0.061	NA	0.060 J	0.028 J	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Dibromochloromethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Dichlorodifluoromethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Ethylbenzene	mg/kg	0.21	NA	0.070	0.059	NA	<0.31	0.058 J	NA	<1.1	<0.92	NA
Isopropylbenzene	mg/kg	0.032 J	NA	0.025 J	0.019 J	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Methyl acetate	mg/kg	0.076	NA	0.32	0.63	NA	<0.31	1.5	NA	<1.1	<0.92	NA
Methyl tert-butyl ether	mg/kg	0.46	NA	0.37	0.22	NA	1.0	1.2	NA	<1.1	3.4	NA
Methylcyclohexane	mg/kg	<0.061	NA	0.057 J	0.039 J	NA	<0.31	0.10 J	NA	<1.1	<0.92	NA
Methylene Chloride	mg/kg	0.76	NA	0.15	0.15	NA	24	3.4	NA	7.6	**54**	NA
Styrene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Tetrachloroethene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Toluene	mg/kg	0.045 J	NA	<0.062	0.028 J	NA	<0.31	0.10 J	NA	<1.1	<0.92	NA
Total VOCs	mg/kg	3.1 J	NA	3.6 J	6.2 J	NA	36	25 J	NA	140 J	110 J	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: / Sample Depth (Feet): / Date Collected:	Units	SP-7-VOC-2 11/06/13	SP-8-COMP 11/06/13	SP-8-VOC-1 11/06/13	SP-8-VOC-2 11/06/13	SP-9-COMP 11/07/13	SP-9-VOC-1 11/07/13	SP-9-VOC-2 11/07/13	SP-10-COMP 11/07/13	SP-10-VOC-1 11/07/13	SP-10-VOC-2 11/07/13	SP-11-COMP 11/11/13
Volatile Organics (Cont.)												
trans-1,2-Dichloroethene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
trans-1,3-Dichloropropene	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Trichloroethene	mg/kg	0.13	NA	0.51	1.4	NA	**9.2**	**13**	NA	**110**	**23**	NA
Trichlorofluoromethane	mg/kg	<0.061	NA	<0.062	<0.059	NA	<0.31	<0.18	NA	<1.1	<0.92	NA
Vinyl Chloride	mg/kg	0.045 J	NA	0.34	**0.63**	NA	<0.31	**1.2**	NA	**0.66 J**	**0.79 J**	NA
Xylenes (total)	mg/kg	0.48	NA	0.077 J	0.13	NA	<0.63	0.21 J	NA	<2.3	<1.8	NA
Volatile Organics-TCLP												
1,1-Dichloroethene	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
1,2-Dichloroethane	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
2-Butanone	mg/L	<0.050	NA	<0.050	<0.050	NA	<0.050	<0.050	NA	<0.050	<0.050	NA
Benzene	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Carbon Tetrachloride	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Chlorobenzene	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Chloroform	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Tetrachloroethene	mg/L	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Trichloroethene	mg/L	<0.010	NA	0.017	0.025	NA	0.088	0.30	NA	**3.6**	**2.3**	NA
Vinyl Chloride	mg/L	<0.010	NA	0.012	<0.010	NA	0.012	0.025	NA	<0.010	<0.010	NA
Semivolatile Organics-TCLP												
1,4-Dichlorobenzene	mg/L	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010
2,4,5-Trichlorophenol	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
2,4,6-Trichlorophenol	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
2,4-Dinitrotoluene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
2-Methylphenol	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	0.0014 J
3&4-Methylphenol	mg/L	NA	<0.010	NA	NA	0.0040 J	NA	NA	<0.010	NA	NA	0.0082 J
Hexachlorobenzene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Hexachlorobutadiene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Hexachloroethane	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Nitrobenzene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Pentachlorophenol	mg/L	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010
Pyridine	mg/L	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025
Organochlorine Pesticides-TCLP												
Endrin	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Gamma-BHC (Lindane)	mg/L	NA	0.000049 J	NA	NA	0.000037 J	NA	NA	0.000037 J	NA	NA	0.000068 JB
Heptachlor	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	0.000031 J
Heptachlor Epoxide	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Methoxychlor	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Technical Chlordane	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020
Toxaphene	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020
Herbicides-TCLP												
2,4,5-TP	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020
2,4-D	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-7-VOC-2 11/06/13	SP-8-COMP 11/06/13	SP-8-VOC-1 11/06/13	SP-8-VOC-2 11/06/13	SP-9-COMP 11/07/13	SP-9-VOC-1 11/07/13	SP-9-VOC-2 11/07/13	SP-10-COMP 11/07/13	SP-10-VOC-1 11/07/13	SP-10-VOC-2 11/07/13	SP-11-COMP 11/11/13
Inorganics-TCLP												
Arsenic	mg/L	NA	0.00910 J	NA	NA	0.0170	NA	NA	0.160	NA	NA	0.00750 J
Barium	mg/L	NA	0.250 B	NA	NA	0.240 B	NA	NA	0.180 B	NA	NA	0.120 B
Cadmium	mg/L	NA	0.00120	NA	NA	0.000740 J	NA	NA	0.00440	NA	NA	0.000730 J
Chromium	mg/L	NA	0.00380 JB	NA	NA	0.00870 B	NA	NA	0.0130 B	NA	NA	0.00310 JB
Copper	mg/L	NA	0.00220 JB	NA	NA	0.00240 JB	NA	NA	0.00310 JB	NA	NA	0.00210 J
Lead	mg/L	NA	0.00300 J	NA	NA	<0.0250	NA	NA	0.0580	NA	NA	0.0180 ^
Mercury	mg/L	NA	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200 H
Nickel	mg/L	NA	0.0140	NA	NA	0.0390	NA	NA	0.00540 J	NA	NA	0.0120
Selenium	mg/L	NA	<0.0150	NA	NA	0.00930 J	NA	NA	0.0910	NA	NA	<0.0150
Silver	mg/L	NA	<0.00300	NA	NA	<0.00300	NA	NA	<0.00300	NA	NA	<0.00300
Zinc	mg/L	NA	0.0820 B	NA	NA	0.140 B	NA	NA	0.0720 B	NA	NA	0.0690 B
PCBs												
Aroclor-1016	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Aroclor-1221	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Aroclor-1232	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Aroclor-1242	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Aroclor-1248	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Aroclor-1254	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Aroclor-1260	mg/kg	NA	<0.27	NA	NA	<0.30	NA	NA	<0.35	NA	NA	<0.28
Total PCBs	mg/kg	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Miscellaneous												
Ammonia as NH_3	mg/L	NA	0.069	NA	NA	0.035	NA	NA	0.13	NA	NA	0.53
Ammonia Nitrogen	mg/L	NA	0.056	NA	NA	0.029	NA	NA	0.11	NA	NA	0.44
Chemical Oxygen Demand	mg/L	NA	<10	NA	NA	32.3	NA	NA	23.5	NA	NA	38
Corrosivity	SU	NA	9	NA	NA	11.3	NA	NA	8.54	NA	NA	8.81
Flashpoint	°F	NA	>176	NA	NA	>176	NA	NA	>176	NA	NA	>176
Free Liquid	mL/100g	NA	0	NA	NA	0	NA	NA	0	NA	NA	0
Leachate pH	SU	NA	5.48	NA	NA	5.37	NA	NA	NA	NA	NA	NA
Oil & Grease	mg/kg	NA	195	NA	NA	104 H	NA	NA	NA	NA	NA	NA
Oil & Grease	mg/L	NA	33.7 J	NA	NA	122	NA	NA	<100	NA	NA	<100
Reactive Cyanide	mg/kg	NA	<10	NA	NA	<10	NA	NA	<10	NA	NA	<10
Reactive Sulfide	mg/kg	NA	60.1	NA	NA	<10	NA	NA	8 J	NA	NA	20
Total Solids	mg/L	NA	227	NA	NA	486	NA	NA	315	NA	NA	244
Total Volatile Solids	%	NA	3.4	NA	NA	3.3	NA	NA	4.9	NA	NA	2.2
Percent Solids Dry Weight												
Percent Moisture	%	23	NA	35	22	NA	35	33	NA	27	41	25
Percent Solids	%	77	76	65	78	66	65	67	67	73	59	75

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-11-VOC-1 11/11/13	SP-11-VOC-2 11/11/13	SP-12-COMP 11/13/13	SP-12-VOC-1 11/13/13	SP-12-VOC-2 11/13/13	SP-13-COMP 11/13/13	SP-13-VOC-1 11/13/13	SP-13-VOC-2 11/13/13	SP-14-COMP 11/13/13	SP-14-VOC-1 11/13/13
Volatile Organics											
1,1,1-Trichloroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,1,2,2-Tetrachloroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,1,2-Trichloroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,1-Dichloroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	0.021 J
1,1-Dichloroethene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,2,4-Trichlorobenzene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,2-Dibromo-3-chloropropane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,2-Dibromoethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,2-Dichlorobenzene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,2-Dichloroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,2-Dichloropropane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,3-Dichlorobenzene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
1,4-Dichlorobenzene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
2-Butanone	mg/kg	<0.97	<1.2	NA	<0.59	<0.16	NA	<0.23	<0.20	NA	<0.29
2-Hexanone	mg/kg	<0.97	<1.2	NA	<0.59	<0.16	NA	0.78	<0.20	NA	<0.29
4-Methyl-2-pentanone	mg/kg	<0.97	<1.2	NA	<0.59	<0.16	NA	<0.23	<0.20	NA	<0.29
Acetone	mg/kg	<0.97	<1.2	NA	<0.59	<0.16	NA	<0.23	<0.20	NA	<0.29
Benzene	mg/kg	<0.19	0.045 J	NA	<0.12	0.017 J	NA	0.051	0.038 J	NA	0.022 J
Bromodichloromethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Bromoform	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Bromomethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Carbon Disulfide	mg/kg	0.18 J	0.30	NA	<0.12	0.070	NA	0.060	0.43	NA	1.4
Carbon Tetrachloride	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Chlorobenzene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Chloroethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Chloroform	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Chloromethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
cis-1,2-Dichloroethene	mg/kg	3.0	8.6	NA	3.0	0.64	NA	8.0	3.3	NA	1.3
cis-1,3-Dichloropropene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Cyclohexane	mg/kg	0.18 J	0.20 J	NA	<0.12	0.0089 J	NA	1.1	0.072	NA	<0.057
Dibromochloromethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Dichlorodifluoromethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Ethylbenzene	mg/kg	0.16 J	0.13 J	NA	0.045 J	0.015 J	NA	0.55	0.058	NA	<0.057
Isopropylbenzene	mg/kg	0.067 J	0.046 J	NA	<0.12	<0.033	NA	0.14	0.015 J	NA	<0.057
Methyl acetate	mg/kg	<0.19	<0.24	NA	0.087 J	0.25	NA	<0.047	<0.040	NA	0.061
Methyl tert-butyl ether	mg/kg	0.12 J	0.26	NA	0.17	0.67	NA	0.32	0.75	NA	4.1
Methylcyclohexane	mg/kg	0.26	0.31	NA	<0.12	<0.033	NA	1.1	0.088	NA	<0.057
Methylene Chloride	mg/kg	3.6	2.6	NA	2.2	0.38	NA	4.9 B	26 B	NA	**37 B**
Styrene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Tetrachloroethene	mg/kg	<0.19	0.19 J	NA	<0.12	<0.033	NA	0.12	0.072	NA	<0.057
Toluene	mg/kg	<0.19	0.18 J	NA	<0.12	0.031 J	NA	0.34	0.13	NA	<0.057
Total VOCs	mg/kg	21 J	130 J	NA	20 J	2.5 J	NA	66	66 J	NA	46 J

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-11-VOC-1 11/11/13	SP-11-VOC-2 11/11/13	SP-12-COMP 11/13/13	SP-12-VOC-1 11/13/13	SP-12-VOC-2 11/13/13	SP-13-COMP 11/13/13	SP-13-VOC-1 11/13/13	SP-13-VOC-2 11/13/13	SP-14-COMP 11/13/13	SP-14-VOC-1 11/13/13
Volatile Organics (Cont.)											
trans-1,2-Dichloroethene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
trans-1,3-Dichloropropene	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Trichloroethene	mg/kg	**12**	**120**	NA	**14**	0.11	NA	**46**	**34**	NA	0.056 J
Trichlorofluoromethane	mg/kg	<0.19	<0.24	NA	<0.12	<0.033	NA	<0.047	<0.040	NA	<0.057
Vinyl Chloride	mg/kg	0.27	**1.1**	NA	0.22	0.27	NA	**0.36**	**0.48**	NA	**2.0**
Xylenes (total)	mg/kg	0.85	0.74	NA	0.20 J	0.065	NA	2.2	0.33	NA	<0.11
Volatile Organics-TCLP											
1,1-Dichloroethene	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
1,2-Dichloroethane	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
2-Butanone	mg/L	<0.050	<0.050	NA	<0.25	<0.050	NA	<2.0	<0.25	NA	<0.10
Benzene	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
Carbon Tetrachloride	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
Chlorobenzene	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
Chloroform	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
Tetrachloroethene	mg/L	<0.010	<0.010	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
Trichloroethene	mg/L	0.29	0.090	NA	**0.65 B**	<0.010	NA	**4.2 B**	0.25 B	NA	0.014 JB
Vinyl Chloride	mg/L	0.013	0.030	NA	<0.050	<0.010	NA	<0.40	<0.050	NA	<0.020
Semivolatile Organics-TCLP											
1,4-Dichlorobenzene	mg/L	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA
2,4,5-Trichlorophenol	mg/L	NA	NA	<0.0050 *	NA	NA	<0.0050 *	NA	NA	<0.0050 *	NA
2,4,6-Trichlorophenol	mg/L	NA	NA	<0.0050 *	NA	NA	<0.0050 *	NA	NA	<0.0050 *	NA
2,4-Dinitrotoluene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2-Methylphenol	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
3&4-Methylphenol	mg/L	NA	NA	0.0088 J	NA	NA	0.0011 J	NA	NA	0.0010 J	NA
Hexachlorobenzene	mg/L	NA	NA	<0.0050 *	NA	NA	<0.0050 *	NA	NA	<0.0050 *	NA
Hexachlorobutadiene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Hexachloroethane	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Nitrobenzene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Pentachlorophenol	mg/L	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA
Pyridine	mg/L	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA
Organochlorine Pesticides-TCLP											
Endrin	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Gamma-BHC (Lindane)	mg/L	NA	NA	0.000035 JB	NA	NA	<0.00020	NA	NA	0.000034 JB	NA
Heptachlor	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Heptachlor Epoxide	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Methoxychlor	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Technical Chlordane	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
Toxaphene	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
Herbicides-TCLP											
2,4,5-TP	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
2,4-D	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-11-VOC-1 11/11/13	SP-11-VOC-2 11/11/13	SP-12-COMP 11/13/13	SP-12-VOC-1 11/13/13	SP-12-VOC-2 11/13/13	SP-13-COMP 11/13/13	SP-13-VOC-1 11/13/13	SP-13-VOC-2 11/13/13	SP-14-COMP 11/13/13	SP-14-VOC-1 11/13/13
Inorganics-TCLP											
Arsenic	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA
Barium	mg/L	NA	NA	0.290 J	NA	NA	0.0680 J	NA	NA	0.0320 J	NA
Cadmium	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	0.00130 JB	NA
Chromium	mg/L	NA	NA	0.00750 J	NA	NA	<0.500	NA	NA	0.00710 J	NA
Copper	mg/L	NA	NA	<0.250	NA	NA	<0.250	NA	NA	<0.250	NA
Lead	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA
Mercury	mg/L	NA	NA	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200	NA
Nickel	mg/L	NA	NA	0.0180 J	NA	NA	<0.400	NA	NA	0.0220 J	NA
Selenium	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	0.0300 J	NA
Silver	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA
Zinc	mg/L	NA	NA	0.0720 J	NA	NA	0.130 J	NA	NA	0.0770 J	NA
PCBs											
Aroclor-1016	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Aroclor-1221	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Aroclor-1232	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Aroclor-1242	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Aroclor-1248	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Aroclor-1254	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Aroclor-1260	mg/kg	NA	NA	<0.29	NA	NA	<0.30	NA	NA	<0.28	NA
Total PCBs	mg/kg	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Miscellaneous											
Ammonia as NH_3	mg/L	NA	NA	0.57	NA	NA	0.13	NA	NA	0.2	NA
Ammonia Nitrogen	mg/L	NA	NA	0.47	NA	NA	0.11	NA	NA	0.17	NA
Chemical Oxygen Demand	mg/L	NA	NA	44.9	NA	NA	21.6	NA	NA	25.4	NA
Corrosivity	SU	NA	NA	8.72	NA	NA	8.26	NA	NA	7.98	NA
Flashpoint	°F	NA	NA	>176	NA	NA	>176	NA	NA	>176	NA
Free Liquid	mL/100g	NA	NA	0	NA	NA	0	NA	NA	0	NA
Leachate pH	SU	NA	NA	NA	NA	NA	NA	NA	NA	5.3	NA
Oil & Grease	mg/kg	NA	NA	138	NA	NA	610	NA	NA	199	NA
Oil & Grease	mg/L	NA	NA	<99.9	NA	NA	<99.4	NA	NA	<99.7	NA
Reactive Cyanide	mg/kg	NA	NA	<10	NA	NA	<10	NA	NA	<10	NA
Reactive Sulfide	mg/kg	NA	NA	40.1	NA	NA	26	NA	NA	<10	NA
Total Solids	mg/L	NA	NA	287	NA	NA	144	NA	NA	239	NA
Total Volatile Solids	%	NA	NA	3.9	NA	NA	1.5	NA	NA	3.8	NA
Percent Solids Dry Weight											
Percent Moisture	%	17	31	31	17	20	34	17	24	26	41
Percent Solids	%	83	69	69	83	80	66	83	76	74	59

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-14-VOC-2 11/13/13	SP-15-COMP 11/14/13	SP-15-VOC-1 11/14/13	SP-15-VOC-2 11/14/13	SP-16-COMP 11/18/13	SP-16-VOC-1 11/18/13	SP-16-VOC-2 11/18/13	SP-17-COMP 11/18/13	SP-17-VOC-1 11/18/13	SP-17-VOC-2 11/18/13
Volatile Organics											
1,1,1-Trichloroethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,1,2,2-Tetrachloroethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	<0.053	NA	<0.25	<0.54 *	NA	<0.058	<0.057	NA	<0.055	<0.058
1,1,2-Trichloroethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,1-Dichloroethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,1-Dichloroethene	mg/kg	0.048 J	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,2,4-Trichlorobenzene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,2-Dibromo-3-chloropropane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,2-Dibromoethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,2-Dichlorobenzene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,2-Dichloroethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,2-Dichloropropane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,3-Dichlorobenzene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
1,4-Dichlorobenzene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
2-Butanone	mg/kg	<0.26	NA	<1.2	<2.7 *	NA	<0.29	<0.28	NA	<0.28	<0.29
2-Hexanone	mg/kg	<0.26	NA	<1.2	<2.7	NA	<0.29	<0.28	NA	<0.28	<0.29
4-Methyl-2-pentanone	mg/kg	<0.26	NA	<1.2	<2.7	NA	<0.29	<0.28	NA	<0.28	<0.29
Acetone	mg/kg	<0.26	NA	<1.2	<2.7	NA	<0.29	<0.28	NA	<0.28	<0.29
Benzene	mg/kg	0.098	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Bromodichloromethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Bromoform	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Bromomethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Carbon Disulfide	mg/kg	0.22	NA	0.73	2.0	NA	0.069	<0.057	NA	0.26	0.087
Carbon Tetrachloride	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Chlorobenzene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Chloroethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Chloroform	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Chloromethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
cis-1,2-Dichloroethene	mg/kg	47	NA	5.5	6.2	NA	1.2	1.5	NA	1.1	1.5
cis-1,3-Dichloropropene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Cyclohexane	mg/kg	0.35	NA	<0.25	<0.54	NA	0.044 J	<0.057	NA	<0.055	<0.058
Dibromochloromethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Dichlorodifluoromethane	mg/kg	<0.053	NA	<0.25	<0.54 *	NA	<0.058	<0.057	NA	<0.055	<0.058
Ethylbenzene	mg/kg	0.36	NA	<0.25	<0.54	NA	0.020 J	<0.057	NA	<0.055	<0.058
Isopropylbenzene	mg/kg	0.11	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Methyl acetate	mg/kg	<0.053	NA	<0.25	<0.54	NA	0.39	0.034 J	NA	0.064	0.056 J
Methyl tert-butyl ether	mg/kg	0.93	NA	0.25	0.38 J	NA	0.068	0.069	NA	0.44	0.44
Methylcyclohexane	mg/kg	0.65	NA	<0.25	<0.54	NA	0.030 J	<0.057	NA	<0.055	<0.058
Methylene Chloride	mg/kg	13 B	NA	17	**54**	NA	0.52 B	0.42 B	NA	1.3	1.9
Styrene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Tetrachloroethene	mg/kg	0.014 J	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Toluene	mg/kg	0.46	NA	<0.25	<0.54	NA	0.020 J	<0.057	NA	<0.055	<0.058
Total VOCs	mg/kg	77 J	NA	33 J	63 J	NA	6.5 J	5.1 J	NA	3.7	4.8 J

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-14-VOC-2 11/13/13	SP-15-COMP 11/14/13	SP-15-VOC-1 11/14/13	SP-15-VOC-2 11/14/13	SP-16-COMP 11/18/13	SP-16-VOC-1 11/18/13	SP-16-VOC-2 11/18/13	SP-17-COMP 11/18/13	SP-17-VOC-1 11/18/13	SP-17-VOC-2 11/18/13
Volatile Organics (Cont.)											
trans-1,2-Dichloroethene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
trans-1,3-Dichloropropene	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Trichloroethene	mg/kg	**9.0**	NA	**9.5**	0.46 J	NA	4.0	3.0	NA	0.54	0.12
Trichlorofluoromethane	mg/kg	<0.053	NA	<0.25	<0.54	NA	<0.058	<0.057	NA	<0.055	<0.058
Vinyl Chloride	mg/kg	**2.9**	NA	0.11 J	0.26 J	NA	0.053 J	0.065	NA	<0.055	**0.72**
Xylenes (total)	mg/kg	1.9	NA	<0.50	<1.1	NA	0.087 J	0.010 J	NA	<0.11	<0.12
Volatile Organics-TCLP											
1,1-Dichloroethene	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
1,2-Dichloroethane	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
2-Butanone	mg/L	<0.20	NA	<0.050	<0.050	NA	<0.050	<0.050	NA	<0.050	<0.050
Benzene	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
Carbon Tetrachloride	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
Chlorobenzene	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
Chloroform	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
Tetrachloroethene	mg/L	<0.040	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010
Trichloroethene	mg/L	0.50 B	NA	0.26 B	0.071 B	NA	0.18 B	0.11 B	NA	0.20 B	0.13 B
Vinyl Chloride	mg/L	<0.040	NA	<0.010	0.025	NA	<0.010	0.013	NA	<0.010	0.011
Semivolatile Organics-TCLP											
1,4-Dichlorobenzene	mg/L	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA
2,4,5-Trichlorophenol	mg/L	NA	<0.0050 *	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
2,4,6-Trichlorophenol	mg/L	NA	<0.0050 *	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
2,4-Dinitrotoluene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
2-Methylphenol	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
3&4-Methylphenol	mg/L	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA
Hexachlorobenzene	mg/L	NA	<0.0050 *	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
Hexachlorobutadiene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
Hexachloroethane	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
Nitrobenzene	mg/L	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA
Pentachlorophenol	mg/L	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA
Pyridine	mg/L	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA	NA
Organochlorine Pesticides-TCLP											
Endrin	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA
Gamma-BHC (Lindane)	mg/L	NA	0.000035 JB	NA	NA	<0.00020	NA	NA	0.000035 J	NA	NA
Heptachlor	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA
Heptachlor Epoxide	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA
Methoxychlor	mg/L	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA
Technical Chlordane	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA
Toxaphene	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA
Herbicides-TCLP											
2,4,5-TP	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA
2,4-D	mg/L	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-14-VOC-2 11/13/13	SP-15-COMP 11/14/13	SP-15-VOC-1 11/14/13	SP-15-VOC-2 11/14/13	SP-16-COMP 11/18/13	SP-16-VOC-1 11/18/13	SP-16-VOC-2 11/18/13	SP-17-COMP 11/18/13	SP-17-VOC-1 11/18/13	SP-17-VOC-2 11/18/13
Inorganics-TCLP											
Arsenic	mg/L	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA	NA
Barium	mg/L	NA	0.0490 J	NA	NA	0.0980 J	NA	NA	0.0490 J	NA	NA
Cadmium	mg/L	NA	<0.500	NA	NA	0.00130 J	NA	NA	<0.500	NA	NA
Chromium	mg/L	NA	<0.500	NA	NA	<0.500	NA	NA	0.00950 J	NA	NA
Copper	mg/L	NA	<0.250	NA	NA	<0.250	NA	NA	<0.250	NA	NA
Lead	mg/L	NA	<0.500	NA	NA	0.0190 J	NA	NA	<0.500	NA	NA
Mercury	mg/L	NA	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200	NA	NA
Nickel	mg/L	NA	<0.400	NA	NA	<0.400	NA	NA	<0.400	NA	NA
Selenium	mg/L	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA	NA
Silver	mg/L	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA	NA
Zinc	mg/L	NA	0.0500 J	NA	NA	0.130 J	NA	NA	0.0360 J	NA	NA
PCBs											
Aroclor-1016	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Aroclor-1221	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Aroclor-1232	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Aroclor-1242	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Aroclor-1248	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Aroclor-1254	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Aroclor-1260	mg/kg	NA	<0.25	NA	NA	<0.24	NA	NA	<0.21	NA	NA
Total PCBs	mg/kg	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA
Miscellaneous											
Ammonia as NH_3	mg/L	NA	0.03	NA	NA	0.093 B	NA	NA	0.073 B	NA	NA
Ammonia Nitrogen	mg/L	NA	0.025	NA	NA	0.077 B	NA	NA	0.06 B	NA	NA
Chemical Oxygen Demand	mg/L	NA	<10	NA	NA	51.5	NA	NA	36.1	NA	NA
Corrosivity	SU	NA	7.97	NA	NA	9.87	NA	NA	9.43	NA	NA
Flashpoint	°F	NA	>176	NA	NA	>176	NA	NA	>176	NA	NA
Free Liquid	mL/100g	NA	0	NA	NA	0	NA	NA	0	NA	NA
Leachate pH	SU	NA	5.2	NA	NA	5.2	NA	NA	5.17	NA	NA
Oil & Grease	mg/kg	NA	183	NA	NA	210	NA	NA	182	NA	NA
Oil & Grease	mg/L	NA	91.9 J	NA	NA	<99.6	NA	NA	<99.4	NA	NA
Reactive Cyanide	mg/kg	NA	<10	NA	NA	<10	NA	NA	<10	NA	NA
Reactive Sulfide	mg/kg	NA	<10	NA	NA	2 J	NA	NA	<10	NA	NA
Total Solids	mg/L	NA	387	NA	NA	318	NA	NA	321	NA	NA
Total Volatile Solids	%	NA	3.4	NA	NA	3.1	NA	NA	2.9	NA	NA
Percent Solids Dry Weight											
Percent Moisture	%	23	NA	5.3	6.8	NA	21	21	NA	19	23
Percent Solids	%	77	93	95	93	92	79	79	93	81	77

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-18-COMP 11/18/13	SP-18-VOC-1 11/18/13	SP-18-VOC-2 11/18/13	SP-19-COMP 11/18/13	SP-19-VOC-1 11/18/13	SP-19-VOC-2 11/18/13	SP-20-COMP 11/21/13	SP-20-VOC-1 11/21/13	SP-20-VOC-2 11/21/13	SP-21-COMP 11/20/13
Volatile Organics											
1,1,1-Trichloroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,1,2,2-Tetrachloroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,1,2-Trichloroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,1-Dichloroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,1-Dichloroethene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,2,4-Trichlorobenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,2-Dibromo-3-chloropropane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,2-Dibromoethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,2-Dichlorobenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,2-Dichloroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,2-Dichloropropane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,3-Dichlorobenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
1,4-Dichlorobenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
2-Butanone	mg/kg	NA	<0.28	<0.25	NA	<0.30	<0.26	NA	<0.31	<0.28	NA
2-Hexanone	mg/kg	NA	<0.28	<0.25	NA	<0.30	<0.26	NA	<0.31	<0.28	NA
4-Methyl-2-pentanone	mg/kg	NA	<0.28	<0.25	NA	<0.30	<0.26	NA	<0.31	<0.28	NA
Acetone	mg/kg	NA	<0.28	<0.25	NA	<0.30	<0.26	NA	<0.31	<0.28	NA
Benzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	0.010 J	<0.055	NA
Bromodichloromethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Bromoform	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Bromomethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Carbon Disulfide	mg/kg	NA	0.44	<0.050	NA	0.36	<0.053	NA	0.047 J	0.033 J	NA
Carbon Tetrachloride	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Chlorobenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Chloroethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Chloroform	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Chloromethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
cis-1,2-Dichloroethene	mg/kg	NA	2.0	0.082	NA	2.3	0.24	NA	0.88	0.54	NA
cis-1,3-Dichloropropene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Cyclohexane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Dibromochloromethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Dichlorodifluoromethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Ethylbenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	1.8	NA	0.27	0.15	NA
Isopropylbenzene	mg/kg	NA	<0.055	<0.050	NA	<0.060	1.2	NA	0.14	0.072	NA
Methyl acetate	mg/kg	NA	<0.055	0.025 J	NA	0.046 J	<0.053	NA	1.3	1.1	NA
Methyl tert-butyl ether	mg/kg	NA	0.41	0.18	NA	0.59	0.040 J	NA	0.10	0.099	NA
Methylcyclohexane	mg/kg	NA	<0.055	<0.050	NA	<0.060	2.2	NA	0.25	0.18	NA
Methylene Chloride	mg/kg	NA	16	0.19	NA	2.5	0.32	NA	0.17	0.066	NA
Styrene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Tetrachloroethene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Toluene	mg/kg	NA	<0.055	<0.050	NA	0.025 J	0.033 J	NA	<0.063	0.019 J	NA
Total VOCs	mg/kg	NA	19	0.72 J	NA	7.7 J	15 J	NA	4.3 J	4.3 J	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-18-COMP 11/18/13	SP-18-VOC-1 11/18/13	SP-18-VOC-2 11/18/13	SP-19-COMP 11/18/13	SP-19-VOC-1 11/18/13	SP-19-VOC-2 11/18/13	SP-20-COMP 11/21/13	SP-20-VOC-1 11/21/13	SP-20-VOC-2 11/21/13	SP-21-COMP 11/20/13
Volatile Organics (Cont.)											
trans-1,2-Dichloroethene	mg/kg	NA	<0.055	<0.050	NA	0.023 J	<0.053	NA	<0.063	<0.055	NA
trans-1,3-Dichloropropene	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Trichloroethene	mg/kg	NA	0.077	0.24	NA	1.7	0.86	NA	0.45	1.5	NA
Trichlorofluoromethane	mg/kg	NA	<0.055	<0.050	NA	<0.060	<0.053	NA	<0.063	<0.055	NA
Vinyl Chloride	mg/kg	NA	0.30	<0.050	NA	0.17	<0.053	NA	0.13	0.18	NA
Xylenes (total)	mg/kg	NA	<0.11	<0.10	NA	0.015 J	8.1	NA	0.56	0.40	NA
Volatile Organics-TCLP											
1,1-Dichloroethene	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
1,2-Dichloroethane	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
2-Butanone	mg/L	NA	<0.050	<0.050	NA	<0.050	<0.050	NA	<0.050	<0.050	NA
Benzene	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Carbon Tetrachloride	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Chlorobenzene	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Chloroform	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Tetrachloroethene	mg/L	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA
Trichloroethene	mg/L	NA	0.034 B	0.10 B	NA	0.024 B	0.026 B	NA	0.011	0.38	NA
Vinyl Chloride	mg/L	NA	<0.010	0.012	NA	<0.010	<0.010	NA	0.023	<0.010	NA
Semivolatile Organics-TCLP											
1,4-Dichlorobenzene	mg/L	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010
2,4,5-Trichlorophenol	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
2,4,6-Trichlorophenol	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
2,4-Dinitrotoluene	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
2-Methylphenol	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
3&4-Methylphenol	mg/L	<0.010	NA	NA	0.00059 J	NA	NA	0.0018 J	NA	NA	0.0045 J
Hexachlorobenzene	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Hexachlorobutadiene	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Hexachloroethane	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Nitrobenzene	mg/L	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050
Pentachlorophenol	mg/L	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010
Pyridine	mg/L	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025
Organochlorine Pesticides-TCLP											
Endrin	mg/L	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Gamma-BHC (Lindane)	mg/L	0.000035 J	NA	NA	0.000036 J	NA	NA	0.000034 JB	NA	NA	<0.00020
Heptachlor	mg/L	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Heptachlor Epoxide	mg/L	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Methoxychlor	mg/L	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020
Technical Chlordane	mg/L	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020
Toxaphene	mg/L	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020
Herbicides-TCLP											
2,4,5-TP	mg/L	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020
2,4-D	mg/L	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-18-COMP 11/18/13	SP-18-VOC-1 11/18/13	SP-18-VOC-2 11/18/13	SP-19-COMP 11/18/13	SP-19-VOC-1 11/18/13	SP-19-VOC-2 11/18/13	SP-20-COMP 11/21/13	SP-20-VOC-1 11/21/13	SP-20-VOC-2 11/21/13	SP-21-COMP 11/20/13
Inorganics-TCLP											
Arsenic	mg/L	0.0290 J	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500
Barium	mg/L	0.0710 J	NA	NA	0.0340 J	NA	NA	0.180 J	NA	NA	0.120 J
Cadmium	mg/L	<0.500	NA	NA	<0.500	NA	NA	0.00130 JB	NA	NA	<0.500
Chromium	mg/L	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500
Copper	mg/L	<0.250	NA	NA	<0.250	NA	NA	<0.250	NA	NA	<0.250
Lead	mg/L	0.0290 J	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500
Mercury	mg/L	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200
Nickel	mg/L	<0.400	NA	NA	<0.400	NA	NA	0.0180 J	NA	NA	0.0160 J
Selenium	mg/L	0.0330 J	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500
Silver	mg/L	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500
Zinc	mg/L	0.0670 J	NA	NA	0.0380 J	NA	NA	0.0960 JB	NA	NA	<0.200
PCBs											
Aroclor-1016	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Aroclor-1221	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Aroclor-1232	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Aroclor-1242	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Aroclor-1248	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Aroclor-1254	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Aroclor-1260	mg/kg	<0.21	NA	NA	<0.18	NA	NA	<0.27	NA	NA	<0.26
Total PCBs	mg/kg	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Miscellaneous											
Ammonia as NH_3	mg/L	0.098 B	NA	NA	0.083 B	NA	NA	1.4	NA	NA	0.36
Ammonia Nitrogen	mg/L	0.081 B	NA	NA	0.068 B	NA	NA	1.2	NA	NA	0.29
Chemical Oxygen Demand	mg/L	49.3	NA	NA	29.5	NA	NA	75.8	NA	NA	39.2
Corrosivity	SU	8.6	NA	NA	8.26	NA	NA	9.67	NA	NA	9.04
Flashpoint	°F	>176	NA	NA	>176	NA	NA	>176	NA	NA	>176
Free Liquid	mL/100g	0	NA	NA	0	NA	NA	0	NA	NA	0
Leachate pH	SU	5.2	NA	NA	5.27	NA	NA	5.29	NA	NA	5.41
Oil & Grease	mg/kg	329	NA	NA	352	NA	NA	504	NA	NA	226
Oil & Grease	mg/L	<98.7	NA	NA	<99.6	NA	NA	37.9 J	NA	NA	<99.9
Reactive Cyanide	mg/kg	<10	NA	NA	<10	NA	NA	<10	NA	NA	<10
Reactive Sulfide	mg/kg	10	NA	NA	6 J	NA	NA	4 J	NA	NA	40.1
Total Solids	mg/L	264	NA	NA	385	NA	NA	397	NA	NA	327
Total Volatile Solids	%	3.1	NA	NA	2.9	NA	NA	6.4	NA	NA	4.2
Percent Solids Dry Weight											
Percent Moisture	%	NA	25	17	NA	20	15	NA	35	28	NA
Percent Solids	%	91	75	83	92	80	85	70	65	72	75

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-21-VOC-1 11/20/13	SP-21-VOC-2 11/20/13	SP-22-COMP 11/20/13	SP-22-VOC-1 11/20/13	SP-22-VOC-2 11/20/13	SP-23-COMP 11/21/13	SP-23-VOC-1 11/21/13	SP-23-VOC-2 11/21/13	SP-24-COMP 11/22/13	SP-24-VOC-1 11/22/13
Volatile Organics											
1,1,1-Trichloroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,1,2,2-Tetrachloroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,1,2-Trichloroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,1-Dichloroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,1-Dichloroethene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,2,4-Trichlorobenzene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,2-Dibromo-3-chloropropane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,2-Dibromoethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,2-Dichlorobenzene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,2-Dichloroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,2-Dichloropropane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,3-Dichlorobenzene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
1,4-Dichlorobenzene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
2-Butanone	mg/kg	<0.31	<0.22	NA	<0.29	<0.31	NA	<0.32	<0.32	NA	<0.32
2-Hexanone	mg/kg	<0.31	<0.22	NA	<0.29	<0.31	NA	<0.32	<0.32	NA	<0.32
4-Methyl-2-pentanone	mg/kg	<0.31	<0.22	NA	<0.29	<0.31	NA	<0.32	<0.32	NA	<0.32
Acetone	mg/kg	<0.31	<0.22	NA	<0.29	<0.31	NA	<0.32	<0.32	NA	<0.32
Benzene	mg/kg	0.025 J	<0.043	NA	0.021 J	0.051 J	NA	<0.063	0.039 J	NA	<0.064
Bromodichloromethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Bromoform	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Bromomethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Carbon Disulfide	mg/kg	0.059 J	0.045	NA	<0.059	0.029 J	NA	0.26	0.058 J	NA	0.031 J
Carbon Tetrachloride	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Chlorobenzene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Chloroethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Chloroform	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Chloromethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
cis-1,2-Dichloroethene	mg/kg	0.73	0.047	NA	0.30	0.44	NA	5.9	4.1	NA	2.0
cis-1,3-Dichloropropene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Cyclohexane	mg/kg	0.086	0.037 J	NA	0.058 J	0.069	NA	0.073	0.086	NA	0.059 J
Dibromochloromethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Dichlorodifluoromethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Ethylbenzene	mg/kg	0.039 J	<0.043	NA	0.022 J	0.047 J	NA	0.039 J	0.082	NA	0.027 J
Isopropylbenzene	mg/kg	0.012 J	<0.043	NA	<0.059	0.011 J	NA	0.014 J	0.024 J	NA	<0.064
Methyl acetate	mg/kg	0.35	0.051	NA	1.1	2.1	NA	0.045 J	0.065	NA	0.35
Methyl tert-butyl ether	mg/kg	0.67	0.23	NA	0.76	1.7	NA	0.27	0.37	NA	0.040 J
Methylcyclohexane	mg/kg	0.093	0.039 J	NA	0.069	0.079	NA	0.078	0.096	NA	0.057 J
Methylene Chloride	mg/kg	0.25	0.088	NA	0.46	0.96	NA	7.6	0.099	NA	0.14
Styrene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Tetrachloroethene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Toluene	mg/kg	0.051 J	<0.043	NA	0.031 J	0.089	NA	<0.063	0.081	NA	0.019 J
Total VOCs	mg/kg	3.8 J	0.90 J	NA	4.9 J	9.9 J	NA	18 J	7.8 J	NA	8.7 J

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-21-VOC-1 11/20/13	SP-21-VOC-2 11/20/13	SP-22-COMP 11/20/13	SP-22-VOC-1 11/20/13	SP-22-VOC-2 11/20/13	SP-23-COMP 11/21/13	SP-23-VOC-1 11/21/13	SP-23-VOC-2 11/21/13	SP-24-COMP 11/22/13	SP-24-VOC-1 11/22/13
Volatile Organics (Cont.)											
trans-1,2-Dichloroethene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	0.096	<0.063	NA	0.047 J
trans-1,3-Dichloropropene	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Trichloroethene	mg/kg	0.68	0.13	NA	1.4	1.2	NA	0.27	0.25	NA	5.9
Trichlorofluoromethane	mg/kg	<0.063	<0.043	NA	<0.059	<0.063	NA	<0.063	<0.063	NA	<0.064
Vinyl Chloride	mg/kg	**0.63**	0.23	NA	**0.61**	**2.9**	NA	**2.8**	**2.2**	NA	<0.064
Xylenes (total)	mg/kg	0.13	<0.087	NA	0.068 J	0.19	NA	0.11 J	0.28	NA	0.022 J
Volatile Organics-TCLP											
1,1-Dichloroethene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
1,2-Dichloroethane	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
2-Butanone	mg/L	<0.050	<0.050	NA	<0.050	<0.050	NA	<0.050	<0.050	NA	<0.050
Benzene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Carbon Tetrachloride	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Chlorobenzene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Chloroform	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Tetrachloroethene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010	<0.010	NA	<0.010
Trichloroethene	mg/L	0.020	0.021	NA	0.027	0.0061 J	NA	0.014	0.0078 J	NA	**0.63**
Vinyl Chloride	mg/L	<0.010	0.024	NA	0.0099 J	<0.010	NA	0.088	0.020	NA	<0.010
Semivolatile Organics-TCLP											
1,4-Dichlorobenzene	mg/L	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA
2,4,5-Trichlorophenol	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2,4,6-Trichlorophenol	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2,4-Dinitrotoluene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
2-Methylphenol	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
3&4-Methylphenol	mg/L	NA	NA	<0.010	NA	NA	<0.010	NA	NA	0.0011 J	NA
Hexachlorobenzene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Hexachlorobutadiene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Hexachloroethane	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Nitrobenzene	mg/L	NA	NA	<0.0050	NA	NA	<0.0050	NA	NA	<0.0050	NA
Pentachlorophenol	mg/L	NA	NA	<0.010	NA	NA	<0.010	NA	NA	<0.010	NA
Pyridine	mg/L	NA	NA	<0.025	NA	NA	<0.025	NA	NA	<0.025	NA
Organochlorine Pesticides-TCLP											
Endrin	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Gamma-BHC (Lindane)	mg/L	NA	NA	0.000036 JB	NA	NA	0.000045 JB	NA	NA	<0.00020	NA
Heptachlor	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Heptachlor Epoxide	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Methoxychlor	mg/L	NA	NA	<0.00020	NA	NA	<0.00020	NA	NA	<0.00020	NA
Technical Chlordane	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
Toxaphene	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
Herbicides-TCLP											
2,4,5-TP	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA
2,4-D	mg/L	NA	NA	<0.0020	NA	NA	<0.0020	NA	NA	<0.0020	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-21-VOC-1 11/20/13	SP-21-VOC-2 11/20/13	SP-22-COMP 11/20/13	SP-22-VOC-1 11/20/13	SP-22-VOC-2 11/20/13	SP-23-COMP 11/21/13	SP-23-VOC-1 11/21/13	SP-23-VOC-2 11/21/13	SP-24-COMP 11/22/13	SP-24-VOC-1 11/22/13
Inorganics-TCLP											
Arsenic	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA
Barium	mg/L	NA	NA	0.200 J	NA	NA	0.210 J	NA	NA	0.110 J	NA
Cadmium	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA
Chromium	mg/L	NA	NA	0.00690 J	NA	NA	0.00950 J	NA	NA	<0.500	NA
Copper	mg/L	NA	NA	<0.250	NA	NA	<0.250	NA	NA	<0.250	NA
Lead	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	0.0410 J	NA
Mercury	mg/L	NA	NA	<0.000200	NA	NA	<0.000200	NA	NA	<0.000200	NA
Nickel	mg/L	NA	NA	0.0280 J	NA	NA	<0.400	NA	NA	<0.400	NA
Selenium	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	0.0320 J	NA
Silver	mg/L	NA	NA	<0.500	NA	NA	<0.500	NA	NA	<0.500	NA
Zinc	mg/L	NA	NA	0.0590 J	NA	NA	0.100 JB	NA	NA	0.0680 J	NA
PCBs											
Aroclor-1016	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Aroclor-1221	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Aroclor-1232	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Aroclor-1242	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Aroclor-1248	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Aroclor-1254	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Aroclor-1260	mg/kg	NA	NA	<0.26	NA	NA	<0.31	NA	NA	<0.29	NA
Total PCBs	mg/kg	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Miscellaneous											
Ammonia as NH_3	mg/L	NA	NA	0.78	NA	NA	1.4	NA	NA	0.33	NA
Ammonia Nitrogen	mg/L	NA	NA	0.64	NA	NA	1.2	NA	NA	0.27	NA
Chemical Oxygen Demand	mg/L	NA	NA	69.8	NA	NA	79.9	NA	NA	49	NA
Corrosivity	SU	NA	NA	11	NA	NA	10.1	NA	NA	9.94	NA
Flashpoint	°F	NA	NA	>176	NA	NA	>176	NA	NA	>176	NA
Free Liquid	mL/100g	NA	NA	0	NA	NA	0	NA	NA	0	NA
Leachate pH	SU	NA	NA	5.12	NA	NA	5.34	NA	NA	NA	NA
Oil & Grease	mg/kg	NA	NA	154	NA	NA	209	NA	NA	490	NA
Oil & Grease	mg/L	NA	NA	65.9 J	NA	NA	28 J	NA	NA	<99.6	NA
Reactive Cyanide	mg/kg	NA	NA	<10	NA	NA	<10	NA	NA	<10	NA
Reactive Sulfide	mg/kg	NA	NA	8 J	NA	NA	100	NA	NA	<10	NA
Total Solids	mg/L	NA	NA	398	NA	NA	397	NA	NA	267	NA
Total Volatile Solids	%	NA	NA	3.4	NA	NA	4.1	NA	NA	4.7	NA
Percent Solids Dry Weight											
Percent Moisture	%	NA	NA	NA	NA	NA	NA	38	39	NA	28
Percent Solids	%	86	86	89	71	70	64	62	61	74	72

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-24-VOC-2 11/22/13	SP-24-VOC-3 11/22/13	SP-25-COMP 11/25/13	SP-25-VOC-1 11/25/13	SP-25-VOC-2 11/25/13	SP-25-VOC-3 11/25/13	AMW-5 2 - 3 07/02/14	AMW-5 4 - 5 07/02/14	AMW-5 5 - 6 07/02/14	AMW-5 COMP - - 07/02/14
Volatile Organics											
1,1,1-Trichloroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,1,2,2-Tetrachloroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,1,2-Trichloroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,1-Dichloroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,1-Dichloroethene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,2,4-Trichlorobenzene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,2-Dibromo-3-chloropropane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,2-Dibromoethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,2-Dichlorobenzene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,2-Dichloroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,2-Dichloropropane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,3-Dichlorobenzene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
1,4-Dichlorobenzene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
2-Butanone	mg/kg	<0.32	<0.36	NA	<0.28	<0.93	<0.23	0.0034 J	0.0065 J	0.0086 J	NA
2-Hexanone	mg/kg	<0.32	<0.36	NA	<0.28	<0.93	<0.23	<0.022	<0.018	<0.021	NA
4-Methyl-2-pentanone	mg/kg	<0.32	<0.36	NA	<0.28	<0.93	<0.23	<0.022	<0.018	<0.021	NA
Acetone	mg/kg	<0.32	<0.36	NA	<0.28	<0.93	<0.23	0.039	0.057	0.067	NA
Benzene	mg/kg	0.027 J	0.029 J	NA	0.056 J	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Bromodichloromethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Bromoform	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Bromomethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Carbon Disulfide	mg/kg	0.44	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Carbon Tetrachloride	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Chlorobenzene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Chloroethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Chloroform	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Chloromethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
cis-1,2-Dichloroethene	mg/kg	1.2	1.9	NA	<0.057	0.15 J	0.098	<0.0044	<0.0035	<0.0041	NA
cis-1,3-Dichloropropene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Cyclohexane	mg/kg	<0.064	0.13	NA	0.041 J	<0.19	<0.047	<0.0044	0.0091	0.0064	NA
Dibromochloromethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Dichlorodifluoromethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Ethylbenzene	mg/kg	0.028 J	0.027 J	NA	0.066	<0.19	0.025 J	<0.0044	<0.0035	<0.0041	NA
Isopropylbenzene	mg/kg	<0.064	0.014 J	NA	0.011 J	<0.19	0.0088 J	0.0022 J	0.0017 J	0.0021 J	NA
Methyl acetate	mg/kg	0.056 J	1.0	NA	0.79	2.2	0.92	<0.0044	<0.0035	<0.0041	NA
Methyl tert-butyl ether	mg/kg	0.48	0.74	NA	<0.057	0.078 J	<0.047	<0.0044	<0.0035	<0.0041	NA
Methylcyclohexane	mg/kg	0.054 J	0.065 J	NA	0.051 J	<0.19	<0.047	0.00093 J	0.023	0.022	NA
Methylene Chloride	mg/kg	1.9	4.2	NA	<0.057	0.049 J	<0.047	<0.0044	<0.0035	<0.0041	NA
Styrene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Tetrachloroethene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Toluene	mg/kg	0.066	0.033 J	NA	0.15	0.070 J	0.013 J	<0.0044	<0.0035	<0.0041	NA
Total VOCs	mg/kg	4.7 J	10 J	NA	1.6 J	3.0 J	1.4 J	0.046 J	0.097 J	0.11 J	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-24-VOC-2 11/22/13	SP-24-VOC-3 11/22/13	SP-25-COMP 11/25/13	SP-25-VOC-1 11/25/13	SP-25-VOC-2 11/25/13	SP-25-VOC-3 11/25/13	AMW-5 2 - 3 07/02/14	AMW-5 4 - 5 07/02/14	AMW-5 5 - 6 07/02/14	AMW-5 COMP - - 07/02/14
Volatile Organics (Cont.)											
trans-1,2-Dichloroethene	mg/kg	0.024 J	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
trans-1,3-Dichloropropene	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Trichloroethene	mg/kg	0.23	1.3	NA	0.087	0.31	0.24	<0.0044	<0.0035	<0.0041	NA
Trichlorofluoromethane	mg/kg	<0.064	<0.072	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Vinyl Chloride	mg/kg	0.065	**0.56**	NA	<0.057	<0.19	<0.047	<0.0044	<0.0035	<0.0041	NA
Xylenes (total)	mg/kg	0.093 J	0.088 J	NA	0.35	0.15 J	0.059 J	<0.0088	<0.0071	<0.0082	NA
Volatile Organics-TCLP											
1,1-Dichloroethene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
1,2-Dichloroethane	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
2-Butanone	mg/L	<0.050	<0.050	NA	<0.050 *	<0.050 *	<0.050 *	<0.050	<0.050	<0.050	NA
Benzene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
Carbon Tetrachloride	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
Chlorobenzene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
Chloroform	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
Tetrachloroethene	mg/L	<0.010	<0.010	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
Trichloroethene	mg/L	0.019	0.079	NA	<0.010	<0.010	0.0063 JB	<0.010	<0.010	<0.010	NA
Vinyl Chloride	mg/L	0.031	0.014	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA
Semivolatile Organics-TCLP											
1,4-Dichlorobenzene	mg/L	NA	NA	<0.010	NA	NA	NA	NA	NA	NA	<0.0040
2,4,5-Trichlorophenol	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.020
2,4,6-Trichlorophenol	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.020
2,4-Dinitrotoluene	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.020
2-Methylphenol	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.0040
3&4-Methylphenol	mg/L	NA	NA	<0.010	NA	NA	NA	NA	NA	NA	<0.040
Hexachlorobenzene	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.020
Hexachlorobutadiene	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.020
Hexachloroethane	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.020
Nitrobenzene	mg/L	NA	NA	<0.0050	NA	NA	NA	NA	NA	NA	<0.0040
Pentachlorophenol	mg/L	NA	NA	<0.010	NA	NA	NA	NA	NA	NA	<0.040
Pyridine	mg/L	NA	NA	<0.025	NA	NA	NA	NA	NA	NA	<0.020
Organochlorine Pesticides-TCLP											
Endrin	mg/L	NA	NA	<0.00020	NA	NA	NA	NA	NA	NA	<0.00020
Gamma-BHC (Lindane)	mg/L	NA	NA	<0.00020	NA	NA	NA	NA	NA	NA	<0.00020
Heptachlor	mg/L	NA	NA	<0.00020	NA	NA	NA	NA	NA	NA	<0.00020
Heptachlor Epoxide	mg/L	NA	NA	<0.00020	NA	NA	NA	NA	NA	NA	<0.00020
Methoxychlor	mg/L	NA	NA	<0.00020	NA	NA	NA	NA	NA	NA	<0.00020
Technical Chlordane	mg/L	NA	NA	<0.0020	NA	NA	NA	NA	NA	NA	<0.0020
Toxaphene	mg/L	NA	NA	<0.0020	NA	NA	NA	NA	NA	NA	<0.0020
Herbicides-TCLP											
2,4,5-TP	mg/L	NA	NA	<0.0020	NA	NA	NA	NA	NA	NA	<0.0020
2,4-D	mg/L	NA	NA	<0.0020	NA	NA	NA	NA	NA	NA	<0.0020

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	SP-24-VOC-2 11/22/13	SP-24-VOC-3 11/22/13	SP-25-COMP 11/25/13	SP-25-VOC-1 11/25/13	SP-25-VOC-2 11/25/13	SP-25-VOC-3 11/25/13	AMW-5 2 - 3 07/02/14	AMW-5 4 - 5 07/02/14	AMW-5 5 - 6 07/02/14	AMW-5 COMP - - 07/02/14
Inorganics-TCLP											
Arsenic	mg/L	NA	NA	<0.500	NA	NA	NA	NA	NA	NA	0.0250
Barium	mg/L	NA	NA	0.390 JB	NA	NA	NA	NA	NA	NA	0.450 B
Cadmium	mg/L	NA	NA	<0.500	NA	NA	NA	NA	NA	NA	0.0140
Chromium	mg/L	NA	NA	<0.500	NA	NA	NA	NA	NA	NA	0.0120 B
Copper	mg/L	NA	NA	<0.250	NA	NA	NA	NA	NA	NA	0.0600 B
Lead	mg/L	NA	NA	0.0390 J	NA	NA	NA	NA	NA	NA	0.200
Mercury	mg/L	NA	NA	<0.000200	NA	NA	NA	NA	NA	NA	<0.000200
Nickel	mg/L	NA	NA	0.0320 J	NA	NA	NA	NA	NA	NA	0.0150
Selenium	mg/L	NA	NA	<0.500	NA	NA	NA	NA	NA	NA	<0.0250
Silver	mg/L	NA	NA	<0.500	NA	NA	NA	NA	NA	NA	<0.00600
Zinc	mg/L	NA	NA	0.320	NA	NA	NA	NA	NA	NA	0.380 B
PCBs											
Aroclor-1016	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Aroclor-1221	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Aroclor-1232	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Aroclor-1242	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Aroclor-1248	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Aroclor-1254	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Aroclor-1260	mg/kg	NA	NA	<0.28	NA	NA	NA	NA	NA	NA	<0.23
Total PCBs	mg/kg	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Miscellaneous											
Ammonia as NH_3	mg/L	NA	NA	0.13	NA	NA	NA				
Ammonia Nitrogen	mg/L	NA	NA	0.1	NA	NA	NA	NA	NA	NA	0.33 B
Chemical Oxygen Demand	mg/L	NA	NA	15.9	NA	NA	NA	NA	NA	NA	13.2
Corrosivity	SU	NA	NA	11.3	NA	NA	NA	NA	NA	NA	9.4
Flashpoint	°F	NA	NA	>176	NA	NA	NA	NA	NA	NA	>176
Free Liquid	mL/100g	NA	NA	0	NA	NA	NA	NA	NA	NA	0
Leachate pH	SU	NA	NA	6.29	NA	NA	NA				
Oil & Grease	mg/kg	NA	NA	1,500	NA	NA	NA	NA	NA	NA	182
Oil & Grease	mg/L	NA	NA	<99.1	NA	NA	NA	NA	NA	NA	79.9 J
Reactive Cyanide	mg/kg	NA	NA	<10	NA	NA	NA	NA	NA	NA	<10
Reactive Sulfide	mg/kg	NA	NA	16	NA	NA	NA	NA	NA	NA	<10
Total Solids	mg/L	NA	NA	212 H	NA	NA	NA	NA	NA	NA	698
Total Volatile Solids	%	NA	NA	2.7	NA	NA	NA	NA	NA	NA	2
Percent Solids Dry Weight											
Percent Moisture	%	33	35	NA	9.3	59	11	6.7	7.2	8.2	NA
Percent Solids	%	67	65	75	91	41	89	93	93	92	93

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	G2-51/PX-NORTH COMP - - 07/02/14	G2-51/PX-NORTH-A 0 - 2 07/02/14	G2-51/PX-NORTH-B 2 - 3 07/02/14	G2-51/PX-NORTH-C 3 - 4 07/02/14	GP-6 COMP - - 07/01/14	GP-6-A 0 - 3 07/01/14	GP-6-B 0 - 3 07/01/14	GP-6-C 0 - 3 07/01/14
Volatile Organics									
1,1,1-Trichloroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,1,2,2-Tetrachloroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,1,2-Trichloroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,1-Dichloroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,1-Dichloroethene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,2,4-Trichlorobenzene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,2-Dibromo-3-chloropropane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,2-Dibromoethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,2-Dichlorobenzene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,2-Dichloroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,2-Dichloropropane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,3-Dichlorobenzene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
1,4-Dichlorobenzene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
2-Butanone	mg/kg	NA	<0.022	<0.97	<3.1	NA	0.0064 J	0.0040 J	0.0079 J
2-Hexanone	mg/kg	NA	<0.022	<0.97	<3.1	NA	<0.021	<0.015	<0.021
4-Methyl-2-pentanone	mg/kg	NA	<0.022	<0.97	<3.1	NA	<0.021	<0.015	<0.021
Acetone	mg/kg	NA	0.012 J	<0.97	<3.1	NA	0.050	0.034	0.054
Benzene	mg/kg	NA	<0.0045	<0.19	0.30 J	NA	0.0039 J	0.0018 J	0.00066 J
Bromodichloromethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Bromoform	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Bromomethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Carbon Disulfide	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Carbon Tetrachloride	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Chlorobenzene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Chloroethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Chloroform	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Chloromethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
cis-1,2-Dichloroethene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
cis-1,3-Dichloropropene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Cyclohexane	mg/kg	NA	<0.0045	<0.19	4.9 ^	NA	<0.0042	<0.0030	<0.0043
Dibromochloromethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Dichlorodifluoromethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Ethylbenzene	mg/kg	NA	<0.0045	<0.19	0.18 J	NA	0.0033 J	0.0043	0.0018 J
Isopropylbenzene	mg/kg	NA	<0.0045	2.6	7.5	NA	0.0029 J	0.0018 J	0.0010 J
Methyl acetate	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Methyl tert-butyl ether	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Methylcyclohexane	mg/kg	NA	0.0014 J	3.8 ^	12 ^	NA	0.0051	0.0036	0.0013 J
Methylene Chloride	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Styrene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Tetrachloroethene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Toluene	mg/kg	NA	0.00055 J	<0.19	<0.62	NA	0.00036 J	<0.0030	<0.0043
Total VOCs	mg/kg	NA	0.014 J	6.5 J	25 J	NA	0.073 J	0.050 J	0.067 J

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	G2-51/PX-NORTH COMP - - 07/02/14	G2-51/PX-NORTH-A 0 - 2 07/02/14	G2-51/PX-NORTH-B 2 - 3 07/02/14	G2-51/PX-NORTH-C 3 - 4 07/02/14	GP-6 COMP - - 07/01/14	GP-6-A 0 - 3 07/01/14	GP-6-B 0 - 3 07/01/14	GP-6-C 0 - 3 07/01/14
Volatile Organics (Cont.)									
trans-1,2-Dichloroethene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
trans-1,3-Dichloropropene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Trichloroethene	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Trichlorofluoromethane	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Vinyl Chloride	mg/kg	NA	<0.0045	<0.19	<0.62	NA	<0.0042	<0.0030	<0.0043
Xylenes (total)	mg/kg	NA	<0.0089	0.060 J	<1.2	NA	0.00074 J	<0.0060	<0.0085
Volatile Organics-TCLP									
1,1-Dichloroethene	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
1,2-Dichloroethane	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
2-Butanone	mg/L	NA	<0.050	<0.050	<0.050	NA	<0.050	<0.050	<0.050
Benzene	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Carbon Tetrachloride	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Chlorobenzene	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Chloroform	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Tetrachloroethene	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Trichloroethene	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Vinyl Chloride	mg/L	NA	<0.010	<0.010	<0.010	NA	<0.010	<0.010	<0.010
Semivolatile Organics-TCLP									
1,4-Dichlorobenzene	mg/L	<0.0040	NA	NA	NA	<0.0040	NA	NA	NA
2,4,5-Trichlorophenol	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
2,4,6-Trichlorophenol	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
2,4-Dinitrotoluene	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
2-Methylphenol	mg/L	<0.0040	NA	NA	NA	<0.0040	NA	NA	NA
3&4-Methylphenol	mg/L	<0.040	NA	NA	NA	<0.040	NA	NA	NA
Hexachlorobenzene	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
Hexachlorobutadiene	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
Hexachloroethane	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
Nitrobenzene	mg/L	<0.0040	NA	NA	NA	<0.0040	NA	NA	NA
Pentachlorophenol	mg/L	<0.040	NA	NA	NA	<0.040	NA	NA	NA
Pyridine	mg/L	<0.020	NA	NA	NA	<0.020	NA	NA	NA
Organochlorine Pesticides-TCLP									
Endrin	mg/L	<0.00020	NA	NA	NA	<0.00020	NA	NA	NA
Gamma-BHC (Lindane)	mg/L	0.000043 J	NA	NA	NA	<0.00020	NA	NA	NA
Heptachlor	mg/L	<0.00020	NA	NA	NA	<0.00020	NA	NA	NA
Heptachlor Epoxide	mg/L	<0.00020	NA	NA	NA	<0.00020	NA	NA	NA
Methoxychlor	mg/L	0.000048 J	NA	NA	NA	<0.00020	NA	NA	NA
Technical Chlordane	mg/L	<0.0020	NA	NA	NA	<0.0020	NA	NA	NA
Toxaphene	mg/L	<0.0020	NA	NA	NA	<0.0020	NA	NA	NA
Herbicides-TCLP									
2,4,5-TP	mg/L	<0.0020	NA	NA	NA	<0.0020	NA	NA	NA
2,4-D	mg/L	<0.0020	NA	NA	NA	<0.0020	NA	NA	NA

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Location ID: Sample Depth (Feet): Date Collected:	Units	G2-51/PX-NORTH COMP - - 07/02/14	G2-51/PX-NORTH-A 0 - 2 07/02/14	G2-51/PX-NORTH-B 2 - 3 07/02/14	G2-51/PX-NORTH-C 3 - 4 07/02/14	GP-6 COMP - - 07/01/14	GP-6-A 0 - 3 07/01/14	GP-6-B 0 - 3 07/01/14	GP-6-C 0 - 3 07/01/14
Inorganics-TCLP									
Arsenic	mg/L	<0.0150	NA	NA	NA	0.00800 J	NA	NA	NA
Barium	mg/L	0.250 B	NA	NA	NA	0.800 B	NA	NA	NA
Cadmium	mg/L	0.00560	NA	NA	NA	0.00650	NA	NA	NA
Chromium	mg/L	0.00320 JB	NA	NA	NA	0.0100 B	NA	NA	NA
Copper	mg/L	0.0190 B	NA	NA	NA	0.0190 B	NA	NA	NA
Lead	mg/L	0.0900	NA	NA	NA	0.290	NA	NA	NA
Mercury	mg/L	<0.000200	NA	NA	NA	<0.000200	NA	NA	NA
Nickel	mg/L	0.0170	NA	NA	NA	0.0400	NA	NA	NA
Selenium	mg/L	0.0170 J	NA	NA	NA	<0.0250	NA	NA	NA
Silver	mg/L	<0.00600	NA	NA	NA	<0.00600	NA	NA	NA
Zinc	mg/L	0.360 B	NA	NA	NA	0.310 B	NA	NA	NA
PCBs									
Aroclor-1016	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Aroclor-1221	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Aroclor-1232	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Aroclor-1242	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Aroclor-1248	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Aroclor-1254	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Aroclor-1260	mg/kg	<0.98	NA	NA	NA	<0.20	NA	NA	NA
Total PCBs	mg/kg	ND	NA	NA	NA	ND	NA	NA	NA
Miscellaneous									
Ammonia as NH_3	mg/L								
Ammonia Nitrogen	mg/L	0.066 B	NA	NA	NA	0.26 B	NA	NA	NA
Chemical Oxygen Demand	mg/L	15.2	NA	NA	NA	12.6	NA	NA	NA
Corrosivity	SU	8.78	NA	NA	NA	7.94	NA	NA	NA
Flashpoint	°F	>176	NA	NA	NA	>176	NA	NA	NA
Free Liquid	mL/100g	0	NA	NA	NA	0	NA	NA	NA
Leachate pH	SU								
Oil & Grease	mg/kg	10,000	NA	NA	NA	1,140	NA	NA	NA
Oil & Grease	mg/L	71.9 J	NA	NA	NA	67.9 J	NA	NA	NA
Reactive Cyanide	mg/kg	<10	NA	NA	NA	<10	NA	NA	NA
Reactive Sulfide	mg/kg	<10	NA	NA	NA	<10	NA	NA	NA
Total Solids	mg/L	153	NA	NA	NA	867	NA	NA	NA
Total Volatile Solids	%	5.4	NA	NA	NA	1.4	NA	NA	NA
Percent Solids Dry Weight									
Percent Moisture	%	NA	5.9	8.6	18	NA	5.6	2.7	5.4
Percent Solids	%	93	94	91	82	95	94	97	95

See Notes on Page 31.

Table 2
Waste Characterization Analytical Summary

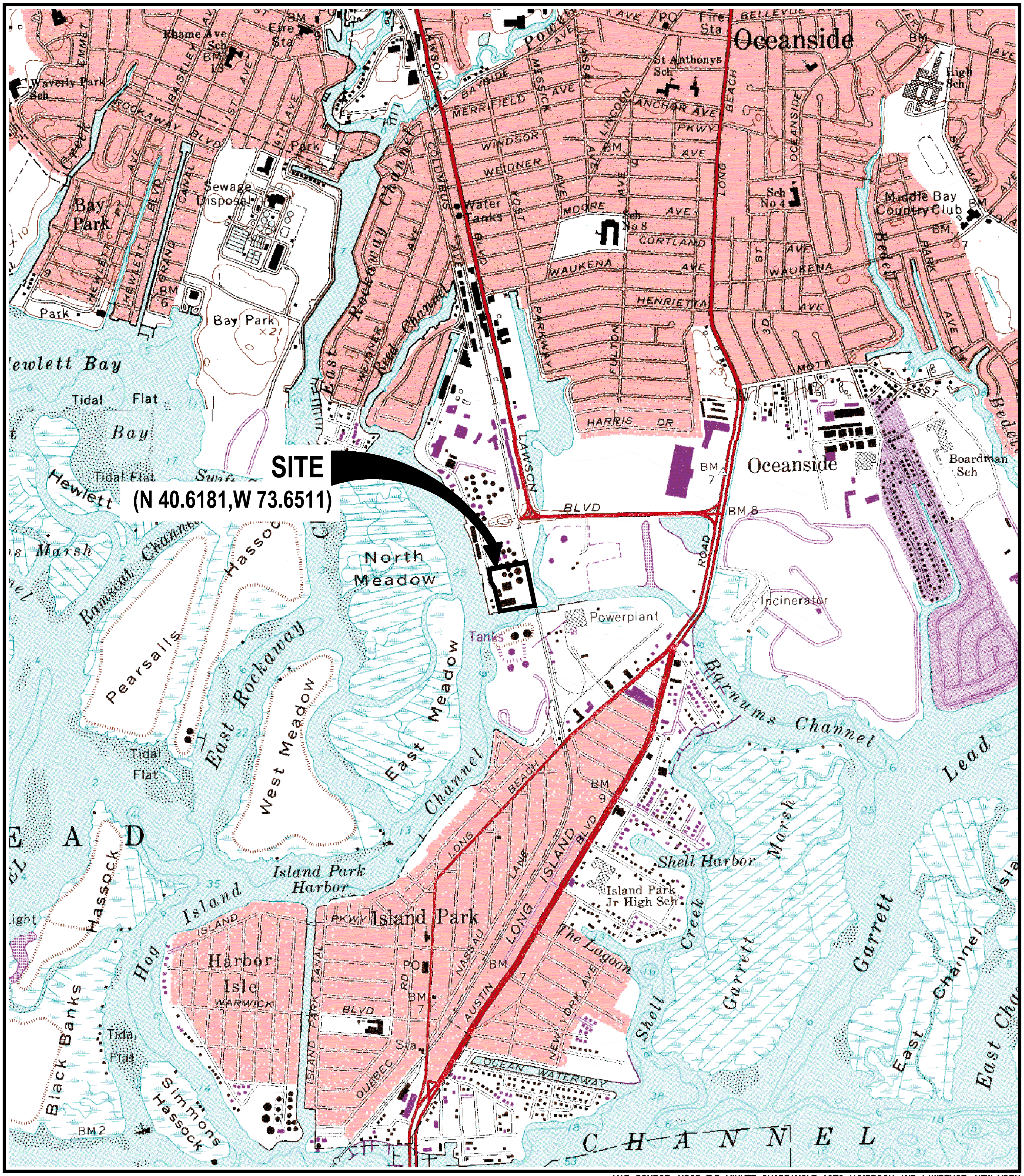
Interim Remedial Measures Completion Report
Chevron Environmental Management Company
Former Gulf Fuel Terminal (#6518040)
Oceanside, New York

Notes:
1. Samples were collected by ARCADIS and submitted to TestAmerica Laboratory in Buffalo, New York, for analysis.
2. Duplicate sample results are presented in brackets.
3. Shading indicates that the sample result exceeds one or more of the listed criteria.
4. Toxicity Characteristic Levels, Code of Federal Regulations Title 40 Section 261.24 (dated July 1, 2011).
5. Contained-In Level - Soil and Groundwater Action Levels, Technical Administrative Guidance Memorandum 3028 - "Contained-In" Criteria for Environmental Media (dated November 30, 1992). Only select VOCs criteria are shown.
6. Land Disposal Restrictions - Nonwastewater and Wastewater Standards, Part 376(j), Table UTS-Universal Treatment Standards.
7. Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

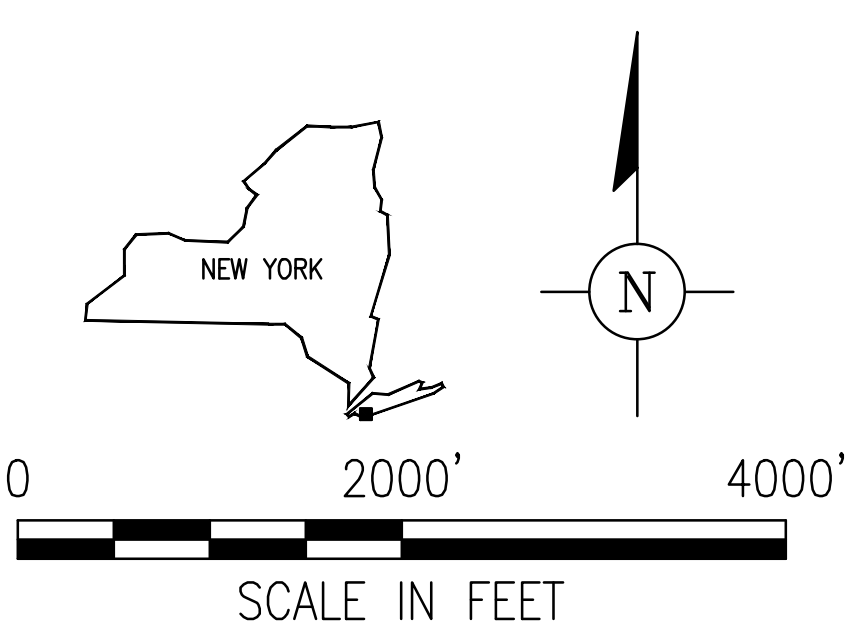
- - = Information not included in table. Refer to applicable reference.
< = less than.
> = greater than.
% = percent.
B = Analyte was also detected in the associated method blank.
BHC = benzene hexachloride.
°F = degrees Fahrenheit.
H = Sample was prepped or analyzed beyond the specified holding time.
J = Indicates an estimated value.
mg/L = milligram per liter.
mg/kg = milligram per kilogram.
mL/100 g = milliliters per 100 grams.
NA = not analyzed.
ND = not detected.
SU = Standard Unit.
TCLP = toxicity characteristic leaching procedure.
VOC = volatile organic compound.

ARCADIS

Figures



MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE 1979 LYNBROOK AND LAWRENCE, NEW YORK



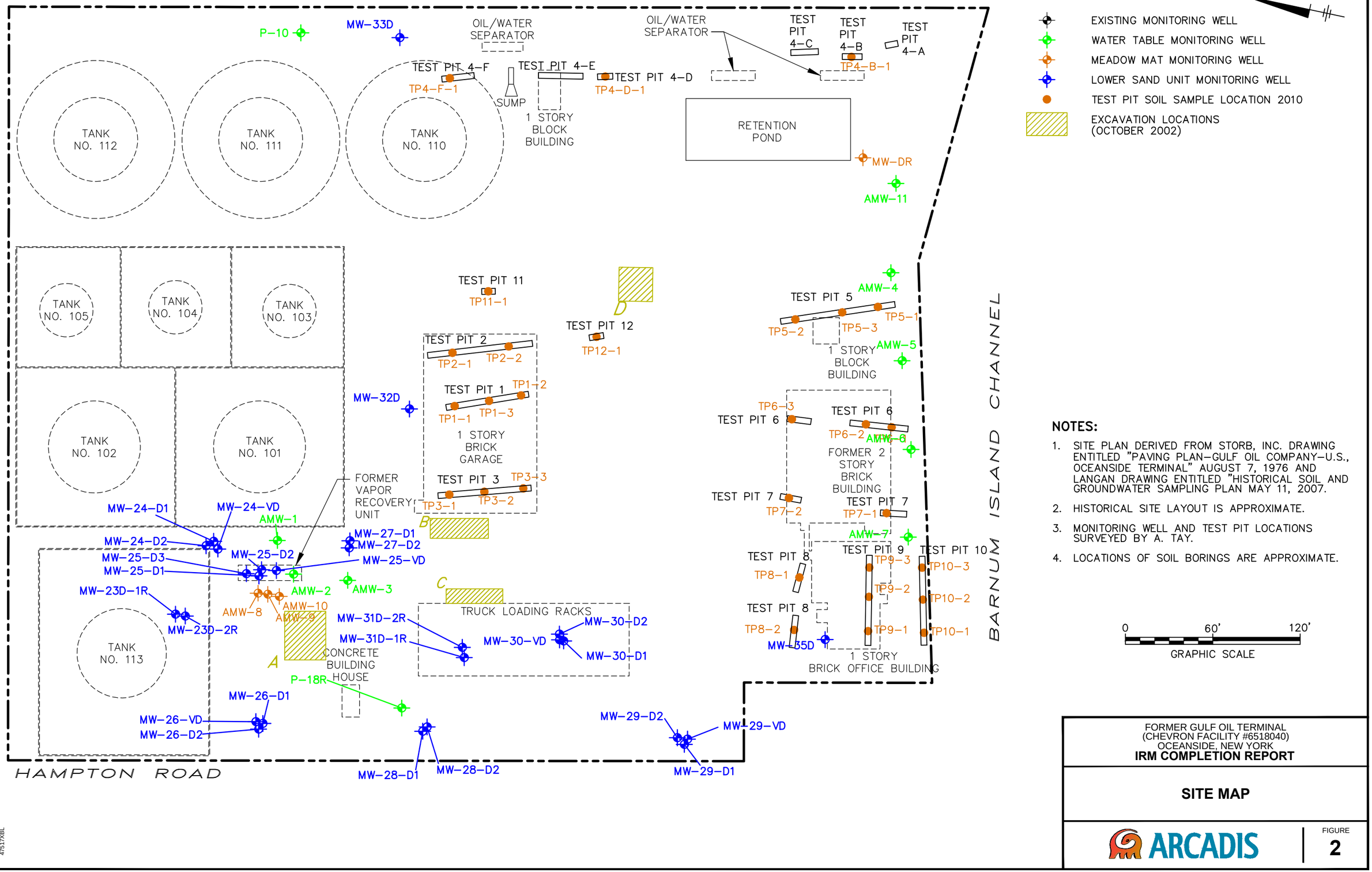
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
IRM COMPLETION REPORT

SITE LOCATION MAP

ARCADIS

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A. HEBERT PM:B. MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0013\00003\DWG\47517N01.dwg LAYOUT: 1 SAVED: 10/8/2014 9:19 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: PDF-AP PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/29/2014 1:11 PM BY: STEINBERGER, GEORGE
XREFS: IMAGES: 47517X01.TIF 47517X02.TIF PROJECTNAME:



NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
4. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
IRM COMPLETION REPORT

SITE MAP

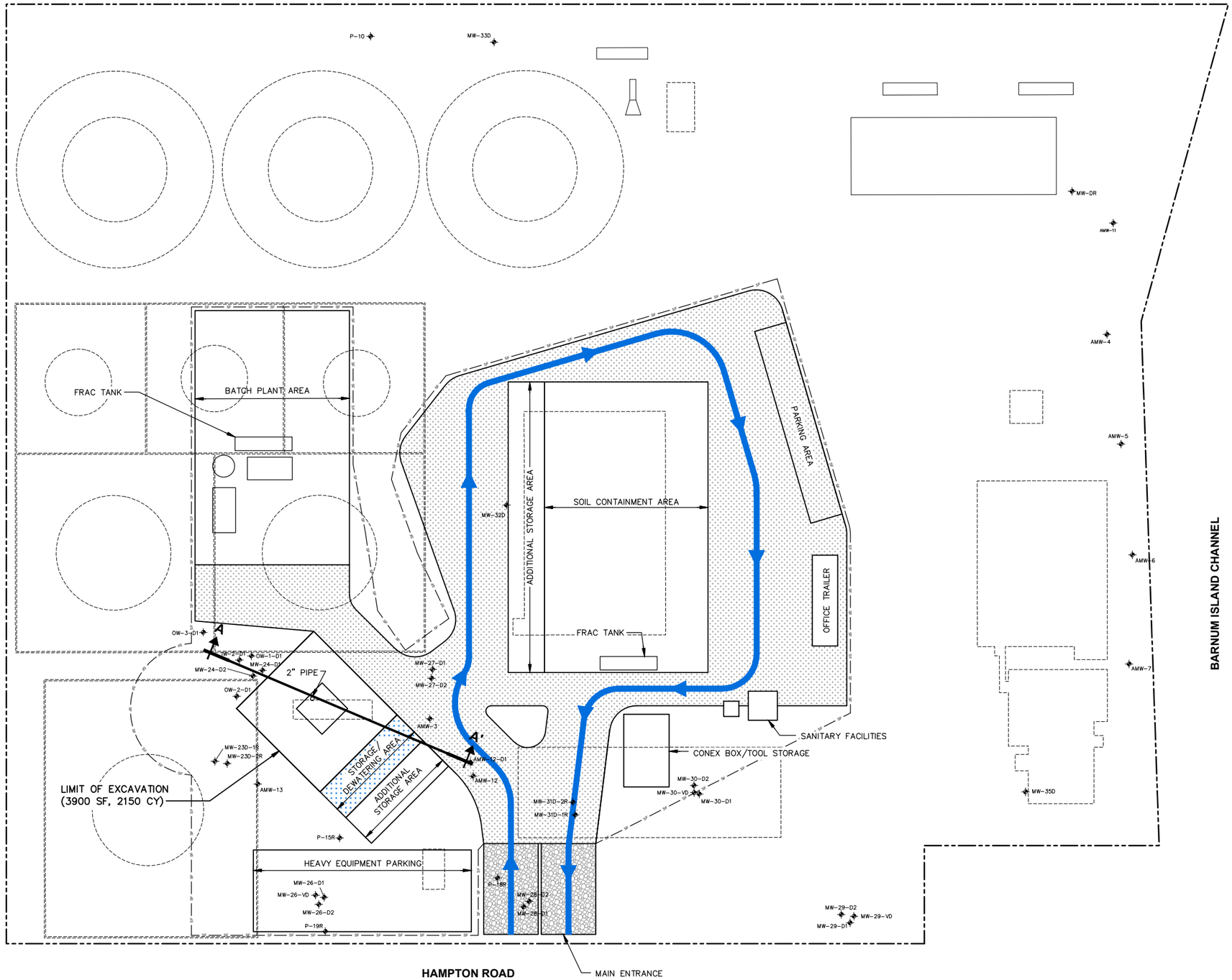
ARCADIS

FIGURE **2**

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A.HEBERT PM:B.MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\0047517\0013\000003\DWG\47517B01.DWG LAYOUT: 2 SAVED: 9/29/2014 9:59 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULLCTB PLOTTED: 10/29/2014 1:12 PM BY: STEINBERGER, GEORGE
XREFS: 47517X01 47517XBL IMAGES: PROJECTNAME: ----

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A. HEBERT PM:B. MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIVE\047517\00130\0003\DWG\047517G03.dwg LAYOUT: 3 SAVED: 10/29/2014 1:14 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: ----
XREFS: 475117X00 475117X01 IMAGES: PROJECTNAME: ----
PLOTSTYLETABLE: PLTFULLCTB PLOTTED: 10/29/2014 1:14 PM BY: STEINBERGER, GEORGE

LONG ISLAND RAIL ROAD



GENERAL NOTE:

1. SITE LOCATIONS APPROXIMATE.

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- CONSTRUCTION ENTRANCE/SITE ACCESS
- STABILIZED GRAVEL ACCESS ROAD
- MONITORING WELL
- SF — SF — SILT FENCE
- TRAFFIC ROUTE
- STORAGE/DEWATERING AREA
- A A' TRANSECT LINE

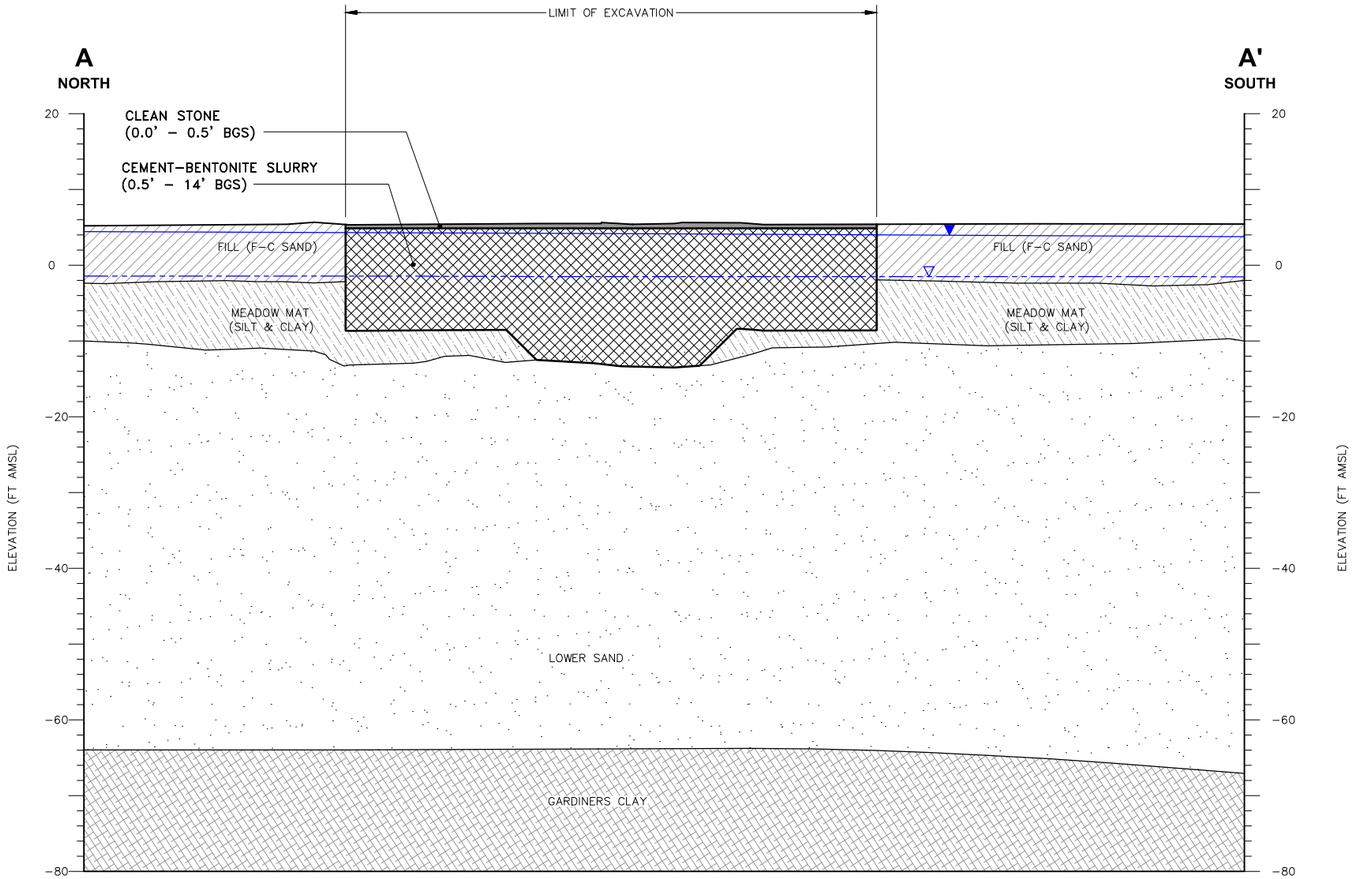
0 30' 60'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
IRM COMPLETION REPORT

IRM EXCAVATION LIMITS AND SITE LAYOUT

ARCADIS

FIGURE
3



CROSS SECTION A-A'

0 10' 20'

SCALE: 1"=10'

LEGEND:

- GROUND SURFACE
- WATER TABLE (DASHED WHERE INFERRED)
- CONFINED WATER SURFACE
- CLEAN STONE
- CEMENT–BENTONITE SLURRY
- FILL
- MEADOW MAT
- LOWER SAND
- GARDINERS CLAY

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
IRM COMPLETION REPORT

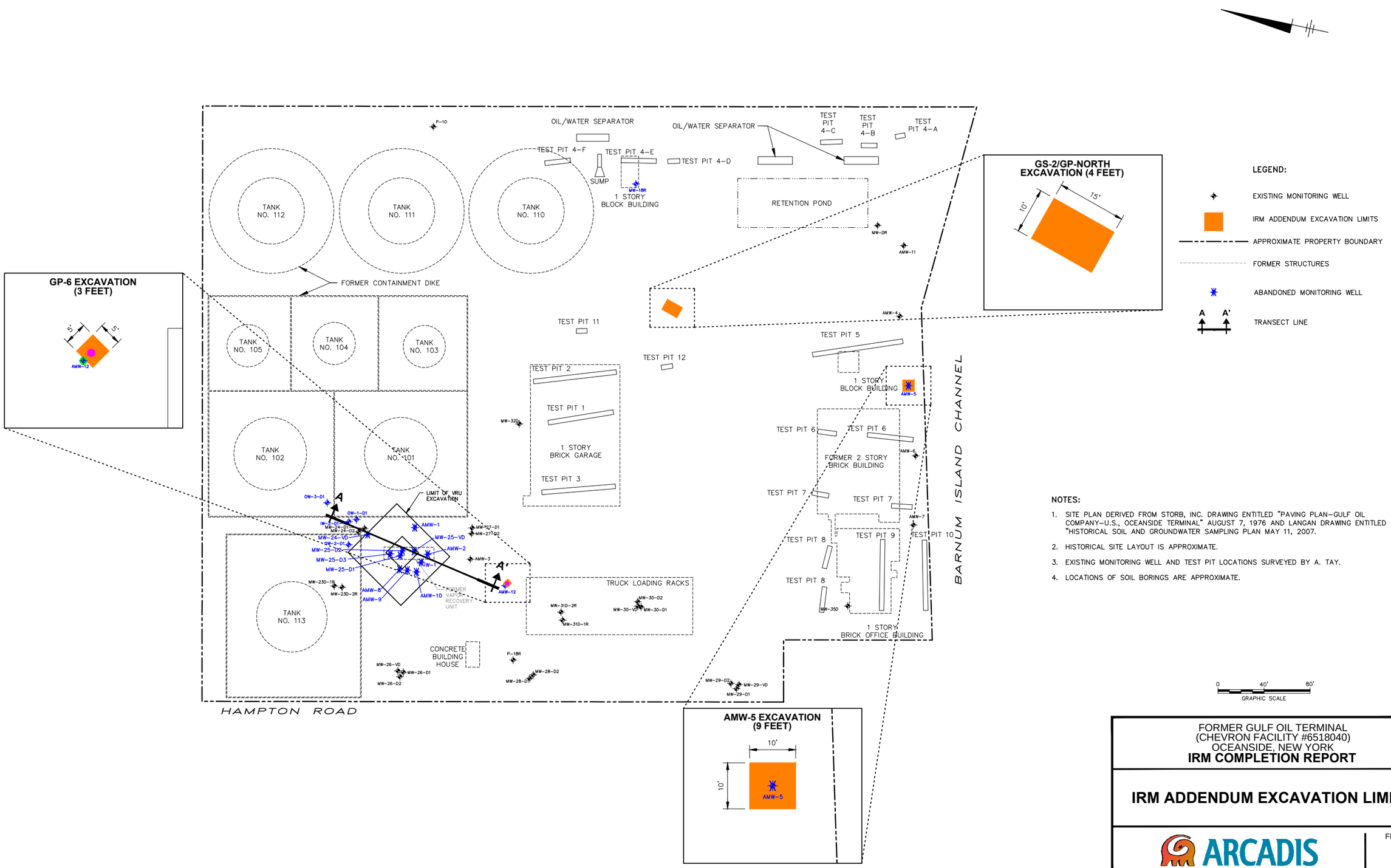
**VRU EXCAVATION LIMITS
(CROSS SECTION)**

ARCADIS

FIGURE
4

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A. HEBERT PM:B. MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIVE\B0047517\0013\000039\DWG\47517V01.dwg LAYOUT: 4 SAVED: 9/29/2014 10:00 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/29/2014 1:12 PM BY: STEINBERGER, GEORGE
XREFS:
47517X00
47517G04
IMAGES:
PROJECTNAME: ----

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: G. STOWELL L. FORAKER LD: G. STOWELL PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\047517\003\00003\DWG\47517B02.DWG LAYOUT: 5 SAVED: 10/29/2014 10:30 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 10/29/2014 1:12 PM BY: STEINBERGER, GEORGE
XREFS: IMAGES: PROJECTNAME: ----
47517X01
47517X00



NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. EXISTING MONITORING WELL AND TEST PIT LOCATIONS SURVEYED BY A. TAY.
4. LOCATIONS OF SOIL BORINGS ARE APPROXIMATE.

0 40' 80'
GRAPHIC SCALE

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
IRM COMPLETION REPORT

IRM ADDENDUM EXCAVATION LIMITS

ARCADIS

FIGURE
5

Appendix A

Daily Reports (with Photos)

ARCADIS

Appendix B

Backfill Qualification Analytical Report

Appendix C

SWPPP Inspections

Appendix D

Stockpile Inspections

ARCADIS

Appendix E

Waste Characterization Analytical Reports

Appendix F

Contained In Determinations

Appendix G

Waste Disposal Documentation

Appendix H

Air Monitoring Data

APPENDIX C

Supplemental Remedial Investigation Report

ARCADIS Design & Consultancy for natural and built assets

Chevron Environmental Management Company

SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT

Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York
(NYSDEC Site #130165)

January 2017

SUPPLEMENTAL REMEDIAL INVESTIGATION REPORT

Former Gulf Oil Terminal
Oceanside, Township of Hempstead,
New York
(NYSDEC Site #130165)

William T McCune
Principal Geologist/ Project Manager

Prepared for:

Chevron Environmental Management Company

Prepared by:

Arcadis of New York, Inc.

One Lincoln Center

110 West Fayette Street

Suite 300

Syracuse

New York 13202

Tel 315 446 9120

Fax 315 449 0017

Our Ref.:

B0047517

Date:

January 2017

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

CONTENTS

Acronyms and Abbreviations v
1 Introduction 1
1.1 Site Background 1
1.1.1 Site Description 1
1.1.2 Site History 1
1.2 Remedial Actions 3
1.2.1 Former VRU Area – IRM Activities – 2013 and 2014 3
1.2.2 IRM Addendum Activities – 2014 3
1.3 Future Site Use 3
2 Remedial Investigation Activities 4
2.1 Soil and Groundwater Cleanup Objectives 4
2.1.1 Soil Cleanup Objectives (SCOs) 4
2.1.2 Groundwater Quality Standards 4
2.2 Membrane Interface Probes (MIPs) 5
2.3 Soil Borings 5
2.4 Monitoring Well Installation 5
2.5 Groundwater Sampling 6
2.6 Methyl Tert-Butyl Ether (MTBE) Investigation 6
2.7 Community Air Monitoring Plan 7
2.8 Waste Management 7
3 Site Geology and Hydrogeology 8
3.1 Regional Geology/Hydrogeology 8
3.2 Site Geology/Hydrogeology 8
3.3 Groundwater Flow 8
3.4 Horizontal and Vertical Gradients 9
4 Investigation results 10
4.1 Soil Results 10
4.1.1 Fill Unit – Protection of Groundwater SCO 10
4.1.1.1 VOCs 10

4.1.1.2 SVOCs 11
4.1.1.3 Inorganics 11
4.1.2 Lower Sand Unit Protection of Groundwater 12
4.1.2.1 VOCs 12
4.1.3 Commercial Exceedances 12
4.2 Groundwater Results 12
4.2.1 Fill Unit 13
4.2.1.1 VOCs 13
4.2.1.2 SVOCs 13
4.2.2 Lower Sand Unit 14
4.2.2.1 VOCs 14
4.2.2.2 SVOCs 15
5 Site Conceptual Model 16
5.1 Source of Contamination 16
5.2 Nature of Contamination 16
5.3 Soil Impacts 16
5.3.1 Fill Unit 16
5.3.2 Lower Sand Unit 16
5.4 Groundwater Impacts 17
5.4.1 Fill Unit 17
5.4.2 Lower Sand Unit 17
5.5 Extent of Residual Commination 17
5.5.1 Fill Unit 17
5.5.2 Lower Sand Unit 17
5.6 Mass of Constituents of Concern (COCs) 18
5.7 Migration Pathways 18
6 Summary and Conclusions 20
6.1 Soil Conditions 20
6.1.1 Fill Unit 20
6.1.2 Lower Sand 20

6.2 Groundwater Conditions 20
6.2.1 Fill Unit 20
6.2.2 Lower Sand Unit 21
6.3 Conclusions 21
7 References 22

TABLES

Table 1 Well Construction Summary Table
Table 2 Groundwater Field Parameters
Table 3 Groundwater Elevation Summary Table
Table 4 Soil Analytical Data pre-2010
Table 5 Soil Analytical Date 2010 - 2016
Table 6 Groundwater Analytical Data 2011 - 2016

FIGURES

Figure 1 Site Location Map
Figure 2 Site Map
Figure 3 Residual Source Zone Assessment Locations
Figure 4 Cross-Section Location Map
Figure 5 Cross-Section A-A'
Figure 6 Cross-Section B-B'
Figure 7 Protection of Groundwater SCO Exceedances – Fill Unit
Figure 8 Protection of Groundwater SCO Exceedances – Lower Sand Unit
Figure 9 Commercial SCO Exceedances in Soil – Fill Unit
Figure 10 TOGS Exceedances in Groundwater – Fill Unit
Figure 11 TOGS Exceedances in Groundwater – Lower Sand Unit (BTEX)
Figure 12 TOGS Exceedances in Groundwater – Lower Sand Unit (CVOCs)

APPENDICES

Appendix A MIPs Data

Appendix B Boring Logs

Appendix C Well Construction Logs

Appendix D MTBE Investigation Results

Appendix E Community Air Monitoring Plan Data

Appendix F Groundwater Elevation Contour Maps

Appendix G Analytical Reports

Appendix H Historical GW Results

Appendix I Isoconcentration Contour Maps

ACRONYMS AND ABBREVIATIONS

Arcadis	Arcadis of New York, Inc.
AST	aboveground storage tank
bcgs	below current ground surface
BCP	Brownfield Cleanup Program
bgs	below ground surface
Catamount	Catamount Petroleum LP
CEMC	Chevron Environmental Management Company
CFI	Cumberland Farms, Inc.
cgs	current ground surface
COCs	constituents of concern
CVOCs	Chlorinated Volatile Organic Compounds
DCE	Dichloroethene
FS	Feasibility Study
ft/ft	foot/foot
Gulf	Gulf Oil Limited Partnership
IRM	interim remedial measure
LNAPL	light nonaqueous phase liquid
Lowe's	Lowe's Home Centers, Inc.
mg/kg	milligrams per kilogram
MIPs	Membrane Interface Probes
MNA	monitored natural attenuation
MTBE	methyl tert-butyl ether
NYSDEC	New York State Department of Environmental Conservation
PID	photoionization detector
PVC	polyvinyl chloride
RI Report	Supplemental Remedial Investigation Report
SCOs	Soil Cleanup Objectives
site	former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York (NYSDEC Site #130165)
SVOC	semivolatile organic compound

TAL	Target Analyte List
TCE	trichloroethene
TOGS	Technical & Operational Guidance Series
USTs	underground storage tanks
VRU	Vapor Recovery Unit
VOC	volatile organic compound

1 INTRODUCTION

On behalf of Chevron Environmental Management Company (CEMC), Arcadis of New York, Inc. (Arcadis) is submitting this Supplemental Remedial Investigation Report (RI Report) to the New York State Department of Environmental Conservation (NYSDEC) for the former Gulf Oil Terminal located in Oceanside, Township of Hempstead, New York (NYSDEC Site #130165).

This RI Report has been prepared in accordance with the New York Codes, Rules and Regulations, the NYSDEC's Division of Environmental Remediation-10 – Technical Guidance for Site Investigation and Remediation (NYSDEC 2010).

The purpose of this report is to provide an update to the 2011 Remedial Investigation Data Summary Report (Arcadis, 2011) and to provide a summary of current site conditions to support the development of remedial actions as part of the Feasibility Study (FS) (will be provided under a separate cover).

1.1 Site Background

1.1.1 Site Description

The 7.2-acre site is located at 1 Industrial Place in Oceanside, Township of Hempstead, Nassau County, New York. A Site Location Map is presented on **Figure 1.** The site is currently being developed for retail use. The site is bound to the south by Barnum's Channel, to the east by the Long Island Railroad, to the north by the former Exxon Petroleum Terminal (included as part of the development), and to the west by Hampton Road. A vehicle recycling operation and office buildings are located west of Hampton Road, fronting Hog Island Channel. Daly Boulevard is located north of the former Exxon Petroleum Terminal, and Sprague Petroleum Terminal is located north of Daly Boulevard.

1.1.2 Site History

The site consists of three lots, Lots 502, 503, and 504. In 1931, Gulf Oil Corporation developed a portion of the site (Lot 504) as a petroleum terminal. Gulf Oil Corporation purchased Lots 503 and 502 in 1950 and 1956, respectively. Chevron acquired Gulf Oil Corporation in the mid-1980s. As part of the purchase agreement, Chevron was required to divest the northeast division. In 1986, Cumberland Farms, Inc. (CFI) purchased the northeast marketing assets of Gulf Oil Corporation from Chevron. The purchase included the Oceanside Terminal, which was transferred to CFI in May 1986. In December 1993, CFI, in a joint venture with Catamount Petroleum LP (Catamount), formed Gulf Oil Limited Partnership (Gulf). CFI owned two-thirds of Gulf as a limited partner, and Catamount owned one-third of Gulf as the general partner. In September 2005, CFI exercised its option to buy out Catamount and reorganized Gulf under a new general partner. However, ownership percentages of Gulf did not change during the reorganization. In 2015, the site was sold to Coremark L.L.C., who has leased the property to Costco. The site is currently being developed into a retail store.

Operation of the petroleum terminal was ceased in the early 1990s. Demolition of the aboveground storage tanks (ASTs) at the former petroleum terminal was completed in 2003. The remaining on-site

buildings (maintenance building, office building, and several small buildings associated with historical petroleum terminal operations) were demolished in 2005.

The site has undergone extensive investigation and remediation since the 1990s under NYSDEC oversight (Spill No. 92-03883). In January 2007, the NYSDEC accepted Lowe's Home Centers, Inc. (Lowe's) as a volunteer under the Brownfield Cleanup Program (BCP) – Site No. C130165. Following the decision by Lowe's to withdraw from the BCP in 2009, the NYSDEC transferred the site into the Hazardous Waste Program (State Superfund Site). An Order on Consent and Administrative Settlement was executed between the NYSDEC and CEMC on December 23, 2009 (Index # W3-1142-09-08, Site #130165).

The following were previously located on the Gulf parcel:

- Nine large-quantity ASTs containing fuel oil, kerosene, and gasoline;
- Two small 550-gallon ASTs containing fuel oil for the on-site garage and office building;
- Three underground storage tanks (USTs) containing fuel oil (one 550-gallon, one 1,000-gallon, and one 5,000-gallon);
- One 1,000-gallon UST containing waste oil;
- A loading rack;
- A retention pond;
- A maintenance garage;
- A vapor recovery unit (VRU); and
- An office complex.

Four of the nine large ASTs were demolished prior to 2000, with the remaining five large ASTs reportedly demolished in 2003. The two 550-gallon ASTs containing fuel oil for the maintenance garage and the office building were demolished in 2005.The approximate location of the former building, structures, tanks, and monitoring wells are depicted on the Site Plan (**Figure 2**).

Light non-aqueous phase liquid (LNAPL), consisting of a mixture of No. 2 and No. 4 fuel oil, kerosene, and gasoline, had previously been detected in a monitoring well near the bulkhead at the southern portion of the site at a thickness up to 2.28 feet. LNAPL was also encountered near the former VRU and the former garage building. The observed occurrences of LNAPL and shallow soil impacts were addressed through a series of initial remedial measurements. Measurable thicknesses of LNAPL have not been observed at the site since 2004.

In 2015, approximately 4 feet of clean fill were added to the site, and additional material will be added during paving of the site. To provide a summary of the analytical data in terms of current site conditions, and because some of the analytical data has been collected after the installation of the fill material, the discussion of sample depths in terms of foot below ground surface will be in reference to current ground surface (cgs). A comprehensive survey of the cgs at the site has not been completed because the ground surface elevation is still changing in connection with site development. To account for the change in ground surface elevation, 4 feet have been added to excavation depths and sample depth intervals for samples collected prior to 2015. All depth intervals are considered approximate until the site has been paved and the comprehensive survey has been completed. All depths discussed in this text reference the

depth from cgs. Both current and historical sample depths for soil and groundwater samples are shown on the tables and figures included with this report.

1.2 Remedial Actions

The historical remedial actions implemented prior to 2011 were completed while the site was being address under the Spills program. Refer to the 2011 Remedial Investigation Data Summary Report (Arcadis, 2011) for a summary of remedial actions completed prior to 2011.

Since 2011, two interim remedial measures (IRMs) have been completed at the site: excavation in the former VRU area and three excavations to address isolated hot spots. These IRMs are detailed in the Interim Remedial Measure Completion Report (Arcadis, 2014). A summary of each of these IRMs is provided below.

1.2.1 Former VRU Area – IRM Activities – 2013 and 2014

In fall 2013 and early 2014, an IRM was completed in the former VRU area. The VRU measured approximately 60 feet by 65 feet and was excavated to a final depth that varied from 13 to 18 feet below current ground surface (bcgs). The excavation was performed using a cement-bentonite slurry, which mitigated the need for dewatering and maintained adequate hydraulic pressure to prevent water infiltration and failure of the minimal remaining clay zone above the lower sand. The cement-bentonite slurry was produced using a batch plant to mix dry materials with public water. Cement-bentonite slurry from the batch plant was transferred to a surge tank for additional mixing, which was then pumped into the excavation area while excavation was occurring. The cement-bentonite slurry prevented the trench sides from collapsing by providing outward and downward pressure(s), which balanced the inward and upward hydraulic force(s) and reduced groundwater flow into the trench. Approximately 3,464 tons of soil was excavated for off-site disposal. Impacted material was excavated using traditional construction equipment to the limits shown on **Figure 2**.

1.2.2 IRM Addendum Activities – 2014

The three IRM Addendum excavation areas were excavated in 2014 in accordance with NYSDEC conditional approval letter (NYSDEC, 2014): the AMW-5 excavation measured 10 feet by 10 feet and was excavated to 13 feet bcgs; the GS-2/GP-NORTH excavation measured 10 feet by 15 feet and was excavated to 8 feet bcgs; and the GP-6 excavation measured 5 feet by 5 feet and was excavated to 7 feet bcgs. Impacted material was excavated using traditional construction equipment to the limits shown on **Figure 2**. Material was removed from the excavation, staged adjacent to the excavation, and then loaded into trucks for off-site disposal. Approximately 110 tons of soil were excavated for off-site disposal.

1.3 Future Site Use

The site and the ExxonMobil site to the north are currently being developed for commercial use as a large retail store. The current development plans have the store being primarily located on the ExxonMobil site, with a faction of the store located on the northern edge of the site. A gas station will be installed on the southern part of the site, with the reminder of the site being covered by a parking lot and landscaping.

2 REMEDIAL INVESTIGATION ACTIVITIES

Since 2010, a series of supplemental investigation activities were completed to further characterize the site conditions. The supplemental field investigation was conducted from November 2010 through April 2011 to further characterize the petroleum impacts (including historically observed LNAPL) and augment the existing monitoring well network. The results of this supplemental investigation are documented in the May 2011 Remedial Investigation Data Summary Report (Arcadis, 2011). In 2016, the former VRU area was investigated in accordance with the Residual Source Assessment Work Plan (Arcadis, 2016).

The field activities completed as part of the 2010/2011 Remedial Investigation are summarized in the May 2011 Remedial Investigation Data Summary Report (Arcadis, 2011), and the 2016 source zone evaluation activities are discussed below. Field activities associated with the Former VRU IRM, including well decommissioning and pre-characterization soil borings, are documented in the Interim Remedial Measure Completion Report (Arcadis, 2014).

During the course of the site investigations, the ground surface elevation of the site has changed as part of its development. In 2015, approximately 4 feet of clean fill were added to the site, and additional elevation will be added during paving of the site in 2017. To provide a summary of the analytical data in terms of current site conditions and because some of the analytical data has been collected after the installation of the fill material, the discussion of sample depths in terms of feet below ground surface will be in referenced to cgs. A comprehensive survey of the cgs at the site has not been completed because the ground surface is still changing. To account for the change in ground surface elevation, 4 feet have been added to sample depth intervals for samples collected prior to 2015. All depth intervals from the cgs are considered approximate until the site has been paved and the comprehensive survey has been completed. The historical sample interval and the approximate current sample interval are both shown on the data tables and data box figures provided with this report. The text below references the current sample interval only; soil and groundwater data from excavated areas are not included in this report.

2.1 Soil and Groundwater Cleanup Objectives

2.1.1 Soil Cleanup Objectives (SCOs)

The SCOs established for this site include the restricted use commercial SCOs and the protection of groundwater SCOs, which is consistent with both the current property zoning and the anticipated future use of this site as a commercial retail store. The analytical results of the soil samples are compared to these relevant SCOs, as well as to the unrestricted use SCOs. The SCOs are based on the NYSDEC Technical & Operational Guidance Series (TOGS) for Soil, Subpart 375-6: Remedial Program Soil Cleanup Objectives (effective December 14, 2006) (NYSDEC 2006).

2.1.2 Groundwater Quality Standards

Groundwater analytical data have been compared to NYSDEC TOGS for Groundwater (standard), Section 703.6 (effective August 4, 1999) (NYSDEC 1999).

2.2 Membrane Interface Probes (MIPs)

In February 2016, a residual source area investigation was completed using MIPs. As part of the MIPs investigation, 16 direct push MIPs were advanced into the lower sand unit in the area of the former VRU (**Figures 3**). The soil analytical results were compared to the MIPs response, and in general, the MIPs response indicated greater concentrations than was indicated in the soil analytical data. The results of the MIPs investigation were used to provide a semi-quantitative delineation of the residual source area and to select the location of the AMW-15 well cluster. The MIPs logs are provided in **Appendix A**.

2.3 Soil Borings

In June 2016, a series of eight soil borings were completed in the former VRU area and downgradient to provide additional delineation of the source area (**Figure 3**). The soil borings were advanced using Sonic drilling methods. During the advancement of the soil borings, five grab groundwater samples were collected below the former VRU excavation and submitted for analysis for volatile organic compounds (VOCs). The groundwater sampling was set at intervals of maximum photoionization detector (PID) measurements. In addition, 17 soil samples were collected from the lower sand unit and submitted for analysis of VOCs, and selected samples were also analyzed for semivolatile organic compounds (SVOCs), Target Analyte List (TAL) inorganics, and total organic carbon to provide additional characterization in the lower sand unit and data to support future remedial actions. The sample intervals were selected based on PID measurements and based on the results of the MIPs investigation. Soil boring logs are provided in **Appendix B**.

2.4 Monitoring Well Installation

Eleven monitoring wells were installed in 2016 during the residual source assessment at the locations shown on **Figure 2**.

- Four monitoring wells (AMW-15-D1, AMW-15-D2, AMW-15-D3, and AMW-15-VD) were installed to replace the MW-25 well cluster in the former VRU area. The MW-25 well cluster was removed during the 2013/2014 IRM.
- Two well clusters (AMW-13 and AMW-14), consisting of a D1, D2, and VD well, were installed downgradient of the former VRU area.
- MW-28D2, which was damaged beyond repair during site development, was decommissioned and replaced.

The boreholes for the monitoring wells were advanced using Sonic drilling methods. The monitoring wells located within the former VRU area were constructed by installing 10-foot-long sections of 2-inch-diameter, stainless steel well screens, with 2-foot sumps, and stainless steel risers to extend to the ground surface. The annular space of each borehole was filled with a #0 silica sand filter pack at least 1 foot above the top of the screen, and a 2-foot-thick bentonite seal was installed above the filter pack.

The wells located outside of the former VRU area were constructed of polyvinyl chloride (PVC) materials. Each of these wells were constructed by installing 10-foot-long screens of 2-inch-diameter, Schedule 40, machine-slotted PVC pipe and Schedule 40 PVC risers to extend to the ground surface. The annular

space of each borehole was filled with a #0 silica sand filter pack at least 1 foot above the top of the screen, and a 2-foot-thick bentonite seal was installed above the filter pack.

Monitoring wells were developed after completion according to the Arcadis Standard Operating Procedure for monitoring well installation and development (Arcadis, 2010a).

Well construction details and boring logs for all existing wells and wells decommissioned as part of the former VRU area IRM are provided in **Appendix C**, and well construction information is included in **Table 1**.

2.5 Groundwater Sampling

In 2016, three groundwater monitoring events were completed, including sampling events in January, June, and July 2016, such that each well (including the new monitoring wells) were sampled twice in 2016.

Groundwater samples were collected from a total of 31 existing and 11 newly installed monitoring wells and 8 temporary wells using low-flow sampling methods. Groundwater field measurements are summarized in **Table 2**. The locations of the monitoring wells sampled are illustrated on **Figure 2**. All groundwater samples were analyzed for VOCs, and a subset of the wells were analyzed for SVOCs and TAL metals (total and dissolved) and for monitored natural attenuation (MNA) parameters.

MNA parameters included:

- sulfate;
- sulfide;
- alkalinity-bicarbonate;
- alkalinity;
- iron (filtered and unfiltered); and
- manganese (filtered and unfiltered).

2.6 Methyl Tert-Butyl Ether (MTBE) Investigation

In October 2016, a supplemental MTBE investigation in the lower sand was completed. The investigation included collection of four grab groundwater samples from below the meadow mat in the lower sand unit, along the northern property boundary, and submitting the samples for analysis of VOCs. The results of the investigation were consistent with the data from existing monitoring wells. Additional detail on the MTBE investigation is provided in **Appendix D**.

MTBE was detected in all four of the groundwater samples collected from the temporary wells. Concentrations ranged from 76 ug/L in TW-4 at the western most sampling point (closest to Hampton Road) to 670 ug/L in TW-7 (eastern most sampling point). The data from the temporary monitoring wells was consist with the existing data from adjacent monitoring wells. The highest concentrations of MTBE are closest to the former VRU Area and concentrations decrease to the west of the former VRU area.

2.7 Community Air Monitoring Plan

Air monitoring, which was performed during implementation of the field investigation, was performed to ensure that no unacceptable exposures occurred in conjunction with the field investigation activities completed.

Consistent with the Community Air Monitoring Plan (Arcadis, 2010b) developed for use during RI activities on site, monitoring was performed to assess the potential for exposure to VOCs and particulates during the MIPs investigation. Data recorded during the air monitoring is provided in **Appendix E**.

As required by the CAMP, monitoring stations were set up and operated at appropriate locations upwind and downwind of the work area for monitoring of VOCs and particulates during field events involving the disturbance of subsurface soil. These units provided real-time monitoring of the perimeter air conditions with alarm that would sound in response to criteria exceedance. No alarms indicating an exceedance of VOC and particulate criteria occurred as a result of our investigation.

2.8 Waste Management

During the 2016 site characterization, all soil and groundwater investigation-derived waste was contained in 55-gallon drums and sampled for disposal off site. Trichloroethene (TCE), a listed hazardous waste compound, was not detected in the water or soil waste profile samples, and the waste was not characteristically hazardous. Therefore, the waste was disposed of as non-hazardous waste at the Waste Management Model City, New York facility.

3 SITE GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology/Hydrogeology

The regional geology generally consists of upper glacial deposits (clay, sand, gravel, and boulders) to depths of approximately 50 feet below ground surface (bgs), the Gardiners Clay (clay, silt, and lenses of sand) to a depth of 75 feet bgs, the Magothy Aquifer (sand with lenses of clay) to a depth of 800 feet bgs, the Raritan Confining Unit (clay with lenses of sand) to 900 feet bgs, and the Lloyd Aquifer (sand and gravel with lenses of clay) to 1,400 feet bgs. Bedrock is present beneath the Lloyd Aquifer and consists of crystalline metamorphic and igneous rock (muscovite-biotite schist, gneiss, and granite) (N.E. McClyonds and O. L. Franke, 1972).

3.2 Site Geology/Hydrogeology

The geologic units identified at the site during the RI include:

- sand and gravel fill from the ground surface to approximately 12 feet bcgs;
- meadow mat (silt with fibrous organics and trace clay) to approximately 20 feet bcgs;
- underlying sand (coarse to fine sand, trace to some fine gravel) to approximately 90 feet bcgs; and
- Gardiners Clay.

With the exception of the bulkhead area, the meadow mat was encountered throughout the site at a thickness ranging from 5 to 12 feet. Meadow mat was not observed in the bulkhead area during the RI investigation or in previous environmental investigations. The meadow mat in the former VRU area was excavated as part of the IRM.

The underlying sand (lower sand unit) has been divided into three horizons for purposes of discussion: monitoring wells in the D1 horizon are generally screened between 20 and 30 feet bgs, monitoring wells in the D2 horizon are screened between 30 and 42 feet bgs, and monitoring wells in the VD horizon are screened at the base of the unit (58 to 83 feet bcgs). Cross section locations are shown **on Figure 4**; Cross Sections A' and B' are provided on **Figures 5 and 6**, respectively.

3.3 Groundwater Flow

Groundwater has historically been observed at elevations ranging between 2 and 5 feet above mean sea level (7 to 9 feet bcgs). The groundwater elevation in the lower sand unit is strongly influenced by the tidal cycle. The groundwater elevation in the lower sand unit can change by as much as 3 feet in response to tidal changes. The groundwater elevation in the shallow fill material shows a minimal response to the tidal cycle (less than 0.5 feet). The groundwater flow direction in the shallow fill material is consistently to the southwest, regardless of the tidal cycle. The groundwater flow direction in the lower sand unit can change by as much as 180 degrees in response to the tidal cycle. The general flow direction in the lower sand unit is to the southwest. Groundwater elevation data is summarized in **Table 3**, and groundwater elevation contour maps for each are presented in **Appendix F**.

Hydraulic conductivity testing on the lower sand unit has not been successful to date. Attempts at slug testing in the lower sand unit have not been successful because the change in groundwater elevation has been too small and recovery too rapid to be able to distinguished from the tidal elevation changes. In September 2011, an injection test using 2,500 gallons of water was completed; however, the groundwater elevation response was too small in the observation wells to calculate hydraulic conductivity.

3.4 Horizontal and Vertical Gradients

On July 26, 2016, a complete round of groundwater elevation data was collected from the on-site monitoring wells at both high and low tides. Groundwater flow in the shallow fill material is to the southwest at a horizontal gradient of approximately 0.005 foot/foot (ft/ft). The general groundwater flow direction in the lower sand unit at low tide is to the southwest at a gradient of 0.008 ft/ft to 0.014 ft/ft. The table below provides a summary of the vertical gradient observed:

Wells	Vertical Gradient – Low Tide (ft/ft)	Vertical Gradient – High Tide (ft/ft)
AMW-13 D1/D2	0.006	0.001
AMW-13 D2/VD	-0.01	-0.009
AMW-14 D1/D2	-0.003	-0.001
AMW-14 D2/VD	-0.01	-0.013
AMW-15 D1/D2	0.002	-0.046
AMW-15 D2/VD	0.003	-0.006
MW-23-D1R/D2R	0.032	-0.005
MW-24-D1/D2	0.001	0.002
MW-26-D1/D2	0.01	0.001
MW-26-D2/VD	-0.04	0.016
MW-27-D1/D2	-0.007	-0.025
MW-28-D1/D2R	-0.186	-0.007
MW-29-D1/D2	-0.02	0.001
MW-29-D2/VD	-0.05	0.043
MW-30-D1/D2	0.01	-0.007
MW-30-D2/VD	-0.02	-0.016
MW-31-D1R/D2R	-0.073	-0.008

Note:
Negative gradients are upward.

Overall, the vertical gradients are variable depending on locations. The following generalization can be made:

- The vertical gradients between the D-1 and D-2 wells are evenly mixed between upwards and downwards at low tide and generally more upward at high tide.
- The vertical gradient between the D-2 and VD wells is generally upward at low tide and mixed at high tide.

4 INVESTIGATION RESULTS

4.1 Soil Results

Since 2004, a total of 227 soil samples have been collected for analysis at this site. Of the 227 soil samples, 162 samples were collected from the shallow fill unit, 10 samples were collected from the meadow mat, and 55 samples were collected from the lower sand unit. The following is a summary of the constituents of concern observed to exceed protection of groundwater and the commercial use SCOs in one or more soil sample at the site. The soil analytical data are summarized in **Tables 4 and 5**, and the locations of exceedances are illustrated on **Figures 7, 8, and 9**. Laboratory analytical results are provided in **Appendix F**.

Soil samples that have been excavated as part of an interim remedy are not included in the data summary figures but are presented in the summary tables.

4.1.1 Fill Unit – Protection of Groundwater SCO

Below is a summary of all exceedances of the Protection of Groundwater SCO in the fill unit. The summary does not include samples that have been excavated or remediated. Analytical results are presented on **Figures 7 and 8** and summarized in **Tables 4 and 5**.

4.1.1.1 VOCs

- Acetone was detected above the Protection of Groundwater SCO of 0.05 milligrams per kilogram (mg/kg) in five samples at concentrations ranging from 0.058 mg/kg in soil sample TP-11-1 (9 feet bcgs) to 0.18 mg/kg in soil sample AMW-6 (10 – 12 feet bcgs).
- Benzene was detected above the Protection of Groundwater SCO of 0.06 mg/kg in 57 samples at concentrations ranging from 0.066 mg/kg in PX-C6 (6 – 7 feet bcgs) to 23 mg/kg in soil sample T-12-D2 (7 – 7.5 feet bcgs).
- n-Butylbenzene was detected above the Protection of Groundwater SCO of 12 mg/kg in 10 samples at concentrations ranging from 12 mg/kg in soil samples G4-D1 (7 – 7.5 feet bcgs) and G9-D1 (7 – 7.5 feet bcgs) to 30 mg/kg in soil sample G8-S1 (5.5 – 6 feet bcgs).
- Ethylbenzene was detected above the Protection of Groundwater SCO of 1.1 mg/kg in 58 samples at concentrations ranging from 1.1 mg/kg in soil samples G8-D2 (7- 7.5 feet bcgs) and G10-D1 (7- 7.5 feet bcgs) to 230 mg/kg in soil sample PX-D2 (6 – 7 feet bcgs).
- Methylene Chloride was detected above the Protection of Groundwater SCO of 0.05 mg/kg in six samples at concentrations ranging from 0.062 mg/kg in soil sample AMW-3 (8 – 10 feet bcgs) to 0.11 mg/kg in soil sample TP-5-2 (9.5 feet bcgs).
- MTBE was detected above the Protection of Groundwater SCO of 0.93 mg/kg in one sample at a concentration of 0.99 mg/kg in soil sample LB-13 (7.5 – 8 feet bcgs).

- Naphthalene was detected above the Protection of Groundwater SCO of 12 mg/kg in 20 samples at concentrations ranging from 12 mg/kg in soil sample G8-D1 (7 – 7.5 feet bcgs) to 44 mg/kg in soil sample GP-7 (2002) (7 – 8 feet bcgs).
- n-Propylbenzene was detected above the Protection of Groundwater SCO of 3.9 mg/kg in 23 samples at concentrations ranging from 4.5 mg/kg in soil sample G10-D2 (7 – 7.5 feet bcgs) to 40 mg/kg in soil sample G8-S1 (5.5 – 6 feet bcgs).
- 1,2,4 Trimethylbenzene was detected above the Protection of Groundwater SCO of 3.6 mg/kg in eight samples at concentrations ranging from 4.2 mg/kg in soil sample G8-D2 (7 – 7.5 feet bcgs) to 11 mg/kg in soil sample G10-S2 (5.5 – 6 feet bcgs).
- Toluene was detected above the Protection of Groundwater SCO of 0.7 mg/kg in four samples at concentrations ranging from 0.72 mg/kg in soil sample PX-D4 (6 - 7 feet bcgs) to 2.1 mg/kg in soil sample PX-D2 (6 - 7 feet bcgs).
- Xylenes were detected above the Protection of Groundwater SCO of 1.6 mg/kg in 39 samples at concentrations ranging from 1.6 mg/kg in soil sample G6-S2 (5.5 - 6 feet bcgs) to 400 mg/kg in soil sample PX-D2 (6 – 7 feet bcgs).

4.1.1.2 SVOCs

- Benzo(b)fluoranthene was detected above the Protection of Groundwater SCO of 1.7 mg/kg in five samples at concentrations ranging from 2.8 mg/kg in soil sample TP-6-3 (9.5 feet bcgs) to 11 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).
- Benzo(k)fluoranthene was detected above the Protection of Groundwater SCO of 1.7 mg/kg in two samples at concentrations of 2.2 mg/kg in soil sample MW-17 (8 feet bcgs) and 4.5 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).
- Chrysene was detected above the Protection of Groundwater SCO of 1 mg/kg in six samples at concentrations ranging from 1.8 mg/kg in soil sample P-18R (4 – 6 feet bcgs) to 8.5 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).

4.1.1.3 Inorganics

- Arsenic was detected above the Protection of Groundwater SCO of 16 mg/kg in four samples at concentrations ranging from 16.2 mg/kg in soil sample AMW-6 (6 - 8 feet bcgs) to 28.1 mg/kg in soil sample TP-6-1 (9 feet bcgs).
- Mercury was detected above the Protection of Groundwater SCO of 0.73 mg/kg in soil sample TP-12-1 (8.7 feet bcgs) at a concentration 1.35 mg/kg.

4.1.2 Lower Sand Unit Protection of Groundwater

Below is a summary of the exceedance of the Protection of Groundwater SCO in the lower sand unit.

4.1.2.1 VOCs

- Cis 1-2-dichloroethene was detected above the Protection of Groundwater SCO of 0.25 mg/kg in three samples at concentrations ranging from 0.57 mg/kg in soil sample LB-6 (22 – 22.5 feet bcgs) to 2.7 mg/kg in soil sample ASB-7 (21 - 23 feet bcgs).
- Methylene Chloride was detected above the Protection of Groundwater SCO of 0.05 mg/kg in four samples at concentrations ranging from 0.077 mg/kg in soil sample ASB-4 (28 – 30 feet bcgs) to 0.12 mg/kg in soil samples MW-25-D3 (24 - 27 feet bcgs) and MW-30-VD (72 – 74 feet bcgs).
- TCE was detected above the Protection of Groundwater SCO of 0.47 mg/kg in one sample at a concentration of 2.9 mg/kg in soil sample LB-6 (22 – 22.5 feet bcgs).
- Vinyl Chloride was detected above the Protection of Groundwater SCO of 0.02 mg/kg in five samples at concentrations ranging from 0.061 mg/kg in soil sample ASB-6 (26 – 28 feet bcgs) to 0.58 mg/kg in soil sample ASB-7 (21 – 23 feet bcgs).
- Phenol was detected above the Protection of Groundwater SCO of 0.33 mg/kg in one sample at a concentration of 0.58 mg/kg in soil sample ASB-7 (20.5 – 21 feet bcgs).

4.1.3 Commercial Exceedances

There were no detections of analytes above the Commercial Use SCO in the lower sand unit.

Below is a summary of all exceedances of the Commercial Use SCO in the fill unit. The summary does not include samples that have been excavated or remediated. The locations at which soil exceedances of the Commercial Use SCO are also illustrated on **Figure 6**.

- Benzo(a)pyrene was detected above the Commercial Use SCO of 1 mg/kg in five samples at concentrations ranging from 2.7 mg/kg in soil sample TP-6-3 (9.5 feet bcgs) to 11 mg/kg in soil sample MW-31-D2R (10 – 12 feet bcgs).
- Benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected above their respective Commercial Use SCO in the soil sample collected from MW-31-D2R at a depth of 10 to 12 feet bcgs.
- Arsenic was detected above the Commercial Use SCO of 16 mg/kg in four samples at concentrations ranging from 16.2 mg/kg in soil sample AMW-6 (6 - 8 feet bcgs) to 28.1 mg/kg in soil sample TP-6-1 (9 feet bcgs).

4.2 Groundwater Results

The following discussion of exceedance of TOGS criteria is limited to post-IRM sampling performed in 2016 because it is most representative of current site conditions in the lower sand unit.

The analytical results for the groundwater samples collected for the supplemental remedial investigations between 2011 to 2016 are summarized in **Table 6**, and a full set of historical groundwater analytical results are provided in **Appendix H**.

4.2.1 Fill Unit

A total of 29 groundwater samples have been collected from 11 monitoring wells and three temporary wells screened in the shallow fill unit during sampling events completed in 2016. A summary of the exceedances of the TOGS guidance values is provided below.

4.2.1.1 VOCs

- Benzene was detected above the TOGS guidance value of 1 µg/L in 11 monitoring wells at concentrations ranging from 1.1 µg/L in AMW-7 to 510 µg/L in AMW-3.
- Toluene was detected above the TOGS guidance value of 5 µg/L in three monitoring wells at concentrations ranging from 5.1 µg/L in AMW-12 to 36 µg/L in AMW-3.
- Ethylbenzene was detected above the TOGS guidance value of 5 µg/L in four monitoring wells at concentrations of 5.7 µg/L and 930 µg/L in temporary well TW-3 and AMW-11, respectively.
- Xylenes was detected above the TOGS guidance value of 5 µg/L in eight monitoring wells at concentrations ranging from 6.2 µg/L in temporary well TW-1 to 5,600 µg/L in TW-3.
- MTBE was detected above the TOGS guidance value of 10 µg/L in four monitoring wells at concentrations ranging from 16 µg/L in MW-18R to 95 µg/L in AMW-3.
- Isopropylbenzene was detected above the TOGS guidance value of 5 µg/L in eight monitoring wells at concentrations ranging from 6.3 µg/L in temporary well TW-1 to 110 µg/L in AMW-3.
- Cis-1,2-Dichloroethene (DCE) was detected above the TOGS guidance value of 5 µg/L in one monitoring well (MW-18R) at a concentration of 14 µg/L.
- Methylene Chloride was detected above the TOGS guidance value of 5 µg/L in one monitoring well (AMW-3) at a concentration of 15 µg/L.
- 1,1,2-Trichloroethane was detected above the TOGS guidance value of 1 µg/L in one monitoring well (AMW-3) at a concentration of 4.8 µg/L.

4.2.1.2 SVOCs

- Acenaphthalene was detected above the TOGS guidance value of 20 µg/L in one monitoring well (AMW-11) at concentrations of 96 µg/L and 160 µg/L.
- Benzo(a)anthracene was detected above the TOGS guidance value of 0.002 µg/L in two monitoring wells at concentrations of 0.39 µg/L and 2.9 µg/L in monitoring wells P-10 and AMW-11, respectively.
- Benzo(b)fluoranthene was detected above the TOGS guidance value of 0.002 µg/L in two monitoring wells at concentrations of 1.0 µg/L and 1.1 µg/L in monitoring wells P-10 and AMW-11, respectively.

- Bis(2-ethylhexyl)phthalate was detected above the TOGS guidance value of 5 µg/L in one monitoring well (P-10) at a concentration of 120 µg/L.
- Chrysene was detected above the TOGS guidance value of 0.002 µg/L in two monitoring wells at concentrations of 0.75 µg/L and 2.7 µg/L in monitoring wells P-10 and AMW-11, respectively.
- Fluorene was detected above the TOGS guidance value of 50 µg/L in one monitoring well (AMW-11) at concentrations of 55 µg/L and 110 µg/L.
- Naphthalene was detected above the TOGS guidance value of 10 µg/L in eight monitoring wells at concentrations ranging from 11 µg/L in AMW-3 to 220 µg/L in AMW-2.
- Phenanthrene was detected above the TOGS guidance value of 50 µg/L in one monitoring well (AMW-11) at a concentration of 140 µg/L.
- Phenol was detected above the TOGS guidance value of 1 µg/L in six monitoring wells at concentrations ranging from 1.3 µg/L in P-10 to 200 µg/L in temporary well TW-3.

4.2.2 Lower Sand Unit

A total of 67 groundwater sample were collected from 32 monitoring wells and 5 temporary wells screened in the lower sand unit during sampling events completed in 2016. A summary of the exceedances of the TOGS guidance values is provided below.

4.2.2.1 VOCs

- Benzene was detected above the TOGS guidance value of 1 µg/L in 15 monitoring wells at concentrations ranging from 1.1 µg/L in MW-31-D1R and MW-30-VD to 160 µg/L in MW-27-D2.
- Toluene was detected above the TOGS guidance value of 5 µg/L in five monitoring wells at concentrations ranging from 6.4 µg/L in IW-2-D1 to 17 µg/L in MW-27-D2.
- Ethylbenzene was detected above the TOGS guidance value of 5 µg/L in two monitoring wells at concentrations of 6.7 µg/L and 92 µg/L in temporary well ASB-4 and MW-27-D2, respectively.
- Xylenes were detected above the TOGS guidance value of 5 µg/L in six monitoring wells at concentrations ranging from 6.5 µg/L in AWM-15-D1 to 68 µg/L in MW-27-D2.
- Isopropylbenzene was detected above the TOGS guidance value of 5 µg/L in two monitoring wells at concentrations of 38 µg/L and 5.4 µg/L in MW-27-D2 and MW-29-D1, respectively.
- MTBE was detected above the TOGS guidance value of 10 µg/L in 20 monitoring wells at concentrations ranging from 12 µg/L in AMW-14-D1 to 640 µg/L in OW-1-D1.
- Acetone was detected above the TOGS guidance value of 50 µg/L in three monitoring wells at concentrations ranging from 53 µg/L in MW-27-D1 to 280 µg/L in MW-28-D1.
- Cis-1,2-DCE was detected above the TOGS guidance value of 5 µg/L in seven monitoring wells at concentrations ranging from 10 µg/L in MW-24-D1 to 1,900 µg/L in temporary well ASB-4.

- Chloroform was detected above the TOGS guidance value of 7 µg/L in two monitoring wells at concentrations of 19 µg/L and 21 µg/L in temporary wells ASB-5 and ASB-7, respectively.
- Methylene Chloride was detected above the TOGS guidance value of 5 µg/L in three monitoring wells at concentrations ranging from 5.7 µg/L in MW-27-D2 to 330 µg/L in temporary well ASB-4.
- TCE was detected above the TOGS guidance value of 5 µg/L in three monitoring wells at concentrations ranging from 5.5 µg/L in AMW-15-D1 to 2,100 µg/L in ASB-4.
- Vinyl Chloride was detected above the TOGS guidance value of 2 µg/L in 15 monitoring wells at concentrations ranging from 3.5 µg/L in AMW-15-D2 to 2,100 µg/L in AMW-14-D1.

The current extent of residual TCE, vinyl chloride, and MTBE in the lower sand unit is visually illustrated in a series of isoconcentration figures presented in **Appendix I**.

4.2.2.2 SVOCs

- Acenaphthalene was detected above the TOGS guidance value of 20 µg/L in two monitoring wells at concentrations of 22 µg/L and 47 µg/L in OW-1-D1 and IW-2-D1, respectively.
- Bis(2-ethylhexyl)phthalate was detected above the TOGS guidance value of 5 µg/L in five monitoring wells at concentrations ranging from 7.5 µg/L in MW-30-D1 to 11 µg/L in MW-26-D1 and MW-30-VD.
- Butylbenzylphthalate was detected above the TOGS guidance value of 50 µg/L in monitoring well MW-26-VD at a concentration of 96 µg/L.
- Naphthalene was detected above the TOGS guidance value of 10 µg/L in three monitoring wells at concentrations ranging from 24 µg/L in OW-2-D1 to 88 µg/L in MW-27-D2.
- Phenol was detected above the TOGS guidance value of 1 µg/L in two monitoring wells at concentrations of 14 µg/L and 56 µg/L in MW-28-D1 and MW-27-D2, respectively.
- Trans-1,2-DCE was detected above the TOGS guidance value of 5 µg/L in two monitoring wells at concentration of 11 µg/L and 13 µg/L in MW-24-D2 and temporary well ASB-4, respectively.
- Tetrachloroethene was detected above the TOGS guidance value of 5 µg/L in temporary well ASB-4-D1 at a concentration of 6.7 µg/L.

5 SITE CONCEPTUAL MODEL

The Site Conceptual Model is outlined below consistent with DER-10 expectations. The model includes a discussion of contaminant sources, current observed extent of contamination, relevant fate and transport characteristics, the potential migration pathways, and potential receptors.

5.1 Source of Contamination

There are two primary sources of contamination identified at the site, impacts from the historical petroleum terminal operations which occurred from 1931 to the early 1990's and the historic fill used to create the landmass which became the site.

5.2 Nature of Contamination

The nature of residual contamination in the soil and groundwater at this site, as characterized through this and previous investigation results, is summarized in the following sections for soil and groundwater impacts, respectively.

The data summaries presented in the following sections omit data of samples for soil locations previously remediated through the IRMs completed, as these data no longer represent the current conditions at the site.

5.3 Soil Impacts

The COCs detected in soil in the Fill Unit and Lower Sand Unit.

5.3.1 Fill Unit

The following sixteen COCs were detected in the fill unit at concentrations above the Protection of Groundwater SCO: acetone, benzene, n-butylbenzene, ethylbenzene, methylene chloride, MTBE, naphthene, n-propylbenzene, 1,2,4-trimethylbenzene, toluene, xylenes, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, arsenic, and mercury.

The following seven COCs were detected in soil at concentrations above the Commercial Use SCO: Benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and arsenic.

The soil analytical data is summarized in Tables 4 and 5 and presented on Figures 7 and 9.

5.3.2 Lower Sand Unit

The following five COCs were detected in the lower sand unit at concentrations above the Protection of Groundwater SCO: cis-1-2-DCE, methylene chloride, TCE, vinyl chloride, and phenol.

There were no exceedances of the Commercial Use SCO in the lower sand unit.

The soil analytical data is summarized in Tables 4 and 5 and presented on Figure 8.

5.4 Groundwater Impacts

5.4.1 Fill Unit

The following eighteen COCs were detected in groundwater in the fill unit at concentrations above TOGS guidance: benzene, toluene, ethylbenzene, xylenes, MTBE, isopropylbenzene, cis-1,2-DCE, methylene chloride, 1,1,2-trichloroethane, acenaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, fluorene, naphthalene, phenanthrene, and phenol.

5.4.2 Lower Sand Unit

The following eleven COCs were detected in groundwater in the lower sand unit at concentrations above the TOGS guidance values: benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, acetone, cis-1,2-DCE, trans-1,2-DCE, tetrachloroethene, chloroform, methylene chloride, TCE, acenaphthalene, bis(2-ethylhexyl) phthalate, butylbenzylphthalate, naphthalene, and phenol.

5.5 Extent of Residual Commination

There are two sources of contamination at the site: terminal operations, including the operation of the former VRU, and historical fill. Impacts from petroleum impacts (benzene, toluene, ethylbenzene and xylenes and MTBE) and historical fill are primarily limited to the fill unit, and impacts from the former VRU, which include CVOCs, primarily impact the lower sand unit. There are some petroleum-related impacts in the lower sand unit, including MTBE, and there are some CVOCs at low concentrations detected above TOGS guidance values in the fill unit.

5.5.1 Fill Unit

Low level petroleum and fill-related soil impacts are widespread in the fill unit. The significate impacts (greater than one order of magnitude above the Commercial Use SCO) were excavated as part of the IRMs (Section 1.2). Petroleum COCs have been detected in groundwater at concentrations above the TOGS guidance values in the last 5 years. The highest concentrations of petroleum COCs in groundwater are located in the central area of the site, near the former truck loading rack area. Concentrations of petroleum COCs decrease by an order of magnitude along the downgradient boundary of the site.

5.5.2 Lower Sand Unit

The primary source of COCs in the lower sand unit was the meadow mat below the former VRU area. The meadow mat was excavated in 2013/2014 as part of an IRM. Although other VOCs were detected in the lower sand unit at concentrations above the TOGS guidance values, the discussion of the extent of the plumes will be limited to TCE, vinyl chloride, and MTBE because they are most representative of conditions in the lower sand unit.

Concentrations of TCE in groundwater have decreased from 340,000 µg/L in MW-25-D2 in August 2013 to 2,100 µg/L in ASB-4 in June 2016; concentrations of vinyl chloride have decreased from 6,300 µg/L in MW-25-D1 in August 2013 to 2,100 µg/L in AMW-14-D1 in July 2016; and concentrations of MTBE have

decreased from 2,500 µg/L in MW-25-D2 in August 2013 to 640 µg/L in OW-4-D1 in January 2016. Below is a summary of the current extent of the plumes in the lower sand unit.

The TCE plume is approximately 100 feet long and extends from the base of the meadow mat at 20 feet bcgs to 35 feet bgs. The maximum concentration of TCE in the D1 horizon is in temporary well ASB-4 at 2,100 µg/L. TCE was not detected in the perimeter D-1 horizon monitoring wells or in the D2 and VD horizon monitoring wells. The TOGS guidance value is 5 µg/L for TCE.

The vinyl chloride plume is approximately 180 feet long and extends from the base of the meadow mat at 20 feet bcgs to 45 feet bcgs (D2 horizon). In June 2016, the maximum concentration of vinyl chloride in the D1 horizon was 2,100 µg/L in AMW-14-D1, and the maximum concentration in the D2 horizon was 38 µg/L in MW-24-D2. Vinyl chloride was detected in perimeter monitoring well MW-26-D1 at 20 µg/L. Vinyl chloride was not detected in the VD horizon monitoring wells. The TOGS guidance value is 2 µg/L for vinyl chloride.

MTBE was detected in all three horizons in the lower sand unit, and the extent of the MTBE plume has not been delineated off site. In the D1 horizon, the maximum concentration is 640 µg/L in OW-1-D1, and concentrations at the downgradient property line range from 4.7 µg/L in MW-28-D1 to 340 µg/L in MW-26-D1. In the D2 horizon, the maximum concentration is 130 µg/L in MW-24-D2, and the concentrations in the D2 horizon at the property boundary range from 0.25 µg/L in MW-28-D2 to 59 µg/L in MW-26-D2. MTBE was detected in five of the six wells in the VD horizon at concentrations ranging from 0.42 µg/L in MW-29-VD to 3.4 µg/L in AMW-13-VD. The TOGS guidance value for MTBE is 10 µg/L.

5.6 Mass of Constituents of Concern (COCs)

The total estimated mass of COCs in the Lower Sand Unit is based on groundwater analytical results in the Lower Sand Unit in 2016. The mass provided below is represents post IRM current site conditions.

Due to the limited data in the fill unit in 2016, COC mass was not calculated. The calculation is based:

- The areas presented on the isoconcentration maps in Appendix I;
- Thickness of 15 feet for the D1 horizon and 10 feet for the D2 horizon; and
- Porosity of 0.35.

COC	TCE (kg)	Vinyl Chloride (kg)	MTBE (kg)
Lower Sand Horizon D1	0.03	0.09	0.17
Lower Sand Horizon D2	--	0.0001	0.02

5.7 Migration Pathways

The following is a preliminary assessment of the potential migration pathways for each media of potential concern in connection with this site:

Groundwater

Groundwater must be considered as a potential migration pathway, however, a complete pathway to potential receptors is mitigated by the deed restrictions which prohibits any purpose other than for remediation and limits land use to commercial purposes. The potential groundwater to serve as a complete pathway to receptors is further mitigated by the fact that groundwater in the site vicinity has been demonstrated to have chloride and/or total solids concentrations which exceed the non-potable GSB classification criteria of 1,000 mg/L and 2,000 mg/L, respectively (Langan 2007).

Surface Water

Concentrations of COCs at the surface water groundwater interface were not observed to indicate a potential for a containment migration pathway to surface water.

Soil Vapor

Soil vapor has the potential to serve as a pathway for volatile COCs within the subsurface (including BTEX and CVOCs) to migrate into site future buildings on this site. However, the potential for a complete pathway to receptors within future building will be mitigated by installing an appropriate vapor barrier under the retail facility.

Soil and Groundwater Direct Contact

The potential for direct contact with impacted soil or groundwater to be the pathway for exposure to COCs is unlikely given that the grade of the site was recently raised through the placement of between three and five feet of clean fill across the entire site and the surface will largely be paved as a parking lot or covered by buildings. While direct contact still represents a potential pathway of concern for utility and excavation workers, this pathway can be effectively mitigated through a Site Management Plan requiring that excavations will be completed under an appropriate health and safety plan to protect workers.

Biotic

Based on the current site conditions and future use of the site as a retail facility, the potential risk to ecological receptors is considered limited due to the low-quality habitat at the site and in the surrounding area.

In summary, the only potential migration pathway would be direct contact with soil and groundwater, which has been reduced by the addition of fill material to the site and will be addressed in the Site Management Plan.

6 SUMMARY AND CONCLUSIONS

This section presents a summary of soil and groundwater conditions and the relevant conclusions that can be drawn regarding the nature and extent of soil and groundwater impacts at this site.

6.1 Soil Conditions

6.1.1 Fill Unit

The following COCs were detected in the fill unit at concentrations above the Protection of Groundwater SCO: acetone, benzene, n-butylbenzene, ethylbenzene, methylene chloride, MTBE, naphthene, n-propylbenzene, 1,2,4 trimethylbenzene, toluene, xylenes, benzo(k)fluoranthene, chrysene, arsenic, and mercury. The most widespread of these exceedances were for BTEX compounds, many of which were detected within an order of magnitude of the relevant criteria.

The following COCs were detected in the fill unit at concentrations above the Commercial Use SCO in the fill unit: benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and arsenic. The exceedances of the Commercial Use SCO in the fill unit are sporadic in nature and are within an order of magnitude of the SCO.

6.1.2 Lower Sand

The following COCs were detected in the lower sand unit at concentrations above the Protection of Groundwater SCO: cis 1-2-dichloroethene, methylene chloride, TCE, vinyl chloride, and phenol.

The primary COCs in the lower sand are the CVOCs and the exceedances are all in the vicinity of the former VRU area. Of the COCs detected above the Protection of Groundwater SCO, only vinyl chloride was detected at a concentration greater than an order of magnitude above the SCO.

6.2 Groundwater Conditions

The current, post-IRM, groundwater conditions at this site have recently been further investigated through the installation of wells in the former VRU area, the installation of additional monitoring wells downgradient of the former VRU area, and the sampling of the complete groundwater monitoring network. The results of the recent groundwater sampling are summarized in **Table 6** and on **Figures 10 and 11**. A complete summary of historical groundwater sampling results is provided in **Appendix G**.

The water-bearing units of interest beneath the site are a shallow fill unit and a lower sand unit. The units are separated by a meadow mat unit which is continuous across most of the site.

6.2.1 Fill Unit

The primary COCs in groundwater in the shallow groundwater/fill unit are benzene, ethylbenzene, xylenes, isopropylbenzene, and naphthalene. Other COCs were detected in groundwater at concentrations above the TOGS guidance values; however, the detections were isolated and/or concentrations were within an order of magnitude of the guidance values.

6.2.2 Lower Sand Unit

The primary COCs at the site are TCE, vinyl chloride, and MTBE in the lower sand. Other COCs were detected in groundwater at concentrations above their respective criteria; however, the detections were sporadic and/or within an order of magnitude of the criteria. Following the completion of the former CRU area IRM, the concentrations of VOCs have decreased: TCE decreased from 340,000 µg/L in MW-25-D2 in August 2013 to 2,100 µg/L in ASB-4 in June 2016; vinyl chloride decreased from 6,300 µg/L in MW-25-D1 in August 2013 to 2,100 µg/L in AMW-14-D1 in June 2016; and MTBE decreased from 100,000 µg/L in MW-25-D2 in August 2013 to 640 µg/L in OW-1-D1 in January 2016.

The extent of CVOCs impacts in the lower sand unit are limited to the shallow D1 and D2 horizons. No CVOCs were detected in the VD horizon at concentrations above the TOGS guidance values. The TCE impacts are limited to the D1 horizon in the footprint of the former VRU area IRM. Vinyl chloride, a degradation produce of TCE, extends beyond the former VRU area in the D1 and D2 horizons to the property line to the west of the former VRU area. Vinyl chloride was not detected in the VD horizon wells. The distribution of vinyl chloride is consistent with a TCE plume that is natural attenuating and shrinking.

MTBE was detected in the lower sand unit in all three horizons, although the detections of MTBE were not above the TOGS guidance value in the VD horizon. The horizontal extent in the D1 and D2 horizons has not been defined at the property boundary. Concentrations of MTBE were detected at the property boundary in the D1 horizon in MW-26-D1 (340 µg/L) and MW-29-D1 (23 µg/L) and in the D2 horizon in MW-26-D2 (59 µg/L) and MW-29-D2 (51 µg/L). The TOGS guidance value for MTBE is 10 µg/L.

6.3 Conclusions

The following conclusions are supported by the available site characterization results:

- The IRM implemented to address the identified source of CVOC contamination at the site involved the slurry-based excavation of the impacted soil within and surrounding the former VRU Area. A comparison of groundwater quality conditions observed before and after implementation of this IRM demonstrate the dramatic improvement of the observed groundwater conditions following removal action.
- Residual impacts observed in excess of relevant criteria or guidance within the shallow fill unit are composed mostly of petroleum related compounds including BTEX and MTBE. These exceedances are sporadically distributed around the site and are typically within an order of magnitude of the relevant criteria or guidance value.
- Residual impacts observed in excess of relevant criteria or guidance within the lower sand unit are primarily residual CVOCs including TCE, VC and other CVOC daughter compounds. These exceedances are observed at their highest concentrations beneath the former VRU area. However, these dissolved concentrations in groundwater are observed to attenuate very rapidly down gradient of the former source area such that concentrations of CVOCs in wells along the down gradient property boundary are below the relevant criteria or guidance with the exception of a single detection of VC at 20 µg/L in MW-26-D1. Petroleum related compounds including BTEX and MTBE are also observed to exceed relevant criteria or guidance at sporadic locations within the lower sand unit. Most of these exceedances are observed to be within an order of magnitude of the relevant criteria or guidance.
- The available site assessments completed to date provide an adequate characterization of the site assessment of appropriate alternatives capable of remediating the site.

7 REFERENCES

Arcadis. 2010a. Arcadis Quality Assurance Project Plan. March 2010.

Arcadis. 2010b. Community Air Monitoring Plan. September 2010.

Arcadis. 2011. Redial Investigation Data Summary Report. May 2011.

Arcadis. 2014. Interim Remedial Measure Completion Report. November 2014.

Arcadis. 2016. Residual Source Assessment Work Plan. January 2016.

Langan. 2007. Remedial Investigation Workplan and Remedial Action Workplan. June 2016.

McClyonds, N.E. and O.L. Franke. 1972. Water-Transmitting Properties of Aquifers on Long Island, New York.

NYSDEC. 1999. NYSDEC Technical & Operational Guidance Series for Groundwater (standard), Section 703.6 (effective August 4, 1999).

NYSDEC. 2006. NYSDEC Technical & Operational Guidance Series for Soil, Subpart 375-6: Remedial Program Soil Cleanup Objectives (effective December 14, 2006).

NYSDEC. 2010. New York Codes, Rules and Regulations, the NYSDEC's Division of Environmental Remediation-10 – Technical Guidance for Site Investigation and Remediation.

TABLES



Table 1
Well Construction Summary

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Historical Screen Interval (ft bgs)	(feet below current groundsurface)	Well Status - July 2016	TIC July 2016	Groundsurface (estimated July 2016)	Top of Screen (ft, amsl)	Bottom of Screen (ft, amsl)
AMW-1	2 - 12	6 - 16	decommissioned	NA	NA	3.18	-6.82
AMW-2	4 - 9	8 - 13	decommissioned	NA	NA	1.37	-3.63
AMW-3	4 - 9	8 - 13	present	11.96	9.4	1.46	-3.54
AMW-4	2 - 12	6 - 16	decommissioned	NA	NA	4.60	-5.40
AMW-5	2 - 12	6 - 16	decommissioned	NA	NA	4.98	-5.02
AMW-6	3 - 13	7 - 17	decommissioned	NA	NA	3.76	-6.24
AMW-7	2 - 12	6 - 16	present	7.7	NA	4.74	-5.26
AMW-8	11 - 14	15 - 18	decommissioned	NA	NA	-5.59	-8.59
AMW-9	10 - 14	14 - 18	decommissioned	NA	NA	-4.38	-8.38
AMW-10	10 - 14	14 - 18	decommissioned	NA	NA	-4.39	-8.39
AMW-11	2 - 12	6 - 16	decommissioned	NA	NA	2.59	-7.41
AMW-12	3 - 8	7 - 12	decommissioned	NA	NA	NA	NA
AMW-13D1	NA	22 - 32	present	11.41	9.4	-12.60	-22.60
AMW-13D2	NA	32 - 42	present	11.39	9.4	-22.60	-32.60
AMW-13VD	NA	60 - 70	present	11.85	9.4	-50.60	-60.60
AMW-14D1	NA	22 - 32	present	10.77	9.4	-12.60	-22.60
AMW-14D2	NA	32 - 42	present	11.83	9.4	-22.60	-32.60
AMW-14VD	NA	64 - 74	present	10.81	9.4	-54.60	-64.60
AMW-15D1	NA	23.5 - 33.5	present	11.24	9.4	-14.10	-24.10
AMW-15D2	NA	30 - 40	present	11.29	9.4	-20.60	-30.60
AMW-15D3	NA	40 - 50	present	11.5	9.4	-30.60	-40.60
AMW-15VD	NA	60 - 70	present	11.07	9.4	-50.60	-60.60
IW-1	19-24	23 - 28	decommissioned	NA	NA	NA	NA
IW-2-D1	19-29	23 - 33	present	9.36	9.5	-13.50	NA
MW-18R	2-7	6 - 11	present	9.45	9.5	3.50	NA
MW-23-D1R	16.5 - 26.5	20.5 - 30.5	present	9.83	9.5	-11.05	-21.05
MW-23-D2R	31 - 41	35 - 45	present	9.62	9.5	-25.32	-35.32
MW-24-D1	17 - 27	21 - 31	present	10.28	9.5	-11.34	-21.34
MW-24-D2	32 - 42	36 - 46	present	9.96	9.5	-26.60	-36.60
MW-24VD	63 - 73	67 - 77	decommissioned	NA	NA	-57.66	-67.66
MW-25-D1	16 - 26	20 - 30	decommissioned	NA	NA	-10.38	-20.38
MW-25-D2	31 - 41	35 - 45	decommissioned	NA	NA	-25.49	-35.49
MW-25D3	40 - 50	44 - 54	decommissioned	NA	NA	-34.51	-44.51
MW-25VD	63 - 73	67 - 77	decommissioned	NA	NA	-57.49	-67.49
MW-26-D1	15 -25	19 - 29	present	9.53	9.4	-11.15	-21.15
MW-26-D2	30 - 40	34 - 44	present	9.37	9.4	-26.06	-36.06
MW-26VD	58 - 68	62 - 72	present	10.18	9.4	-53.98	-63.98
MW-27-D1	18 -28	22 - 32	present	8.51	9.4	-12.54	-22.54
MW-27-D2	33 - 43	37 - 47	present	9.34	9.4	-27.48	-37.48
MW-28-D1	17.5 - 27.5	21.5 - 31.5	present	8.69	9	-12.21	-22.21
MW-28-D2R	32.5 - 42.5	36.5 - 46.5	present	9.9	9	-27.12	-37.22
MW-29-D1	17 - 27	21 - 31	present	5.26	5	-12.46	-22.46
MW-29-D2	32 - 42	36 - 46	present	5.36	5	-27.58	-37.58
MW-29-VD	53 - 63	57 - 67	present	5.22	5	-48.63	-58.63
MW-30-D1	18 - 28	22 - 32	present	9.07	9.4	-12.42	-22.42
MW-30-D2	33 - 43	37 - 47	present	8.97	9.4	-27.28	-37.28
MW-30VD	73 - 83	77 - 87	present	9.3	9.4	-67.37	-77.37
MW-31-D1R	17 - 27	21 - 31	present	8.75	9.4	-11.79	-11.79
MW-31-D2R	32 - 42	36 - 46	present	8.62	9.4	-26.59	-36.59
MW-32D	24 - 34	28 - 38	present	8.83	9.4	-18.64	-37.64
MW-33D	18 - 28	22 - 32	decommissioned	NA	NA	-13.04	-23.04
MW-35D	16 - 26	20 - 30	decommissioned	NA	NA	NA	NA
MW-DR	NA	NA	damaged	NA	NA	NA	NA
OW-1-D1	19-24	24 - 29	decommissioned	NA	9.4	NA	NA
OW-2-D1	25-29	29 - 33	present	9.87	9.4	-19.60	-23.60
OW-3-D1	19-29	23 - 33	present	9.21	9.4	-23.50	-33.60
P-10	NA	NA	decommissioned	NA	NA	NA	NA
P-18R	2 - 8	6 - 12	decommissioned	NA	NA	3.07	3.07
P-26	NA	NA	decommissioned	NA	NA	NA	NA

Notes:
1. Elevations are shown in feet above mean sea level (AMSL) relative to the NAVD datum of 1988 (NAVD88).
2. NA = not available.

Table 2
Groundwater Sample Collection Field Parameters

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	pH (SU)	Temperature (ºC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
AMW-1	1/20/2011	6.91	5.45	0.523	2.89	-263.5	0.0
AMW-2	1/20/2011	6.59	4.93	0.461	1.46	-162.7	3.3
AMW-3	1/20/2011	6.89	4.85	0.691	0.52	-170.8	9.5
AMW-3	1/13/2016	7.14	7.15	1.713	1.68	-174.9	9.4
AMW-3	6/21/2016	8.41	19.82	1.401	0.41	-283.7	6.23
AMW-4	1/26/2011	7.77	7.91	1.442	0.75	-23.2	8.2
AMW-4	9/11/2013	6.55	22.18	2.72	0.07	-128	0.28
AMW-5	1/26/2011	5.10	7.72	1.441	0.94	-309.3	1.9
AMW-5	9/11/2013	8.84	22.09	2.19	0.05	-372	1.64
AMW-7	1/26/2011	8.29	8.19	2.259	0.61	-367.9	6.1
AMW-7	9/11/2013	8.83	22.03	3.06	2.69	-380	0.09
AMW-7	1/21/2016	8.23	9.18	1.922	0.27	-301.7	8.98
AMW-7	6/21/2016	7.58	23.62	2.297	0.17	-292.1	2.15
AMW-8	1/20/2011	6.48	7.77	1.167	1.18	-167.4	6.2
AMW-9	1/20/2011	6.17	7.12	1.103	1.20	-186.1	10.0
AMW-10	1/20/2011	6.21	6.65	1.612	5.00	-103.6	13.7
AMW-11	1/26/2011	4.52	5.76	0.773	1.21	-124.6	8.2
AMW-11	9/11/2013	6.41	23.14	3.88	0.39	-104.2	1.08
AMW-12	2/20/2013	6.66	5.54	0.87	0.00	-27.5	0
AMW-12	9/13/2013	6.53	25.34	1.741	1.06	-115.8	11.7
AMW-12	1/14/2016	6.97	9.97	1.477	0.44	-81.1	4.2
AMW-13-D1	6/24/2016	6.81	19.27	8.279	0.18	-319.7	21.1
AMW-13-D1	7/27/2016	6.87	22.68	8.578	0.00	301.6	3.42
AMW-13-D2	6/23/2016	7.64	17.38	9.331	0.21	-240.2	110
AMW-13-D2	7/27/2016	6.55	25.48	16.82	0.04	-332.1	0.1
AMW-13-VD	6/23/2016	7.53	11.40	30.21	0.40	-137.1	4.65
AMW-13-VD	7/27/2016	6.93	24.87	39.86	0.25	-205.9	0.81
AMW-14-D1	6/24/2016	10.06	17.54	9.393	0.28	-302.5	7.94
AMW-14-D1	7/26/2016	6.69	23.11	10.54	0.00	-319.7	1.52
AMW-14-D2	6/23/2016	7.56	16.56	10.9	0.35	-348.3	22.6
AMW-14-D2	7/26/2016	6.54	22.79	14.14	0.69	-323.2	1.99
AMW-14-VD	6/23/2016	7.37	16.31	34.26	0.49	-128.1	9.69
AMW-14-VD	7/27/2016	6.61	20.00	37.62	0.96	-110	0.72
AMW-15-D1	6/23/2016	7.42	17.21	8.094	0.27	-336.2	4.67
AMW-15-D1	7/27/2016	6.84	27.14	10.12	0.11	-353.9	0.71
AMW-15-D2	6/23/2016	11.54	17.14	9.89	0.17	-313	40.4
AMW-15-D2	7/27/2016	8.20	25.24	11.33	0.01	-400.1	1.41
AMW-15-D3	6/23/2016	10.60	18.53	21.53	NA	-66.3	298
AMW-15-D3	7/27/2016	7.25	22.80	13.49	0.05	-361.1	0.12
AMW-15-VD	6/23/2016	8.15	17.12	37.43	0.61	211.6	3.42
AMW-15-VD	7/27/2016	7.53	25.04	41.63	0.11	-240.9	0.91
IW-1	8/21/2013	6.82	15.34	11.55	0.04	-356.6	37.2
IW-2-D1	2/20/2013	6.92	10.69	3.353	0.00	-202.3	23.8
IW-2-D1	9/12/2013	6.75	17.00	9.94	1.78	-291.1	1.2
IW-2-D1	1/13/2016	7.03	12.96	9.047	0.21	-353.1	7.97
MW-18R	2/20/2013	7.41	4.31	0.693	0.00	-54.9	4.3
MW-18R	6/22/2016	7.23	19.44	2.248	0.48	-52.4	2.84
MW-23-D1R	1/19/2011	6.65	10.10	1.351	5.51	-270.1	2.7
MW-23-D1R	9/10/2013	6.83	18.41	3.611	0.78	-118	4.39
MW-23-D1R	1/12/2016	7.09	13.17	6.02	0.40	-317	1.9
MW-23-D1R	6/20/2016	7.33	17.52	6.465	0.70	-314.2	3.67
MW-23-D2R	1/20/2011	6.90	9.10	9.371	6.13	-339.6	0.7
MW-23-D2R	9/11/2013	5.99	17.02	12.66	0.44	-285.4	1.1
MW-23-D2R	1/11/2016	6.96	8.78	7.747	0.52	-329.8	2.41
MW-23-D2R	6/20/2016	7.51	15.98	9.845	0.26	-319.5	0.9
MW-24-D1	1/19/2011	6.92	11.47	11.04	0.00	-342.8	6.1
MW-24-D1	9/12/2013	6.84	15.83	13.02	1.94	-320.1	0.54
MW-24-D1	1/13/2016	7.06	11.16	7.782	0.18	-338.7	3.01
MW-24-D1	6/21/2016	6.86	16.33	9.4	0.28	-344.4	1.15
MW-24-D2	1/19/2011	6.95	11.13	10.02	0.00	-332.6	1.9
MW-24-D2	9/11/2013	6.48	17.21	12.16	0.69	-302.1	0.95
MW-24-D2	1/13/2016	7.03	11.71	9.488	0.31	-342.9	8.75
MW-24-D2	6/21/2016	6.82	17.32	11.58	0.31	-347.4	1.95

See Notes on Page 3.

Table 2
Groundwater Sample Collection Field Parameters

ARCADIS Design & Consultancy for natural and built assets

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	pH (SU)	Temperature (ºC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
MW-24VD	1/19/2011	6.76	10.63	32.37	0.82	-199.5	0.9
MW-24VD	8/21/2013	6.24	16.53	39.08	0.98	-224.3	5.0
MW-25-D1	1/19/2011	6.27	11.51	9.935	0.00	-346.4	7.4
MW-25-D1	8/21/2013	6.72	15.05	13.58	0.08	-343.4	40.0
MW-25-D2	1/19/2011	6.30	10.98	10.06	2.49	-333.0	0.9
MW-25-D2	8/21/2013	6.01	16.31	16.25	0.36	-323	5.6
MW-25D3	1/21/2011	7.24	11.57	29.96	0.08	-364.1	2.7
MW-25D3	8/21/2013	5.89	15.70	31.88	1.10	-272	5.7
MW-25VD	1/19/2011	6.40	10.75	21.63	0.93	-275.3	0.5
MW-25VD	8/21/2013	6.63	16.98	42.6	0.06	-63.9	22
MW-26-D1	1/25/2011	6.12	10.71	14.27	0.04	-360.1	7.8
MW-26-D1	9/10/2013	6.86	18.36	8.878	NA	-325.4	15.2
MW-26-D1	1/12/2016	7.08	11.08	6.752	0.25	-325.7	16.3
MW-26-D1	6/22/2016	7.62	16.69	7.361	0.46	-285.7	1.46
MW-26-D2	1/25/2011	6.03	10.06	18.62	0.00	-299.6	5.5
MW-26-D2	9/10/2013	6.75	17.73	15.37	NA	-334.1	0.6
MW-26-D2	1/12/2016	6.68	10.17	22.35	0.28	-289	23.1
MW-26-D2	6/22/2016	7.16	18.79	24.24	0.34	-172	1.65
MW-26VD	1/18/2011	11.88	7.36	16.34	0.91	-251.3	0.2
MW-26VD	9/10/2013	7.64	17.35	16.96	1.60	-346	14.1
MW-26-VD	1/13/2016	7.49	5.73	13.39	0.15	-326.8	>1000
MW-26-VD	6/22/2016	7.48	19.53	16.57	0.48	-113.3	>1000
MW-27-D1	1/18/2011	6.82	11.22	8.056	0.00	-354.2	7.5
MW-27-D1	1/13/2016	7.94	7.66	1.776	0.71	0.7	14.1
MW-27-D1	6/21/2016	6.92	16.57	12.57	0.40	-352.7	8.79
MW-27-D2	1/18/2011	6.43	10.92	19.31	0.64	-170.6	4.1
MW-27-D2	1/13/2016	6.61	10.47	19.06	0.38	-108.1	32.4
MW-27-D2	6/21/2016	6.67	16.85	19.73	0.42	-320.5	22.2
MW-28-D1	1/25/2011	6.04	11.66	8.870	0.00	-394.1	6.2
MW-28-D1	6/24/2016	6.97	16.97	9.41	0.29	-331.4	20.7
MW-28-D1	7/28/2016	6.89	27.11	10.43	0.08	-359.4	3.81
MW-28-D2	1/25/2011	6.48	13.10	22.60	0.17	-293.2	19.1
MW-28-D2	7/28/2016	6.75	25.61	19.55	0.13	-222	4.00
MW-28-D2R	6/24/2016	7.11	19.38	23.59	0.29	-205.4	21.1
MW-29-D1	1/25/2011	6.68	12.32	4.431	0.93	-233.1	5.1
MW-29-D1	9/10/2013	6.63	18.08	4.944	2.90	-134	1.7
MW-29-D1	1/14/2016	6.84	12.41	4.552	0.38	-128.1	4.88
MW-29-D1	6/21/2016	6.75	18.62	4.738	0.31	-92.6	0.78
MW-29-D2	1/25/2011	5.62	10.36	19.37	0.56	-263.4	1.2
MW-29-D2	9/10/2013	9.13	18.24	39.23	2.00	-63.9	2.9
MW-29-D2	1/14/2016	6.90	13.06	13.07	0.25	-330.8	5.86
MW-29-D2	6/21/2016	7.03	18.72	20.3	0.35	-286	0.93
MW-29-VD	1/25/2011	6.53	13.32	23.28	0 [1]	-304.1	5.1
MW-29-VD	9/10/2013	6.74	21.83	17.79	NA	-337	30.6
MW-29-VD	1/14/2016	8.12	11.72	33.22	0.52	-186.2	5.75
MW-29-VD	6/21/2016	8.19	16.61	35.66	0.35	-90.3	1.86
MW-30-D1	1/24/2011	6.22	9.01	8.620	0.07	-340.1	1.0
MW-30-D1	9/9/2013	6.71	17.13	10.25	NA	-327.5	0.16
MW-30-D1	1/14/2016	7.02	9.81	10.42	0.08	-317.5	7.21
MW-30-D1	6/22/2016	6.77	19.53	11.52	0.35	-349.7	16.9
MW-30D2	9/10/2013	6.60	16.92	13.78	NA	-368.5	0.07
MW-30-D2	4/7/2011	6.72	11.75	11.16	1.48	-354.8	3.2
MW-30-D2	1/14/2016	6.82	12.88	12.83	0.23	-319.8	3.12
MW-30-D2	6/23/2016	6.45	16.23	11.62	0.43	-339.2	13.4
MW-30VD	1/25/2011	7.56	11.48	22.18	0 [1]	-321.7	6.2
MW-30VD	9/10/2013	8.70	19.64	41.47	0.11	-408.3	0.7
MW-30-VD	1/14/2016	7.48	9.81	15.69	0.40	-244.5	65.8
MW-30-VD	6/22/2016	6.56	18.75	39.85	0.53	-68.3	25.8
MW-31-D1R	1/21/2011	6.58	9.04	8.320	0.82	-340.9	0.0
MW-31-D1R	9/13/2013	6.73	16.59	12.97	0.27	-323.4	1.64
MW-31-D1R	1/14/2016	10.32	6.94	0.237	2.97	-234.9	14.7
MW-31-D1R	6/22/2016	8.94	18.89	2.549	0.42	-292	10.1

See Notes on Page 3.

Table 2
Groundwater Sample Collection Field Parameters

ARCADIS Design & Consultancy for natural and built assets

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Date Sampled	pH (SU)	Temperature (ºC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
MW-31-D2R	1/12/2011	6.97	10.48	18.76	0.88	-329.6	0.0
MW-31-D2R	9/13/2013	6.65	17.73	23.8	0.05	-316	2.07
MW-31-D2R	1/14/2016	6.37	8.60	0.243	0.51	101.1	50.1
MW-31-D2R	6/22/2016	6.88	18.26	18.13	0.26	-295.4	2.72
MW-32D	1/19/2010	6.95	12.46	8.372	0.00	-337.7	0.0
MW-33D	1/27/2011	6.98	11.69	7.132	0.93	-335.6	11.7
MW-35D	1/27/2011	7.36	10.57	1.554	0.75	-334.0	9.8
MW-DR	1/26/2011	4.52	7.31	0.617	1.04	-214.3	11.8
MW-DR	9/12/2013	6.40	22.72	4.36	0.08	-263.7	1.34
OW-1-D1	2/20/2013	6.86	10.45	11.85	0.00	-354.7	8.8
OW-1-D1	9/12/2013	6.37	17.81	17.49	2.20	-357.2	2.78
OW-1-D1	1/13/2016	7.04	10.02	12	0.17	-355.8	2.09
OW-2-D1	2/21/2013	6.30	9.54	6.33	0.00	-308.9	2.5
OW-2-D1	9/11/2013	6.43	17.10	9.841	1.08	-293.9	0.81
OW-2-D1	1/12/2016	7.08	12.09	7.449	0.38	-329	1.3
OW-3-D1	2/21/2013	6.80	10.91	7.309	0.00	-317.4	4.5
OW-3-D1	9/13/2013	6.80	15.85	9.389	0-1[1]	-266.1	9.0
OW-3-D1	1/13/2016	6.99	12.37	7.862	0.28	-341.1	0.9
P-10	4/7/2011	6.76	6.88	0.727	9.57	-97.1	16
P-10	9/13/2013	6.58	21.29	6.58	4.80	-179.2	30.5
P-18R	1/27/2011	7.24	2.86	0.671	0.67	-204.0	9.6
P-18R	1/12/2016	6.87	10.13	2.132	0.53	-57.7	4.97

Notes:
[1]Colorimetric dissolved oxygen measurement.
NA = Dissolved oxygen meter not properly functioning.
ºC = Celsius.
mg/L = milligrams per liter.
mV = millivolts.
NTUs = Nephelometric Turbidity Units.
SU = Standard Units.
mS/cm = milliSiemens per centimeter.
NR = Not reported.
Dissolved oxygen measurements collected in February 2013 were measured using a Horbia.

Table 3
Groundwater Elevation Summary Table

Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Well ID	Screen Interval (feet below current ground surface)	Depth to Water (TIC) Low Tide 7/26/16	Low Tide Groundwater Elevation (ft AMSL) 7/26/16	Depth to Water (TIC) High Tide 7/26/16	High Tide Groundwater Elevation (ft AMSL) 7/26/16
AMW-3	8 - 13	8.31	3.65	8.25	3.71
AMW-7	6 - 16	5.62	2.08	5.35	2.35
AMW-13D1	22 - 32	12.46	-1.05	9.48	1.93
AMW-13D2	32 - 42	12.50	-1.11	9.47	1.92
AMW-13VD	60 - 70	12.65	-0.80	9.69	2.16
AMW-14D1	22 - 32	11.94	-1.17	8.90	1.87
AMW-14D2	32 - 42	12.97	-1.14	9.95	1.88
AMW-14VD	64 - 74	11.68	-0.87	8.52	2.29
AMW-15D1	23.5 - 33.5	12.17	-0.93	9.60	1.64
AMW-15D2	30 - 40	12.23	-0.94	9.35	1.94
AMW-15D3	40 - 50	12.53	-1.03	9.75	1.75
AMW-15VD	60 - 70	11.68	-0.61	8.95	2.12
IW-2-D1	23 - 33	10.47	-1.11	8.57	0.79
MW-18R	6 - 11	5.80	3.65	5.55	3.90
MW-23-D1R	21 - 31	10.64	-0.81	7.83	2.00
MW-23-D2R	35 - 45	10.88	-1.26	7.55	2.07
MW-24-D1	21 - 31	11.35	-1.07	8.41	1.87
MW-24-D2	36 - 46	11.04	-1.08	8.12	1.84
MW-26-D1	19 - 29	10.70	-1.17	7.61	1.92
MW-26-D2	34 - 44	10.65	-1.28	7.46	1.91
MW-26VD	62 - 72	10.33	-0.15	8.71	1.47
MW-27-D1	22 - 32	9.73	-1.22	6.86	1.65
MW-27-D2	37 - 47	10.46	-1.12	7.32	2.02
MW-28-D1	22 - 32	11.22	-2.53	6.70	1.99
MW-28-D2R	37 - 47	9.65	0.25	7.80	2.10
MW-29-D1	21 - 31	6.85	-1.59	3.09	2.17
MW-29-D2	36 - 46	6.58	-1.22	3.20	2.16
MW-29-VD	57 - 67	5.30	-0.08	3.96	1.26
MW-30-D1	22 - 32	9.73	-0.66	6.96	2.11
MW-30-D2	37 - 47	9.81	-0.84	6.76	2.21
MW-30VD	77 - 87	9.28	0.02	6.44	2.86
MW-31-D1R	21 - 31	11.22	-2.47	6.78	1.97
MW-31-D2R	36 - 46	9.65	-1.03	6.50	2.12
MW-32D	28 - 38	9.90	-1.07	6.95	1.88
OW-2-D1	29 - 33	10.88	-1.01	8.02	1.85
OW-3-D1	33 - 43	10.31	-1.10	7.37	1.84

Notes:
1. Elevations are shown in feet above mean sea level (AMSL) relative to the NAVD datum of 1988 (NAVD88).
2. NA = not available.
3. TIC = top of inner casing.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G2-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G3-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G3-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G4-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G4-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G4-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G4-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***4.1***	***8.3***	***5.7***	***4.7***	***4.2***	***3.5***	***3.2***
Toluene	0.7	0.7	500	mg/kg	0.16 J	ND	0.33	0.27	0.38	0.39	ND
Ethylbenzene	1	1	390	mg/kg	***7.3***	***40***	***28***	***20***	***41***	***40***	***41***
Xylenes (total)	0.26	1.6	500	mg/kg	***2.3***	***1.8***	***1.9***	***2.0***	***3.1***	***13***	***13***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.22	ND	ND	0.64	ND	ND	ND
Naphthalene	12	12	500	mg/kg	***23***	***40***	***36***	***33***	***43***	***20***	***32***
Isopropylbenzene	- -	- -	- -	mg/kg	3.7	9.4	7.6	6.2	7.6	5.7	6.1
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	1.6	3.1	ND	1.5	1.0 J	***8.2***	***4.8***
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	1.8	1.3 J	1.6	0.73 J	1.5 J	6.1	6.1
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	7.3	***14***	***13***	***12***	***13***	9.3	9.0
n-Propylbenzene	3.9	3.9	500	mg/kg	***10***	***24***	***20***	***16***	***20***	***15***	***16***
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.56 J	2.3 J	0.55 J	0.97 J	0.75 J	0.69 J	0.81 J
sec-Butylbenzene	11	11	500	mg/kg	2.2	4.8	4.0	4.1	4.1	2.9	2.7
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.21 J	0.46 J	0.35 J	0.37 J	0.37 J	0.24 J	0.29 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	64 J	150 J	120 J	100 J	140 J	130 J	130 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	0.33	0.88	0.85	0.60	1.4	0.87	2.3
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.10	0.34	0.33	ND	0.72	0.32 J	1.1
Benzo(a)anthracene	1	1	5.6	mg/kg	0.031 J	0.087	0.11	0.042 J	0.17	0.39	0.34
Benzo(a)pyrene	1	22	1	mg/kg	ND	0.049 J	0.046 J	ND	0.072 J	0.27 J	0.22
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	0.067 J	0.060 J	ND	0.10 J	0.35	0.45
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	0.058	0.056 J	ND	0.10 J	0.46	0.21 J
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.040 J	0.12	0.12	0.051 J	0.18 J	0.46	0.48
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.13	0.36	0.52	0.19	0.88	0.85	1.6
Fluorene	30	386	500	mg/kg	0.85	2.2	1.7	1.7	2.1	1.8	3.2
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	0.049 J	0.046 J	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	1.9	5.6	3.9	3.5	5.2	3.8	8.2
Pyrene	100	1,000	500	mg/kg	0.17	0.63	0.65	0.34	0.59	1.2	1.2
Total SVOCs	- -	- -	- -	mg/kg	3.5 J	10 J	8.4 J	6.4 J	12 J	11 J	19 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G5-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G5-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G5-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G5-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G6-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G6-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G6-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***5.7***	***3.3***	***6.4***	***9.1***	***10***	***6.2***	***4.2***
Toluene	0.7	0.7	500	mg/kg	0.44	0.21	0.57	0.69	0.52	ND	0.57
Ethylbenzene	1	1	390	mg/kg	***9.1***	***4.4***	***46***	***58***	***3.3***	***3.4***	***13***
Xylenes (total)	0.26	1.6	500	mg/kg	***2.5***	*0.60*	***4.1***	***3.1***	*1.4*	*0.82*	***8.7***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	4.9	9.6	***16***	***13***	1.3	***19***	4.5
Isopropylbenzene	- -	- -	- -	mg/kg	5.2	3.0	7.0	9.1	4.6	4.7	5.0
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	1.9	0.37	1.1 J	0.48 J	0.28 J	1.1 J	***7.4***
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	2.4	1.6	4.6	4.1	0.96 J	6.1	3.7
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	7.5	5.0	10	***13***	6.6	6.6	9.4
n-Propylbenzene	3.9	3.9	500	mg/kg	***14***	***8.0***	***19***	***24***	***12***	***12***	***14***
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.87 J	0.73 J	1.2	1.3 J	1.3 J	1.6 J	0.87 J
sec-Butylbenzene	11	11	500	mg/kg	2.4	1.6	3.2	3.9	2.2	2.5	2.7
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.22 J	0.19 J	0.28 J	0.38 J	0.40 J	0.28 J	0.28 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	57 J	39 J	120 J	140 J	45 J	64 J	74 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.2	0.80	ND	1.8	1.1	0.43	0.71
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.42	ND	0.34 J	ND	0.56	ND	0.25
Benzo(a)anthracene	1	1	5.6	mg/kg	0.16 J	ND	0.14 J	0.13 J	0.21	ND	0.17
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	0.78 J	0.13	ND	0.19
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	0.28 J	0.079 J	0.19	ND	0.23
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	0.21	ND	0.20
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	ND	0.096 J	0.19	ND	0.19
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.15 J	0.11 J	0.29 J	0.11 J	0.28	ND	0.26
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	0.21 J	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.51	0.21 J	0.62	ND	0.60	0.085 J	0.44
Fluorene	30	386	500	mg/kg	2.7	1.4	2.6	0.53	2.4	0.71	2.0
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	*3.1*	0.14	ND	0.17
Phenanthrene	100	1,000	500	mg/kg	5.9	3.4	5.3	8.3	7.7	1.7	6.5
Pyrene	100	1,000	500	mg/kg	0.60	0.30	0.65	0.50	1.0	ND	0.86
Total SVOCs	- -	- -	- -	mg/kg	12 J	6.3 J	10 J	16 J	15	2.9 J	12
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G6-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G8-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G8-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G8-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G8-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G9-D1 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G9-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***10***	***0.98***	***2.1***	***14***	***3.8***	***5.7***	***0.71***
Toluene	0.7	0.7	500	mg/kg	0.54	0.36	0.41	***0.80***	0.22	ND	ND
Ethylbenzene	1	1	390	mg/kg	***5.7***	***1.3***	***1.1***	***2.2***	***7.0***	***25***	***4.6***
Xylenes (total)	0.26	1.6	500	mg/kg	***1.6***	***5.8***	***6.2***	***4.3***	*0.84*	***66***	*0.39*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	4.2	***12***	***21***	***15***	3.0	***21***	11
Isopropylbenzene	- -	- -	- -	mg/kg	4.1	7.0	8.5	17	2.8	8.5	2.9
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.54 J	***4.7***	***4.2***	1.7 J	0.19 J	***12***	0.19 J
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	2.4	2.6	2.8	0.85 J	0.38 J	7.0	0.53 J
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	6.4	***13***	***15***	***30***	4.9	***12***	5.5
n-Propylbenzene	3.9	3.9	500	mg/kg	***10***	***17***	***20***	***40***	***7.3***	***23***	***7.7***
p-Isopropyltoluene	- -	- -	- -	mg/kg	1.1 J	0.49 J	0.48 J	0.53 J	0.36 J	1.8 J	0.64 J
sec-Butylbenzene	11	11	500	mg/kg	2.1	4.0	4.5	9.0	1.5	3.9	1.8
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.26 J	0.44 J	0.52 J	1.0 J	0.16 J	0.40 J	0.18 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	50 J	70 J	87 J	140 J	32 J	190 J	37 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.1	0.74	1.6	1.3	1.6	0.71	0.85
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	0.33	ND	0.65	ND	0.41	0.43
Benzo(a)anthracene	1	1	5.6	mg/kg	0.20 J	0.25	0.35	0.55	0.47	0.37	0.095
Benzo(a)pyrene	1	22	1	mg/kg	0.14 J	0.24	0.26	0.39	0.31	0.25	0.043 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.23 J	0.26	0.39	0.47	0.41	0.27	0.054 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.13 J	0.21	0.15 J	0.51	0.35	0.15	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.11 J	0.20	0.17 J	0.42	0.37	0.25	0.068 J
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.36	0.29	0.44	0.55	0.65	0.43	0.12
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.64	0.48	0.74	0.89	1.3	0.96	0.39
Fluorene	30	386	500	mg/kg	18	2.1	2.6	5.8	2.3	1.7	1.4
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	0.17	0.15 J	*0.51*	0.28 J	0.15	ND
Phenanthrene	100	1,000	500	mg/kg	6.4	5.7	6.8	12	6.4	4.2	3.2
Pyrene	100	1,000	500	mg/kg	0.78	0.89	0.70	2.1	1.4	1.1	0.32
Total SVOCs	- -	- -	- -	mg/kg	28 J	12	14 J	26	16 J	11	7.0 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	G9-S1 1.5 - 2 5.5 - 6 11/16/04 Shallow Sand Fill - Shallow	G9-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G10-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow	G10-D2 3 - 3.5 7 - 7.5 11/18/04 Shallow Sand Fill - Shallow	G10-S1 1.5 - 2 5.5 - 6 11/17/04 Shallow Sand Fill - Shallow	G10-S2 1.5 - 2 5.5 - 6 11/18/04 Shallow Sand Fill - Shallow	G11-D1 3 - 3.5 7 - 7.5 11/16/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***1.7***	***1.6***	***3.0***	ND	***0.16***	***0.25***	***1.6***
Toluene	0.7	0.7	500	mg/kg	0.26	0.37	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	***31***	***31***	***1.1***	0.27	0.24	***7.8***	***1.3***
Xylenes (total)	0.26	1.6	500	mg/kg	***3.5***	***11***	*0.97*	0.091	0.25	***6.3***	***2.1***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	***15***	***17***	4.5	1.2	0.58	***17***	4.3
Isopropylbenzene	- -	- -	- -	mg/kg	4.5	4.7	9.7	1.5	0.23 J	2.3	4.2
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.86 J	***7.7***	ND	ND	0.27	***11***	2.0
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	8.2	6.9	1.1 J	0.15 J	0.67	4.8	1.3 J
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	7.2	7.2	***16***	3.7	0.45	6.4	9.0
n-Propylbenzene	3.9	3.9	500	mg/kg	***13***	***14***	***25***	***4.5***	0.52	***6.7***	***11***
p-Isopropyltoluene	- -	- -	- -	mg/kg	1.2 J	1.1 J	0.34 J	0.26 J	0.092	1.2	0.34 J
sec-Butylbenzene	11	11	500	mg/kg	2.2	2.1	5.3	1.3	0.15 J	2.0	2.7
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.18 J	0.18 J	0.49 J	0.18 J	0.035 J	0.16 J	0.29 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	89 J	100 J	67 J	13 J	3.6 J	66 J	40 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	ND	0.60	0.47	0.21	ND	1.9	0.52
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.25 J	0.43	ND	ND	ND	0.80	0.16
Benzo(a)anthracene	1	1	5.6	mg/kg	0.23 J	0.13	0.054 J	0.036 J	0.040 J	0.44	0.084
Benzo(a)pyrene	1	22	1	mg/kg	0.34 J	0.079	0.035 J	0.047 J	0.035 J	0.43	0.074
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.47	0.11	0.050 J	0.032 J	0.046 J	0.80	0.16
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.34 J	0.032 J	ND	ND	0.046 J	0.15	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.32 J	0.096	ND	0.047 J	0.039 J	0.37	0.043 J
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.35 J	0.16	0.074 J	0.058 J	0.062 J	0.68	0.085
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.99	0.44	0.20	0.14	0.088	1.3	0.20
Fluorene	30	386	500	mg/kg	1.9	0.79	1.3	0.42	0.18	1.8	1.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.33 J	ND	ND	ND	ND	0.14	0.056 J
Phenanthrene	100	1,000	500	mg/kg	3.3	3.0	2.9	1.0	0.37	8.0	2.9
Pyrene	100	1,000	500	mg/kg	1.3	0.40	0.29	0.12	0.21	1.2	0.39
Total SVOCs	- -	- -	- -	mg/kg	10 J	6.3 J	5.4 J	2.1 J	1.1 J	18	6.0 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	GP-1(1995) 6 10 12/15/95 Shallow Sand Fill - Shallow	GP-1(2002) 6 10 05/02/02 Shallow Sand Fill - Shallow	GP-2(1995) 6 10 12/15/95 Shallow Sand Fill - Shallow	GP-2(2002) 6 10 05/02/02 Shallow Sand Fill - Shallow	GP-3(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow	GP-3(2002) 2 6 05/02/02 Shallow Sand Fill - Shallow	GP-4(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	NA	ND	NA	ND	NA	0.017	NA
Toluene	0.7	0.7	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
Ethylbenzene	1	1	390	mg/kg	NA	0.052	NA	***8.8***	NA	ND	NA
Xylenes (total)	0.26	1.6	500	mg/kg	NA	ND	NA	***11***	NA	0.0082	NA
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	12	500	mg/kg	NA	0.44	NA	6.2	NA	ND	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	ND	NA	ND	NA	ND	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	ND	NA	ND	NA	ND	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	ND	NA	ND	NA	ND	NA
Total VOCs	- -	- -	- -	mg/kg	NA	0.49	NA	26	NA	0.025	NA
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	ND	NA	ND	NA	ND	NA	ND
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	NA	ND	NA	ND	NA	0.38
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	NA	ND	NA	0.37	NA	0.89
Benzo(a)pyrene	1	22	1	mg/kg	ND	NA	ND	NA	0.40	NA	*1.1*
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	NA	ND	NA	0.46	NA	***2.2***
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	NA	ND	NA	ND	NA	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	NA	ND	NA	ND	NA	0.68
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.81	NA	0.99	NA	0.40	NA	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	NA	ND	NA	ND	NA	ND
Fluoranthene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.74	NA	ND
Fluorene	30	386	500	mg/kg	ND	NA	ND	NA	ND	NA	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	NA	ND	NA	ND	NA	ND
Phenanthrene	100	1,000	500	mg/kg	ND	NA	2.3	NA	0.42	NA	0.95
Pyrene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.62	NA	ND
Total SVOCs	- -	- -	- -	mg/kg	0.81	NA	3.3	NA	3.4	NA	6.2
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	GP-4(2002) 2 6 05/02/02 Shallow Sand Fill - Shallow	GP-4D(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow	GP-5(2002) 2 - 4 6 - 8 05/02/02 Shallow Sand Fill - Shallow	GP-6(1995) 2 6 12/15/95 Shallow Sand Fill - Shallow	GP-7(2002) 3 - 4 7 - 8 05/02/02 Shallow Sand Fill - Shallow	GP-8(2002) 1 - 2 5 - 6 05/02/08 Shallow Sand Fill - Shallow	GP-9(2002) 2 - 3 6 - 7 05/02/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	NA	ND	NA	***2.8***	ND	***0.20***
Toluene	0.7	0.7	500	mg/kg	ND	NA	ND	NA	ND	ND	0.18
Ethylbenzene	1	1	390	mg/kg	ND	NA	ND	NA	***76***	0.0020	0.18
Xylenes (total)	0.26	1.6	500	mg/kg	ND	NA	ND	NA	***3.0***	0.0044	*0.53*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Naphthalene	12	12	500	mg/kg	ND	NA	ND	NA	***44***	ND	1.8
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	NA	ND	NA	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	NA	ND	NA	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	NA	ND	NA	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	0.10	NA	0.0076	NA	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	NA	ND	NA	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.10	NA	0.0076	NA	130	0.0064	2.9
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	0.57	NA	ND	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	0.82	NA	ND	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	***1.7***	NA	ND	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	0.55	NA	ND	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	ND	NA	ND	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	ND	NA	ND	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	ND	NA	ND	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	ND	NA	ND	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	0.75	NA	4.2	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	0.84	NA	ND	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	5.2	NA	4.2	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					GP-10(2002)	HA-01	HA-02	LB-1	LB-2	LB-2	LB-3
Historical Sample Depth (feet):					2 - 3	0.5	0.5	17.5 - 18	4 - 4.5	16.5 - 17	2.5 - 3
Current Estimated Sample Depth (feet)					6 - 7	4.5	4.5	21.5 - 22	8 - 8.5	20.5 - 21	6.5 - 7
Date Collected:					05/02/02	02/29/96	02/29/96	03/10/04	03/10/04	03/10/04	03/10/04
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	NA	NA	0.0013	0.033	0.00071	ND
Toluene	0.7	0.7	500	mg/kg	0.12	NA	NA	0.0020	0.098	ND	ND
Ethylbenzene	1	1	390	mg/kg	***7.2***	NA	NA	0.0011	***7.5***	0.00087 J	0.32 J
Xylenes (total)	0.26	1.6	500	mg/kg	*0.64*	NA	NA	0.00072 J	***14***	0.0016	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	NA	NA	NA	0.077	ND	0.017	ND
Naphthalene	12	12	500	mg/kg	0.64	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	NA	NA	0.00060 J	ND	0.0010 J	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	NA	NA	***0.26 J***	0.040 J	0.098	ND
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	0.045	ND	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	0.38	ND	0.11	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	NA	NA	0.0050 J	ND	0.0039 J	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	NA	NA	***1.3***	ND	0.091	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	NA	NA	0.010	ND	0.0085	ND
Total VOCs	- -	- -	- -	mg/kg	8.6	NA	NA	2.0 J	22 J	0.33 J	0.32 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	ND	ND	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	ND	ND	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	ND	ND	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	ND	ND	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	ND	ND	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	ND	ND	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					LB-3	LB-3	LB-4	LB-4	LB-5	LB-5	LB-6
Historical Sample Depth (feet):					13.5 - 14	18.5 - 19	4 - 4.5	17.5 - 18	3.5 - 4	16.5 - 17	18 - 18.5
Current Estimated Sample Depth (feet)					17.5 - 18	22.5 - 23	8 - 8.5	21.5 - 22	7.5 - 8	20.5 - 21	22.5 - 23
Date Collected:					03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/10/04	03/11/04
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	0.0021	ND	0.012
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	0.028
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	0.017	ND	0.011
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	0.00078 J	ND	0.035
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0031	0.22	ND	0.060	0.0012	0.043	0.18
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	0.00085 J	ND	ND	0.0029 J
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	0.043	ND	0.24 J	0.0013 J	0.0011 J	***0.57***
Methylene Chloride	0.05	0.05	500	mg/kg	ND	ND	ND	ND	ND	ND	0.024
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	3.2 J	0.21	ND	0.16	ND	0.15	1.0 J
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	0.011	ND	ND	0.032
Trichloroethene	0.47	0.47	200	mg/kg	ND	0.0075 J	ND	0.0027 J	0.0017 J	0.0026 J	***2.9***
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	0.0021 J	ND	ND	0.0068
Total VOCs	- -	- -	- -	mg/kg	3.2 J	0.48 J	ND	0.47 J	0.024 J	0.20 J	4.9 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					LB-7	LB-7	LB-8	LB-8	LB-9	LB-9	LB-10
Historical Sample Depth (feet):					1.5 - 2	14 - 14.5	4 - 4.5	22 - 22.5	2.5 - 3	19.5 - 20	4 - 4.5
Current Estimated Sample Depth (feet)					5.5 - 6	18 - 18.5	8 - 8.5	26 - 26.5	6.5 - 7	23.5 - 24	8 - 8.5
Date Collected:					03/15/04	03/15/04	03/11/04	03/11/04	03/11/04	03/11/04	03/12/04
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.0041	***3.3***	ND	***0.18***	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	0.30	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	***38***	ND	0.078	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	0.0025	ND	***13***	ND	0.086 J	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	0.0060	ND	0.014	ND	0.0065	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	ND	ND	ND	***0.078***	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	0.23	ND	0.089	ND	0.11	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.0025	0.24	54	0.10	0.42 J	0.12	ND
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	LB-10 24 - 24.5 28 - 28.5 03/12/04 Deep Sand Layer - D1 Unit	LB-11 3.5 - 4 7.5 - 8 03/12/04 Shallow Sand Fill - Shallow	LB-11 24 - 24.5 28 - 28.5 03/12/04 Deep Sand Layer - D1 Unit	LB-12 3.5 - 4 7.5 - 8 03/12/04 Shallow Sand Fill - Shallow	LB-12 11.5 - 12 15.5 - 16 03/12/04 Meadow Mat	LB-12 21 - 21.5 25 - 26.5 03/12/04 Deep Sand Layer - D1 Unit	LB-13 3.5 - 4 7.5 - 8 03/11/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.033	ND	ND	0.0013 J	ND	***0.16***
Toluene	0.7	0.7	500	mg/kg	ND	0.055	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	0.0025	ND	0.23	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	0.0087	ND	*0.33*	ND	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.00065 J	0.017	0.0042	ND	ND	0.0052	***0.99***
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	0.0025	ND	ND	ND	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	0.035 J	ND	0.062	ND	ND	0.030 J	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.035 J	0.12	0.066	0.56	0.0013 J	0.035 J	1.1
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					LB-13	MW-16	MW-17	MW-18	MW-19	MW-20	MW-24-VD
Historical Sample Depth (feet):					17.5 - 18	9	4	4	10	11	19 - 19.5
Current Estimated Sample Depth (feet)					21.5	13	8	8	14	15	23 - 23.5
Date Collected:					03/11/04	12/12/95	12/12/95	12/12/95	12/12/95	12/13/95	12/20/06
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Deep Sand Layer - D1 Unit	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.014	NA	NA	NA	NA	NA	ND
Toluene	0.7	0.7	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
Ethylbenzene	1	1	390	mg/kg	ND	NA	NA	NA	NA	NA	ND
Xylenes (total)	0.26	1.6	500	mg/kg	0.0016 J	NA	NA	NA	NA	NA	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.26	NA	NA	NA	NA	NA	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	0.031
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	0.0073
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	NA	NA	NA	NA	NA	0.019
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	0.030	NA	NA	NA	NA	NA	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	NA	NA	NA	NA	NA	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	NA	NA	NA	NA	NA	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	NA	NA	NA	NA	NA	0.0030 J
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	NA	NA	NA	NA	NA	ND
Total VOCs	- -	- -	- -	mg/kg	0.30 J	NA	NA	NA	NA	NA	0.060 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	ND
Acenaphthene	20	98	500	mg/kg	NA	ND	0.66	ND	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	ND
Anthracene	100	1,000	500	mg/kg	NA	ND	1.8	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	ND	***4.4***	ND	ND	ND	ND
Benzo(a)pyrene	1	22	1	mg/kg	NA	ND	*4.0*	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	ND	***4.9***	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	ND	0.76	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	ND	***2.2***	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	ND
Chrysene	1	1	56	mg/kg	NA	ND	***4.2***	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	NA	ND	13	ND	ND	ND	ND
Fluorene	30	386	500	mg/kg	NA	ND	0.71	4.8	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	ND	*0.85*	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	NA	ND	6.5	9.1	ND	ND	0.024 J
Pyrene	100	1,000	500	mg/kg	NA	ND	10	ND	ND	ND	ND
Total SVOCs	- -	- -	- -	mg/kg	NA	ND	54	14	ND	ND	0.024 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	2,190

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-24-VD 68 - 68.5 72 - 72.5 12/21/06 Deep Sand Layer - D3 Unit	MW-24-VD 73 - 73.5 77 - 77.5 12/21/06 Deep Sand Layer - D3 Unit	MW-25-VD 18 - 18.5 22 - 22.5 12/14/06 Deep Sand Layer - D3 Unit	MW-25-VD 68 - 68.5 72 - 72.5 12/15/06 Deep Sand Layer - D3 Unit	MW-26-VD 19 - 21 23 - 25 12/28/06 Deep Sand Layer - D3 Unit	MW-26-VD 58 - 60 62 - 64 12/29/06 Deep Sand Layer - D3 Unit	MW-29-VD 19 - 21 23 - 25 12/26/06 Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	0.0087	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	0.017	0.028	0.021	ND	ND	ND	ND
Carbon Disulfide	- -	- -	- -	mg/kg	ND	ND	0.0097	ND	0.0016 J	0.0014	ND
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	0.015	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	ND	0.031	ND	0.044	ND	***0.11***
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	0.011	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	0.017	0.028	0.097	ND	0.045 J	0.0014	0.11
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	98	500	mg/kg	ND	ND	0.020 J	ND	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	ND	ND	0.018 J	ND	ND	ND	ND
Anthracene	100	1,000	500	mg/kg	ND	ND	0.017 J	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	0.073 J	ND	ND	ND	ND
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	0.078 J	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	0.064 J	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	0.035	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	0.066 J	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.058 J	ND	ND	0.082 B	0.11	0.074	0.14
Chrysene	1	1	56	mg/kg	ND	ND	0.068 J	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	ND	ND	0.15	ND	ND	ND	ND
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	0.034 J	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	ND	ND	0.054 J	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	ND	ND	0.15	ND	ND	ND	ND
Total SVOCs	- -	- -	- -	mg/kg	0.058 J	ND	0.82 J	0.082	0.11	0.074	0.14
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	ND	8,120	ND	ND	ND	1,450	ND

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-29-VD	MW-30-VD	MW-30-VD	MW-32D	MW-32D	MW-33D	MW-33D
Historical Sample Depth (feet):					58 - 60	28 - 30	68 - 70	27 - 27.5	31 - 31.5	19 - 19.5	23 - 23.5
Current Estimated Sample Depth (feet)					62 - 64	32 - 34	72 - 74	31 - 31.5	35 - 35.5	23 - 23.5	27 - 27.5
Date Collected:					12/26/06	12/27/06	12/27/06	12/13/06	12/13/06	12/12/06	12/12/06
Sampling Event:					Deep Sand Layer - D3 Unit	Deep Sand Layer - D3 Unit	Deep Sand Layer - D3 Unit	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit	Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	0.0046	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	- -	- -	- -	mg/kg	ND	0.0024 J	0.0022 J	0.0014 J	0.0029 J	0.0054	0.0018 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.05	0.05	500	mg/kg	ND	0.0083	***0.12***	ND	ND	ND	ND
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	0.028	0.0089 J	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	- -	- -	mg/kg	ND	0.039 J	0.13 J	0.0014 J	0.0029 J	0.0054	0.0018 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	98	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Anthracene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.072	0.12	0.15	0.070	0.091	0.13	0.063
Chrysene	1	1	56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Total SVOCs	- -	- -	- -	mg/kg	0.072	0.12	0.15	0.070	0.091	0.13	0.063
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-34D 25 - 25.5 29- 29.5 12/12/06 Deep Sand Layer - D1 Unit	MW-34D 29 - 29.5 33 - 33.5 12/12/06 Deep Sand Layer - D1 Unit	MW-35D 15 - 15.5 19 - 19.5 12/11/06 Deep Sand Layer - D1 Unit	MW-35D 20 - 20.5 24 - 24.5 12/11/06 Deep Sand Layer - D1 Unit	MW-36D 23 - 23.5 27 - 27.5 12/19/06 Deep Sand Layer - D1 Unit	MW-36D 31 - 31.5 35 - 35.5 12/19/06 Deep Sand Layer - D1 Unit	PX-A1 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	***0.72***
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	0.19
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	***32***
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	ND	ND	ND	ND	***4.2***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	ND	ND	0.0094 J	0.0057 J	ND	0.018	NA
Carbon Disulfide	- -	- -	- -	mg/kg	0.0074	0.011	0.0026 J	0.0027 J	0.0022 J	0.0015	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
Methylene Chloride	0.05	0.05	500	mg/kg	0.0029	0.023	0.0049	0.0051	0.012	ND	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	ND	ND	ND	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	ND	ND	ND	ND	ND	NA
Total VOCs	- -	- -	- -	mg/kg	0.010	0.033	0.017 J	0.014 J	0.014 J	0.019	37
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	7,300
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	NA
Acenaphthene	20	98	500	mg/kg	ND	ND	ND	ND	ND	ND	3.6
Acenaphthylene	100	107	500	mg/kg	ND	ND	ND	ND	ND	ND	NA
Anthracene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	1.4
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	ND	ND	ND	ND	0.43 J
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.11	ND	0.078	0.056	0.088	0.10	NA
Chrysene	1	1	56	mg/kg	ND	ND	ND	ND	ND	ND	0.46 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	1.9
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	5.5
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	61
Pyrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	1.6
Total SVOCs	- -	- -	- -	mg/kg	0.11	ND	0.078	0.056	0.088	0.10	76 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	ND	ND	1,500	ND	1,720	ND	17,700

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	PX-A2 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A3 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A6 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A7 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A8 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-A9 4 - 4.5 8 - 8.5 10/30/02 Shallow Sand Fill - Shallow	PX-B1 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***1.9***	***0.15***	***0.57***	***5.4***	***0.082***	ND	***1.2***
Toluene	0.7	0.7	500	mg/kg	0.42	0.099	0.17	***1.9***	0.38	ND	0.074
Ethylbenzene	1	1	390	mg/kg	***80***	***46***	***9.6***	***98***	***16***	ND	***2.5***
Xylenes (total)	0.26	1.6	500	mg/kg	***37***	*1.3*	***21***	***160***	***87***	0.10	*1.1*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	0.051	0.063
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	120	48	31	260	100	0.15	4.8
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	3,500	76	670	6,400	1,200	ND	4.8
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.2	0.74	0.49	0.55	ND	ND	ND
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.87	0.45 J	0.039 J	0.41 J	ND	ND	0.48
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	ND	0.040 J	ND	ND	ND	0.37
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	ND	ND	ND	ND	0.26
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	ND	0.045 J	ND	ND	ND	0.21
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	0.16
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	0.033 J	ND	ND	ND	0.19
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.31 J	ND	0.061 J	ND	ND	ND	0.33
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	1.2	0.66 J	0.15	0.40 J	ND	ND	1.2
Fluorene	30	386	500	mg/kg	2.4	1.2	0.34	1.5	0.78	ND	1.9
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	0.15
Phenanthrene	100	1,000	500	mg/kg	41	16	0.30	3.3	1.3	0.055	4.5
Pyrene	100	1,000	500	mg/kg	1.0	0.54 J	0.14	0.44	ND	ND	1.0
Total SVOCs	- -	- -	- -	mg/kg	48 J	20 J	1.6 J	6.6 J	2.1	0.055	11
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	6,680	4,480	5.03	6.76	2.38	ND	7,870

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					PX-B2	PX-B3	PX-B4	PX-B5	PX-B6	PX-B7	PX-C1
Historical Sample Depth (feet):					2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	4 - 4.5	2 - 3
Current Estimated Sample Depth (feet)					6 - 7	6 - 7	6 - 7	6 - 7	6 - 7	8 - 8.5	6 - 7
Date Collected:					10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02	10/30/02
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.043	***0.12***	ND	***3.5***	***3.0***	0.050
Toluene	0.7	0.7	500	mg/kg	ND	0.10	ND	ND	0.22	0.11	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	***1.2***	ND	***73***	***22***	***1.4***
Xylenes (total)	0.26	1.6	500	mg/kg	ND	0.20	***1.9***	ND	***6.9***	***3.6***	*0.35*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.022	0.026	0.026	ND	0.096	ND	0.026
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	0.022	0.37	3.2	ND	84	29	1.8
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	400	41	5,400	10,000	6,400	ND	4,200
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	0.077	ND	0.53	1.0	0.74	ND	2.8
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	ND	0.35	1.0	0.87	ND	1.4
Benzo(a)anthracene	1	1	5.6	mg/kg	0.043 J	ND	0.60	0.45	0.91	ND	0.46
Benzo(a)pyrene	1	22	1	mg/kg	ND	ND	0.71	0.30	0.60	ND	0.20
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.038 J	ND	0.79	0.30	0.55	ND	0.22
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	ND	0.27	0.12	0.15	ND	0.095 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	ND	0.56	0.23	0.52	ND	0.18
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.041 J	ND	0.76	0.42	0.89	ND	0.47
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	0.062 J	0.061 J	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.11	ND	1.7	1.3	3.1	ND	2.5
Fluorene	30	386	500	mg/kg	0.15	ND	0.61	2.5	1.7	ND	4.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	0.27	0.12	0.18	ND	ND
Phenanthrene	100	1,000	500	mg/kg	0.38	ND	1.8	5.9	6.4	ND	8.5
Pyrene	100	1,000	500	mg/kg	0.10	ND	1.6	1.4	2.1	ND	1.9
Total SVOCs	- -	- -	- -	mg/kg	0.94 J	ND	11	15 J	19 J	ND	23 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	2,180	2,500	15,200	15,200	8,330	3,670	5,990

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	PX-C2 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C3 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C4 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C5 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C6 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-C7 4 - 4.5 8 - 8.5 10/30/02 Shallow Sand Fill - Shallow	PX-D1 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.042	ND	0.039	***0.23***	***0.066***	ND	***6.0***
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	0.48
Ethylbenzene	1	1	390	mg/kg	***3.3***	0.70	***20***	***6.6***	***4.8***	ND	***53***
Xylenes (total)	0.26	1.6	500	mg/kg	*0.83*	ND	*0.38*	*1.1*	*0.27*	ND	***3.6***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.031	0.031	0.029	ND	ND	0.035	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	4.2	0.73	21	7.9	5.1	0.035	63
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	6,100	7,400	9,400	8,800	5,000	ND	720
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	1.2	1.5	ND	0.58	0.61	ND	0.66
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	0.59	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	1	5.6	mg/kg	0.22	0.14	0.12	0.051 J	0.047 J	ND	0.096
Benzo(a)pyrene	1	22	1	mg/kg	0.10	0.086	0.077	ND	ND	ND	0.082
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.10	0.10	0.11	0.040 J	ND	ND	0.12
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.055 J	ND	ND	ND	ND	ND	0.050
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.080	0.071	0.068 J	0.033 J	0.027 J	ND	0.10
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.023	0.17	0.14	0.063 J	0.061 J	ND	0.15
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	1.3	0.80	0.53	0.27	0.25	ND	0.37
Fluorene	30	386	500	mg/kg	2.2	2.0	3.5	0.90	1.2	ND	1.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	1,000	500	mg/kg	5.8	7.6	5.7	4.0	3.1	ND	3.0
Pyrene	100	1,000	500	mg/kg	0.95	0.64	0.50	0.24	0.23	ND	0.35
Total SVOCs	- -	- -	- -	mg/kg	12 J	13	11 J	6.1 J	5.5 J	ND	6.3
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	4,630	10,100	10,800	5,350	3,380	6,980	13,800

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Historical Sample Depth (feet): / Current Estimated Sample Depth (feet) / Date Collected: / Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	PX-D2 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-D3 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-D4 2 - 3 6 - 7 10/30/02 Shallow Sand Fill - Shallow	PX-D5 4 - 4.5 8 - 8.5 10/30/02 Shallow Sand Fill - Shallow	PX-EAST 2 - 3 6 - 7 11/18/04 Shallow Sand Fill - Shallow	PX-SOUTH 2 - 3 6 - 7 11/18/04 Shallow Sand Fill - Shallow	T12-D1 3 - 3.5 7 - 7.5 11/17/04 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***14***	***0.52***	***7.9***	ND	***3.1***	***1.7***	***11***
Toluene	0.7	0.7	500	mg/kg	***2.1***	0.11	***0.72***	ND	0.33	ND	0.36
Ethylbenzene	1	1	390	mg/kg	***230***	***3.1***	***63***	ND	***17***	***3.3***	***6.7***
Xylenes (total)	0.26	1.6	500	mg/kg	***400***	*1.5*	***7.6***	ND	***3.1***	*0.60*	***2.1***
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	0.034	ND	0.030	ND	ND	ND
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	***16***	1.0	3.3
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	4.7	1.8	2.4
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	1.9	0.23 J	0.70 J
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	2.9	0.38 J	0.90
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	7.1	3.0	8.5
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	***13***	***4.6***	***5.1***
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.96 J	0.17 J	0.67 J
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	2.1	0.99	1.9
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	0.28 J	0.097 J	0.36 J
Tertiary butyl alcohol	- -	- -	- -	mg/kg	ND	ND	ND	ND	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	650	5.2	79	0.030	73 J	18 J	44 J
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	18,000	7,400	13,000	12,000	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	3.2	NA	4.1	NA	0.78	0.98	3.0
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.75	ND	1.1
Benzo(a)anthracene	1	1	5.6	mg/kg	ND	NA	ND	NA	0.25	0.46	0.82
Benzo(a)pyrene	1	22	1	mg/kg	ND	NA	ND	NA	0.15	0.60	0.56
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	ND	NA	ND	NA	0.17	0.95	0.87
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	ND	NA	ND	NA	0.038 J	0.13 J	0.51
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	ND	NA	ND	NA	0.21	0.68	0.48
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	ND	NA	0.37 J	NA	0.27	0.84	0.91
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	NA	ND	NA	ND	ND	ND
Fluoranthene	100	1,000	500	mg/kg	0.60	NA	1.1	NA	0.83	1.2	2.7
Fluorene	30	386	500	mg/kg	5.4	NA	7.5	NA	1.3	1.6	4.3
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	ND	NA	ND	NA	ND	0.16 J	0.45
Phenanthrene	100	1,000	500	mg/kg	12	NA	15	NA	6.3	5.2	11
Pyrene	100	1,000	500	mg/kg	1.1	NA	1.3	NA	0.66	1.5	3.1
Total SVOCs	- -	- -	- -	mg/kg	22	NA	29 J	NA	12 J	14 J	30
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	11,400	3,880	14,700	ND	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	T12-D2	T12-S1	T12-S2	T-110 (NE)	T-110 (NW)	T-110 (SE)	T-110 (SW)
Historical Sample Depth (feet):					3 - 3.5	1.5 - 2	1.5 - 2	1 - 2	1 - 2	1 - 2	1 - 2
Current Estimated Sample Depth (feet)					7 - 7.5	5.5 - 6	5.5 - 6	5 - 6	5 - 6	5 - 6	5 - 6
Date Collected:					11/18/04	11/16/04	11/18/04	01/31/03	01/31/03	01/31/03	01/31/03
Sampling Event:					Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	***23***	***8.2***	***17***	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	0.52	ND	0.54	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	***13***	***3.6***	***13***	ND	ND	ND	0.0090
Xylenes (total)	0.26	1.6	500	mg/kg	***2.8***	*1.4*	***3.6***	0.042	0.024	0.022	0.098
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	3.5	2.4	6.5	ND	ND	ND	ND
Isopropylbenzene	- -	- -	- -	mg/kg	3.1	1.7	2.1	ND	ND	ND	ND
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.67 J	0.36 J	2.3	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	1.1 J	0.55 J	2.9	ND	ND	ND	ND
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	6.3	4.2	3.9	ND	ND	ND	ND
n-Propylbenzene	3.9	3.9	500	mg/kg	***6.7***	3.4	***4.6***	ND	ND	ND	ND
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.90	0.54 J	0.87 J	ND	ND	ND	ND
sec-Butylbenzene	11	11	500	mg/kg	2.0	1.2 J	1.2 J	ND	ND	ND	ND
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	0.010	ND	ND	0.0070
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.41 J	0.28 J	0.26 J	ND	ND	ND	ND
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	63 J	28 J	59 J	0.052	0.024	0.022	0.11
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	ND	ND	ND	ND
Acenaphthene	20	98	500	mg/kg	2.3	1.4	1.9	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	1.2	0.47	0.92	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.50	0.34	0.62	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.39	0.23	0.45	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.42	0.27	0.56	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.29	0.20 J	0.16 J	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.30	0.25	0.39	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	0.64	0.35	0.74	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	ND	ND	ND	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	1.8	1.1	2.1	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	2.9	1.9	2.9	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.30	0.15 J	0.16 J	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	8.2	4.7	7.9	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	1.7	1.3	1.5	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	21	13 J	20 J	ND	ND	ND	ND
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	T-111 (NE) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-111 (NW) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-111 (SE) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-111 (SW) 1 - 2 5 - 6 01/31/03 Shallow Sand Fill - Shallow	T-112 (NE) 1 - 2 5 - 6 01/28/03 Shallow Sand Fill - Shallow	T-112 (NW) 1 - 2 5 - 6 01/28/03 Shallow Sand Fill - Shallow	T-112 (SE) 1 - 2 5 - 6 01/28/03 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	0.7	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	ND	0.0060	ND	ND	ND	*0.56*
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	12	500	mg/kg	ND	ND	ND	ND	ND	ND	0.079
Isopropylbenzene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	ND	ND	ND	ND	ND	ND	0.27
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	ND	ND	ND	ND	ND	ND	4.2
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	12	12	500	mg/kg	ND	ND	ND	ND	ND	ND	1.4
n-Propylbenzene	3.9	3.9	500	mg/kg	ND	ND	ND	ND	ND	ND	0.051
p-Isopropyltoluene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	0.056
sec-Butylbenzene	11	11	500	mg/kg	ND	ND	ND	ND	ND	ND	0.024
Styrene	- -	- -	- -	mg/kg	0.012	0.0050	0.0090	0.014	ND	ND	ND
tert-Butylbenzene	5.9	5.9	500	mg/kg	ND	ND	ND	ND	ND	ND	0.037
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.47	0.47	200	mg/kg	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	- -	- -	mg/kg	0.012	0.0050	0.015	0.014	ND	ND	6.7
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	2.8
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	ND	ND	ND	ND	ND	ND	2.8
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	T-112 (SW)	VRU-4	VRU-4	VRU-4	VRU-7	VRU-7	VRU-7
Historical Sample Depth (feet):					1 - 2	9.5 - 10	10.5 - 11	17.5 - 18	7.5 - 8	12 - 12.5	14 - 14.5
Current Estimated Sample Depth (feet)					5 - 6	13.5 - 14	14.5 - 15	21.5 - 22	11.5 - 12	16 - 16.5	18 - 18.5
Date Collected:					01/28/03	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04	09/22/04
Sampling Event:					Shallow Sand Fill - Shallow	Meadow Mat	Meadow Mat	Meadow Mat	Meadow Mat	Meadow Mat	Meadow Mat
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	ND	0.042	***0.76***	ND	ND	0.0093	ND
Toluene	0.7	0.7	500	mg/kg	ND	0.19	0.32	ND	ND	0.0050	ND
Ethylbenzene	1	1	390	mg/kg	ND	0.20	0.21	ND	0.032	0.38	ND
Xylenes (total)	0.26	1.6	500	mg/kg	*0.43*	*0.68*	*0.61*	ND	0.071	*0.70*	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	ND	***2.2***	***18***	ND	0.0088	0.48	0.0078
Naphthalene	12	12	500	mg/kg	0.38	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	ND	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	NA	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	0.51	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	4.5	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	NA	***2.2***	0.052	0.0054 J	0.13	***0.44***	ND
Methylene Chloride	0.05	0.05	500	mg/kg	NA	0.029	0.0099	***0.24***	***0.086***	***0.14***	0.030
n-Butylbenzene	12	12	500	mg/kg	1.4	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	0.091	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	0.11	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	0.028	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	ND	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	0.029	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	NA	2.8	22	5.5	ND	1.5	0.41
Tetrachloroethene	1.3	1.3	150	mg/kg	NA	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	NA	0.055	0.029	ND	ND	0.0049 J	ND
Trichloroethene	0.47	0.47	200	mg/kg	NA	0.0020 J	ND	ND	ND	ND	ND
Vinyl Chloride	0.02	0.02	13	mg/kg	NA	***0.052***	***0.20***	ND	ND	***1.4 E***	ND
Total VOCs	- -	- -	- -	mg/kg	7.5	8.5 J	43	5.7 J	0.33	5.0 J	0.44
TPH											
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics											
2-Methylnaphthalene	- -	- -	- -	mg/kg	4.4	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	ND	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	ND	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	4.4	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	4.64	33	22.2	ND	10,800	18,100

See Notes on Page 23.

Table 4
Summary of Pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth (feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	VRU-8 8 - 8.5 12 - 12.5 09/22/04 Meadow Mat	VRU-8 10.5 14.5 09/22/04 Meadow Mat	VRU-8 14 - 14.5 18 - 18.5 09/22/04 Meadow Mat	VRU-9 7.5 - 8 11.5 - 12 09/22/04 Meadow Mat	VRU-9 9.5 - 10 13.5 - 14 09/22/04 Meadow Mat	VRU-9 12.5 - 13 16.5 - 17 09/22/04 Meadow Mat
Volatile Organics										
Benzene	0.06	0.06	44	mg/kg	ND	***0.083***	ND	0.012	0.040	***0.083***
Toluene	0.7	0.7	500	mg/kg	ND	0.029	ND	0.0034	ND	ND
Ethylbenzene	1	1	390	mg/kg	ND	0.012	ND	ND	ND	ND
Xylenes (total)	0.26	1.6	500	mg/kg	ND	0.044	ND	0.0049	ND	ND
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.18	0.14	0.035	0.0060	0.32	0.56
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA
Isopropylbenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.33	0.33	500	mg/kg	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	3.6	190	mg/kg	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	8.4	8.4	190	mg/kg	NA	NA	NA	NA	NA	NA
Acetone	0.05	0.05	500	mg/kg	NA	NA	NA	NA	NA	NA
Carbon Disulfide	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	***0.40***	ND	0.051	0.12	0.13	***0.27***
Methylene Chloride	0.05	0.05	500	mg/kg	***0.056***	0.039	***0.19***	0.016	***0.051***	***0.12***
n-Butylbenzene	12	12	500	mg/kg	NA	NA	NA	NA	NA	NA
n-Propylbenzene	3.9	3.9	500	mg/kg	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	11	11	500	mg/kg	NA	NA	NA	NA	NA	NA
Styrene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5.9	5.9	500	mg/kg	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	- -	- -	mg/kg	0.26	3.9	1.7	ND	3.0	3.3
Tetrachloroethene	1.3	1.3	150	mg/kg	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	ND	ND	ND	0.0016 J	ND	0.016 J
Trichloroethene	0.47	0.47	200	mg/kg	ND	ND	ND	0.0031 J	0.0059 J	0.036
Vinyl Chloride	0.02	0.02	13	mg/kg	ND	***0.026 J***	ND	0.016	***0.42***	***0.21***
Total VOCs	- -	- -	- -	mg/kg	0.89	4.2 J	1.9	0.18 J	3.9 J	4.6 J
TPH										
Total Petroleum Hydrocarbons	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
Semivolatile Organics										
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	NA	NA
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	NA	NA
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	NA	NA
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	NA	NA
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA
TOC										
Total Organic Carbon	- -	- -	- -	mg/kg	1,320	20,100	17,200	ND	27,100	16,500

See Notes on Page 23.

Table 4
Summary of pre-2010 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Unrestricted Use SCO, Restricted use SCO for commercial use, and protection of groundwater are from 6 NYCRR Part 375-6.8.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   - Gray font = Analyte was not detected.
   - Italic font = Analyte was detected above unrestricted use SCO.
   - Black Bold Italic font = Analyte detected above restricted - protection of groundwater SCO.
   - Gray Shading = Analyte detected above restricted - commercial use SCO.
4. Abbreviations:
   - - - = 6 NYCRR SCO not available.
   - 6 NYCRR = Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.
   - ft = feet.
   - mg/kg = milligrams per kilogram or part per million.
   - NA = Not Analyzed.
   - ND = Not detected.
   - SCO = Soil Cleanup Objectives.
   - VOC = Volatile Organic Compounds.
   - SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   - B = Analyte was detected in the blank and sample.
   - E = Analyte exceeded calibration range.
   - J = Estimated value. Result is greater than the RL but less than the MDL.
   - R = Rejected results.
   - U = Analyte not detected at listed reporting detection limit.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.13 U	0.12 U	***0.11 J***	0.0053 U	0.23 U	0.10 U	0.0055 U
Toluene	0.7	0.7	500	mg/kg	0.11 J	0.20	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Ethylbenzene	1	1	390	mg/kg	***2.4***	***6.7***	***2.0***	0.0053 U	0.20 J	0.088 J	0.0055 U
Xylenes (total)	0.26	1.6	500	mg/kg	***5.2***	***6.1***	*0.26*	0.011 U	0.46 U	0.20 U	0.011 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Isopropylbenzene	- -	- -	- -	mg/kg	1.2	3.5	1.6	0.0053 U	0.39	0.22	0.0055 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
2-Butanone	0.12	0.12	500	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
2-Hexanone	- -	- -	- -	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
Acetone	0.05	0.05	500	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Bromoform	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Bromomethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.13 UJ	0.12 UJ	0.12 UJ	0.0053 U	0.23 U	0.10 U	0.0055 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Chloroethane	- -	- -	- -	mg/kg	0.13 UJ	0.12 UJ	0.12 UJ	0.0053 U	0.23 U	0.10 U	0.0055 U
Chloroform	0.37	0.37	350	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Chloromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Cyclohexane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Methyl acetate	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Methylcyclohexane	- -	- -	- -	mg/kg	2.9	2.5	2.4	0.0053 U	3.2	1.3	0.0055 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.13 UJ	0.12 UJ	***0.062 J***	0.0052 J	0.23 U	0.10 U	0.0062
Styrene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Total VOCs	- -	- -	- -	mg/kg	12 J	19	6.4 J	0.0052 J	3.8 J	1.6 J	0.0062
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Trichloroethene	0.47	0.47	200	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	5.4	11	2.6 J	0.18 U	2.5	0.44 J	3.6 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.58 J	0.61 J	0.029 J	0.18 U	1.0 U	0.88 U	3.6 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	R	1.7 U	7.0 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Chlorophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	16	27	4.2 J	0.18 U	9.5	1.2	3.6 U
2-Methylphenol	0.33	0.33	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
2-Nitrophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	R	0.88 U	3.6 U
3-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chloroaniline	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Methylphenol	0.33	0.33	500	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
4-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
4-Nitrophenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
Acenaphthene	20	98	500	mg/kg	0.99 J	0.81 J	0.12 J	0.18 U	1.1	0.46 J	3.6 U
Acenaphthylene	100	107	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Acetophenone	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 UJ
Anthracene	100	1,000	500	mg/kg	0.37 J	0.43 J	0.050 J	0.18 U	1.0 U	0.88 U	3.6 U
Atrazine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Benzaldehyde	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.37 J	0.26 J	0.019 J	0.020 J	0.42 J	0.26 J	0.44 J
Benzo(a)pyrene	1	22	1	mg/kg	0.23 J	2.0 U	0.21 U	0.018 J	0.36 J	0.30 J	0.42 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.27 J	0.20 J	0.21 U	0.021 J	0.42 J	0.38 J	0.52 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.18 J	2.0 U	0.21 U	0.014 J	0.25 J	0.24 J	0.30 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	0.21 J	0.88 U	3.6 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	2.2 UB	2.0 UB	0.21 UB	0.18 U	1.0 U	0.88 U	3.6 U
Butylbenzylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Caprolactam	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	R	0.88 U	3.6 U
Carbazole	- -	- -	- -	mg/kg	0.14 J	2.0 U	0.033 J	0.18 U	1.0 U	0.88 U	3.6 U
Chrysene	1	1	56	mg/kg	0.29 J	0.23 J	0.017 J	0.018 J	0.42 J	0.29 J	0.44 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Dibenzofuran	7	210	350	mg/kg	0.79 J	0.76 J	0.13 J	0.18 U	0.79 J	0.88 U	3.6 U
Diethylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Dimethylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 UJ	0.88 U	3.6 U
Fluoranthene	100	1,000	500	mg/kg	1.0 J	0.69 J	0.059 J	0.036 J	1.3	0.77 J	1.0 J
Fluorene	30	386	500	mg/kg	1.1 J	1.3 J	0.29 J	0.18 U	1.5	0.66 J	3.6 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachloroethane	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	0.20 J	0.16 J	3.6 U
Isophorone	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Nitrobenzene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
Phenanthrene	100	1,000	500	mg/kg	3.6	3.2	0.45	0.022 J	3.0	1.0	0.74 J
Phenol	0.33	0.33	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Pyrene	100	1,000	500	mg/kg	0.94 J	0.67 J	0.058 J	0.029 J	1.3	1.0	0.83 J
Total SVOCs	- -	- -	- -	mg/kg	32 J	47 J	8.1 J	0.18 J	23 J	7.2 J	4.7 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	4,860 J	2,230 J	2,810 J	8,070 J	1,390 J	4,010 J	3,660 J
Antimony	- -	- -	- -	mg/kg	19.9 U	18.1 U	18.4 U	16.1 U	17.7 U	15.7 U	16.4 U
Arsenic	13	16	16	mg/kg	2.00 J	2.20 J	2.30 J	3.80	1.10 J	2.00 J	***16.2***
Barium	350	820	400	mg/kg	26.7	14.0	16.0	26.6	7.89	22.1	32.5
Beryllium	7.2	47	590	mg/kg	0.224 J	0.166 J	0.113 J	0.362	0.0530 J	0.186 J	0.174 J
Cadmium	2.5	7.5	9.3	mg/kg	0.282 J	0.231 J	0.246 UBJ	0.193 J	0.0550 J	0.0920 J	0.199 J
Calcium	- -	- -	- -	mg/kg	28,000	113,000	1,670	556	218	428	5,420
Chromium	- -	- -	- -	mg/kg	7.46	4.68	5.67	10.6	2.53	5.58	7.77
Cobalt	- -	- -	- -	mg/kg	2.44	1.76	1.76	4.27	0.924	2.64	2.04
Copper	50	1,720	270	mg/kg	14.5 J	7.00 J	7.40 J	4.80	1.50	4.00	11.5
Ferrous Iron	- -	- -	- -	mg/kg	0.600 J	1.60 J	0.500 J	R	R	1.70 J	R
Iron	- -	- -	- -	mg/kg	5,670 J	5,180 J	5,450 J	10,100 J	1,860 J	5,410 J	6,630 J
Lead	63	450	1,000	mg/kg	*69.6 J*	52.4 J	25.9 J	8.20 J	4.70 J	9.00 J	50.8 J
Magnesium	- -	- -	- -	mg/kg	5,250	63,000	1,330	1,070	309	638	2,300
Manganese	1,600	2,000	10,000	mg/kg	76.6 J	100 J	68.7 J	246	25.4	60.8	63.1
Mercury	0.18	0.73	2.8	mg/kg	0.0329	0.0525	0.0184 J	0.0173 J	0.0240 U	0.0226	0.0785
Nickel	30	130	310	mg/kg	7.11	4.78 J	5.19 J	6.07 J	1.58 J	4.47 J	4.81 J
Potassium	- -	- -	- -	mg/kg	548	490	498	305 J	202 J	298 J	432 J
Selenium	3.9	4	1,500	mg/kg	5.30 U	4.80 U	4.90 U	4.30 U	4.70 U	4.20 U	4.40 U
Silver	2	8.3	1,500	mg/kg	0.662 U	0.602 U	0.614 U	0.536 U	0.590 U	0.523 U	0.546 U
Sodium	- -	- -	- -	mg/kg	119 J	153 J	66.9 J	83.1 J	34.0 J	36.2 J	524
Thallium	- -	- -	- -	mg/kg	7.90 U	7.20 U	7.40 U	6.40 U	7.10 U	6.30 U	6.60 U
Vanadium	- -	- -	- -	mg/kg	8.76	11.5	8.45	13.6	3.38	7.78	9.48
Zinc	109	2,480	10,000	mg/kg	57.3 J	21.1 J	20.2 J	20.8	4.40	10.3	51.6
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	78 J	400	570 J	170	60 J	110 U	89 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	6,440	7,720	6,430 J	2,320	8,850	3,610	4,960

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Toluene	0.7	0.7	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Ethylbenzene	1	1	390	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.071 U	0.011 U	0.011 U	0.013 U	0.26 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0046 J	0.13 U	0.0058 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0057 U	0.016 J	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0019 J
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
2-Butanone	0.12	0.12	500	mg/kg	0.011 J	0.034 J	0.027 U	0.027 U	0.0052 J	0.66 U	0.029 U
2-Hexanone	- -	- -	- -	mg/kg	0.028 U	0.18 U	0.027 U	0.027 U	0.032 U	0.66 U	0.029 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.028 U	0.18 U	0.027 U	0.027 U	0.032 U	0.66 U	0.029 U
Acetone	0.05	0.05	500	mg/kg	***0.059***	***0.18***	0.0063 J	0.037	***0.050***	0.66 U	0.019 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Bromoform	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Bromomethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0053 J	0.13 UJ	0.0058 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Chloroethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ	0.0065 UJ	0.13 UJ	0.0058 U
Chloroform	0.37	0.37	350	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Chloromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0015 J	0.13 U	0.0058 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Cyclohexane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 UJ	0.0055 UJ	0.0065 UJ	0.13 U	0.0058 U
Methyl acetate	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0057 U	0.018 J	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0019 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.0090	0.049	0.0076	0.016	0.023	0.13 UJ	0.0094 UB
Styrene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Total VOCs	- -	- -	- -	mg/kg	0.079 J	0.30 J	0.014 J	0.053	0.093 J	ND	0.023 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0032 J	0.13 U	0.0058 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.088 J	0.029 J	0.18 U	0.19 U	0.22 U	0.85	0.30
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.070 J	0.033 J
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.24 J	0.097 J	0.18 U	0.19 U	0.22 U	0.40	0.13 J
2-Methylphenol	0.33	0.33	500	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
Acenaphthene	20	98	500	mg/kg	0.14 J	0.026 J	0.18 U	0.19 U	0.22 U	0.90	0.36
Acenaphthylene	100	107	500	mg/kg	0.38 U	0.025 J	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	0.38 UJ	0.24 UJ	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Anthracene	100	1,000	500	mg/kg	0.27 J	0.052 J	0.017 J	0.017 J	0.22 U	0.16 J	0.081 J
Atrazine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.56	0.15 J	0.088 J	0.054 J	0.024 J	0.079 J	0.048 J
Benzo(a)pyrene	1	22	1	mg/kg	0.54	0.16 J	0.087 J	0.056 J	0.025 J	0.037 J	0.027 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.63	0.19 J	0.093 J	0.064 J	0.028 J	0.067 JY	0.040 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.39	0.12 J	0.061 J	0.043 J	0.021 J	0.016 J	0.024 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.25 J	0.074 J	0.033 J	0.19 U	0.22 U	0.069 JY	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.96	0.63	0.42	0.11 J	0.098 J	0.23 UB	0.29 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.15 J	0.19 U	0.22 U	0.23 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	0.13 J	0.029 J	0.18 U	0.19 U	0.22 U	0.32	0.075 J
Chrysene	1	1	56	mg/kg	0.64	0.17 J	0.082 J	0.050 J	0.021 J	0.065 J	0.041 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.11 J	0.036 J	0.017 J	0.19 U	0.22 U	0.23 U	0.20 U
Dibenzofuran	7	210	350	mg/kg	0.11 J	0.027 J	0.18 U	0.19 U	0.22 U	0.56	0.20
Diethylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	1.1	0.28	0.17 J	0.11 J	0.041 J	0.48	0.25
Fluorene	30	386	500	mg/kg	0.28 J	0.064 J	0.18 U	0.19 U	0.22 U	0.53	0.20
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.34 J	0.10 J	0.049 J	0.033 J	0.22 U	0.23 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
Phenanthrene	100	1,000	500	mg/kg	1.1	0.27	0.090 J	0.041 J	0.22 U	1.3	0.58
Phenol	0.33	0.33	500	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Pyrene	100	1,000	500	mg/kg	1.0	0.24	0.16 J	0.088 J	0.035 J	0.32	0.19 J
Total SVOCs	- -	- -	- -	mg/kg	8.9 J	2.8 J	1.5 J	0.67 J	0.29 J	6.2 J	2.6 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	3,620 J	8,470 J	4,490 J	3,290 J	4,510 J	5,460 J	4,040 J
Antimony	- -	- -	- -	mg/kg	17.1 U	20.9 U	16.4 U	16.8 U	19.3 U	20.0 U	17.6 U
Arsenic	13	16	16	mg/kg	***20.1***	10.6	3.10 J	2.00 J	4.10 J	4.70	4.50
Barium	350	820	400	mg/kg	44.4	44.6	26.0	28.5	13.2	26.3	18.6
Beryllium	7.2	47	590	mg/kg	0.185 J	0.448	0.200 J	0.142 J	0.195 J	0.264 J	0.173 J
Cadmium	2.5	7.5	9.3	mg/kg	0.356	0.468	0.463 J	0.224 UBJ	0.258 UBJ	0.267 UB	0.235 UBJ
Calcium	- -	- -	- -	mg/kg	1,520	2,140	875	743	1,450	1,770	1,560 B
Chromium	- -	- -	- -	mg/kg	6.12	22.7	7.94	7.96	12.1	12.9	9.82
Cobalt	- -	- -	- -	mg/kg	2.12	4.84	2.72	2.27	3.05	3.47	2.76
Copper	50	1,720	270	mg/kg	11.5	14.7	8.40	7.20	5.60	9.70 J	11.4 J
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	R	R	R
Iron	- -	- -	- -	mg/kg	5,890 J	18,200 J	10,600	5,780	9,990	12,000 J	9,160 J
Lead	63	450	1,000	mg/kg	*80.2 J*	43.8 J	22.4 J	18.5 J	6.60 J	15.1 J	14.0 J
Magnesium	- -	- -	- -	mg/kg	577	2,900	878	766	1,950	2,210	1,800
Manganese	1,600	2,000	10,000	mg/kg	52.6	180	119 J	55.2 J	82.8 J	111 J	92.4 J
Mercury	0.18	0.73	2.8	mg/kg	*0.199*	0.122	0.0492	*0.189*	0.0219 J	0.0285	0.0187 J
Nickel	30	130	310	mg/kg	4.56 J	13.0 J	5.49	4.87 J	7.91	9.80	7.78
Potassium	- -	- -	- -	mg/kg	332 J	1,630 J	541	420	1,010	1,210	825
Selenium	3.9	4	1,500	mg/kg	4.60 U	5.60 U	0.600 J	0.600 J	0.700 J	5.30 U	4.70 U
Silver	2	8.3	1,500	mg/kg	0.571 U	0.698 U	0.548 U	0.559 U	0.644 U	0.667 U	0.587 U
Sodium	- -	- -	- -	mg/kg	153 J	392	70.5 J	131 J	742	289	231
Thallium	- -	- -	- -	mg/kg	6.90 U	8.40 U	6.60 U	6.70 U	7.70 U	8.00 U	7.00 U
Vanadium	- -	- -	- -	mg/kg	7.67	24.8	9.26	7.66	13.7	17.9	12.9
Zinc	109	2,480	10,000	mg/kg	96.9	75.0	*120 J*	29.0 J	23.4 J	30.2 J	28.1 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	120 U	130 J	350	290	150	1,500	1,500
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	3,250	15,800	5,020	2,900	22,300	7,270	9,840

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.17 U	0.0027 J	0.0075 U	0.0077 U	0.00050 J	0.13 U	0.0011 J
Toluene	0.7	0.7	500	mg/kg	0.17 U	0.0027 JB	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0011 J
Ethylbenzene	1	1	390	mg/kg	0.17 U	0.016	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0011 J
Xylenes (total)	0.26	1.6	500	mg/kg	0.33 U	0.014	0.015 U	0.015 U	0.013 U	0.26 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.17 U	0.0049 U	0.027	0.022	0.083	0.050 J	0.0026 J
Isopropylbenzene	- -	- -	- -	mg/kg	0.17 U	0.0038 J	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 UF1	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 UF1	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.17 U	0.0048 J	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 UF1	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
2-Butanone	0.12	0.12	500	mg/kg	0.83 U	0.025 U	0.037 UF1	0.038 U	0.033 U	0.66 U	0.029 U
2-Hexanone	- -	- -	- -	mg/kg	0.83 U	0.025 U	0.037 UF1	0.038 U	0.033 U	0.66 U	0.029 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.83 U	0.025 U	0.037 UF1	0.038 U	0.033 U	0.66 U	0.029 U
Acetone	0.05	0.05	500	mg/kg	0.83 U	0.032	0.037 U	0.038 U	0.033 U	0.66 U	0.029 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Bromoform	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Bromomethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.17 UJ	0.0049 U	0.012	0.0077 U	0.0058 J	0.13 U	0.0078
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chloroethane	- -	- -	- -	mg/kg	0.17 UJ	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chloroform	0.37	0.37	350	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Chloromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Cyclohexane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methyl acetate	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.17 U	0.037	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.17 UJ	0.0049 U	0.0075 U	0.0077 U	0.0099 B	0.13 U	0.049
Styrene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Total VOCs	- -	- -	- -	mg/kg	ND	0.11 J	0.039	0.022	0.099 J	0.12 J	0.063 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Trichloroethene	0.47	0.47	200	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	***0.067 J***	0.0059 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	4.7	NA	0.24 U	NA	2.1 U	NA	NA
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.50 J	NA	0.24 U	NA	2.1 UF1	NA	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,4-Dinitrophenol	- -	- -	- -	mg/kg	1.1 U	NA	2.3 U	NA	21 U	NA	NA
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Chlorophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Methylnaphthalene	- -	- -	- -	mg/kg	2.3	NA	0.24 U	NA	2.1 U	NA	NA
2-Methylphenol	0.33	0.33	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
2-Nitrophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.56 U	NA	0.46 U	NA	4.1 U	NA	NA
3-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chloroaniline	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF2	NA	NA
4-Methylphenol	0.33	0.33	500	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Nitrophenol	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 UF1	NA	NA
Acenaphthene	20	98	500	mg/kg	4.2	NA	0.24 U	NA	2.1 U	NA	NA
Acenaphthylene	100	107	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Acetophenone	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Anthracene	100	1,000	500	mg/kg	1.4	NA	0.24 U	NA	2.1 U	NA	NA
Atrazine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Benzaldehyde	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.54 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.20 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.28 J	NA	0.24 U	NA	2.1 UF2	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.094 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.086 J	NA	0.24 U	NA	2.1 U	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1F2	NA	NA
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.56 UB	NA	0.24 U	NA	2.1 U	NA	NA
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Caprolactam	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Carbazole	- -	- -	- -	mg/kg	1.6	NA	0.24 U	NA	2.1 U	NA	NA
Chrysene	1	1	56	mg/kg	0.46 J	NA	0.24 U	NA	2.1 U	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Dibenzofuran	7	210	350	mg/kg	3.0	NA	0.24 U	NA	2.1 U	NA	NA
Diethylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Dimethylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Fluoranthene	100	1,000	500	mg/kg	4.0	NA	0.24 U	NA	2.1 U	NA	NA
Fluorene	30	386	500	mg/kg	3.4	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachloroethane	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.074 J	NA	0.24 U	NA	2.1 U	NA	NA
Isophorone	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF2	NA	NA
Nitrobenzene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
Phenanthrene	100	1,000	500	mg/kg	11	NA	0.24 U	NA	2.1 U	NA	NA
Phenol	0.33	0.33	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Pyrene	100	1,000	500	mg/kg	2.6	NA	0.24 U	NA	2.1 U	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	40 J	NA	ND	NA	ND	NA	NA
Inorganics											
Aluminum	- -	- -	- -	mg/kg	3,750 J	NA	2,810 F1	NA	3,130	NA	NA
Antimony	- -	- -	- -	mg/kg	25.1 U	NA	21.8 U	NA	18.8 U	NA	NA
Arsenic	13	16	16	mg/kg	8.40	NA	1.90 J	NA	0.950 J	NA	NA
Barium	350	820	400	mg/kg	32.7	NA	5.50	NA	10.1	NA	NA
Beryllium	7.2	47	590	mg/kg	0.254 J	NA	0.120 J	NA	0.0530 J	NA	NA
Cadmium	2.5	7.5	9.3	mg/kg	0.334 UBJ	NA	0.290 U	NA	0.250 U	NA	NA
Calcium	- -	- -	- -	mg/kg	1,500	NA	235	NA	286 B	NA	NA
Chromium	- -	- -	- -	mg/kg	17.2	NA	5.50	NA	6.30	NA	NA
Cobalt	- -	- -	- -	mg/kg	2.81	NA	0.930	NA	1.40	NA	NA
Copper	50	1,720	270	mg/kg	35.1 J	NA	2.60	NA	4.70	NA	NA
Ferrous Iron	- -	- -	- -	mg/kg	R	NA	NA	NA	NA	NA	NA
Iron	- -	- -	- -	mg/kg	15,500 J	NA	3,280 F1	NA	4,510	NA	NA
Lead	63	450	1,000	mg/kg	10.2 J	NA	2.60	NA	2.60	NA	NA
Magnesium	- -	- -	- -	mg/kg	1,330	NA	592	NA	878	NA	NA
Manganese	1,600	2,000	10,000	mg/kg	54.2 J	NA	28.5 BF1	NA	46.0	NA	NA
Mercury	0.18	0.73	2.8	mg/kg	0.0389	NA	0.0260 U	NA	0.0250 U	NA	NA
Nickel	30	130	310	mg/kg	5.83 J	NA	3.80 J	NA	4.20 J	NA	NA
Potassium	- -	- -	- -	mg/kg	801	NA	371	NA	595	NA	NA
Selenium	3.9	4	1,500	mg/kg	1.30 J	NA	0.940 JB	NA	5.00 U	NA	NA
Silver	2	8.3	1,500	mg/kg	0.835 U	NA	0.870 U	NA	0.750 U	NA	NA
Sodium	- -	- -	- -	mg/kg	406	NA	312	NA	325	NA	NA
Thallium	- -	- -	- -	mg/kg	10.0 U	NA	8.70 U	NA	7.50 U	NA	NA
Vanadium	- -	- -	- -	mg/kg	27.1	NA	7.30	NA	7.00	NA	NA
Zinc	109	2,480	10,000	mg/kg	19.7 J	NA	5.10	NA	7.60	NA	NA
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	2,600	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	4,430	NA	1,490 F2F1	NA	1,000 U	NA	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.00096 J*	0.0055 U*
Toluene	0.7	0.7	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.00054 J	0.00084 J	0.0055 U
Ethylbenzene	1	1	390	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.00051 J*	0.0055 U*
Xylenes (total)	0.26	1.6	500	mg/kg	0.012 U	0.012 U	0.29 U	0.25 U	0.012 U	0.011 U	0.011 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.018	0.0018 J	0.15 U	0.21	0.0049 J	0.057	0.00060 J
Isopropylbenzene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
2-Butanone	0.12	0.12	500	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U	0.030 U	0.029 U	0.028 U
2-Hexanone	- -	- -	- -	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U	0.030 U	0.029 U	0.028 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U	0.030 U	0.029 U	0.028 U
Acetone	0.05	0.05	500	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U*	0.030 U	0.029 U	0.028 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Bromoform	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Bromomethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Carbon Disulfide	- -	- -	- -	mg/kg	0.0059 U	0.0029 J	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Chloroethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Chloroform	0.37	0.37	350	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Chloromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.027	0.0039 J	***0.96***	0.12 U	0.0017 J	0.0057 U*	0.0055 U*
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Cyclohexane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Dibromochloromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Methyl acetate	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0048 J	0.0032 JB	***0.077 J***	0.12 U	0.0061 U	0.0057 U	0.0055 U
Styrene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Total VOCs	- -	- -	- -	mg/kg	0.061 J	0.020 J	1.6 J	0.55	0.011 J	0.12 J	0.00060 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U	0.0055 U
Trichloroethene	0.47	0.47	200	mg/kg	0.010	0.0079	0.081 J	0.20	0.0061 U	0.0057 U	0.0055 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.0057 U*	0.0055 U*
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0013 J	0.0059 U	***0.45***	***0.14***	0.0040 J	***0.061 ****	0.0055 U*

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,4-Dinitrophenol	- -	- -	- -	mg/kg	2.0 U	2.0 U	NA	2.0 U	NA	1.9 U	NA
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Chlorophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Methylphenol	0.33	0.33	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
2-Nitrophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
3-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chloroaniline	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Methylphenol	0.33	0.33	500	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Nitrophenol	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U*	NA	0.38 U	NA
Acenaphthene	20	98	500	mg/kg	0.21 U	0.051 J	NA	0.21 U	NA	0.20 U	NA
Acenaphthylene	100	107	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Acetophenone	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Anthracene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Atrazine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzaldehyde	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Caprolactam	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Carbazole	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Chrysene	1	1	56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dibenzofuran	7	210	350	mg/kg	0.21 U	0.044 J	NA	0.21 U	NA	0.20 U	NA
Diethylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dimethylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Fluoranthene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Fluorene	30	386	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachloroethane	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Isophorone	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Nitrobenzene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
Phenanthrene	100	1,000	500	mg/kg	0.21 U	0.12 J	NA	0.21 U	NA	0.20 U	NA
Phenol	0.33	0.33	500	mg/kg	0.21 U	0.20 U	NA	***0.58***	NA	0.20 U	NA
Pyrene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Total SVOCs	- -	- -	- -	mg/kg	ND	0.22 J	NA	0.58	NA	ND	NA
Inorganics											
Aluminum	- -	- -	- -	mg/kg	1,610	NA	NA	5,540	NA	13,400	NA
Antimony	- -	- -	- -	mg/kg	17.8 U	NA	NA	17.9 U	NA	17.4 U	NA
Arsenic	13	16	16	mg/kg	1.10 J	NA	NA	1.00 J	NA	1.50 J	NA
Barium	350	820	400	mg/kg	8.50	NA	NA	4.70	NA	22.2	NA
Beryllium	7.2	47	590	mg/kg	0.0760 J	NA	NA	0.0420 J	NA	0.330	NA
Cadmium	2.5	7.5	9.3	mg/kg	0.240 U	NA	NA	0.240 U	NA	0.0560 J	NA
Calcium	- -	- -	- -	mg/kg	242	NA	NA	773 B	NA	295 B	NA
Chromium	- -	- -	- -	mg/kg	4.70	NA	NA	4.80	NA	18.8	NA
Cobalt	- -	- -	- -	mg/kg	1.10	NA	NA	0.350 J	NA	3.40	NA
Copper	50	1,720	270	mg/kg	2.20	NA	NA	1.20	NA	6.40	NA
Ferrous Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	- -	mg/kg	1,760	NA	NA	3,120	NA	6,590	NA
Lead	63	450	1,000	mg/kg	1.60	NA	NA	3.00	NA	3.60	NA
Magnesium	- -	- -	- -	mg/kg	512	NA	NA	671	NA	2,040 B	NA
Manganese	1,600	2,000	10,000	mg/kg	26.9 B	NA	NA	33.7	NA	68.8 B	NA
Mercury	0.18	0.73	2.8	mg/kg	0.0250 U	NA	NA	0.0230 U	NA	0.0220 U	NA
Nickel	30	130	310	mg/kg	3.60 J	NA	NA	1.90 J	NA	16.6	NA
Potassium	- -	- -	- -	mg/kg	430	NA	NA	310	NA	1,710	NA
Selenium	3.9	4	1,500	mg/kg	0.760 JB	NA	NA	4.80 U	NA	4.70 U	NA
Silver	2	8.3	1,500	mg/kg	0.710 U	NA	NA	0.720 U	NA	0.700 U	NA
Sodium	- -	- -	- -	mg/kg	211	NA	NA	1,070	NA	735 B	NA
Thallium	- -	- -	- -	mg/kg	7.10 U	NA	NA	7.20 U	NA	7.00 U	NA
Vanadium	- -	- -	- -	mg/kg	5.10	NA	NA	7.40	NA	15.2	NA
Zinc	109	2,480	10,000	mg/kg	6.90	NA	NA	2.80	NA	22.8	NA
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	1,110	NA	NA	16,600	NA	1,710	NA

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.019	0.0048 U	0.00060 J	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Toluene	0.7	0.7	500	mg/kg	0.018	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Ethylbenzene	1	1	390	mg/kg	0.011	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.039	0.0096 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.052	0.0048 U	0.011	0.018	0.0059 U	0.0060 U	0.014
Isopropylbenzene	- -	- -	- -	mg/kg	0.0017 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0016 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
2-Butanone	0.12	0.12	500	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.030 UJ	0.029 U
2-Hexanone	- -	- -	- -	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.030 UJ	0.029 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.030 UJ	0.029 U
Acetone	0.05	0.05	500	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.017 J	0.020 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Bromoform	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Bromomethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.013	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.010
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Chloroethane	- -	- -	- -	mg/kg	0.0053 U*	0.0048 U*	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Chloroform	0.37	0.37	350	mg/kg	0.0053 U	0.00047 J	0.0056 U	0.00045 JB	0.0059 U	0.0060 U	0.0059 U
Chloromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	***2.7***	0.0048 U	0.00079 J	0.0059 U	0.0059 U	0.0060 U	0.010
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Cyclohexane	- -	- -	- -	mg/kg	0.0015 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Methyl acetate	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.00096 J	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0053 U	0.0048 U	0.0028 JB	0.0065 B	0.0058 JB	0.019	***0.12 B***
Styrene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Total VOCs	- -	- -	- -	mg/kg	3.5 J	0.00047 J	0.015 J	0.025 J	0.0058 J	0.036 J	0.18 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.019	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Trichloroethene	0.47	0.47	200	mg/kg	0.016	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0031 J
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0053 U	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Vinyl Chloride	0.02	0.02	13	mg/kg	***0.58***	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0020 J

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	1.9 U	0.39 U	0.39 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Chlorophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Methylphenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
2-Nitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.20 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 UJ	0.39 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4-Nitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	0.19 U	0.084 J	0.20 U
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Atrazine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.25 UB	0.49
Butylbenzylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.078 J	0.20 U
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 UJ	0.20 U
Dibenzofuran	7	210	350	mg/kg	NA	NA	NA	NA	0.19 U	0.071 J	0.20 U
Diethylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.029 J	0.20 U
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	0.19 U	0.067 J	0.20 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.24	0.20 U
Phenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.016 J	0.20 U
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	ND	0.59 J	0.49
Inorganics											
Aluminum	- -	- -	- -	mg/kg	NA	NA	NA	NA	244	2,270	2,410
Antimony	- -	- -	- -	mg/kg	NA	NA	NA	NA	17.3 U	17.4 U	18.1 U
Arsenic	13	16	16	mg/kg	NA	NA	NA	NA	0.490 J	1.00 J	2.30 J
Barium	350	820	400	mg/kg	NA	NA	NA	NA	0.930	7.26	10.5
Beryllium	7.2	47	590	mg/kg	NA	NA	NA	NA	0.230 U	0.157 J	0.225 J
Cadmium	2.5	7.5	9.3	mg/kg	NA	NA	NA	NA	0.0350 J	0.232 U	0.0660 J
Calcium	- -	- -	- -	mg/kg	NA	NA	NA	NA	22.1 JB	526	553
Chromium	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.750	6.70	8.06
Cobalt	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.300 J	1.01	1.99
Copper	50	1,720	270	mg/kg	NA	NA	NA	NA	1.20 U	4.10	3.40
Ferrous Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	0.900 J	2.40 UJ
Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	444	3,640	5,350
Lead	63	450	1,000	mg/kg	NA	NA	NA	NA	0.750 J	1.80 J	2.30
Magnesium	- -	- -	- -	mg/kg	NA	NA	NA	NA	29.3 B	641	928
Manganese	1,600	2,000	10,000	mg/kg	NA	NA	NA	NA	2.00 B	31.6	37.5
Mercury	0.18	0.73	2.8	mg/kg	NA	NA	NA	NA	0.0240 U	0.0235 U	0.0229 J
Nickel	30	130	310	mg/kg	NA	NA	NA	NA	0.430 J	3.31 J	4.37 J
Potassium	- -	- -	- -	mg/kg	NA	NA	NA	NA	52.0	387	607
Selenium	3.9	4	1,500	mg/kg	NA	NA	NA	NA	0.760 JB	4.60 U	4.80 U
Silver	2	8.3	1,500	mg/kg	NA	NA	NA	NA	0.690 U	0.581 U	0.604 U
Sodium	- -	- -	- -	mg/kg	NA	NA	NA	NA	161 U	205	752
Thallium	- -	- -	- -	mg/kg	NA	NA	NA	NA	6.90 U	7.00 U	7.20 U
Vanadium	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.750	5.91	10.7
Zinc	109	2,480	10,000	mg/kg	NA	NA	NA	NA	0.740 J	5.00	8.40
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	320	400
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	1,950	1,210 U	1,220 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Toluene	0.7	0.7	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Ethylbenzene	1	1	390	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.010 U	0.0048 J	0.011 J	0.011 U	0.0046 J	0.0026 J	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0052 U	0.0036 J	0.0057 J	0.0054 U	0.012 J	0.0045 J	0.0060 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
2-Butanone	0.12	0.12	500	mg/kg	0.026 U	0.031 U	0.030 U	0.027 U	0.031 U	0.027 U	0.030 U
2-Hexanone	- -	- -	- -	mg/kg	0.026 U	0.031 U	0.030 U	0.027 U	0.031 U	0.027 U	0.030 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.026 U	0.031 U	0.030 U	0.027 U	0.031 U	0.027 U	0.030 U
Acetone	0.05	0.05	500	mg/kg	0.0049 J	0.013 J	0.017 J	0.027 U	0.017 J	0.014 J	0.020 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Bromoform	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Bromomethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chloroethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chloroform	0.37	0.37	350	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Chloromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Cyclohexane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Methyl acetate	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0052 U	0.011	0.015	0.0042 J	0.054 J	0.014	0.0019 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.0080 J	0.031 UBJ	0.030 UBJ	0.025 UBJ	0.033 UBJ	0.022 UBJ	0.021
Styrene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Total VOCs	- -	- -	- -	mg/kg	0.013 J	0.032 J	0.049 J	0.0042 J	0.088 J	0.035 J	0.043 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.18 U	0.21 U	0.036 J	0.37 U	0.21 U	1.9 U	0.21 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.18 U	0.057 J	0.049 J	0.13 J	0.29	1.9 U	0.21 U
2-Methylphenol	0.33	0.33	500	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
Acenaphthene	20	98	500	mg/kg	0.18 U	0.066 J	0.085 J	0.29 J	0.41	0.19 J	0.046 J
Acenaphthylene	100	107	500	mg/kg	0.18 U	0.21 U	0.20 U	0.029 J	0.21 U	1.9 U	0.21 U
Acetophenone	- -	- -	- -	mg/kg	0.18 UJ	0.21 UJ	0.20 UJ	0.37 U	0.21 U	1.9 UJ	0.21 U
Anthracene	100	1,000	500	mg/kg	0.18 U	0.10 J	0.12 J	0.60	0.40	0.89 J	0.12 J
Atrazine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Benzaldehyde	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.18 U	0.13 J	0.14 J	***3.3***	0.64	***8.9***	0.25
Benzo(a)pyrene	1	22	1	mg/kg	0.18 U	0.095 J	0.094 J	*3.0*	0.61	*11*	0.19 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.014 J	0.10 J	0.11 J	***3.9***	0.74	***11***	0.21
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.18 U	0.040 J	0.037 J	1.2	0.22	6.3	0.13 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.18 U	0.038 J	0.035 J	*1.2*	0.26	***4.5***	0.061 J
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.60	0.10 J	1.2 J	0.38 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Caprolactam	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Carbazole	- -	- -	- -	mg/kg	0.18 U	0.017 J	0.045 J	0.050 J	0.044 J	1.9 U	0.072 J
Chrysene	1	1	56	mg/kg	0.18 U	0.094 J	0.096 J	***2.5***	0.50	***8.5***	0.19 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.18 U	0.21 U	0.20 U	0.27 J	0.053 J	*1.7 J*	0.029 J
Dibenzofuran	7	210	350	mg/kg	0.18 U	0.044 J	0.060 J	0.16 J	0.24	1.9 U	0.034 J
Diethylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 UB
Dimethylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Fluoranthene	100	1,000	500	mg/kg	0.18 U	0.41	0.43	5.6	1.5	11	0.59
Fluorene	30	386	500	mg/kg	0.18 U	0.084 J	0.11 J	0.32 J	0.43	0.22 J	0.066 J
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachloroethane	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.18 U	0.037 J	0.035 J	*0.87*	0.16 J	*5.8*	0.091 J
Isophorone	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Nitrobenzene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
Phenanthrene	100	1,000	500	mg/kg	0.18 U	0.45	0.56	1.5	1.7	1.4 J	0.39
Phenol	0.33	0.33	500	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Pyrene	100	1,000	500	mg/kg	0.18 U	0.34	0.36	4.6	1.2	12	0.53
Total SVOCs	- -	- -	- -	mg/kg	0.014 J	2.1 J	2.4 J	30 J	9.5 J	85 J	3.0 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	4,400 J	1,180 J	901 J	4,020 J	1,340 J	2,720 J	2,330
Antimony	- -	- -	- -	mg/kg	15.9 U	18.6 U	17.8 U	16.7 U	18.4 U	17.0 U	17.2 U
Arsenic	13	16	16	mg/kg	1.90 J	0.700 J	0.500 J	2.20	1.00 J	1.60 J	1.80 J
Barium	350	820	400	mg/kg	16.0 J	4.91 J	4.69 J	15.1 J	4.83 J	14.1 J	7.98
Beryllium	7.2	47	590	mg/kg	0.179 J	0.0530 J	0.0420 J	0.158 J	0.0420 J	0.130 J	0.181 J
Cadmium	2.5	7.5	9.3	mg/kg	0.100 J	0.0550 J	0.0490 J	0.120 J	0.0750 J	0.171 J	0.229 U
Calcium	- -	- -	- -	mg/kg	369 J	368 J	232 J	2,220 J	304 J	9,650 J	237
Chromium	- -	- -	- -	mg/kg	4.92	2.08	2.19	5.73	2.88	5.37	6.07
Cobalt	- -	- -	- -	mg/kg	2.61	0.641	0.388 J	2.33	0.667	1.49	0.797
Copper	50	1,720	270	mg/kg	5.10	1.50	1.10 J	6.10	1.60	4.90	1.60
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	R	R	1.40 J
Iron	- -	- -	- -	mg/kg	5,520 J	1,950 J	1,370 J	5,650 J	2,130 J	4,420 J	5,180
Lead	63	450	1,000	mg/kg	11.8	2.80	1.80	17.7	2.50	15.6	1.50 J
Magnesium	- -	- -	- -	mg/kg	777 J	334 J	281 J	920 J	370 J	2,450 J	691
Manganese	1,600	2,000	10,000	mg/kg	154 J	26.2 J	12.4 J	84.4 J	21.1 J	55.7 J	36.9
Mercury	0.18	0.73	2.8	mg/kg	0.0202	0.0237 U	0.0217 U	0.0377	0.0228 U	0.0119 J	0.0186 J
Nickel	30	130	310	mg/kg	4.71 J	1.59 J	1.17 J	4.44 J	1.90 J	3.88 J	1.97 J
Potassium	- -	- -	- -	mg/kg	382 J	220 J	226 J	510 J	247 J	324 J	392
Selenium	3.9	4	1,500	mg/kg	4.20 U	5.00 U	4.80 U	4.50 U	4.90 U	4.50 U	4.60 U
Silver	2	8.3	1,500	mg/kg	0.530 U	0.620 U	0.594 U	0.557 U	0.614 U	0.565 U	0.573 U
Sodium	- -	- -	- -	mg/kg	29.6 J	31.3 J	48.2 J	128 J	53.7 J	52.4 J	662
Thallium	- -	- -	- -	mg/kg	6.40 U	7.40 U	7.10 U	6.70 U	7.40 U	6.80 U	6.90 U
Vanadium	- -	- -	- -	mg/kg	7.37	2.91	2.69	7.66	3.78	6.16	7.85
Zinc	109	2,480	10,000	mg/kg	15.2	4.70	4.00	20.6	6.60	21.0	5.20
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	84 J	98 J	100 J	110 U	130	110 U	400
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	2,780	2,090	2,320	1,780	3,760	5,630	1,260 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0056 U	0.0056 J	0.011	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Toluene	0.7	0.7	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0014 J	0.0054 U	0.0057 U	0.0019 J
Ethylbenzene	1	1	390	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0016 J
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.0022 J	0.0025 J	0.011 J	0.011 U	0.011 U	0.0095 J
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0056 U	0.0058 J	0.0072	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
2-Butanone	0.12	0.12	500	mg/kg	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U	0.029 U	0.0049 J
2-Hexanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U	0.029 U	0.031 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.031 U	0.030 U	0.027 U	0.029 U	0.031 U
Acetone	0.05	0.05	500	mg/kg	0.028 U	0.038	0.030 J	0.018 J	0.020 J	0.015 J	0.035
Bromodichloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Bromoform	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Bromomethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0048 J
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Chloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 UJ	0.0054 UJ	0.0057 UJ	0.0062 UJ
Chloroform	0.37	0.37	350	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Chloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Cyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 UJ	0.0054 UJ	0.0057 UJ	0.0062 UJ
Methyl acetate	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0065	0.0071	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0077 UB	0.013 UB	0.022	0.0085	0.0097	0.011	0.012
Styrene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Total VOCs	- -	- -	- -	mg/kg	ND	0.058 J	0.080 J	0.039 J	0.030 J	0.026 J	0.070 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	R	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.96 U	0.031 J	0.033 J	0.031 J	0.19 U	0.20 U	0.21 U
2-Methylphenol	0.33	0.33	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
3-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Methylphenol	0.33	0.33	500	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Nitrophenol	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
Acenaphthene	20	98	500	mg/kg	7.1 J	0.092 J	0.15 J	0.018 J	0.19 U	0.20 U	0.21 U
Acenaphthylene	100	107	500	mg/kg	0.20 J	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Acetophenone	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Anthracene	100	1,000	500	mg/kg	0.76 J	0.022 J	0.038 J	0.060 J	0.19 U	0.20 U	0.21 U
Atrazine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Benzaldehyde	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Benzo(a)anthracene	1	1	5.6	mg/kg	***2.0***	0.038 J	0.063 J	0.20	0.19 U	0.20 U	0.21 U
Benzo(a)pyrene	1	22	1	mg/kg	0.58 J	0.027 J	0.039 J	0.19 J	0.19 U	0.20 U	0.21 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.90 J	0.034 J	0.050 J	0.22	0.19 U	0.20 U	0.21 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.17 J	0.022 J	0.024 J	0.15 J	0.19 U	0.20 U	0.21 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.34 J	0.21 U	0.21 U	0.085 J	0.19 U	0.20 U	0.21 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Caprolactam	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Carbazole	- -	- -	- -	mg/kg	0.082 J	0.21 U	0.21 U	0.032 J	0.19 U	0.20 U	0.21 U
Chrysene	1	1	56	mg/kg	***1.8***	0.040 J	0.065 J	0.19 J	0.19 U	0.20 U	0.21 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.96 U	0.21 U	0.21 U	0.029 J	0.19 U	0.20 U	0.21 U
Dibenzofuran	7	210	350	mg/kg	0.53 J	0.031 J	0.039 J	0.20 U	0.19 U	0.20 U	0.21 U
Diethylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Fluoranthene	100	1,000	500	mg/kg	16	0.14 J	0.30	0.48	0.19 U	0.20 U	0.019 J
Fluorene	30	386	500	mg/kg	1.6 J	0.081 J	0.099 J	0.026 J	0.19 U	0.20 U	0.21 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachloroethane	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.17 J	0.21 U	0.21 U	0.12 J	0.19 U	0.20 U	0.21 U
Isophorone	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Nitrobenzene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
Phenanthrene	100	1,000	500	mg/kg	3.8 J	0.15 J	0.26	0.29	0.19 U	0.20 U	0.024 J
Phenol	0.33	0.33	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.11 J
Pyrene	100	1,000	500	mg/kg	13	0.13 J	0.28	0.36	0.19 U	0.20 U	0.21 U
Total SVOCs	- -	- -	- -	mg/kg	49 J	0.84 J	1.4 J	2.5 J	ND	ND	0.15 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	7,410 J	505 J	1,770 J	1,830 J	2,370 J	1,250 J	1,320 J
Antimony	- -	- -	- -	mg/kg	16.9 UJ	17.9 UJ	17.6 UJ	17.5 U	16.4 U	17.6 U	18.5 U
Arsenic	13	16	16	mg/kg	3.80 J	2.40 UJ	0.900 J	1.40 J	1.50 J	2.30 UJ	1.30 J
Barium	350	820	400	mg/kg	21.7	2.37	8.06	18.4	9.88	6.17	10.1
Beryllium	7.2	47	590	mg/kg	0.299 J	0.238 UJ	0.0890 J	0.0580 J	0.104 J	0.234 U	0.246 U
Cadmium	2.5	7.5	9.3	mg/kg	0.123 J	0.238 U	0.0450 J	0.250 J	0.218 UBJ	0.234 UBJ	0.246 UBJ
Calcium	- -	- -	- -	mg/kg	2,080 J	91.1 J	455 J	5,090	1,440 B	687	306
Chromium	- -	- -	- -	mg/kg	8.36	0.961	3.62	4.59	6.17	3.51	3.69
Cobalt	- -	- -	- -	mg/kg	3.45	0.329 J	0.671	0.927	1.32	0.491 J	0.825
Copper	50	1,720	270	mg/kg	7.30	0.600 J	2.30	3.50	3.30	1.40	5.90
Ferrous Iron	- -	- -	- -	mg/kg	2.60 J	1.80 J	2.50 J	R	R	R	R
Iron	- -	- -	- -	mg/kg	9,100 J	805 J	3,130 J	3,540	4,430	2,380	3,240
Lead	63	450	1,000	mg/kg	28.5	1.30	8.90	12.0 J	3.80 J	1.60 J	2.10 J
Magnesium	- -	- -	- -	mg/kg	2,060 J	132 J	567 J	709	752	422	441
Manganese	1,600	2,000	10,000	mg/kg	138 J	7.50 J	27.1 J	40.4 J	26.0 J	15.2 J	27.5 J
Mercury	0.18	0.73	2.8	mg/kg	0.0269	0.0250 U	0.0239 U	0.0234 U	0.0218 U	0.0227 U	0.0119 J
Nickel	30	130	310	mg/kg	6.33	0.616 J	1.86 J	2.56 J	3.77 J	1.63 J	2.00 J
Potassium	- -	- -	- -	mg/kg	347	94.4	258	504	516	352	355
Selenium	3.9	4	1,500	mg/kg	4.50 U	4.80 U	4.70 U	4.70 U	4.40 U	4.70 U	4.90 U
Silver	2	8.3	1,500	mg/kg	0.563 U	0.596 U	0.586 U	0.585 U	0.546 U	0.586 U	0.616 U
Sodium	- -	- -	- -	mg/kg	49.9 J	16.8 J	35.0 J	87.6 J	58.2 J	38.8 J	65.0 J
Thallium	- -	- -	- -	mg/kg	6.80 U	7.10 U	7.00 U	7.00 U	6.60 U	7.00 U	7.40 U
Vanadium	- -	- -	- -	mg/kg	12.7	1.16	4.58	5.77	7.31	4.28	3.92
Zinc	109	2,480	10,000	mg/kg	22.1	1.60 J	8.10	32.6 J	10.5 J	4.90 J	6.10 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	87 J	67 J	140	850	480	270	310
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	3,800	2,420	5,560	3,800	1,320 U	1,200 U	1,250 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					TP-2-2	TP-3-1	TP-3-2	TP-3-3	TP-4-B-1	TP-4-D-1	TP-4-F-1
Historical Sample Depth(feet):					5.5	5	6.8	6.5	1.5	7	4
Current Estimated Sample Depth (feet)					9.5	9	10.8	10.5	5.5	11	8
Date Collected:					11/30/10	12/01/10	12/01/10	12/01/10	12/02/10	12/02/10	12/02/10
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Toluene	0.7	0.7	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Ethylbenzene	1	1	390	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.0014 J	0.015 U	0.014 U	0.015 U	0.011 U	0.011 U	0.012 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Isopropylbenzene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,2,2-Tetrachloroethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1,2-Trichloroethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,2,4-Trichlorobenzene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U
1,2-Dibromo-3-chloropropane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 UJ	0.0053 UJ	0.0059 UJ
1,2-Dibromoethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,2-Dichloropropane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
2-Butanone	0.12	0.12	500	mg/kg	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U
2-Hexanone	--	--	--	mg/kg	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U
4-Methyl-2-pentanone	--	--	--	mg/kg	0.032 U	0.036 U	0.035 U	0.036 UJ	0.028 U	0.026 U	0.029 U
Acetone	0.05	0.05	500	mg/kg	0.015 J	0.032 J	0.026 J	0.017 J	0.0062 J	0.0067 J	0.022 J
Bromodichloromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Bromoform	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 UJ	0.0055 U	0.0053 U	0.0059 U
Bromomethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Carbon Disulfide	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0057 J	0.0073 U	0.0055 U	0.0053 U	0.0034 J
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chloroethane	--	--	--	mg/kg	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chloroform	0.37	0.37	350	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Chloromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
cis-1,3-Dichloropropene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Cyclohexane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Dibromochloromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Dichlorodifluoromethane	--	--	--	mg/kg	0.0064 UJ	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Methyl acetate	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Methylcyclohexane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0013 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.013	0.0094	0.012	0.0082	0.013	0.0097	0.017
Styrene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Total VOCs	--	--	--	mg/kg	0.029 J	0.041 J	0.044 J	0.025 J	0.019 J	0.016 J	0.044 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
trans-1,3-Dichloropropene	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Trichlorofluoromethane	--	--	--	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:					TP-2-2	TP-3-1	TP-3-2	TP-3-3	TP-4-B-1	TP-4-D-1	TP-4-F-1
Historical Sample Depth(feet):					5.5	5	6.8	6.5	1.5	7	4
Current Estimated Sample Depth (feet)					9.5	9	10.8	10.5	5.5	11	8
Date Collected:					11/30/10	12/01/10	12/01/10	12/01/10	12/02/10	12/02/10	12/02/10
Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Methylphenol	0.33	0.33	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
Acenaphthene	20	98	500	mg/kg	0.22 U	0.11 J	0.24 U	0.25 U	0.057 J	0.18 U	0.20 U
Acenaphthylene	100	107	500	mg/kg	0.22 U	0.022 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Anthracene	100	1,000	500	mg/kg	0.22 U	0.040 J	0.24 U	0.25 U	0.10 J	0.18 U	0.20 U
Atrazine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.22 U	0.16 J	0.24 U	0.25 U	0.34	0.18 U	0.20 U
Benzo(a)pyrene	1	22	1	mg/kg	0.22 U	0.16 J	0.24 U	0.25 U	0.41	0.18 U	0.20 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.22 U	0.17 J	0.24 U	0.25 U	0.50	0.18 U	0.20 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.22 U	0.11 J	0.24 U	0.25 U	0.24	0.18 U	0.20 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.22 U	0.055 J	0.24 U	0.25 U	0.17 J	0.18 U	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.22 U	0.24 UB	0.24 UB	0.25 UB	0.21 UB	0.18 UB	0.20 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.042 J	0.18 U	0.20 U
Chrysene	1	1	56	mg/kg	0.22 U	0.15 J	0.24 U	0.25 U	0.35	0.18 U	0.20 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Dibenzofuran	7	210	350	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Diethylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-2-2 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow	TP-3-1 5 9 12/01/10 Shallow Sand Fill - Shallow	TP-3-2 6.8 10.8 12/01/10 Shallow Sand Fill - Shallow	TP-3-3 6.5 10.5 12/01/10 Shallow Sand Fill - Shallow	TP-4-B-1 1.5 5.5 12/02/10 Shallow Sand Fill - Shallow	TP-4-D-1 7 11 12/02/10 Shallow Sand Fill - Shallow	TP-4-F-1 4 8 12/02/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	0.22 U	0.21 J	0.24 U	0.25 U	0.71	0.18 U	0.20 U
Fluorene	30	386	500	mg/kg	0.22 U	0.15 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.22 U	0.083 J	0.24 U	0.25 U	0.21	0.18 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
Phenanthrene	100	1,000	500	mg/kg	0.22 U	0.049 J	0.24 U	0.25 U	0.29	0.037 J	0.019 J
Phenol	0.33	0.33	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Pyrene	100	1,000	500	mg/kg	0.22 U	0.23 J	0.24 U	0.25 U	0.70	0.18 U	0.20 U
Total SVOCs	- -	- -	- -	mg/kg	ND	1.7 J	ND	ND	4.2 J	0.037 J	0.019 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	927 J	2,710 J	11,000 J	1,600 J	3,710 J	404 J	745 J
Antimony	- -	- -	- -	mg/kg	18.9 U	21.7 U	20.6 U	22.5 U	15.9 UJ	14.7 UJ	17.2 UJ
Arsenic	13	16	16	mg/kg	2.50 UJ	1.50 J	10.1	1.00 J	4.10 J	0.400 J	2.30 UJ
Barium	350	820	400	mg/kg	8.32	15.9	25.2	8.27	17.6	1.28	2.18
Beryllium	7.2	47	590	mg/kg	0.252 U	0.124 J	0.513	0.0510 J	0.278 J	0.195 U	0.229 UJ
Cadmium	2.5	7.5	9.3	mg/kg	0.252 UBJ	0.289 UBJ	0.314 J	0.300 UBJ	0.284	0.0300 J	0.229 U
Calcium	- -	- -	- -	mg/kg	464	983	1,630	426	4,140 J	65.8 J	165 J
Chromium	- -	- -	- -	mg/kg	2.14	6.76	28.5	3.59	7.72	0.701	1.26
Cobalt	- -	- -	- -	mg/kg	0.331 J	1.54	5.86	1.14	2.42	0.142 J	0.468 J
Copper	50	1,720	270	mg/kg	0.700 J	3.60 J	12.5 J	2.60 J	14.2	0.600 J	1.10
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	1.90 J	1.40 J	R
Iron	- -	- -	- -	mg/kg	1,170	5,200 J	22,200 J	2,770 J	6,560 J	764 J	1,070 J
Lead	63	450	1,000	mg/kg	1.10 J	3.00 J	11.4 J	1.80 J	28.7	0.600 J	1.90
Magnesium	- -	- -	- -	mg/kg	269	1,040	4,380	632	2,230 J	56.2 J	122 J
Manganese	1,600	2,000	10,000	mg/kg	11.1 J	44.4 J	192 J	25.6 J	77.9 J	3.80 J	7.60 J
Mercury	0.18	0.73	2.8	mg/kg	0.0250 U	0.0270 U	0.0166 J	0.0273 U	*0.606*	0.0198 U	0.0226 U
Nickel	30	130	310	mg/kg	1.20 J	4.38 J	18.0	3.04 J	5.97	0.531 J	1.20 J
Potassium	- -	- -	- -	mg/kg	225	751	2,290	479	456	59.5	115
Selenium	3.9	4	1,500	mg/kg	5.00 U	5.80 U	0.800 J	6.00 U	4.20 U	3.90 U	4.60 U
Silver	2	8.3	1,500	mg/kg	0.629 U	0.722 U	0.688 U	0.751 U	*3.32*	0.489 U	0.574 U
Sodium	- -	- -	- -	mg/kg	39.2 J	117 J	1,150	161 J	121 J	15.6 J	19.2 J
Thallium	- -	- -	- -	mg/kg	7.60 U	8.70 U	8.30 U	9.00 U	6.40 U	5.90 U	6.90 U
Vanadium	- -	- -	- -	mg/kg	2.15	9.50	35.7	4.39	11.1	0.704	1.33
Zinc	109	2,480	10,000	mg/kg	3.70 J	12.5 J	43.6 J	7.20 J	62.8	1.40 J	2.10 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	260	810	2,300	520	220	110 U	140
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	1,200 U	1,900	7,750	1,410	2,740	1,100 U	1,160 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Toluene	0.7	0.7	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Ethylbenzene	1	1	390	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.21 J	0.064 U	0.21 U	0.011 U	0.011 U	1.1 U	0.0031 J
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.17	0.032 U	0.057 J	0.0053 U	0.0056 U	1.8	0.0055 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
2-Butanone	0.12	0.12	500	mg/kg	0.77 U	0.16 U	0.52 U	0.0079 J	0.028 U	2.9 U	0.027 U
2-Hexanone	- -	- -	- -	mg/kg	0.77 U	0.16 U	0.52 U	0.026 U	0.028 U	2.9 U	0.027 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.77 U	0.16 U	0.52 U	0.026 U	0.028 U	2.9 U	0.027 U
Acetone	0.05	0.05	500	mg/kg	0.77 U	0.16 U	0.52 U	***0.080***	0.018 J	2.9 U	0.026 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Bromoform	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Bromomethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Chloroethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Chloroform	0.37	0.37	350	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Chloromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Cyclohexane	- -	- -	- -	mg/kg	0.17	0.032 U	0.10 U	0.0053 U	0.0056 U	4.0	0.0055 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 UJ	0.0055 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Methyl acetate	- -	- -	- -	mg/kg	0.28	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.87	0.014 J	0.071 J	0.0053 U	0.0056 U	25 J	0.0020 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.15 U	***0.11***	0.10 U	0.038 J	0.041 J	0.57 U	0.017
Styrene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Total VOCs	- -	- -	- -	mg/kg	1.7 J	0.12 J	0.13 J	0.13 J	0.059 J	31 J	0.048 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Trichloroethene	0.47	0.47	200	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	0.19 J	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 UJ	0.36 UJ	9.4 UJ	0.36 UJ
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.092 J	0.14 J	1.8 U	1.8 U	0.19 U	4.8 U	0.025 J
2-Methylphenol	0.33	0.33	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
Acenaphthene	20	98	500	mg/kg	0.27 U	0.11 J	0.22 J	1.8 U	0.19 U	0.94 J	0.020 J
Acenaphthylene	100	107	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J
Acetophenone	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Anthracene	100	1,000	500	mg/kg	0.27 U	0.086 J	1.8 U	0.17 J	0.19 U	0.82 J	0.035 J
Atrazine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Benzaldehyde	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.27 U	0.27	1.8 U	0.50 J	0.019 J	***2.7 J***	0.099 J
Benzo(a)pyrene	1	22	1	mg/kg	0.27 U	0.27	1.8 U	0.48 J	0.019 J	*2.7 J*	0.10 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.27 U	0.34	1.8 U	0.50 J	0.023 J	***2.8 J***	0.12 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.27 U	0.13 J	1.8 U	0.44 J	0.017 J	1.5 J	0.081 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.27 U	0.11 J	1.8 U	1.8 U	0.19 U	*1.2 J*	0.034 J
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.27 UB	0.20 UB	1.8 UB	1.8 UB	0.19 UB	4.8 U	0.19 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Caprolactam	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Carbazole	- -	- -	- -	mg/kg	0.27 U	0.046 J	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Chrysene	1	1	56	mg/kg	0.27 U	0.27	1.8 U	0.52 J	0.024 J	***2.3 J***	0.11 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Dibenzofuran	7	210	350	mg/kg	0.27 U	0.081 J	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J
Diethylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 UB	4.8 U	0.19 UB
Dimethylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Fluoranthene	100	1,000	500	mg/kg	0.27 U	0.66	0.20 J	1.2 J	0.046 J	4.8	0.19
Fluorene	30	386	500	mg/kg	0.27 U	0.13 J	0.21 J	1.8 U	0.19 U	1.1 J	0.025 J
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachloroethane	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.27 U	0.12 J	1.8 U	0.31 J	0.19 U	*1.1 J*	0.059 J
Isophorone	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Nitrobenzene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
Phenanthrene	100	1,000	500	mg/kg	0.039 J	0.63	0.40 J	1.2 J	0.042 J	1.7 J	0.14 J
Phenol	0.33	0.33	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.035 J
Pyrene	100	1,000	500	mg/kg	0.27 U	0.69	0.23 J	1.1 J	0.039 J	4.8	0.19
Total SVOCs	- -	- -	- -	mg/kg	0.32 J	4.1 J	1.3 J	6.4 J	0.23 J	28 J	1.3 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	9,740 J	3,430 J	4,230 J	4,640	637	3,000	3,500
Antimony	- -	- -	- -	mg/kg	23.0 UJ	17.0 UJ	15.5 UJ	15.7 U	16.7 U	16.4 U	16.2 U
Arsenic	13	16	16	mg/kg	11.0 J	2.70 J	1.50 J	***28.1***	0.500 J	1.90 J	6.50
Barium	350	820	400	mg/kg	34.4	113	16.8	43.2	6.25	14.0	22.7
Beryllium	7.2	47	590	mg/kg	0.595 J	0.228 J	0.225 J	0.241	0.223 U	0.157 J	0.278
Cadmium	2.5	7.5	9.3	mg/kg	0.366	0.218 J	0.115 J	0.660	0.223 U	0.0790 J	0.0760 J
Calcium	- -	- -	- -	mg/kg	3,570 J	5,800 J	140 J	10,800	490	1,040	3,010
Chromium	- -	- -	- -	mg/kg	26.4	7.41	6.06	9.72	1.57	6.88	4.99
Cobalt	- -	- -	- -	mg/kg	6.33	2.08	3.48	2.68	0.285 J	2.26	2.62
Copper	50	1,720	270	mg/kg	11.3	6.10	4.50	11.9	0.700 J	4.00	5.70
Ferrous Iron	- -	- -	- -	mg/kg	1.70 J	1.30 J	4.40 J	22.1 J	R	0.700 J	R
Iron	- -	- -	- -	mg/kg	25,100 J	6,100 J	6,640 J	8,290	917	4,740	6,380
Lead	63	450	1,000	mg/kg	13.1	28.3	3.60	57.9	0.600 J	9.70	17.8 J
Magnesium	- -	- -	- -	mg/kg	3,850 J	1,870 J	694 J	2,270	230	1,170	714
Manganese	1,600	2,000	10,000	mg/kg	240 J	76.0 J	49.2 J	110	8.30	36.9	91.7
Mercury	0.18	0.73	2.8	mg/kg	0.0306 U	0.0155 J	0.0209 U	0.0732	0.0220 U	0.0224 U	0.0256
Nickel	30	130	310	mg/kg	15.7	4.59 J	4.67 J	5.61	0.810 J	5.40 J	3.98 J
Potassium	- -	- -	- -	mg/kg	2,170	521	299	436	259	705	436
Selenium	3.9	4	1,500	mg/kg	6.10 U	4.50 U	4.10 U	4.20 U	4.50 U	4.40 U	4.30 U
Silver	2	8.3	1,500	mg/kg	0.767 U	0.568 U	0.518 U	0.524 U	0.556 U	0.546 U	0.541 U
Sodium	- -	- -	- -	mg/kg	171 J	107 J	60.9 J	303	44.3 J	107 J	132 J
Thallium	- -	- -	- -	mg/kg	9.20 U	6.80 U	6.20 U	6.30 U	6.70 U	6.60 U	6.50 U
Vanadium	- -	- -	- -	mg/kg	31.4	9.55	8.11	12.1	1.75	7.97	7.37
Zinc	109	2,480	10,000	mg/kg	48.6	68.6	10.5	67.6	2.00 J	15.9	31.4
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	620	65 J	370	380	110 U	70 J	110 U
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	19,100	26,100	6,310	12,800	1,210 U	14,000	1,700

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2 5 9 12/06/10 Shallow Sand Fill - Shallow	TP-8-1 4.5 8.5 12/06/10 Shallow Sand Fill - Shallow	TP-8-2 4 8 12/06/10 Shallow Sand Fill - Shallow	TP-9-1 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-9-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-9-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-10-1 6 10 12/07/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Toluene	0.7	0.7	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Ethylbenzene	1	1	390	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Xylenes (total)	0.26	1.6	500	mg/kg	1.1 U	0.21 U	0.011 U	0.44 U	0.45 U	0.016 U	0.011 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.35 J	0.87	0.0054 U	0.22 U	0.37	0.0079 U	0.0056 U
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.54 U	0.10 UJ	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.33 J	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
2-Butanone	0.12	0.12	500	mg/kg	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U	0.011 J	0.028 U
2-Hexanone	- -	- -	- -	mg/kg	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U	0.040 U	0.028 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	2.7 U	0.51 U	0.027 U	1.1 U	1.1 U	0.040 U	0.028 U
Acetone	0.05	0.05	500	mg/kg	2.7 U	0.51 U	0.010 J	1.1 U	1.1 U	***0.055***	0.025 J
Bromodichloromethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Bromoform	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Bromomethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Chlorobenzene	1.1	1.1	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Chloroethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Chloroform	0.37	0.37	350	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Chloromethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Cyclohexane	- -	- -	- -	mg/kg	1.9	0.10 U	0.0054 U	0.22 U	0.12 J	0.0079 U	0.0056 U
Dibromochloromethane	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.54 UJ	0.10 UJ	0.0054 U	0.22 UJ	0.23 UJ	0.0079 U	0.0056 U
Methyl acetate	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Methylcyclohexane	- -	- -	- -	mg/kg	17	2.8 J	0.0054 U	0.17 J	0.60	0.0018 J	0.0056 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.54 U	***0.082 J***	0.016	0.22 U	0.23 U	0.020	0.017
Styrene	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Total VOCs	- -	- -	- -	mg/kg	20 J	3.8 J	0.026 J	0.17 J	1.1 J	0.088 J	0.042 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Trichloroethene	0.47	0.47	200	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2 5 9 12/06/10 Shallow Sand Fill - Shallow	TP-8-1 4.5 8.5 12/06/10 Shallow Sand Fill - Shallow	TP-8-2 4 8 12/06/10 Shallow Sand Fill - Shallow	TP-9-1 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-9-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-9-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-10-1 6 10 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics											
Naphthalene	12	12	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
1,1'-Biphenyl	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	9.1 UJ	1.8 UJ	0.36 UJ	1.9 UJ	1.8 UJ	0.51 UJ	1.9 UJ
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Chlorophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Methylphenol	0.33	0.33	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
2-Nitrophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
3-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chloroaniline	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Methylphenol	0.33	0.33	500	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Nitrophenol	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
Acenaphthene	20	98	500	mg/kg	1.7 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Acenaphthylene	100	107	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Acetophenone	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Anthracene	100	1,000	500	mg/kg	1.5 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Atrazine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Benzaldehyde	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Benzo(a)anthracene	1	1	5.6	mg/kg	***3.7 J***	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.18 J
Benzo(a)pyrene	1	22	1	mg/kg	*3.7 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.17 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	***4.1 J***	0.072 J	0.18 U	0.99 U	0.94 U	0.26 U	0.15 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	2.1 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.13 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	*1.1 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	4.7 UB	0.95 UB	0.18 UB	0.99 UB	0.94 U	0.26 UB	1.0 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Caprolactam	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Carbazole	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Chrysene	1	1	56	mg/kg	***3.5 J***	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.13 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Dibenzofuran	7	210	350	mg/kg	1.1 J	0.95 U	0.18 U	0.99 U	0.88 J	0.26 U	1.0 U
Diethylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 UB	0.99 U	0.94 U	0.26 UB	1.0 U
Dimethylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2	TP-8-1	TP-8-2	TP-9-1	TP-9-2	TP-9-3	TP-10-1
Historical Sample Depth(feet):					5	4.5	4	6.5	6	6.5	6
Current Estimated Sample Depth (feet)					9	8.5	8	10.5	10	10.5	10
Date Collected:					12/06/10	12/06/10	12/06/10	12/07/10	12/07/10	12/07/10	12/07/10
Sampling Event:					Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow	Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Fluoranthene	100	1,000	500	mg/kg	7.0	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.23 J
Fluorene	30	386	500	mg/kg	1.9 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachloroethane	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	*1.8 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.094 J
Isophorone	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Nitrobenzene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
Phenanthrene	100	1,000	500	mg/kg	4.2 J	0.95 U	0.18 U	0.99 U	1.5	0.26 U	0.11 J
Phenol	0.33	0.33	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Pyrene	100	1,000	500	mg/kg	7.7	0.11 J	0.18 U	0.077 J	0.94 U	0.26 U	0.30 J
Total SVOCs	- -	- -	- -	mg/kg	45 J	0.18 J	ND	0.077 J	2.4 J	ND	1.5 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	2,280	728	545	4,520	564	11,200	1,730
Antimony	- -	- -	- -	mg/kg	16.1 U	17.7 U	16.5 U	17.5 U	16.0 U	23.2 U	16.8 U
Arsenic	13	16	16	mg/kg	3.60	2.40 U	2.20 U	2.40	2.10 U	10.3	7.90
Barium	350	820	400	mg/kg	21.4	3.31	2.64	19.5	2.12	32.4	37.4
Beryllium	7.2	47	590	mg/kg	0.218	0.0470 J	0.0430 J	0.283	0.0440 J	0.822	0.155 J
Cadmium	2.5	7.5	9.3	mg/kg	0.258	0.235 U	0.220 U	0.234 U	0.213 U	0.362	0.109 J
Calcium	- -	- -	- -	mg/kg	9,740	229	150	800	106	2,480	1,890
Chromium	- -	- -	- -	mg/kg	5.83	1.82	1.27	13.4	1.35	31.9	3.01
Cobalt	- -	- -	- -	mg/kg	1.36	0.406 J	0.247 J	1.95	0.411 J	5.96	1.38
Copper	50	1,720	270	mg/kg	13.4	1.00 J	0.700 J	22.3	0.700 J	11.4	6.00
Ferrous Iron	- -	- -	- -	mg/kg	8.30 J	0.900 J	R	1.10 J	0.400 J	2.20 J	0.700 J
Iron	- -	- -	- -	mg/kg	3,860	973	628	6,920	778	27,900	5,430
Lead	63	450	1,000	mg/kg	35.0 J	2.80 J	0.700 J	4.70 J	0.700 J	7.70 J	*200 J*
Magnesium	- -	- -	- -	mg/kg	2,320	214	165	1,610	108	4,700	570
Manganese	1,600	2,000	10,000	mg/kg	49.7	9.50	6.60	61.6	6.70	361	50.4
Mercury	0.18	0.73	2.8	mg/kg	0.104	0.0220 U	0.0216 U	0.0213 U	0.0230 U	0.0313 U	0.0325
Nickel	30	130	310	mg/kg	5.85	1.08 J	0.792 J	5.55 J	0.964 J	18.5	2.78 J
Potassium	- -	- -	- -	mg/kg	359	196	148	1,170	110	2,680	243
Selenium	3.9	4	1,500	mg/kg	4.30 U	4.70 U	4.40 U	4.70 U	4.30 U	6.20 U	4.50 U
Silver	2	8.3	1,500	mg/kg	0.537 U	0.589 U	0.549 U	0.584 U	0.533 U	0.774 U	0.561 U
Sodium	- -	- -	- -	mg/kg	115 J	41.6 J	48.9 J	148 J	32.3 J	351	840
Thallium	- -	- -	- -	mg/kg	6.40 U	7.10 U	6.60 U	7.00 U	6.40 U	9.30 U	6.70 U
Vanadium	- -	- -	- -	mg/kg	7.57	2.72	1.40	14.4	1.42	38.4	4.74
Zinc	109	2,480	10,000	mg/kg	75.1	2.40	1.80 J	24.0	1.50 J	47.1	60.6
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	110 U	94 J	110 U	120 U	110 U	810	440
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	8,210	1,160 U	1,100 U	1,120 U	1,090 U	21,200	2,730

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Volatile Organics								
Benzene	0.06	0.06	44	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Toluene	0.7	0.7	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Ethylbenzene	1	1	390	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.012 U	0.020 J	0.23 U
Methyl tert-butyl ether	0.93	0.93	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Isopropylbenzene	- -	- -	- -	mg/kg	0.0056 U	0.0013 J	0.026 J	0.97
1,1,1-Trichloroethane	0.68	0.68	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2,2-Tetrachloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2-trichloro-1,2,2-trifluoroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1,2-Trichloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1-Dichloroethane	0.27	0.27	240	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,1-Dichloroethene	0.33	0.33	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2,4-Trichlorobenzene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dibromo-3-chloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
1,2-Dibromoethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichloroethane	0.02	0.02	30	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,2-Dichloropropane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,3-Dichlorobenzene	2.4	2.4	280	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
1,4-Dichlorobenzene	1.8	1.8	130	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
2-Butanone	0.12	0.12	500	mg/kg	0.028 U	0.031 U	0.20 U	0.58 U
2-Hexanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.20 U	0.58 U
4-Methyl-2-pentanone	- -	- -	- -	mg/kg	0.028 U	0.031 U	0.20 U	0.58 U
Acetone	0.05	0.05	500	mg/kg	0.028 U	0.018 J	***0.058 J***	0.58 U
Bromodichloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Bromoform	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Bromomethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Carbon Disulfide	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Carbon Tetrachloride	0.76	0.76	22	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Chlorobenzene	1.1	1.1	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloroethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloroform	0.37	0.37	350	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Chloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
cis-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Cyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Dibromochloromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Dichlorodifluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 UJ
Methyl acetate	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Methylcyclohexane	- -	- -	- -	mg/kg	0.0056 U	0.0045 J	0.10	0.97 J
Methylene Chloride	0.05	0.05	500	mg/kg	0.018	0.015	***0.086***	0.12 U
Styrene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Tetrachloroethene	1.3	1.3	150	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Total VOCs	- -	- -	- -	mg/kg	0.018	0.039 J	0.29 J	1.9 J
trans-1,2-Dichloroethene	0.19	0.19	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
trans-1,3-Dichloropropene	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Trichloroethene	0.47	0.47	200	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Trichlorofluoromethane	- -	- -	- -	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics								
Naphthalene	12	12	500	mg/kg	0.94 U	0.21 U	0.23 U	0.27 J
1,1'-Biphenyl	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.020 J	0.78 U
2,2'-Oxybis(1-Chloropropane)	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4,5-Trichlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4,6-Trichlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dichlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dimethylphenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,4-Dinitrophenol	- -	- -	- -	mg/kg	1.8 UJ	0.41 U	0.45 U	1.5 U
2,4-Dinitrotoluene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2,6-Dinitrotoluene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Chloronaphthalene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Chlorophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Methylnaphthalene	- -	- -	- -	mg/kg	0.94 U	0.034 J	0.44	13
2-Methylphenol	0.33	0.33	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
3-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Methylphenol	0.33	0.33	500	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitrophenol	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
Acenaphthene	20	98	500	mg/kg	0.94 U	0.31	0.10 J	0.69 J
Acenaphthylene	100	107	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Acetophenone	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Anthracene	100	1,000	500	mg/kg	0.068 J	0.11 J	0.099 J	0.78 U
Atrazine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Benzaldehyde	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.24 J	0.026 J	0.039 J	0.26 J
Benzo(a)pyrene	1	22	1	mg/kg	0.26 J	0.21 U	0.024 J	0.23 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.25 J	0.017 J	0.029 J	0.39 JY
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.14 J	0.21 U	0.23 U	0.19 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.94 U	0.21 U	0.23 U	0.48 JY
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.94 UB	0.21 UB	0.23 UB	0.34 J
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Caprolactam	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Carbazole	- -	- -	- -	mg/kg	0.94 U	0.020 J	0.033 J	0.78 U
Chrysene	1	1	56	mg/kg	0.23 J	0.024 J	0.030 J	0.22 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Dibenzofuran	7	210	350	mg/kg	0.94 U	0.19 J	0.093 J	0.78 U
Diethylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 UB	0.78 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)								
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Fluoranthene	100	1,000	500	mg/kg	0.42 J	0.21 U	0.13 J	0.58 J
Fluorene	30	386	500	mg/kg	0.94 U	0.23	0.15 J	1.6
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachloroethane	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.11 J	0.21 U	0.23 U	0.16 J
Isophorone	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Nitrobenzene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
Phenanthrene	100	1,000	500	mg/kg	0.94 U	0.21	0.27	3.3
Phenol	0.33	0.33	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Pyrene	100	1,000	500	mg/kg	0.41 J	0.15 J	0.11 J	0.75 J
Total SVOCs	- -	- -	- -	mg/kg	2.1 J	1.3 J	1.6 J	22 J
Inorganics								
Aluminum	- -	- -	- -	mg/kg	2,440	5,570	3,760	3,550
Antimony	- -	- -	- -	mg/kg	15.7 U	17.7 U	20.4 U	17.6 U
Arsenic	13	16	16	mg/kg	***20.7***	1.00 J	3.00	1.70 J
Barium	350	820	400	mg/kg	44.9	16.8	14.6	13.0
Beryllium	7.2	47	590	mg/kg	0.182 J	0.369	0.304	0.277
Cadmium	2.5	7.5	9.3	mg/kg	0.222	0.0400 J	0.382	0.0870 J
Calcium	- -	- -	- -	mg/kg	8,390	387	1,190	4,180
Chromium	- -	- -	- -	mg/kg	4.57	6.72	10.4	9.55
Cobalt	- -	- -	- -	mg/kg	1.61	1.70	2.72	1.69
Copper	50	1,720	270	mg/kg	9.40	5.00	8.10	5.60
Ferrous Iron	- -	- -	- -	mg/kg	2.70 J	2.10 J	1.00 J	1.20 J
Iron	- -	- -	- -	mg/kg	4,600	6,830	7,510	6,210
Lead	63	450	1,000	mg/kg	41.8 J	8.30 J	13.4 J	7.70 J
Magnesium	- -	- -	- -	mg/kg	2,420	823	1,480	2,050
Manganese	1,600	2,000	10,000	mg/kg	74.6	50.0	73.7	46.6
Mercury	0.18	0.73	2.8	mg/kg	0.0675	0.0251 U	0.0279 U	***1.35***
Nickel	30	130	310	mg/kg	3.98 J	5.02 J	6.14 J	6.08
Potassium	- -	- -	- -	mg/kg	268	365	910	853
Selenium	3.9	4	1,500	mg/kg	4.20 U	4.70 U	5.40 U	4.70 U
Silver	2	8.3	1,500	mg/kg	0.523 U	0.589 U	0.679 U	0.587 U
Sodium	- -	- -	- -	mg/kg	83.2 J	116 J	57.9 J	78.5 J
Thallium	- -	- -	- -	mg/kg	6.30 U	7.10 U	8.20 U	7.00 U
Vanadium	- -	- -	- -	mg/kg	6.75	9.88	12.5	11.6
Zinc	109	2,480	10,000	mg/kg	80.7	14.0	24.2	17.1
Miscellaneous								
Sulfate	- -	- -	- -	mg/kg	230	390	140 U	220
TOC								
Total Organic Carbon	- -	- -	- -	mg/kg	3,350	1,730	1,250 U	1,470

See Notes on Page 34.

Table 5
Summary of 2010 to 2016 Soil Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Unrestricted use SCO, Restricted use SCO for commercial use and protection of groundwater are from 6 NYCRR Part 375-6.8.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   Gray font = Analyte was not detected.
   Italic font = Analyte was detected above unrestricted use SCO.
   Black Bold Italic font = Analyte detected above restricted - protection of groundwater SCO.
   Gray Shading = Analyte detected above restricted - commercial use SCO.
4. Abbreviations:
   - - = 6 NYCRR SCO not available.
   6 NYCRR = Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.
   ft = feet.
   LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample Duplicate.
   mg/kg = milligrams per kilogram or part per million.
   NA = Not Analyzed.
   SCO = Soil Cleanup Objectives.
   VOC = Volatile Organic Compounds.
   SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   B = Analyte was detected in the blank and sample.
   E = Analyte exceeded calibration range.
   J = Estimated value. Result is greater than the RL but less than the MDL.
   R = Rejected results.
   U = Analyte not detected at listed reporting detection limit.
   * = LCS/LCSD or relative percent difference of LCS/LCSD exceeds the control limits.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:		Units	01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Volatile Organics																	
1,1,1-Trichloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1,2,2-Tetrachloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1,2-Trichloroethane	1	ug/L	8.0 U	8.0 U	**4.8 J**	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1-Dichloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,1-Dichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2,4-Trichlorobenzene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dibromoethane	0.0006	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichlorobenzene	3	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichloroethane	0.6	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichloropropane	1	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,3-Dichlorobenzene	3	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
1,4-Dichlorobenzene	3	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
2-Butanone	50	ug/L	80 U	80 U	50 U	**3.4 J**	50 U	50 U	50 U	50 U	50 U	10 U	50 U	10 U	50 U	50 U	100 U
2-Hexanone	50	ug/L	40 U	40 U	25 U	5.0 U	25 U	25 U	25 U	25 U	25 U	5.0 U	25 U	5.0 U	25 U	25 U	50 U
4-Methyl-2-pentanone	- -	ug/L	40 U	40 U	25 U	5.0 U	25 U	25 U	25 U	25 U	25 U	5.0 U	25 U	5.0 U	25 U	25 U	50 U
Acetone	50	ug/L	**34 J**	80 U	50 U*	**21**	50 U	50 U	**46 J**	**17 J**	**20 J**	10 U	**30 J**	**6.2 J**	50 U	50 U	100 U
Benzene	1	ug/L	**510**	**93**	**280**	1.0 U	**22**	**97**	**7.0**	**2.5 J**	**6.4**	1.0 U	**5.7**	**1.1**	**68**	**26**	**440**
Bromodichloromethane	50	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Bromoform	50	ug/L	8.0 U	8.0 UJ	5.0 U	1.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 UJ	10 U
Bromomethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Carbon Disulfide	60	ug/L	8.0 U	8.0 U	5.0 U	**0.51 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	**0.43 J**	5.0 U	5.0 U	10 U
Carbon Tetrachloride	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chlorobenzene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chloroethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chloroform	7	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Chloromethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
cis-1,2-Dichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
cis-1,3-Dichloropropene	0.4	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Cyclohexane	- -	ug/L	**130**	**17**	**57**	1.0 U	**38**	**52**	**6.8**	**5.2**	**3.5 J**	1.0 U	5.0 U	**18**	**49**	**29**	**13**
Dibromochloromethane	50	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Dichlorodifluoromethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Ethylbenzene	5	ug/L	**140**	8.0 U	**29**	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	**5.7**	**13**	10 U
Isopropylbenzene	5	ug/L	**110**	**32**	**65**	1.0 U	**11**	**21**	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	**2.8**	**15**	**15**	**38**
Methyl acetate	- -	ug/L	8.0 U	8.0 U	13 U	2.5 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	13 U	2.5 U	5.0 U	5.0 U	10 U
Methyl tert-butyl ether	10	ug/L	**26**	**95**	5.0 U	**0.40 J**	5.0 U	5.0 U	5.0 U	**3.7 J**	**3.5 J**	**0.87 J**	**1.4 J**	**0.23 J**	5.0 U	**5.5**	**80**
Methylcyclohexane	- -	ug/L	**50**	**8.6**	**27**	1.0 U	**33**	**33**	**3.2 J**	**3.4 J**	5.0 U	1.0 U	**1.5 J**	**9.4**	**11**	**8.3**	**6.8 J**
Methylene Chloride	5	ug/L	8.0 U	8.0 U	**15**	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Styrene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Tetrachloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Toluene	5	ug/L	**36**	8.0 U	**6.9**	1.0 U	**3.0 J**	**4.5 J**	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	**4.8 J**	**9.6**	**7.2 J**
trans-1,2-Dichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
trans-1,3-Dichloropropene	0.4	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 UF1	1.0 U	5.0 U	5.0 U	10 U
Trichloroethene	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Trichlorofluoromethane	5	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Vinyl Chloride	2	ug/L	8.0 U	8.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	5.0 U	10 U
Xylenes (total)	5	ug/L	**100**	16 U	**20**	2.0 U	**13**	**6.9 J**	**4.0 J**	10 U	**4.1 J**	2.0 U	10 U	**0.79 J**	**18**	**32**	**6.9 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:		Units	01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Semivolatile Organics																	
1,1'-Biphenyl	5	ug/L	4.7 U	4.8 U	46 U	97 U	**0.71 J**	5.3 U	**1.5 J**	5.4 U	4.7 U	5.0 U	50 U	25 U	**11**	**0.85 J**	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,4,5-Trichlorophenol	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	5.1 U	NA
2,4,6-Trichlorophenol	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,4-Dichlorophenol	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,4-Dimethylphenol	50	ug/L	4.7 U	**0.77 J**	46 U	97 U	4.8 U	5.3 U	4.7 U	**1.7 J**	**3.0 J**	5.0 U	50 U	25 U	**7.2**	**6.6**	NA
2,4-Dinitrophenol	10	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 UF1	49 U	10 U	10 U	NA
2,4-Dinitrotoluene	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2,6-Dinitrotoluene	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Chloronaphthalene	10	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Chlorophenol	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Methylnaphthalene	- -	ug/L	**99**	4.8 U	**21 J**	97 U	**15**	**0.87 J**	**19**	**5.5**	**4.1 J**	**2.0 J**	50 U	25 U	**90**	**10**	NA
2-Methylphenol	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	**2.2 J**	**1.2 J**	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
2-Nitroaniline	5	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
2-Nitrophenol	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
3,3'-Dichlorobenzidine	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF1	25 U	5.0 U	5.1 U	NA
3-Nitroaniline	5	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 UF1	49 U	10 U	10 U	NA
4-Bromophenyl-phenylether	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
4-Chloro-3-Methylphenol	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
4-Chloroaniline	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF1	25 U	5.0 U	5.1 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
4-Methylphenol	- -	ug/L	**12**	9.6 U	93 U	190 U	**3.2 J**	11 U	**7.1 J**	**6.6 J**	**6.4 J**	**2.4 J**	99 U	**2.5 J**	**1.3 J**	10 U	NA
4-Nitroaniline	5	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
4-Nitrophenol	- -	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
Acenaphthene	20	ug/L	**2.4 J**	**2.6 J**	46 U	97 U	**2.5 J**	**3.4 J**	**2.6 J**	**0.97 J**	**2.7 J**	**1.5 J**	50 U	**9.2 J**	**160**	**96 D**	NA
Acenaphthylene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	**0.52 J**	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	**1.0 J**	NA
Acetophenone	- -	ug/L	4.7 U	**5.6**	**18 J**	97 U	4.8 U	5.3 U	**2.6 J**	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Anthracene	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	**0.45 J**	4.7 U	**0.42 J**	50 UF2	25 U	**16**	**5.5**	NA
Atrazine	7.5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Benzaldehyde	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 UB	4.7 U	**1.1 J**	50 U	25 U	5.0 U	**1.0 JB**	NA
Benzo(a)anthracene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**2.9 J**	5.1 U	NA
Benzo(a)pyrene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**0.91 J**	5.1 U	NA
Benzo(b)fluoranthene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**1.1 J**	5.1 U	NA
Benzo(g,h,i)perylene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 UJ	50 U	25 U	5.0 U	5.1 U	NA
Benzo(k)fluoranthene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
bis(2-Chloroethoxy)methane	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
bis(2-Chloroethyl)ether	1	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Butylbenzylphthalate	50	ug/L	4.7 U	**0.62 J**	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Caprolactam	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF1	25 U	5.0 U	5.1 U	NA
Carbazole	- -	ug/L	**1.0 J**	4.8 U	46 U	97 U	**1.2 J**	5.3 U	**3.5 J**	**1.8 J**	**1.3 J**	**2.4 J**	50 U	**3.2 J**	**45**	**27**	NA
Chrysene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**2.7 J**	5.1 U	NA
Dibenzo(a,h)anthracene	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Dibenzofuran	- -	ug/L	9.4 U	**0.75 J**	93 U	190 U	**1.3 J**	**1.9 J**	**2.3 J**	**0.79 J**	**0.81 J**	**0.60 J**	99 U	**5.4 J**	**110**	**58**	NA
Diethylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	**2.4 J**	NA
Dimethylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	5.1 U	NA
Di-n-Butylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	**0.78 J**	**0.33 J**	**0.44 J**	50 UF2	25 U	5.0 U	5.1 U	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:		Units	01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Semivolatile Organics (Cont.)																	
Di-n-Octylphthalate	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**2.4 J**	5.1 U	NA
Fluoranthene	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**28**	**11**	NA
Fluorene	50	ug/L	**3.0 J**	**1.5 J**	46 U	97 U	**11**	**4.2 J**	**1.7 J**	**2.4 J**	**2.5 J**	**1.9 J**	50 UF2	**6.4 J**	**110**	**55**	NA
Hexachlorobenzene	0.04	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Hexachlorobutadiene	0.5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Hexachlorocyclopentadiene	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Hexachloroethane	5	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
Isophorone	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	**1.4 J**	**0.61 J**	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
naphthalene	10	ug/L	**120**	**11**	**45 J**	97 U	**18**	**4.2 J**	**45**	**18**	**50**	**8.8**	**10 J**	**8.8 J**	**400**	**170 D**	NA
Nitrobenzene	0.4	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
N-Nitroso-di-n-propylamine	- -	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	5.0 U	5.1 U	NA
N-Nitrosodiphenylamine	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 UF2	25 U	5.0 U	**1.9 J**	NA
Pentachlorophenol	- -	ug/L	9.4 U	9.6 U	93 U	190 U	9.6 U	11 U	9.5 U	11 U	9.5 U	10 U	99 U	49 U	10 U	10 U	NA
Phenanthrene	50	ug/L	**2.1 J**	4.8 U	46 U	97 U	**0.82 J**	5.3 U	**1.5 J**	**0.47 J**	4.7 U	5.0 U	50 U	**4.1 J**	**140**	**18**	NA
Phenol	1	ug/L	**15**	**1.1 J**	**4.5 J**	97 U	**42**	**6.3**	**110**	**150 D**	**84**	**90 D**	**64**	**73**	5.0 U	5.1 U	NA
Pyrene	50	ug/L	4.7 U	4.8 U	46 U	97 U	4.8 U	5.3 U	4.7 U	5.4 U	4.7 U	5.0 U	50 U	25 U	**18**	**3.8 J**	NA
Inorganics - Total																	
Aluminum	- -	mg/L	**0.370**	NA	NA	NA	**0.20**	NA	**3.80**	NA	0.00300 U	NA	NA	NA	**4.30**	NA	0.200 U
Antimony	0.003	mg/L	NA	NA	NA	NA	0.020 U	NA	0.020 U	NA	0.00300 U	NA	NA	NA	0.020 U	NA	0.0200 U
Arsenic	0.025	mg/L	**0.0056 J**	NA	NA	NA	0.0100 U	NA	0.0100 U	NA	0.00300 U	NA	NA	NA	**0.0062 J**	NA	0.0100 U
Barium	1	mg/L	**0.0270**	NA	NA	NA	**0.00970**	NA	**0.0130**	NA	0.00300 U	NA	NA	NA	**48.0**	NA	**0.0760**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	NA	0.00300 U	NA	NA	NA	0.00200 U	NA	0.00200 U
Cadmium	0.005	mg/L	0.00100 U	NA	NA	NA	**0.00520 J**	NA	**0.00450 J**	NA	0.00300 U	NA	NA	NA	**0.00630 J**	NA	0.00100 U
Calcium	- -	mg/L	**104**	NA	NA	NA	**81.5**	NA	**142**	NA	0.00300 U	NA	NA	NA	**87.4**	NA	**122**
Chromium	0.05	mg/L	**0.025**	NA	NA	NA	0.00400 U	NA	**0.0011 J**	NA	0.00300 U	NA	NA	NA	**0.00780**	NA	**0.00110 J**
Cobalt	- -	mg/L	**0.00690 J**	NA	NA	NA	0.00400 U	NA	**0.00760 J**	NA	0.00300 U	NA	NA	NA	**0.00170 J**	NA	0.00400 U
Copper	0.2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00530 J**	NA	0.00300 U	NA	NA	NA	**0.00330 J**	NA	0.0100 U
Iron	0.3	mg/L	**6.300**	NA	NA	**16.2**	**3.600**	NA	**0.160**	NA	0.00300 U	NA	NA	**0.170**	**13.800**	NA	**27.9**
Lead	0.025	mg/L	**0.00100**	NA	NA	NA	0.00500 U	NA	0.00500 U	NA	0.00300 U	NA	NA	NA	**0.00820**	NA	**0.00670**
Magnesium	35	mg/L	**13.4 J**	NA	NA	NA	**12.7**	NA	**0.470**	NA	0.00300 U	NA	NA	NA	**38.7**	NA	**19.7**
Manganese	0.3	mg/L	**0.300**	NA	NA	**1.40 B**	**0.440**	NA	**0.00420**	NA	0.00300 U	NA	NA	**0.0740 B**	**0.560**	NA	**0.640**
Mercury	0.0007	mg/L	**0.00130 J**	NA	NA	NA	0.000200 U	NA	0.000200 U	NA	0.00300 U	NA	NA	NA	0.000200 U	NA	0.000200 U
Nickel	0.1	mg/L	**0.0160**	NA	NA	NA	**0.00530 J**	NA	**0.0190**	NA	0.00300 U	NA	NA	NA	**0.00520 J**	NA	**0.00270 J**
Potassium	- -	mg/L	**18.3**	NA	NA	NA	**25.1**	NA	**42.3**	NA	0.00300 U	NA	NA	NA	**13.5**	NA	**14.5**
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U	NA	0.00300 U	NA	NA	NA	0.0150 U	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	**0.00170 J**	NA	0.00300 U	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U
Sodium	20	mg/L	**90.8**	NA	NA	NA	**277**	NA	**259**	NA	**491**	NA	NA	NA	**164**	NA	**149**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U
Vanadium	- -	mg/L	**0.00610**	NA	NA	NA	**0.00610**	NA	**0.00640**	NA	**0.00630**	NA	NA	NA	**0.0140**	NA	**0.00190 J**
Zinc	2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	NA	**0.035**	NA	**0.00590 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-3	AMW-3	AMW-3	AMW-3	AMW-4	AMW-4	AMW-5	AMW-5	AMW-7	AMW-7	AMW-7	AMW-7	AMW-11	AMW-11	AMW-12
Historical Screen Interval (feet below ground surface)			4 - 9	4 - 9	4 - 9	4 - 9	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	2 - 12	3 - 8
Current Screen Interval (Feet below current ground surface):			8 - 13	8 - 13	8 - 13	8 - 13	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	6 - 16	7 - 12
Date Collected:			01/20/11	09/11/13	01/13/16	06/21/16	01/26/11	09/11/13	01/26/11	09/11/13	01/26/11	09/10/13	01/12/16	06/21/16	01/26/11	09/11/13	02/20/13
Inorganics-Dissolved																	
Aluminum	- -	mg/L	0.200 UB	NA	NA	NA	**0.220**	NA	**3.800**	NA	0.200 U	NA	NA	NA	**0.260**	NA	0.200 U
Antimony	0.003	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U
Arsenic	0.025	mg/L	**0.00830 J**	NA	NA	NA	0.0100 U	NA	**0.00650 J**	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00650 J**
Barium	1	mg/L	**0.0260**	NA	NA	NA	**0.00970**	NA	**0.0110**	NA	**0.0140**	NA	NA	NA	**0.0360**	NA	**0.0770**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U
Cadmium	0.005	mg/L	0.00100 U	NA	NA	NA	**0.000510 J**	NA	**0.000450 J**	NA	**0.000640 J**	NA	NA	NA	**0.000530 J**	NA	0.00100 U
Calcium	- -	mg/L	**101**	NA	NA	NA	**83.6**	NA	**142**	NA	**46.7**	NA	NA	NA	**89.9**	NA	**122**
Chromium	0.05	mg/L	**0.00190 J**	NA	NA	NA	0.00400 U	NA	0.00400 U	NA	**0.00120 J**	NA	NA	NA	**0.000940 J**	NA	**0.00130 J**
Cobalt	- -	mg/L	0.00400 U	NA	NA	NA	0.00400 U	NA	**0.000660 J**	NA	0.00400 U	NA	NA	NA	0.00400 U	NA	0.00400 U
Copper	0.2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00280 J**	NA	**0.00210 J**	NA	NA	NA	**0.00170 J**	NA	0.0100 UB
Iron	0.3	mg/L	**5.900**	NA	NA	**0.000550**	**2.700**	NA	**0.0610**	NA	**0.0420 J**	NA	NA	**0.0850**	**8.700**	NA	**24.8**
Lead	0.025	mg/L	**0.00690**	NA	NA	NA	0.00500 U	NA	0.00500 U	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	**0.00550**
Magnesium	35	mg/L	**14.90 J**	NA	NA	NA	**12.90**	NA	**0.490**	NA	**33.30**	NA	NA	NA	**41.60**	NA	**19.3**
Manganese	0.3	mg/L	**0.290**	NA	NA	**1.40 B**	**0.460**	NA	**0.00190 J**	NA	**0.0330**	NA	NA	**0.0850 B**	**0.0560**	NA	**0.610**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U
Nickel	0.1	mg/L	**0.00340 J**	NA	NA	NA	**0.00490 J**	NA	**0.0200**	NA	**0.00630 J**	NA	NA	NA	0.0100 U	NA	**0.00370 J**
Potassium	- -	mg/L	**18.2**	NA	NA	NA	**25.40**	NA	**43.90**	NA	**46.40**	NA	NA	NA	**13.70**	NA	**15.1**
Selenium	0.01	mg/L	0.0150 UJ	NA	NA	NA	0.0150 U	NA	0.0150 U	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U
Sodium	20	mg/L	**964**	NA	NA	NA	**280**	NA	**266**	NA	**479**	NA	NA	NA	**167**	NA	**142**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U
Vanadium	- -	mg/L	**0.00400 J**	NA	NA	NA	**0.00630**	NA	**0.00520**	NA	**0.00540**	NA	NA	NA	**0.00580**	NA	**0.00220 J**
Zinc	2	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	NA	**0.00190 J**	NA	NA	NA	**0.00440 J**	NA	**0.00350 J**
General Chemistry																	
Alkalinity	- -	mg/L	**425**	NA	NA	**351**	**292**	NA	**338**	NA	**309**	NA	NA	**199 B**	**414**	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**425**	NA	NA	**351**	**292**	NA	**338**	NA	**309**	NA	NA	**199 B**	**414**	NA	NA
Ammonia Nitrogen	- -	mg/L	**11**	NA	NA	NA	**13.9**	NA	**18.7**	NA	**17**	NA	NA	NA	**3.9**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.75 U	NA	NA	NA	1.5 UJ	NA	1.5 UJ	NA	1.5 UJ	NA	NA	NA	1.5 UJ	NA	NA
Ethene	- -	mg/L	0.75 U	NA	NA	NA	1.5 UJ	NA	1.5 UJ	NA	1.5 UJ	NA	NA	NA	1.5 UJ	NA	NA
Methane	- -	mg/L	**12 D**	NA	NA	NA	**14 J**	NA	**9.6 J**	NA	**16 J**	NA	NA	NA	**11 J**	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	0.05 U	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	**0.16**	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA
Orthophosphate	- -	mg/L	**0.4**	NA	NA	NA	**0.54 J**	NA	**0.28 J**	NA	**1.5 J**	NA	NA	NA	**0.84 J**	NA	NA
Soluble Organic Carbon	- -	mg/L	**37.4**	NA	NA	NA	**36.8**	NA	**41.5**	NA	**37.2**	NA	NA	NA	**28.2**	NA	NA
Sulfate	250	mg/L	5 UB	NA	NA	**970**	5 UB	NA	11 UB	NA	5 UB	NA	NA	**82.3**	6.5 UB	NA	NA
Sulfide	- -	mg/L	0.1 U	NA	NA	**5.3**	0.1 U	NA	0.1 U	NA	**0.31**	NA	NA	**5.2**	0.1 U	NA	NA
Total Dissolved Solids	- -	mg/L	**628**	NA	NA	NA	**1,010**	NA	**1,170**	NA	**1,600**	NA	NA	NA	**829**	NA	**976**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:		Units	09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.91 J**	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.46 J**	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	50 U	50 U	10 U	10 U	10 U	10 U	**3.2 J**	**5.8 J**	10 U	10 U	10 U	10 U	**3.9 J**
2-Hexanone	50	ug/L	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U	5.0 U	5.0 U	**3.3 J**	5.0 U	5.0 U	**2.4 J**	5.0 U	5.0 U	**3.2 J**	5.0 U	**2.1 J**
Acetone	50	ug/L	**43 J**	**25 J**	**6.5 J**	**3.4 J**	**3.2 J**	**4.8 J**	**18**	**46**	**4.6 J**	**3.9 J**	**3.3 J**	**3.1 J**	**22**
Benzene	1	ug/L	**280**	**80**	1.0 U	**4.5**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**4.3**	1.0 U	**0.88 J**	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U	**0.99 J**	1.0 U	**0.97 J**	1.0 U	1.0 U	1.0 U	**0.85 J**	1.0 U	**0.99 J**	1.0 U	**0.87 J**
Bromoform	50	ug/L	5.0 U	5.0 U	**3.4**	**1.1**	**4.2**	**0.62 J**	**3.1**	1.0 U	**2.5**	1.0 U	**4.6**	**1.3**	**3.0**
Bromomethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	5.0 U	5.0 U	**2.7**	**2.8**	**0.66 J**	**12**	**1.5**	**7.9**	**2.6**	**2.8**	**5.5**	**12**	**0.63 J**
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	5.0 U	**0.37 J**	1.0 U	**0.36 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.0**	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	**16 J**	**12**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**1.9**	1.0 U	1.0 U	**0.32 J**
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	**2.4**	**0.82 J**	**2.6**	**0.41 J**	**2.1**	1.0 U	**2.0**	1.0 U	**2.6**	**0.79 J**	**2.0**
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	**4.3 J**	5.0 U	1.0 U	**1.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**3.6**	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	**44**	**24**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	5.0 U	13 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**52**	**32**	**10**	**63 F1**	**3.5**	**41**	**5.0**	**3.4**	**12**	**140**	**3.1**	**24**	**0.91 J**
Methylcyclohexane	- -	ug/L	**12**	**5.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.97 J**	1.0 U	1.0 U	**0.36 J**
Methylene Chloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 UF1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U	**0.38 J**	1.0 U	**0.57 J**	1.0 U	**1.5**	**1.0**	1.0 U	1.0 U	1.0 U	1.0 U	**0.59 J**
Toluene	5	ug/L	**5.1**	5.0 U	1.0 U	1.0 U	**1.3**	1.0 U	**1.6**	**1.3**	1.0 U	**7.1**	**0.81 J**	**0.64 J**	**10**
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**7.8**	1.0 U	**0.90 J**	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 UF1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	**1.3**	**9.9**	1.0 U	1.0 U	1.0 U	1.0 U	**1.4**	**2,100**	1.0 U	**3.6**	1.0 U
Xylenes (total)	5	ug/L	**7.1 J**	10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**11**	2.0 U	2.0 U	**0.79 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:			09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
2,4,5-Trichlorophenol	1	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4,6-Trichlorophenol	1	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4-Dichlorophenol	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4-Dimethylphenol	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,4-Dinitrophenol	10	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
2,4-Dinitrotoluene	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2,6-Dinitrotoluene	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Chloronaphthalene	10	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Chlorophenol	1	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Methylnaphthalene	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
2-Methylphenol	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
2-Nitroaniline	5	ug/L	9.8 U	110 U	**0.45 J**	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
2-Nitrophenol	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
3-Nitroaniline	5	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Chloroaniline	5	ug/L	R	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
4-Methylphenol	- -	ug/L	9.8 U	110 U	10 U*	NA	10 U	NA	10 U	NA	9.7 U*	NA	9.7 U	NA	9.7 U
4-Nitroaniline	5	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
4-Nitrophenol	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
Acenaphthene	20	ug/L	4.9 U	53 U	**2.8 J**	NA	5.0 U	NA	5.1 U	NA	**0.90 J**	NA	4.9 U	NA	4.8 U
Acenaphthylene	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Acetophenone	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
Anthracene	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Atrazine	7.5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzaldehyde	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
Benzo(a)anthracene	0.002	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(a)pyrene	- -	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(b)fluoranthene	0.002	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(g,h,i)perylene	- -	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	**3.9 J**	NA	4.9 U	NA	**3.0 J**	NA	**4.0 J**
Butylbenzylphthalate	50	ug/L	**0.42 J**	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Caprolactam	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Carbazole	- -	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	**0.39 J**	NA	4.9 U	NA	4.8 U
Chrysene	0.002	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Dibenzo(a,h)anthracene	- -	ug/L	4.9 UJ	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Dibenzofuran	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
Diethylphthalate	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Dimethylphthalate	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Di-n-Butylphthalate	50	ug/L	4.9 UB	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:			09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Fluoranthene	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Fluorene	50	ug/L	4.9 U	53 U	**0.42 J**	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachlorobenzene	0.04	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachlorobutadiene	0.5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachlorocyclopentadiene	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Hexachloroethane	5	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Isophorone	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
naphthalene	10	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Nitrobenzene	0.4	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
N-Nitrosodiphenylamine	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Pentachlorophenol	- -	ug/L	9.8 U	110 U	10 U	NA	10 U	NA	10 U	NA	9.7 U	NA	9.7 U	NA	9.7 U
Phenanthrene	50	ug/L	4.9 UB	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	**0.98 J**	NA	4.9 U	NA	4.8 U
Phenol	1	ug/L	**4.1 J**	53 U	5.2 U*	NA	5.0 U	NA	5.1 U	NA	4.9 U*	NA	4.9 U	NA	4.8 U
Pyrene	50	ug/L	4.9 U	53 U	5.2 U	NA	5.0 U	NA	5.1 U	NA	4.9 U	NA	4.9 U	NA	4.8 U
Inorganics - Total															
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	NA	**4.40 B**	NA	**2.70**	NA	**26.1**	NA	**1.30 B**	NA	**6.60**	NA	**37.8**
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.510 B**	NA	**0.740 B**	NA	**1.10 B**	NA	**0.400 B**	NA	**0.510 B**	NA	**0.720 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-12	AMW-12	AMW-13-D1	AMW-13-D1	AMW-13-D2	AMW-13-D2	AMW-13-VD	AMW-13-VD	AMW-14-D1	AMW-14-D1	AMW-14-D2	AMW-14-D2	AMW-14-VD
Historical Screen Interval (feet below ground surface)			3 - 8	3 - 8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			7 - 12	7 - 12	22 - 32	22 - 32	32 - 42	32 - 42	60 - 70	60 - 70	22 - 32	22 - 32	32 - 42	32 - 42	64 - 74
Date Collected:			09/13/13	01/14/16	06/24/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/24/16	07/26/16	06/23/16	07/26/16	06/23/16
Inorganics-Dissolved															
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	NA	**3.50**	NA	**14.0**	NA	**23.7**	NA	**0.410**	NA	**2.90**	NA	**35.3**
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.510 B**	NA	**0.740 B**	NA	**1.10 B**	NA	**0.370 B**	NA	**0.480 B**	NA	**0.720 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry															
Alkalinity	- -	mg/L	NA	NA	**569 B**	NA	**732 B**	NA	**732 B**	NA	**886 B**	NA	**740 B**	NA	**427**
Alkalinity, Bicarbonate	- -	mg/L	NA	NA	**569 B**	NA	**732 B**	NA	**732 B**	NA	**886 B**	NA	**740 B**	NA	**427**
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	mg/L	NA	NA	**170**	NA	**250**	NA	**1,860**	NA	**103**	NA	**263**	NA	**1,780**
Sulfide	- -	mg/L	NA	NA	**11.9**	NA	**2.6**	NA	0.1 U	NA	**48**	NA	**22.5**	NA	0.1 U
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:		Units	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	10 U [10 U]	10 U	50 U	**1.3 J** [10 U]	10 U	10 U [10 U]	10 U	10 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	5.0 U [5.0 U]	5.0 U	25 U	5.0 U [5.0 U]	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	**2.1 J**	25 U	5.0 U [5.0 U]	5.0 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	**6.0**	5.0 U
Acetone	50	ug/L	**8.9 J [9.6 J]**	**4.2 J**	50 U	**11 [9.3 J]**	**3.8 J**	**7.3 J [6.9 J]**	**3.6 J**	**3.2 J**	**8.3 J**	**20**	**5.5 J**
Benzene	1	ug/L	1.0 U [1.0 U]	**0.48 J**	**3.9 J**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**1.8**	1.0 U
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**1.9**	**0.75 J**
Bromoform	50	ug/L	1.0 U [1.0 U]	**2.2**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**2.4**	1.0 U	**2.4**
Bromomethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**9.9 [8.4]**	**0.46 J**	5.0 U	**1.6 [1.8]**	**0.42 J**	**4.6 [4.4]**	**1.4**	1.0 U	1.0 U	**1.1**	**0.27 J**
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	**0.37 J** [1.0 U]	**0.51 J**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**0.74 J**	**14**	**0.92 J**
Chloromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	**20**	**220**	**3.0 [3.3]**	**1.7**	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**5.6**	**2.8**
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	**1.1**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**1.0**	**0.35 J**	**1.5**
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	2.5 U [2.5 U]	2.5 U	13 U	2.5 U [2.5 U]	2.5 U	2.5 U [2.5 U]	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**0.59 J [0.58 J]**	**29**	**51**	**66 [68]**	**43**	**2.6 [2.4]**	**23**	**1.1**	1.0 U	**55**	**8.5**
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	**9.9**	**140**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	**0.60 J**
Styrene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	**0.41 J [0.38 J]**	**0.43 J**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**1.4**	**1.3**
Toluene	5	ug/L	**8.2 [7.7]**	**3.0**	**7.5**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	**0.52 J**	**15**	**0.87 J**	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	**5.5**	**73**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**4.4**	**1.2**
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U [1.0 U]	**70**	**410**	**1.7 [1.8]**	**3.5**	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	**6.0**	**81**
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	2.0 U	**6.5 J**	2.0 U [2.0 U]	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:		Units	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Semivolatile Organics													
1,1'-Biphenyl	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Methylphenol	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
2-Nitrophenol	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Chloro-3-Methylphenol	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
4-Methylphenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
4-Nitrophenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
Acenaphthene	20	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Acetophenone	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Anthracene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Atrazine	7.5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzaldehyde	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Caprolactam	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Carbazole	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Chrysene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
Diethylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:			07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Semivolatile Organics (Cont.)													
Di-n-Octylphthalate	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Fluoranthene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Fluorene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Hexachloroethane	5	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Isophorone	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
naphthalene	10	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	9.4 U	NA	9.3 U [9.9 U]	NA	9.3 U [9.3 U]	NA	9.2 U	NA	NA	NA
Phenanthrene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Phenol	1	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Pyrene	50	ug/L	NA	4.7 U	NA	4.6 U [4.9 U]	NA	4.6 U [4.6 U]	NA	4.6 U	NA	NA	NA
Inorganics - Total													
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	**2.20**	NA	**0.120 [0.110]**	NA	**0.120 [0.0980]**	NA	**4.20**	NA	NA	NA
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	**0.500 B**	NA	**0.00630 B [0.00580 B]**	NA	**0.240 B [0.250 B]**	NA	**0.200 B**	NA	NA	NA
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	AMW-14-VD	AMW-15-D1	AMW-15-D1	AMW-15-D2	AMW-15-D2	AMW-15-D3	AMW-15-D3	AMW-15-VD	AMW-15-VD	ASB-2	ASB-3
Historical Screen Interval (feet below ground surface)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			64 - 74	23.5 - 33.5	23.5 - 33.5	30 - 40	30 - 40	40 - 50	40 - 50	60 - 70	60 - 70	20 - 25	27 - 32
Date Collected:			07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/23/16	07/27/16	06/06/16	06/08/16
Inorganics-Dissolved													
Aluminum	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	mg/L	NA	**1.60**	NA	0.0500 U **[0.0230 J]**	NA	0.0500 U [0.0500 U]	NA	**4.10**	NA	NA	NA
Lead	0.025	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.3	mg/L	NA	**0.480 B**	NA	**0.00770 B [0.000740 JB]**	NA	**0.100 B [0.130 B]**	NA	**0.210 B**	NA	NA	NA
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry													
Alkalinity	- -	mg/L	NA	**602**	NA	**185 [181 B]**	NA	**12.2 B [617 B]**	NA	**303**	NA	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	NA	**602**	NA	**185 [181 B]**	NA	**12.2 B [617 B]**	NA	**303**	NA	NA	NA
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	mg/L	NA	**166**	NA	**165 [166]**	NA	**784 [1,790]**	NA	**1,810**	NA	NA	NA
Sulfide	- -	mg/L	NA	**20.5**	NA	**1.9 F1 [1.8]**	NA	0.1 U [0.1 U]	NA	0.1 U	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Volatile Organics																
1,1,1-Trichloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	**1.6**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	**4.2 J**	1.0 U	2.0 U	**2.8**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	1.0 U	2.0 U	**2.8**	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
2-Butanone	50	ug/L	50 U	**1.4 J**	20 U	10 U	40 U	10 U	100 U	50 U	50 U	100 U	10 U	50 U	50 U	10 U
2-Hexanone	50	ug/L	25 U	5.0 U	10 U	5.0 U	20 U	5.0 U	50 U	25 U	25 U	50 U	5.0 U	25 U	25 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	**5.0**	**5.3 J**	5.0 U	20 U	5.0 U	50 U	25 U	25 U	50 U	5.0 U	25 U	25 U	5.0 U
Acetone	50	ug/L	50 U	**12**	20 U	**7.4 J**	**19 J**	10 U	100 U*	50 U	50 U	100 U	10 U	50 U	50 U*	**6.4 J**
Benzene	1	ug/L	**3.0 J**	1.0 U	2.0 U	**8.5**	**3.0 J**	1.0 U	**9.0 J**	**74**	**230**	**310**	**21**	5.0 U	5.0 U	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	**1.5**	**3.3**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromoform	50	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Bromomethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Carbon Disulfide	60	ug/L	**0.95 J**	**0.53 J**	**1.1 J**	11 UB	4.0 U	1.0 U	10 U	5.0 U	**3.1 J**	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Carbon Tetrachloride	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	**19**	**21**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**1,900**	**2.2**	**67**	**1,900 D**	**34**	1.0 U	**140**	5.0 U	5.0 U	**14**	1.0 U	5.0 U	5.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Cyclohexane	- -	ug/L	**5.0**	1.0 U	2.0 U	**2.1**	4.0 U	1.0 U	10 U	**5.2**	**19 J**	**20**	**1.8**	5.0 U	5.0 U	1.0 U
Dibromochloromethane	50	ug/L	5.0 U	1.0 U	**0.65 J**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 UJ	4.0 UJ	1.0 U	10 U	5.0 UJ	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Ethylbenzene	5	ug/L	**6.7**	1.0 U	2.0 U	**5.2**	4.0 U	1.0 U	10 U	**5.5**	**20**	10 U	**2.4**	5.0 U	5.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	**16**	**14**	**18**	5.0 U	5.0 U	1.0 U
Methyl acetate	- -	ug/L	13 U	2.5 U	5.0 U	1.0 U	**24**	1.0 U	25 U	5.0 U	5.0 U	25 U	1.0 U	5.0 U	13 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**13**	**4.6**	**5.5**	**360 D**	**190**	**27**	**540**	**16**	**49**	**65**	**100 D**	**9.5**	**210**	**30**
Methylcyclohexane	- -	ug/L	**4.5 J**	1.0 U	2.0 U	**2.1**	4.0 U	1.0 U	10 U	**7.2**	**14**	**4.4 J**	**2.3**	5.0 U	5.0 U	1.0 U
Methylene Chloride	5	ug/L	**330**	1.0 U	2.0 U	**1.6**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Styrene	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Tetrachloroethene	5	ug/L	**6.7**	**1.2**	**1.2 J**	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Toluene	5	ug/L	**9.0**	1.0 U	2.0 U	**14**	**3.1 J**	1.0 U	**6.4 J**	5.0 U	**3.4 J**	10 U	1.0 U	5.0 U	5.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	**13**	1.0 U	2.0 U	**32**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 UJ	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 UF1	1.0 U
Trichloroethene	5	ug/L	**2,100**	**4.8**	**1.7 J**	**6.1**	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	**2.6**	5.0 U	5.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	1.0 U	2.0 U	1.0 U	4.0 U	1.0 U	10 U	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Vinyl Chloride	2	ug/L	**400**	**11**	**31**	**2,100 D**	4.0 U	1.0 U	**35**	5.0 U	5.0 U	10 U	1.0 U	5.0 U	5.0 U	1.0 U
Xylenes (total)	5	ug/L	**36**	**0.89 J**	4.0 U	**18**	**5.7 J**	2.0 U	**21**	10 U	**3.8 J**	20 U	**1.3 J**	10 U	10 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:		Units	06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Semivolatile Organics																
1,1'-Biphenyl	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	**2.6 J**	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	**3.7 J**	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 UF1	200 U
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Chloronaphthalene	10	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Chlorophenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	**9.9 J**	NA	**4.3 J**	**1.6 J**	NA	**22**	23 U	**0.94 J**	4.9 U	46 U	100 U
2-Methylphenol	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
2-Nitroaniline	5	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
2-Nitrophenol	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
3-Nitroaniline	5	ug/L	NA	NA	NA	47 UJ	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
4,6-Dinitro-2-methylphenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 UF1	200 U
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
4-Chloro-3-Methylphenol	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	**0.54 J**	23 U	5.2 U	4.9 U	46 U	100 U
4-Chloroaniline	5	ug/L	NA	NA	NA	24 UJ	NA	5.3 UJ	4.9 U	NA	R	23 U	5.2 U	4.9 U	46 U	100 U
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
4-Methylphenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
4-Nitroaniline	5	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
4-Nitrophenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
Acenaphthene	20	ug/L	NA	NA	NA	**22 J**	NA	**4.9 J**	**47**	NA	**2.0 J**	23 U	**1.3 J**	**1.6 J**	46 U	100 U
Acenaphthylene	- -	ug/L	NA	NA	NA	24 U	NA	**1.5 J**	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Acetophenone	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Anthracene	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	**0.31 J**	NA	**0.43 J**	23 U	5.2 U	4.9 U	46 U	100 U
Atrazine	7.5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Benzaldehyde	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	**0.63 J**	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 U	100 U
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 UJ	46 UF1	100 U
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 U	100 U
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Butylbenzylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	**0.47 JB**	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Caprolactam	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
Carbazole	- -	ug/L	NA	NA	NA	**21 J**	NA	**2.7 J**	**17**	NA	**2.2 J**	23 U	5.2 U	4.9 U	46 U	100 U
Chrysene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 UF1	100 U
Dibenzofuran	- -	ug/L	NA	NA	NA	**8.9 J**	NA	**1.7 J**	**15**	NA	**1.7 J**	47 U	10 U	9.7 U	92 U	200 U
Diethylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Dimethylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	24 U	NA	**0.38 J**	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Semivolatile Organics (Cont.)																
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Fluoranthene	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Fluorene	50	ug/L	NA	NA	NA	**3.3 J**	NA	**1.1 J**	**8.1**	NA	**2.6 J**	23 U	5.2 U	4.9 U	46 U	100 U
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 UF1	100 U
Hexachloroethane	5	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 UJ	23 U	5.2 U	4.9 U	46 UF1	100 U
Isophorone	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
naphthalene	10	ug/L	NA	NA	NA	**5.1 J**	NA	**12**	**46**	NA	**1.5 J**	23 U	**1.3 J**	4.9 U	46 U	100 U
Nitrobenzene	0.4	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	**0.71 J**	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Pentachlorophenol	- -	ug/L	NA	NA	NA	47 U	NA	11 U	9.9 U	NA	9.6 U	47 U	10 U	9.7 U	92 U	200 U
Phenanthrene	50	ug/L	NA	NA	NA	24 UB	NA	5.3 UB	**5.0**	NA	**5.0**	23 U	5.2 U	4.9 U	46 U	100 U
Phenol	1	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	**1.3 J**	**1.9 J**	5.2 U	4.9 U	46 U	100 U
Pyrene	50	ug/L	NA	NA	NA	24 U	NA	5.3 U	4.9 U	NA	4.8 U	23 U	5.2 U	4.9 U	46 U	100 U
Inorganics - Total																
Aluminum	- -	mg/L	NA	NA	NA	NA	**0.510**	NA	NA	**0.340**	NA	NA	**0.380**	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.020 U	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	**0.00560 J**			**0.0130**			0.0100 U	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	**0.0450**	NA	NA	**0.0380**	NA	NA	**0.0790**	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	**0.000520 J**	NA	NA	0.00100 U	NA	NA	**0.00410 J**	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	**77.8**	NA	NA	**104**	NA	NA	**145**	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	**0.00900**	NA	NA	**0.00430**	NA	NA	0.00400 U	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	**0.00640 J**	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	**0.00570 J**	NA	NA	**0.0150**	NA	NA	**0.00220 J**	NA	NA	NA
Iron	0.3	mg/L	NA	NA	NA	NA	**0.780**	NA	NA	**7.50**	NA	**11.2**	**4.000**	NA	NA	**0.660**
Lead	0.025	mg/L	NA	NA	NA	NA	**0.00340 J**	NA	NA	**0.0500**	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	**96.0**	NA	NA	**18.2**	NA	NA	**49.3**	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	NA	NA	**0.110**	NA	NA	**0.200**	NA	**0.450 B**	**3.300**	NA	NA	**0.690 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	**0.00450 J**	NA	NA	**0.00460 J**	NA	NA	**0.00270 J**	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	**58.2**	NA	NA	**20.8**	NA	NA	**23.6**	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	**896**	NA	NA	**299**	NA	NA	**349**	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	**0.00820**	NA	NA	**0.0280**	NA	NA	**0.011**	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	**0.00710 J**	NA	NA	**0.0100**	NA	NA	**0.00420 J**	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	ASB-4	ASB-5	ASB-7	IW-1	IW-2-D1	IW-2-D1	IW-2-D1	MW-18R	MW-18R	MW-18R	MW-23-D1R	MW-23-D1R	MW-23-D1R	MW-23-D1R
Historical Screen Interval (feet below ground surface)			NA	NA	NA	19 - 24	19 - 29	19 - 29	19 - 29	2 - 7	2 - 7	9	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5	16.5 - 26.5
Current Screen Interval (Feet below current ground surface):			27 - 32	20 - 25	20 - 25	23 - 28	23 - 33	23 - 33	23 - 33	6 - 11	6 - 11	6 - 11	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5	20.5 - 30.5
Date Collected:			06/07/16	06/02/16	06/02/16	08/21/13	02/20/13	09/12/13	01/13/16	02/20/13	09/13/13	06/22/16	01/19/11	09/10/13	01/12/16	06/20/16
Inorganics-Dissolved																
Aluminum	- -	mg/L	NA	NA	NA	NA	**0.150 J**	NA	NA	**0.0780 J**	NA	NA	0.200 U	NA	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	NA	0.0100 U	NA	NA	**0.0150**	NA	NA	0.0100 U	NA	NA	NA
Barium	1	mg/L	NA	NA	NA	NA	**0.0450**	NA	NA	**0.0400**	NA	NA	**0.0660**	NA	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	NA	**0.000530 J**	NA	NA	**0.000610 J**	NA	NA	**0.000440 J**	NA	NA	NA
Calcium	- -	mg/L	NA	NA	NA	NA	**80.3**	NA	NA	**113**	NA	NA	**145**	NA	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	NA	**0.00610**	NA	NA	**0.00350 J**	NA	NA	0.00400 U	NA	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	NA
Copper	0.2	mg/L	NA	NA	NA	NA	0.0100 UB	NA	NA	0.0100 UB	NA	NA	0.0100 U	NA	NA	NA
Iron	0.3	mg/L	NA	NA	NA	NA	**0.270**	NA	NA	**7.10**	NA	**11.5 B**	**3.00**	NA	NA	**0.230**
Lead	0.025	mg/L	NA	NA	NA	NA	0.00500 U	NA	NA	**0.0100**	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	NA	NA	NA	NA	**94.5**	NA	NA	**19.1**	NA	NA	**44.70**	NA	NA	NA
Manganese	0.3	mg/L	NA	NA	NA	NA	**0.100**	NA	NA	**0.210**	NA	**0.470 B**	**2.50**	NA	NA	**0.690 B**
Mercury	0.0007	mg/L	NA	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	NA	**0.00270 J**	NA	NA	**0.00650 J**	NA	NA	**0.00200 J**	NA	NA	NA
Potassium	- -	mg/L	NA	NA	NA	NA	**59.4**	NA	NA	**22.4**	NA	NA	**23.70**	NA	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	NA	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	NA	NA	NA	NA	**872**	NA	NA	**304**	NA	NA	**286**	NA	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	NA	**0.00700**	NA	NA	**0.0280**	NA	NA	**0.00780**	NA	NA	NA
Zinc	2	mg/L	NA	NA	NA	NA	0.0100 U	NA	NA	**0.00280 J**	NA	NA	**0.00200 J**	NA	NA	NA
General Chemistry																
Alkalinity	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**515 B**	**308**	NA	NA	**485**
Alkalinity, Bicarbonate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**515 B**	**308**	NA	NA	**485**
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.7**	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0015 U	NA	NA	NA
Ethene	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0015 U	NA	NA	NA
Methane	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**7.8 DJ**	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.17**	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**14.7**	NA	NA	NA
Sulfate	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**27.8**	**260**	NA	NA	**180**
Sulfide	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.1 U	**0.22**	NA	NA	**16.9 F1**
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	**2,950**	NA	NA	**1,230**	NA	NA	**1,740**	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):			35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:			01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1-Dichloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**23**	25 U [25 U]	5.0 U	4.0 U	**3.8**	20 U	5.0 U [5.0 U]
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
2-Butanone	50	ug/L	10 U [10 U]	40 U	50 U	10 U	10 U	250 U [250 U]	50 U	40 U	10 U	200 U	50 U [50 U]
2-Hexanone	50	ug/L	5.0 U [5.0 U]	20 U	25 U	5.0 U	5.0 U	130 U [130 U]	25 U	20 U	5.0 U	100 U	25 U [25 U]
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	20 U	25 U	5.0 U	5.0 U	130 U [130 U]	25 U	20 U	5.0 U	100 U	25 U [25 U]
Acetone	50	ug/L	10 U [10 U]	40 U	50 U*	**23**	10 U	250 U [250 U]	50 U*	40 U	10 U	200 U	50 U* [50 U*]
Benzene	1	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**22**	25 U [25 U]	5.0 U	**5.4**	**3.5**	20 U	**3.1 J [3.3 J]**
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Bromoform	50	ug/L	1.0 U [1.0 U]	4.0 UJ	5.0 U	1.0 U	1.0 UJ	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 UJ	20 UJ	5.0 U [5.0 U]
Bromomethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 UF2	1.0 U	20 U	5.0 U [5.0 U]
Carbon Disulfide	60	ug/L	**1.3 [1.2]**	**1.2 J**	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	**1.6 J**	1.0 U	20 U	5.0 U [5.0 U]
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 UJ	25 U [25 U]	5.0 U	4.0 U	1.0 UJ	20 U	5.0 U [5.0 U]
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Chloroethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Chloroform	7	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Chloromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**7,400 D**	**2,200 [2,200]**	**10**	**4.9**	**1,200 D**	20 U	5.0 U [5.0 U]
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 UJ	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Cyclohexane	- -	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	**1.9 J**	1.0 U	20 U	5.0 U [5.0 U]
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Ethylbenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**11**	25 U [25 U]	5.0 U	**3.1 J**	**1.9**	20 U	5.0 U [5.0 U]
Isopropylbenzene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**1.1**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Methyl acetate	- -	ug/L	1.0 U [1.0 U]	4.0 U	13 U	2.5 U	1.0 U	25 U [25 U]	13 U	10 U	1.0 U	20 U	13 U [13 U]
Methyl tert-butyl ether	10	ug/L	**200 D [190 D]**	**200**	**130**	**26**	**1,100 D**	**430 [430]**	**220**	**160**	**280 D**	**130**	**250 [260]**
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	**1.3 J**	1.0 U	20 U	5.0 U [5.0 U]
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**0.76 J**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Styrene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Toluene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**19**	**13 J [13 J]**	5.0 U	4.0 U	**3.0**	20 U	5.0 U [5.0 U]
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**44**	**34 [34]**	5.0 U	**11**	**6.7**	20 U	5.0 U [5.0 U]
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 UJ	20 U	5.0 U [5.0 U]
Trichloroethene	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	**65**	25 U [25 U]	5.0 U	4.0 U	**2.5**	20 U	5.0 U [5.0 U]
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]
Vinyl Chloride	2	ug/L	**7.8 [6.5]**	4.0 U	5.0 U	1.0 U	**1,800 D**	**1,600 [1,600]**	**99**	**35**	**300 D**	20 U	**170 [180]**
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	8.0 U	10 U	2.0 U	**31**	50 U [50 U]	10 U	**9.3**	**4.8**	40 U	10 U [10 U]

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:		Units	01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Semivolatile Organics													
1,1'-Biphenyl	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**2.5 J**	**1.3 J [1.3 J]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4,5-Trichlorophenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4,6-Trichlorophenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4-Dichlorophenol	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4-Dimethylphenol	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	**0.49 J** [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,4-Dinitrophenol	10	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
2,4-Dinitrotoluene	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2,6-Dinitrotoluene	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Chloronaphthalene	10	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Chlorophenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Methylnaphthalene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	**25 [24]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Methylphenol	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
2-Nitroaniline	5	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
2-Nitrophenol	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
3,3'-Dichlorobenzidine	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
3-Nitroaniline	5	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4,6-Dinitro-2-methylphenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4-Bromophenyl-phenylether	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Chloroaniline	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 UJ [4.8 UJ]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
4-Methylphenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	**0.81 J [0.79 J]**	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4-Nitroaniline	5	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
4-Nitrophenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
Acenaphthene	20	ug/L	**1.3 J [1.2 J]**	4.8 U	53 U	96 U	**53**	**53 [55]**	**11**	250 U	**7.8**	**0.54 J**	**10 [11]**
Acenaphthylene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U **[16]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Acetophenone	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Anthracene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**0.50 J**	**0.55 J [0.65 J]**	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Atrazine	7.5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzaldehyde	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(a)anthracene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(a)pyrene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(b)fluoranthene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(g,h,i)perylene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Benzo(k)fluoranthene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
bis(2-Chloroethyl)ether	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 UB [4.9 UB]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Butylbenzylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	**0.73 JB**	250 U	5.0 U	4.8 U	**0.50 JB [0.45 JB]**
Caprolactam	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Carbazole	- -	ug/L	**0.50 J [0.52 J]**	4.8 U	53 U	96 U	**22**	**23 [23]**	**3.7 J**	250 U	**3.2 J**	4.8 U	**2.4 J [2.7 J]**
Chrysene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Dibenzofuran	- -	ug/L	**0.53 J [0.54 J]**	9.6 U	110 U	190 U	**19**	**18 [18]**	**2.1 J**	490 U	**0.56 J**	9.7 U	**0.68 J [0.75 J]**
Diethylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Dimethylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Di-n-Butylphthalate	50	ug/L	**0.41 J [0.53 J]**	**0.53 J**	53 U	96 U	**0.51 J**	**0.31 J [0.35 J]**	4.9 U	250 U	**0.33 J**	**0.43 J**	5.0 U [4.9 U]

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:		Units	01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Semivolatile Organics (Cont.)													
Di-n-Octylphthalate	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Fluoranthene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Fluorene	50	ug/L	**0.54 J [0.58 J]**	4.8 U	53 U	96 U	**6.9**	**6.4 [6.4]**	**0.43 J**	250 U	5.0 U	4.8 U	**0.74 J [0.84 J]**
Hexachlorobenzene	0.04	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Hexachlorobutadiene	0.5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Hexachlorocyclopentadiene	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Hexachloroethane	5	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Isophorone	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
naphthalene	10	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**21**	**13 [12]**	**3.8 J**	250 U	**2.9 J**	4.8 U	**2.8 J [3.2 J]**
Nitrobenzene	0.4	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
N-Nitrosodiphenylamine	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Pentachlorophenol	- -	ug/L	9.7 U [9.8 U]	9.6 U	110 U	190 U	10 U	9.7 U [9.6 U]	9.8 U	490 U	9.9 U	9.7 U	9.9 U [9.7 U]
Phenanthrene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	**6.7**	**6.2 [6.4]**	**1.3 J**	250 U	**0.87 J**	4.8 U	5.0 U [4.9 U]
Phenol	1	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Pyrene	50	ug/L	4.9 U [4.9 U]	4.8 U	53 U	96 U	5.0 U	4.9 U [4.8 U]	4.9 U	250 U	5.0 U	4.8 U	5.0 U [4.9 U]
Inorganics - Total													
Aluminum	- -	mg/L	0.200 U [0.200 U]	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U	NA	NA
Antimony	0.003	mg/L	0.020 U [0.020 U]	NA	NA	NA	0.020 U	NA	NA	NA	0.020 U	NA	NA
Arsenic	0.025	mg/L	0.010 U [0.010 U]	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA
Barium	1	mg/L	**0.110 [0.110]**	NA	NA	NA	**0.0200**	NA	NA	NA	**0.0200**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.00580 J [0.00640 J]**	NA	NA	NA	**0.00860 J**	NA	NA	NA	**0.00860 J**	NA	NA
Calcium	- -	mg/L	**166 J [163 J]**	NA	NA	NA	**109**	NA	NA	NA	**106**	NA	NA
Chromium	0.05	mg/L	**0.00200 J [0.00190 J]**	NA	NA	NA	**0.00240 J**	NA	NA	NA	**0.00250 J**	NA	NA
Cobalt	- -	mg/L	0.00400 U [0.00400 U]	NA	NA	NA	**0.00760 J**	NA	NA	NA	0.00400 U	NA	NA
Copper	0.2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	**0.00200 J**	NA	NA	NA	**0.00170 J**	NA	NA
Iron	0.3	mg/L	**0.0650 [0.0600]**	NA	NA	**0.0400 J**	0.0500 U	NA	NA	**0.0320 J**	**0.0650**	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**286 J [284 J]**	NA	NA	NA	**365**	NA	NA	NA	**297**	NA	NA
Manganese	0.3	mg/L	**0.890 [0.850]**	NA	NA	**0.110 B**	**0.043**	NA	NA	**0.0600 B**	**0.0630**	NA	NA
Mercury	0.0007	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	**95.1 J [95.4 J]**	NA	NA	NA	**101**	NA	NA	NA	**98.7**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,570 J [2,550 J]**	NA	NA	NA	**2,530**	NA	NA	NA	**2,330**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.0110 [0.0100]**	NA	NA	NA	**0.00590**	NA	NA	NA	**0.00710**	NA	NA
Zinc	2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	**0.00170 J**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-23-D2R	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D1	MW-24-D2	MW-24-D2	MW-24-D2
Historical Screen Interval (feet below ground surface)			31 - 41	31 - 41	31 - 41	31 - 41	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42
Current Screen Interval (Feet below current ground surface):			35 - 45	35 - 45	35 - 45	35 - 45	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46
Date Collected:			01/20/11	09/11/13	01/12/16	06/20/16	01/19/11	09/12/13	01/13/16	06/21/16	01/19/11	09/11/13	01/13/16
Inorganics-Dissolved													
Aluminum	- -	mg/L	0.200 UB [0.200 UB]	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U	NA	NA
Antimony	0.003	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA
Arsenic	0.025	mg/L	**0.00950 J [0.00720 J]**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Barium	1	mg/L	**0.120 [0.120]**	NA	NA	NA	**0.0200**	NA	NA	NA	**0.0200**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.000620 J [0.000650 J]**	NA	NA	NA	**0.000800 J**	NA	NA	NA	**0.000640 J**	NA	NA
Calcium	- -	mg/L	**185 J [186 J]**	NA	NA	NA	**108**	NA	NA	NA	**102**	NA	NA
Chromium	0.05	mg/L	**0.00380 J [0.00400]**	NA	NA	NA	**0.00240 J**	NA	NA	NA	**0.000210 J**	NA	NA
Cobalt	- -	mg/L	**0.00110 J [0.000770 J]**	NA	NA	NA	0.00400 U	NA	NA	NA	0.00400 U	NA	NA
Copper	0.2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Iron	0.3	mg/L	**0.0750 [0.0870]**	NA	NA	0.0500 U	0.0500 U	NA	NA	0.0500 U	0.0500 U	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**319.00 J [326.00 J]**	NA	NA	NA	**365.00**	NA	NA	NA	**289.00**	NA	NA
Manganese	0.3	mg/L	**0.880 [0.910]**	NA	NA	**0.120 B**	**0.0430**	NA	NA	**0.0590 B**	**0.0620**	NA	NA
Mercury	0.0007	mg/L	0.000200 U [0.000200 U]	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	**107.0 J [108. J]**	NA	NA	NA	**101.0**	NA	NA	NA	**97.0**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,990 J [3,030J]**	NA	NA	NA	**2,460**	NA	NA	NA	**2,150**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.00680 [0.00670]**	NA	NA	NA	**0.00550**	NA	NA	NA	**0.00560**	NA	NA
Zinc	2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA	NA	NA	NA	NA
General Chemistry													
Alkalinity	- -	mg/L	**717 [725]**	NA	NA	**543**	**1,400**	NA	NA	**642 B**	**931**	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**717 [725]**	NA	NA	**543**	**1,400**	NA	NA	**642 B**	**931**	NA	NA
Ammonia Nitrogen	- -	mg/L	**3.3 [3.7]**	NA	NA	NA	**5.5**	NA	NA	NA	**4.9**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.3 U [0.3 U]	NA	NA	NA	**0.021**	NA	NA	NA	**0.0041**	NA	NA
Ethene	- -	mg/L	0.3 U [0.3 U]	NA	NA	NA	**0.11 D**	NA	NA	NA	**0.023**	NA	NA
Methane	- -	mg/L	**0.42 J [1.4 J]**	NA	NA	NA	**1.9 DJ**	NA	NA	NA	**1.1 DJ**	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	0.05 U	NA	NA	NA	**0.12**	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA
Orthophosphate	- -	mg/L	**0.52 [0.43]**	NA	NA	NA	**0.89**	NA	NA	NA	**0.58**	NA	NA
Soluble Organic Carbon	- -	mg/L	**11.2 [11]**	NA	NA	NA	**18.1**	NA	NA	NA	**12.5**	NA	NA
Sulfate	250	mg/L	**436 [438]**	NA	NA	**317**	**128**	NA	NA	**189**	**359**	NA	NA
Sulfide	- -	mg/L	**18.8 [19.2]**	NA	NA	**0.7**	**0.078 J**	NA	NA	**79.3**	**0.3**	NA	NA
Total Dissolved Solids	- -	mg/L	**9,010 [8,600]**	NA	NA	NA	**8,300**	NA	NA	NA	**8,080**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:		Units	06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	**0.57 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	**2.3**	100 U **[3.2 J]**	**2.0**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	**23**	100 U **[19]**	**5.7**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	100 UJ [5.0 UJ]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ
1,2-Dibromoethane	0.0006	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	**0.61 J**	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	10 U	10 U	10 U	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	10 U	**12**	10 U	10 U
2-Hexanone	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	500 U [25 U]	5.0 U	40,000 U	40,000 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	500 U [25 U]	5.0 U	40,000 U	40,000 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	10 U	10 U	**6.5 J**	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	**5.3 J**	**49**	10 U	10 U
Benzene	1	ug/L	**0.97 J**	1.0 U	1.0 U	**25**	100 U **[25]**	**9.5**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	100 U [5.0 U]	1.0 UJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Bromomethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**0.31 J**	1.0 U	84 UB	**12**	100 UB [26 UB]	**1.2**	8,000 U	8,000 U	**2.0**	**62 D**	**13**	3.3 UB
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	100 U [5.0 U]	1.0 UJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	**1.6**	1.0 U	**1.7**	**5,100 D**	**6,500 [7,600 D]**	**3,500 D**	**120,000**	**83,000**	**1.3**	**2.5**	**11**	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 UJ	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U **[6.8]**	**1.8**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	1.0 U	1.0 U	1.0 UJ	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 UJ [5.0 UJ]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ
Ethylbenzene	5	ug/L	**0.84 J**	1.0 U	1.0 U	**12**	100 U **[14]**	**3.9**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	1.0 U	1.0 U	1.0 U	**1.5**	100 U [5.0 U]	**0.86 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	2.5 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 UJ	8,000 U	**1.3**	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	**130**	1.0 U	**1.9**	**960 D**	**820 [890 D]**	**130 E**	**2,500 J**	**2,300 J**	1.0 U	**1.9**	1.0 U	**0.16 J**
Methylcyclohexane	- -	ug/L	1.0 U	1.0 U	1.0 UJ	**5.0**	100 U **[6.0]**	**0.94 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Methylene Chloride	5	ug/L	1.0 U	1.0 U	1.0 U	**340 D**	**540 [450]**	**3,700 D**	**110,000**	**100,000**	**43**	**53**	**3.4**	1.0 U
Styrene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	**4.5**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	1.0 U	1.0 U	**31**	100 U **[34]**	**24**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	**0.98 J**	1.0 U	1.0 U	**58**	100 UJ **[62]**	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	1.0 U	1.0 UJ	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	**1.4**	**110 D**	**96 J [96]**	**17,000 D**	**450,000**	**340,000**	**4.5**	**8.7**	**180 D**	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	**38**	1.0 U	1.0 U	**5,900 D**	**6,300 [6,100 D]**	**140 EJ**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	2.0 U	2.0 U	**40**	200 U **[49]**	**16**	16,000 U	16,000 U	2.0 U	2.0 U	2.0 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:			06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	250 U	4.8 U	4.6 U	**3.4 J**	**13 [13 J]**	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4,5-Trichlorophenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4,6-Trichlorophenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4-Dichlorophenol	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4-Dimethylphenol	50	ug/L	250 U	4.8 U	4.6 U	**1.1 J**	**10 [7.4 J]**	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,4-Dinitrophenol	10	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
2,4-Dinitrotoluene	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2,6-Dinitrotoluene	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Chloronaphthalene	10	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Chlorophenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Methylnaphthalene	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**3.7 J** [46 U]	24 U	NA	**0.82 J**	5.0 U	4.6 U	4.7 U	4.5 U
2-Methylphenol	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**6.4 [7.3 J]**	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
2-Nitroaniline	5	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
2-Nitrophenol	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
3,3'-Dichlorobenzidine	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
3-Nitroaniline	5	ug/L	500 U	9.6 U	9.2 UJ	9.5 U	9.5 UJ [93 UJ]	48 U	NA	9.3 UJ	10 U	9.2 UJ	9.5 U	9.1 UJ
4,6-Dinitro-2-methylphenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
4-Bromophenyl-phenylether	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
4-Chloro-3-Methylphenol	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
4-Chloroaniline	5	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 UJ [46 UJ]	24 U	NA	4.7 UJ	5.0 U	4.6 UJ	4.7 U	4.5 UJ
4-Chlorophenyl-phenylether	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
4-Methylphenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	**0.53 J**	9.2 U	9.5 U	9.1 U
4-Nitroaniline	5	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
4-Nitrophenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
Acenaphthene	20	ug/L	250 U	4.8 U	4.6 U	**76**	**100 D [76]**	**7.7 J**	NA	**1.1 J**	5.0 U	4.6 U	4.7 U	4.5 U
Acenaphthylene	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**0.49 J** [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Acetophenone	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	**0.59 J**	4.7 U	4.5 U
Anthracene	50	ug/L	250 U	4.8 U	4.6 U	**1.6 J**	**1.2 J [19 J]**	24 U	NA	**0.39 J**	5.0 U	4.6 U	4.7 U	4.5 U
Atrazine	7.5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzaldehyde	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	**1.0 J** [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(a)anthracene	0.002	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(a)pyrene	- -	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(b)fluoranthene	0.002	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(g,h,i)perylene	- -	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Benzo(k)fluoranthene	0.002	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
bis(2-Chloroethoxy)methane	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
bis(2-Chloroethyl)ether	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
bis(2-Ethylhexyl)phthalate	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 UJ	4.6 U	4.7 U	4.5 U
Butylbenzylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Caprolactam	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Carbazole	- -	ug/L	250 U	4.8 U	4.6 U	**42**	**57 D [46]**	24 U	NA	**0.35 J**	5.0 U	**0.57 J**	4.7 U	4.5 U
Chrysene	0.002	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Dibenzo(a,h)anthracene	- -	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Dibenzofuran	- -	ug/L	500 U	9.6 U	9.2 U	**40**	**46 DJ [33 J]**	48 U	NA	**0.70 J**	10 U	9.2 U	9.5 U	9.1 U
Diethylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Dimethylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Di-n-Butylphthalate	50	ug/L	250 U	4.8 U	**0.34 J**	**0.50 J**	**0.62 J** [46 U]	24 U	NA	**0.41 J**	**0.36 J**	**0.58 J**	4.7 U	**0.51 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:		Units	06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Fluoranthene	50	ug/L	250 U	4.8 U	4.6 U	**0.52 J**	4.7 U [46 U]	24 U	NA	**1.1 J**	5.0 U	4.6 U	4.7 U	4.5 U
Fluorene	50	ug/L	250 U	4.8 U	4.6 U	**20**	**33 [20 J]**	24 U	NA	**0.73 J**	5.0 U	4.6 U	4.7 U	4.5 U
Hexachlorobenzene	0.04	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Hexachlorobutadiene	0.5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Hexachlorocyclopentadiene	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Hexachloroethane	5	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	250 U	4.8 U	4.6 UJ	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Isophorone	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
naphthalene	10	ug/L	250 U	4.8 U	4.6 U	**23**	**240 D [180]**	24 U	NA	**3.3 J**	5.0 U	4.6 U	4.7 U	4.5 U
Nitrobenzene	0.4	ug/L	250 U	4.8 U	4.6 U	4.7 U	**3.2 J** [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
N-Nitroso-di-n-propylamine	- -	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
N-Nitrosodiphenylamine	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	5.0 U	4.6 U	4.7 U	4.5 U
Pentachlorophenol	- -	ug/L	500 U	9.6 U	9.2 U	9.5 U	9.5 U [93 U]	48 U	NA	9.3 U	10 U	9.2 U	9.5 U	9.1 U
Phenanthrene	50	ug/L	250 U	4.8 U	4.6 U	**26**	**27** [46 UB]	24 U	NA	4.7 UB	5.0 U	4.6 UB	4.7 U	4.5 UB
Phenol	1	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	4.7 U	**6.5**	4.6 U	4.7 U	4.5 U
Pyrene	50	ug/L	250 U	4.8 U	4.6 U	4.7 U	4.7 U [46 U]	24 U	NA	**0.40 J**	5.0 U	4.6 U	4.7 U	4.5 U
Inorganics - Total														
Aluminum	- -	mg/L	NA	0.200 U	NA	0.200 U	NA	**0.076 J**	NA	NA	0.200 U	NA	**0.055 J**	NA
Antimony	0.003	mg/L	NA	0.020 U	NA	0.020 U	NA	0.020 U	NA	NA	0.020 U	NA	0.020 U	NA
Arsenic	0.025	mg/L	NA	0.010 U	NA	**0.006 J**	NA	0.010 U	NA	NA	0.010 U	NA	**0.006 J**	NA
Barium	1	mg/L	NA	**0.0670**	NA	**0.0180**	NA	**0.0230**	NA	NA	**0.140**	NA	**0.110**	NA
Beryllium	0.003	mg/L	NA	0.00200 U	NA	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U	NA	0.00200 U	NA
Cadmium	0.005	mg/L	NA	**0.00990 J**	NA	**0.00770 J**	NA	**0.00850 J**	NA	NA	**0.00800 J**	NA	**0.00840 J**	NA
Calcium	- -	mg/L	NA	**342**	NA	**102**	NA	**137**	NA	NA	**334**	NA	**359**	NA
Chromium	0.05	mg/L	NA	0.00400 U	NA	**0.00290 J**	NA	**0.00250 J**	NA	NA	**0.00840**	NA	0.00400 U	NA
Cobalt	- -	mg/L	NA	0.00400 U	NA	0.00400 U	NA	**0.00770 J**	NA	NA	**0.00150 J**	NA	0.00400 U	NA
Copper	0.2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	0.0100 U	NA
Iron	0.3	mg/L	**0.0400 J**	**29.300**	NA	0.0500 U	NA	**0.140**	NA	NA	**0.880**	NA	**14.500**	NA
Lead	0.025	mg/L	NA	0.00500 U	NA	0.00500 U	NA	0.00500 U	NA	NA	0.00500 U	NA	0.00500 U	NA
Magnesium	35	mg/L	NA	**1,210**	NA	**362.0**	NA	**331.0**	NA	NA	**797.0 J**	NA	**1,090.0**	NA
Manganese	0.3	mg/L	**0.0550 B**	**0.670**	NA	**0.0580**	NA	**0.120**	NA	NA	**0.740**	NA	**0.810**	NA
Mercury	0.0007	mg/L	NA	0.000200 U	NA	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U	NA	0.000200 U	NA
Nickel	0.1	mg/L	NA	**0.00150 J**	NA	0.0100 U	NA	0.0100 U	NA	NA	**0.00380 J**	NA	**0.00210 J**	NA
Potassium	- -	mg/L	NA	**306**	NA	**105**	NA	**112**	NA	NA	**270**	NA	**283**	NA
Selenium	0.01	mg/L	NA	0.0150 U	NA	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U	NA	0.0150 U	NA
Silver	0.05	mg/L	NA	NA	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA
Sodium	20	mg/L	NA	**8,710**	NA	**2,530**	NA	**2,670**	NA	NA	**6,280 J**	NA	**7,760**	NA
Thallium	0.0005	mg/L	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	0.0200 U	NA
Vanadium	- -	mg/L	NA	**0.00670**	NA	**0.00620**	NA	**0.00800**	NA	NA	**0.00580**	NA	**0.00520**	NA
Zinc	2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	**0.00300 J**	NA	NA	0.0100 U	NA	0.0100 U	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-24-D2	MW-24-VD	MW-24-VD	MW-25-D1	MW-25-D1	MW-25-D2	MW-25-D2	MW-25-D2	MW-25-D3	MW-25-D3	MW-25-VD	MW-25-VD
Historical Screen Interval (feet below ground surface)			32 - 42	63 - 73	63 - 73	16 - 26	16 - 26	31 - 41	31 - 41	31 - 41	40 - 50	40 - 50	63 - 73	63 - 73
Current Screen Interval (Feet below current ground surface):			36 - 46	67 - 77	67 - 77	20 - 30	20 - 30	35 - 45	35 - 45	35 - 45	44 - 54	44 - 54	67 - 77	67 - 77
Date Collected:			06/21/16	01/19/11	08/21/13	01/19/11	08/21/13	01/19/11	06/26/13	08/21/13	01/21/11	08/21/13	01/19/11	08/21/13
Inorganics-Dissolved														
Aluminum	- -	mg/L	NA	0.200 U	NA	0.200 U	NA	0.200 U	NA	NA	0.200 U	NA	0.200 U	NA
Antimony	0.003	mg/L	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	0.0200 U	NA
Arsenic	0.025	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	0.0100 U	NA
Barium	1	mg/L	NA	**0.0650**	NA	**0.0180**	NA	**0.0240**	NA	NA	**0.140**	NA	**0.0960**	NA
Beryllium	0.003	mg/L	NA	0.00200 U	NA	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U	NA	0.00200 U	NA
Cadmium	0.005	mg/L	NA	**0.000770 J**	NA	**0.000790 J**	NA	**0.000700 J**	NA	NA	**0.000820 J**	NA	**0.000890 J**	NA
Calcium	- -	mg/L	NA	**333**	NA	**102**	NA	**139**	NA	NA	**317**	NA	**324**	NA
Chromium	0.05	mg/L	NA	0.00400 U	NA	**0.00300 J**	NA	**0.00220 J**	NA	NA	**0.00410**	NA	0.00400 U	NA
Cobalt	- -	mg/L	NA	**0.009930 J**	NA	0.00400 U	NA	0.00400 U	NA	NA	**0.00100 J**	NA	0.00400 U	NA
Copper	0.2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 UB	NA	0.0100 U	NA
Iron	0.3	mg/L	**0.0760**	**27.40**	NA	0.0500 U	NA	0.0500 U	NA	NA	**0.640**	NA	**1.70**	NA
Lead	0.025	mg/L	NA	0.00500 U	NA	0.00500 U	NA	0.00500 U	NA	NA	0.00500 U	NA	0.00500 U	NA
Magnesium	35	mg/L	NA	**1,180**	NA	**370.00**	NA	**339.00**	NA	NA	**859.00**	NA	**865.00**	NA
Manganese	0.3	mg/L	**0.0550 B**	**0.600**	NA	**0.0590**	NA	**0.120**	NA	NA	**0.720**	NA	**0.880**	NA
Mercury	0.0007	mg/L	NA	0.000200 U	NA	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	NA	**0.00220 J**	NA	0.0100 U	NA	0.0100 U	NA	NA	**0.00250 J**	NA	0.0100 U	NA
Potassium	- -	mg/L	NA	**317.0**	NA	**109**	NA	**117**	NA	NA	**244**	NA	**234**	NA
Selenium	0.01	mg/L	NA	0.0150 U	NA	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U	NA	0.0150 U	NA
Silver	0.05	mg/L	NA	0.00300 U	NA	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	0.00300 U	NA
Sodium	20	mg/L	NA	**8,550**	NA	**2,720**	NA	**2,780**	NA	NA	**6,940**	NA	**6,250**	NA
Thallium	0.0005	mg/L	NA	0.0200 U	NA	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	0.0200 U	NA
Vanadium	- -	mg/L	NA	**0.00510**	NA	**0.00580**	NA	**0.00730**	NA	NA	**0.00800**	NA	**0.00460 J**	NA
Zinc	2	mg/L	NA	0.0100 U	NA	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	**0.00170 J**	NA
General Chemistry														
Alkalinity	- -	mg/L	**741 B**	**408**	NA	**1,160**	NA	**866**	NA	NA	**1,100**	NA	**564**	NA
Alkalinity, Bicarbonate	- -	mg/L	**741 B**	**408**	NA	**1,160**	NA	**866**	NA	NA	**1,100**	NA	**564**	NA
Ammonia Nitrogen	- -	mg/L	NA	**3.7**	NA	**6.1**	NA	**6.4**	NA	NA	**1.2**	NA	**3.9**	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	**0.0046**	NA	**0.029**	NA	**0.0064**	NA	NA	0.3 U	NA	0.0015 U	NA
Ethene	- -	mg/L	NA	0.0015 U	NA	**0.097**	NA	**0.021**	NA	NA	0.3 U	NA	0.0015 U	NA
Methane	- -	mg/L	NA	**0.17 DJ**	NA	**4.2 DJ**	NA	**2.7 DJ**	NA	NA	**0.27**	NA	**0.33 DJ**	NA
Nitrate Nitrogen	- -	mg/L	NA	0.05 U	NA	0.05 U	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U	NA
Nitrite Nitrogen	- -	mg/L	NA	0.05 U	NA	0.05 U	NA	0.05 U	NA	NA	0.05 U	NA	0.05 U	NA
Orthophosphate	- -	mg/L	NA	**0.11**	NA	**0.44**	NA	**0.59**	NA	NA	**0.27**	NA	**0.39**	NA
Soluble Organic Carbon	- -	mg/L	NA	**5**	NA	**15.6**	NA	**12.7**	NA	NA	**29.2 J**	NA	**4.9**	NA
Sulfate	250	mg/L	**270**	**1,800**	NA	**434**	NA	**404**	NA	NA	**1,850**	NA	**1,310**	NA
Sulfide	- -	mg/L	**92.2**	0.1 U	NA	**0.053 J**	NA	**0.3**	NA	NA	**7.1**	NA	**0.21**	NA
Total Dissolved Solids	- -	mg/L	NA	**30,100**	NA	**8,670**	NA	**9,670**	NA	NA	**23,300**	NA	**25,200**	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:		Units	01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	**0.51 J**	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	**31 J**	50 U [50 U]	50 U	40 U	10 U	50 U	50 U	10 U	**53**	100 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	25 U	25 U [25 U]	25 U	20 U	5.0 U	25 U	25 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U [25 U]	25 U	20 U	5.0 U	25 U	25 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	**74 J**	50 U [50 U]	50 U*	40 U	10 U	50 U	50 U*	10 U	**84**	100 U	10 U*	**170**	10 U
Benzene	1	ug/L	5.0 U	**7.7 [7.3]**	**9.1**	**9.3**	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Bromomethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**37**	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	**1.4**	**59**	10 U	1.0 U	**0.19 J**	1.0 U
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 UJ	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	**0.86 J**	1.0 U	10 U	1.0 U	1.0 U	**29**
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	5.0 U	5.0 U [5.0 U]	13 U	10 U	1.0 U	5.0 U	13 U	2.5 U	**5.5**	10 U	2.5 U	2.5 U	1.0 U
Methyl tert-butyl ether	10	ug/L	5.0 U	**420 [410]**	**380**	**340**	1.0 U	**47**	5.0 U	**59**	**1.5**	10 U	1.0 U	**0.96 J**	**26**
Methylcyclohexane	- -	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	**0.93 J**	10 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	**13 [11]**	**16**	**20**	1.0 U	5.0 U	5.0 U	**1.2**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	10 U	10 U [10 U]	10 U	8.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:			01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4,5-Trichlorophenol	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4,6-Trichlorophenol	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4-Dichlorophenol	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4-Dimethylphenol	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,4-Dinitrophenol	10	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 UJ	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
2,4-Dinitrotoluene	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2,6-Dinitrotoluene	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Chloronaphthalene	10	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Chlorophenol	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Methylnaphthalene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Methylphenol	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
2-Nitroaniline	5	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
2-Nitrophenol	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
3,3'-Dichlorobenzidine	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
3-Nitroaniline	5	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
4,6-Dinitro-2-methylphenol	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
4-Bromophenyl-phenylether	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Chloro-3-Methylphenol	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Chloroaniline	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Chlorophenyl-phenylether	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
4-Methylphenol	- -	ug/L	**45**	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	**47**	9.7 U	120 U	9.7 U	11 U
4-Nitroaniline	5	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
4-Nitrophenol	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
Acenaphthene	20	ug/L	5.0 U	**3.0 J [3.4 J]**	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Acenaphthylene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Acetophenone	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	**1.1 J**	4.8 U	59 U	4.8 U	5.3 U
Anthracene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Atrazine	7.5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzaldehyde	- -	ug/L	5.0 U	4.8 U [5.0 U]	**0.30 J**	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(a)anthracene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(a)pyrene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(b)fluoranthene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Benzo(g,h,i)perylene	- -	ug/L	5.0 U	4.8 UJ [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 UJ	49 U	4.7 U	4.8 U	4.8 UJ	59 U	4.8 U	5.3 U
Benzo(k)fluoranthene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
bis(2-Chloroethoxy)methane	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
bis(2-Chloroethyl)ether	1	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
bis(2-Ethylhexyl)phthalate	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	**11 BF1**	4.9 U	4.8 UJ	49 U	**4.4 JB**	4.8 U	4.8 U	59 U	**7.0 B**	5.3 U
Butylbenzylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	**0.43 JB**	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	**96 B**	4.8 U	5.3 U
Caprolactam	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	**14**
Carbazole	- -	ug/L	5.0 U	**3.0 J [3.3 J]**	4.8 U	**0.87 J**	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Chrysene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Dibenzo(a,h)anthracene	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Dibenzofuran	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 U	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
Diethylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Dimethylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Di-n-Butylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	**0.43 J**	49 U	4.7 U	**0.48 J**	**0.40 J**	59 U	4.8 U	**0.44 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:		Units	01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Fluoranthene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Fluorene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachlorobenzene	0.04	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachlorobutadiene	0.5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachlorocyclopentadiene	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Hexachloroethane	5	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 UF1	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Isophorone	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
naphthalene	10	ug/L	**0.80 J**	**1.0 J [1.1 J]**	4.8 U	**0.96 J**	4.9 U	4.8 U	49 U	4.7 U	**1.7 J**	4.8 U	59 U	4.8 U	5.3 U
Nitrobenzene	0.4	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
N-Nitroso-di-n-propylamine	- -	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
N-Nitrosodiphenylamine	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Pentachlorophenol	- -	ug/L	10 U	9.6 U [10 U]	9.5 U	9.3 UF1	9.8 U	9.6 U	97 U	9.3 U	9.5 U	9.7 U	120 U	9.7 U	11 U
Phenanthrene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Phenol	1	ug/L	**14**	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 U	49 U	4.7 U	**8.4**	4.8 U	59 U	4.8 U	5.3 U
Pyrene	50	ug/L	5.0 U	4.8 U [5.0 U]	4.8 U	4.6 U	4.9 U	4.8 UJ	49 U	4.7 U	4.8 U	4.8 U	59 U	4.8 U	5.3 U
Inorganics - Total															
Aluminum	- -	mg/L	**4.00**	NA	NA	NA	**1.10**	NA	NA	NA	0.20 U	NA	NA	NA	**0.097 J**
Antimony	0.003	mg/L	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA	0.020 UJ	NA	NA	NA	0.020 UJ
Arsenic	0.025	mg/L	**0.0092 J**	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U
Barium	1	mg/L	**0.270**	NA	NA	NA	**0.0480**	NA	NA	NA	**0.390**	NA	NA	NA	**0.0340**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U
Cadmium	0.005	mg/L	**0.00940 J**	NA	NA	NA	**0.00160**	NA	NA	NA	0.00100 UB	NA	NA	NA	**0.00450 J**
Calcium	- -	mg/L	**662**	NA	NA	NA	**299**	NA	NA	NA	**996**	NA	NA	NA	**97.8**
Chromium	0.05	mg/L	**0.00910**	NA	NA	NA	**0.00830**	NA	NA	NA	**0.00480**	NA	NA	NA	**0.00450**
Cobalt	- -	mg/L	**0.00300 J**	NA	NA	NA	**0.00150 J**	NA	NA	NA	**0.00470**	NA	NA	NA	**0.00650 J**
Copper	0.2	mg/L	**0.00440 J**	NA	NA	NA	**0.0130**	NA	NA	NA	**0.00700 J**	NA	NA	NA	**0.00380 J**
Iron	0.3	mg/L	**2.400**	NA	NA	**0.0350 J**	**1.300**	NA	NA	**0.510**	**0.0900**	NA	NA	**81.5**	**0.110**
Lead	0.025	mg/L	**0.00590**	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U
Magnesium	35	mg/L	**234.0**	NA	NA	NA	**681.000**	NA	NA	NA	**13.300**	NA	NA	NA	**294.000**
Manganese	0.3	mg/L	**0.390**	NA	NA	**0.0350 B**	**0.140**	NA	NA	**0.690 B**	0.00390 UB	NA	NA	**3.00 B**	**0.0770**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U
Nickel	0.1	mg/L	**0.0200**	NA	NA	NA	**0.00150 J**	NA	NA	NA	**0.0430**	NA	NA	NA	0.0100 U
Potassium	- -	mg/L	**184**	NA	NA	NA	**235**	NA	NA	NA	**216**	NA	NA	NA	**103**
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U
Sodium	20	mg/L	**3,700**	NA	NA	NA	**5,620**	NA	NA	NA	**4,670**	NA	NA	NA	**2,230**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U
Vanadium	- -	mg/L	**0.00620**	NA	NA	NA	**0.00970**	NA	NA	NA	0.005 U	NA	NA	NA	**0.00470 J**
Zinc	2	mg/L	**0.0150**	NA	NA	NA	**0.0330**	NA	NA	NA	**0.00440 J**	NA	NA	NA	**0.00220 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D1	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-D2	MW-26-VD	MW-26-VD	MW-26-VD	MW-26-VD	MW-27-D1
Historical Screen Interval (feet below ground surface)			15 - 25	15 - 25	15 - 25	15 - 25	30 - 40	30 - 40	30 - 40	30 - 40	58 - 68	58 - 68	58 - 68	58 - 68	18 - 28
Current Screen Interval (Feet below current ground surface):			19 - 29	19 - 29	19 - 29	19 - 29	34 - 44	34 - 44	34 - 44	34 - 44	62 - 72	62 - 72	62 - 72	62 - 72	22 - 32
Date Collected:			01/25/11	09/10/13	01/12/16	06/22/16	01/25/11	09/10/13	01/12/16	06/22/16	01/18/11	09/10/13	01/13/16	06/22/16	01/18/11
Inorganics-Dissolved															
Aluminum	- -	mg/L	0.200 UB	NA	NA	NA	0.200 UB	NA	NA	NA	0.200 U	NA	NA	NA	0.200 U
Antimony	0.003	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U
Arsenic	0.025	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U
Barium	1	mg/L	**0.250**	NA	NA	NA	**0.0480**	NA	NA	NA	**0.370**	NA	NA	NA	**0.0330**
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U
Cadmium	0.005	mg/L	**0.000880 J**	NA	NA	NA	**0.00110**	NA	NA	NA	0.000100 U	NA	NA	NA	**0.000530 J**
Calcium	- -	mg/L	**614**	NA	NA	NA	**286**	NA	NA	NA	**987**	NA	NA	NA	**102**
Chromium	0.05	mg/L	**0.00360 J**	NA	NA	NA	**0.00490**	NA	NA	NA	**0.00240 J**	NA	NA	NA	**0.00380 J**
Cobalt	- -	mg/L	**0.00150 J**	NA	NA	NA	**0.00140 J**	NA	NA	NA	**0.00420**	NA	NA	NA	**0.000680 J**
Copper	0.2	mg/L	0.0100 U	NA	NA	NA	**0.00210 J**	NA	NA	NA	**0.00290 J**	NA	NA	NA	0.0100 U
Iron	0.3	mg/L	0.0500 U	NA	NA	0.0500 U	**0.250**	NA	NA	**0.490 B**	0.0500 U	NA	NA	**74.0 B**	0.0500 U
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U
Magnesium	35	mg/L	**252.00**	NA	NA	NA	**729.00**	NA	NA	NA	**12.40**	NA	NA	NA	**291**
Manganese	0.3	mg/L	**0.400**	NA	NA	**0.0350 B**	**0.130**	NA	NA	**0.700 B**	0.00300 U	NA	NA	**2.60 B**	**0.0720**
Mercury	0.0007	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.000200 U
Nickel	0.1	mg/L	**0.0120**	NA	NA	NA	0.0100 U	NA	NA	NA	**0.0410**	NA	NA	NA	0.0100 U
Potassium	- -	mg/L	**185**	NA	NA	NA	**235**	NA	NA	NA	**210**	NA	NA	NA	**105**
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U
Sodium	20	mg/L	**3,530**	NA	NA	NA	**5,920**	NA	NA	NA	**4,710**	NA	NA	NA	**2,220**
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U
Vanadium	- -	mg/L	0.005 U	NA	NA	NA	**0.00660**	NA	NA	NA	0.005 U	NA	NA	NA	**0.00450 J**
Zinc	2	mg/L	**0.110**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U
General Chemistry															
Alkalinity	- -	mg/L	**455**	NA	NA	**569 B**	**487**	NA	NA	**344**	**219**	NA	NA	**176 B**	**897**
Alkalinity, Bicarbonate	- -	mg/L	**455**	NA	NA	**569 B**	**487**	NA	NA	**344**	**219**	NA	NA	**176 B**	**897**
Ammonia Nitrogen	- -	mg/L	**1.3**	NA	NA	NA	**3.5**	NA	NA	NA	**4.7**	NA	NA	NA	**6.7**
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.0015 U	NA	NA	NA	0.15 U	NA	NA	NA	0.0015 U	NA	NA	NA	0.0015 U
Ethene	- -	mg/L	0.0015 U	NA	NA	NA	0.15 U	NA	NA	NA	**0.013**	NA	NA	NA	0.0015 U
Methane	- -	mg/L	**0.0016 J**	NA	NA	NA	**0.27 J**	NA	NA	NA	**0.26 D**	NA	NA	NA	**9.3 D**
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U
Orthophosphate	- -	mg/L	**0.23**	NA	NA	NA	**0.44**	NA	NA	NA	**0.059**	NA	NA	NA	**0.44**
Soluble Organic Carbon	- -	mg/L	**46.7**	NA	NA	NA	**6.7**	NA	NA	NA	**193**	NA	NA	NA	**13.8**
Sulfate	250	mg/L	**466**	NA	NA	**139**	**1,420**	NA	NA	**1,200**	**708**	NA	NA	**497**	**311**
Sulfide	- -	mg/L	**0.85**	NA	NA	**70.6 F1**	**1.3**	NA	NA	**1.7**	**8**	NA	NA	**6**	**0.25 J**
Total Dissolved Solids	- -	mg/L	**12,500**	NA	NA	NA	**19,000**	NA	NA	NA	**17,700**	NA	NA	NA	**6,870**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:		Units	09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	**0.44 J**	5.0 U	5.0 U	4.0 U	**1.1**	**0.76 J**	10 U	**0.87 J**	**0.48 J**	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	**0.21 J**	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	50 U	50 U	**1.7 J**	10 U	50 U	50 U	**8.2 J**	10 U	**2.3 J**	100 U	10 U	10 U	10 U
2-Hexanone	50	ug/L	25 U	25 U	5.0 U	5.0 U	25 U	25 U	20 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U	5.0 U	5.0 U	25 U	25 U	20 U	5.0 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U
Acetone	50	ug/L	50 U	**53**	**5.0 J**	10 U	50 U	50 U*	**38 J**	**4.2 J**	**45**	**280**	**4.2 J**	**3.3 J**	**4.4 J**
Benzene	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**160**	**12**	**2.1**	10 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**1.2**
Bromoform	50	ug/L	5.0 UJ	5.0 U	1.0 U	1.0 U	5.0 UJ	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**5.6**
Bromomethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	**1.0 J**	5.0 U	**0.66 J**	1.0 U	**1.0 J**	5.0 U	4.0 U	1.0 U	**1.0**	10 U	1.0 U	1.0 U	**0.52 J**
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 UJ	1.0 U	10 U	1.0 UJ	1.0 U	1.0 U
Chloroform	7	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**0.51 J**
Chloromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	**1.0**	1.0 U	5.0 U	5.0 U	4.0 U	**1.1**	1.0 U	10 U	**6.6**	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**22**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**3.2**
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**92**	**4.2**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**38**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methyl acetate	- -	ug/L	5.0 U	13 U	2.5 U	1.0 U	5.0 U	13 U	10 U	1.0 U	2.5 U	25 U	1.0 U	2.5 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**18**	5.0 U	**10**	1.0 U	**4.8 J**	5.0 U	**8.1**	**38**	**6.2**	**4.7 J**	**2.7**	1.0 U	**0.25 J**
Methylcyclohexane	- -	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**26**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**5.7**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Toluene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**17**	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	**0.51 J**	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	**0.97 J**	1.0 U	5.0 U	5.0 U	4.0 U	**1.4**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	10 U	10 U	2.0 U	2.0 U	10 U	10 U	**68**	**0.91 J**	2.0 U	20 U	2.0 U	2.0 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:		Units	09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
2,4,5-Trichlorophenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4,6-Trichlorophenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4-Dichlorophenol	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4-Dimethylphenol	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,4-Dinitrophenol	10	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
2,4-Dinitrotoluene	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2,6-Dinitrotoluene	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Chloronaphthalene	10	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Chlorophenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Methylnaphthalene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**76**	5.0 U	24 U	NA	5.0 U	4.7 U	NA
2-Methylphenol	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
2-Nitroaniline	5	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
2-Nitrophenol	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
3-Nitroaniline	5	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Chloroaniline	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
4-Methylphenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	**9.9 J**	10 U	48 U*	NA	9.9 U	9.4 U*	NA
4-Nitroaniline	5	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
4-Nitrophenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
Acenaphthene	20	ug/L	**1.4 J**	50 U	240 U	5.2 U	4.7 U	4.7 U	**1.9 J**	**13**	**4.1 J**	NA	5.0 U	4.7 U	NA
Acenaphthylene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Acetophenone	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
Anthracene	50	ug/L	**0.42 J**	50 U	240 U	5.2 U	**0.32 J**	4.7 U	23 U	**1.4 J**	24 U	NA	5.0 U	4.7 U	NA
Atrazine	7.5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzaldehyde	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
Benzo(a)anthracene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(a)pyrene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	**2.1 J**	NA
Butylbenzylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	**0.48 JB**	23 U	5.0 U	24 U	NA	5.0 U	**0.98 J**	NA
Caprolactam	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Carbazole	- -	ug/L	**0.86 J**	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	**4.4 J**	24 U	NA	5.0 U	4.7 U	NA
Chrysene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Dibenzofuran	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	**0.85 J**	48 U	NA	9.9 U	9.4 U	NA
Diethylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Dimethylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Di-n-Butylphthalate	50	ug/L	**0.33 J**	50 U	240 U	5.2 U	**0.37 J**	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:		Units	09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Fluoranthene	50	ug/L	4.9 U	50 U	240 U	5.2 U	**0.43 J**	4.7 U	23 U	**3.6 J**	24 U	NA	5.0 U	4.7 U	NA
Fluorene	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**2.6 J**	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachlorobenzene	0.04	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachlorobutadiene	0.5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachlorocyclopentadiene	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Hexachloroethane	5	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Isophorone	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
naphthalene	10	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**88**	**2.0 J**	24 U	NA	5.0 U	4.7 U	NA
Nitrobenzene	0.4	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U*	NA	5.0 U	4.7 U*	NA
N-Nitrosodiphenylamine	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	5.0 U	24 U	NA	5.0 U	4.7 U	NA
Pentachlorophenol	- -	ug/L	9.8 U	99 U	470 U	10 U	9.4 U	9.5 U	46 U	10 U	48 U	NA	9.9 U	9.4 U	NA
Phenanthrene	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**2.8 J**	**9.6**	24 U	NA	5.0 U	**0.58 J**	NA
Phenol	1	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	**56**	5.0 U	**14 J***	NA	5.0 U	4.7 U*	NA
Pyrene	50	ug/L	4.9 U	50 U	240 U	5.2 U	4.7 U	4.7 U	23 U	**1.8 J**	24 U	NA	5.0 U	4.7 U	NA
Inorganics - Total															
Aluminum	- -	mg/L	NA	NA	NA	**0.120 J**	NA	NA	NA	0.280 UB	NA	NA	**0.370**	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	0.020 UJ	NA	NA	NA	0.020 U	NA	NA	0.020 U	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA	0.010 U	NA	NA
Barium	1	mg/L	NA	NA	NA	**0.0490**	NA	NA	NA	**0.0370**	NA	NA	**0.0460**	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	**0.00790 J**	NA	NA	NA	**0.00700 J**	NA	NA	**0.00780 J**	NA	NA
Calcium	- -	mg/L	NA	NA	NA	**293**	NA	NA	NA	**96.8**	NA	NA	**276**	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	**0.00540**	NA	NA	NA	**0.00380 J**	NA	NA	**0.00520**	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	**0.00110 J**	NA	NA	NA	**0.00940 J**	NA	NA	**0.00120 J**	NA	NA
Copper	0.2	mg/L	NA	NA	NA	**0.00210 J**	NA	NA	NA	**0.00270 J**	NA	NA	**0.00220 J**	NA	NA
Iron	0.3	mg/L	NA	NA	**0.430**	**0.170**	NA	NA	**1.30**	**0.220**	**0.350 B**	NA	**0.530**	**50.4 B**	NA
Lead	0.025	mg/L	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	NA	NA	NA	**731.000**	NA	NA	NA	**275.000**	NA	NA	**609.000**	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.200 B**	**0.600**	NA	NA	**0.0380 B**	**0.110**	**0.0680 B**	NA	**0.190**	**1.10 B**	NA
Mercury	0.0007	mg/L	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	**0.00200 J**	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	NA	NA	NA	**226**	NA	NA	NA	**108**	NA	NA	**215**	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	NA	NA	NA	**5,750**	NA	NA	NA	**2,310**	NA	NA	**5,020**	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	**0.00710**	NA	NA	NA	**0.00510**	NA	NA	**0.0066**	NA	NA
Zinc	2	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	**0.00180 J**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D1	MW-27-D1	MW-27-D1	MW-27-D2	MW-27-D2	MW-27-D2	MW-27-D2	MW-28-D1	MW-28-D1	MW-28-D1	MW-28-D2	MW-28-D2R	MW-28-D2R
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	17.5 - 27.5	17.5 - 27.5	17.5 - 27.5	32.5 - 42.5	32.5 - 42.5	32.5 - 42.5
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	21.5 - 31.5	21.5 - 31.5	21.5 - 31.5	36.5 - 46.5	36.5 - 46.5	36.5 - 46.5
Date Collected:			09/11/13	01/13/16	06/21/16	01/18/11	09/11/13	01/13/16	06/21/16	01/25/11	06/24/16	07/28/16	01/25/11	06/24/16	07/28/16
Inorganics-Dissolved															
Aluminum	- -	mg/L	NA	NA	NA	0.200 U	NA	NA	NA	0.200 UB	NA	NA	0.200 U	NA	NA
Antimony	0.003	mg/L	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA
Arsenic	0.025	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
Barium	1	mg/L	NA	NA	NA	**0.0470**	NA	NA	NA	**0.0370**	NA	NA	**0.0440**	NA	NA
Beryllium	0.003	mg/L	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	NA	NA	NA	**0.000420 J**	NA	NA	NA	**0.000880 J**	NA	NA	**0.000970 J**	NA	NA
Calcium	- -	mg/L	NA	NA	NA	**290**	NA	NA	NA	**98.1**	NA	NA	**265**	NA	NA
Chromium	0.05	mg/L	NA	NA	NA	**0.00460**	NA	NA	NA	**0.00350 J**	NA	NA	**0.00420**	NA	NA
Cobalt	- -	mg/L	NA	NA	NA	**0.00130 J**	NA	NA	NA	**0.000840 J**	NA	NA	**0.000840 J**	NA	NA
Copper	0.2	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	**0.00260 J**	NA	NA	**0.00200 J**	NA	NA
Iron	0.3	mg/L	NA	NA	0.0500 U	0.0500 U	NA	NA	**0.490**	**0.0400 J**	**0.0790**	NA	**0.290**	**52.8**	NA
Lead	0.025	mg/L	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	NA	NA	NA	**693**	NA	NA	NA	**283**	NA	NA	**563**	NA	NA
Manganese	0.3	mg/L	NA	NA	**0.200 B**	**0.570**	NA	NA	**0.0410 B**	**0.110**	**0.0680 B**	NA	**0.190**	**1.10 B**	NA
Mercury	0.0007	mg/L	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
Potassium	- -	mg/L	NA	NA	NA	**221**	NA	NA	NA	**115**	NA	NA	**217**	NA	NA
Selenium	0.01	mg/L	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	NA	NA	NA	**5,620**	NA	NA	NA	**2,280**	NA	NA	**4,650**	NA	NA
Thallium	0.0005	mg/L	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	NA	NA	NA	**0.00580**	NA	NA	NA	**0.00450 J**	NA	NA	**0.00620**	NA	NA
Zinc	2	mg/L	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA
General Chemistry															
Alkalinity	- -	mg/L	NA	NA	**795 B**	**451**	NA	NA	**279 B**	**882**	**745 B**	NA	**503**	**182**	NA
Alkalinity, Bicarbonate	- -	mg/L	NA	NA	**795 B**	**451**	NA	NA	**279 B**	**882**	**745 B**	NA	**503**	**182**	NA
Ammonia Nitrogen	- -	mg/L	NA	NA	NA	**2.9**	NA	NA	NA	**6.3**	NA	NA	**3.8**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	NA	NA	0.0015 U	NA	NA	NA	0.00015 U	NA	NA	0.00015 U	NA	NA
Ethene	- -	mg/L	NA	NA	NA	0.0015 U	NA	NA	NA	0.00015 U	NA	NA	0.00015 U	NA	NA
Methane	- -	mg/L	NA	NA	NA	**0.21 D**	NA	NA	NA	**0.0012 J**	NA	NA	**0.00026 J**	NA	NA
Nitrate Nitrogen	- -	mg/L	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	0.05 U	NA	NA
Nitrite Nitrogen	- -	mg/L	NA	NA	NA	0.05 U	NA	NA	NA	0.05 UJ	NA	NA	0.05 UJ	NA	NA
Orthophosphate	- -	mg/L	NA	NA	NA	**0.33**	NA	NA	NA	**0.37**	NA	NA	**0.49**	NA	NA
Soluble Organic Carbon	- -	mg/L	NA	NA	NA	**6.7**	NA	NA	NA	**12.2**	NA	NA	**7.2**	NA	NA
Sulfate	250	mg/L	NA	NA	**290**	**1,350**	NA	NA	**49.2**	**134**	**155**	NA	**1,290**	**1,080**	NA
Sulfide	- -	mg/L	NA	NA	**97.3**	**0.14**	NA	NA	**0.16**	**0.14**	**54.4**	NA	**0.85**	0.1 U	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	**19,000**	NA	NA	NA	**7,380**	NA	NA	**18,700**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:		Units	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Volatile Organics														
1,1,1-Trichloroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**7.3**	**4.8**	**2.6**	**4.9 J**	10 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
2-Butanone	50	ug/L	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	10 U
2-Hexanone	50	ug/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	50 U	5.0 U
Acetone	50	ug/L	**8.9 J**	50 U	**25 J**	**9.5 J**	**4.8 J**	10 U	10 U	10 U	10 U	100 U	100 U	10 U
Benzene	1	ug/L	**130 D**	**87**	**81**	**6.3**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Bromodichloromethane	50	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Bromoform	50	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Bromomethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Carbon Disulfide	60	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	**2.4**	1.0 U	1.0 U	**0.62 J**	1.0 U	10 U	10 U	1.0 U
Carbon Tetrachloride	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chloroethane	5	ug/L	1.0 UJ	5.0 U	5.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 UJ	10 U	10 U	1.0 U
Chloroform	7	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Chloromethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Cyclohexane	- -	ug/L	**26**	**22**	**13**	**8.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Dibromochloromethane	50	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Isopropylbenzene	5	ug/L	**16**	**18**	**24**	**5.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Methyl acetate	- -	ug/L	**27 J**	5.0 U	13 U	2.5 U	1.0 U	1.0 U	2.5 U	2.5 U	1.0 U	10 U	25 U	2.5 U
Methyl tert-butyl ether	10	ug/L	**550 D**	**85**	**34**	**23**	1.0 U	1.0 U	**66**	**51**	**15**	**140**	10 U	**0.42 J**
Methylcyclohexane	- -	ug/L	**13**	**16**	**5.5**	**3.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Styrene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Toluene	5	ug/L	**3.7**	**3.8 J**	5.0 U	**1.0**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 UF1	1.0 U
Trichloroethene	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	**0.86 J**	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes (total)	5	ug/L	**16**	**11**	10 U	**2.0**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	20 U	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:		Units	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Semivolatile Organics														
1,1'-Biphenyl	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4,5-Trichlorophenol	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4,6-Trichlorophenol	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4-Dichlorophenol	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4-Dimethylphenol	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,4-Dinitrophenol	10	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
2,4-Dinitrotoluene	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2,6-Dinitrotoluene	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Chloronaphthalene	10	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Chlorophenol	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Methylnaphthalene	- -	ug/L	**1.9 J**	**4.7**	49 U	**2.9 J**	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Methylphenol	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
2-Nitroaniline	5	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
2-Nitrophenol	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
3,3'-Dichlorobenzidine	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
3-Nitroaniline	5	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4-Bromophenyl-phenylether	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Chloro-3-Methylphenol	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Chloroaniline	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Chlorophenyl-phenylether	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
4-Methylphenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4-Nitroaniline	5	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
4-Nitrophenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
Acenaphthene	20	ug/L	**0.89 J**	**2.2 J**	49 U	**1.7 J**	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Acenaphthylene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Acetophenone	- -	ug/L	4.9 U	**1.2 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Anthracene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Atrazine	7.5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzaldehyde	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(a)anthracene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(a)pyrene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(b)fluoranthene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(g,h,i)perylene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Benzo(k)fluoranthene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
bis(2-Chloroethoxy)methane	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
bis(2-Chloroethyl)ether	1	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Butylbenzylphthalate	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Caprolactam	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Carbazole	- -	ug/L	4.9 U	**0.59 J**	49 U	**0.39 J**	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Chrysene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Dibenzo(a,h)anthracene	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Dibenzofuran	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
Diethylphthalate	50	ug/L	4.9 U	**1.0 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Dimethylphthalate	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Di-n-Butylphthalate	50	ug/L	4.9 U	**0.34 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	**0.31 J**	4.8 U	4.7 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):			21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:			01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Semivolatile Organics (Cont.)														
Di-n-Octylphthalate	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Fluoranthene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Fluorene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachlorobenzene	0.04	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachlorobutadiene	0.5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachlorocyclopentadiene	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Hexachloroethane	5	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Isophorone	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
naphthalene	10	ug/L	4.9 U	**0.83 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Nitrobenzene	0.4	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
N-Nitrosodiphenylamine	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Pentachlorophenol	- -	ug/L	9.8 U	9.4 U	97 U	10 U	9.4 U	9.3 U	200 U	48 U	9.7 U	9.4 U	9.6 U	9.4 U
Phenanthrene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Phenol	1	ug/L	4.9 U	**1.9 J**	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Pyrene	50	ug/L	4.9 U	4.7 U	49 U	5.1 U	4.7 U	4.7 U	100 U	24 U	4.9 U	4.7 U	4.8 U	4.7 U
Inorganics - Total														
Aluminum	- -	mg/L	0.20 UB	NA	NA	NA	0.20 UB	NA	NA	NA	0.20 UB	NA	NA	NA
Antimony	0.003	mg/L	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA
Arsenic	0.025	mg/L	0.010 U	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	NA	NA
Barium	1	mg/L	**0.0150**	NA	NA	NA	**0.110**	NA	NA	NA	**0.050**	NA	NA	NA
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	**0.00530 J**	NA	NA	NA	**0.00840 J**	NA	NA	NA	**0.00910 J**	NA	NA	NA
Calcium	- -	mg/L	**52.5**	NA	NA	NA	**1,190**	NA	NA	NA	**265**	NA	NA	NA
Chromium	0.05	mg/L	**0.00330 J**	NA	NA	NA	**0.00200 J**	NA	NA	NA	**0.00400**	NA	NA	NA
Cobalt	- -	mg/L	0.00400 U	NA	NA	NA	**0.00120 J**	NA	NA	NA	**0.00130 J**	NA	NA	NA
Copper	0.2	mg/L	**0.00220 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
Iron	0.3	mg/L	**0.290**	NA	NA	**0.520**	**0.0220 J**	NA	NA	**0.0640**	**0.0630**	NA	NA	**0.390**
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	**112.000**	NA	NA	NA	**288.000 J**	NA	NA	NA	**639.000**	NA	NA	NA
Manganese	0.3	mg/L	**0.220**	NA	NA	**0.270 B**	**0.00860**	NA	NA	**0.150 B**	**0.200**	NA	NA	**0.0620 B**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA
Nickel	0.1	mg/L	0.0100 U	NA	NA	NA	**0.00570 J**	NA	NA	NA	0.0100 U	NA	NA	NA
Potassium	- -	mg/L	**58.8**	NA	NA	NA	**339**	NA	NA	NA	**213**	NA	NA	NA
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U		NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	**903**	NA	NA	NA	**7,780**	NA	NA	NA	**5,430**	NA	NA	NA
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	**0.00320 J**	NA	NA	NA	0.00500 U	NA	NA	NA	**0.00470 J**	NA	NA	NA
Zinc	2	mg/L	**0.00570 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D1	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-D2	MW-29-VD	MW-29-VD	MW-29-VD	MW-29-VD
Historical Screen Interval (feet below ground surface)			17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	54 - 63	54 - 63	54 - 63	54 - 63
Current Screen Interval (Feet below current ground surface):			21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	57 - 67	57 - 67	57 - 67	57 - 67
Date Collected:			01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16	01/25/11	09/10/13	01/14/16	06/21/16
Inorganics-Dissolved														
Aluminum	- -	mg/L	0.200 U	NA	NA	NA	0.200 U	NA	NA	NA	0.200 UB	NA	NA	NA
Antimony	0.003	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA
Arsenic	0.025	mg/L	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
Barium	1	mg/L	**0.0150**	NA	NA	NA	**0.110**	NA	NA	NA	**0.050**	NA	NA	NA
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA
Cadmium	0.005	mg/L	**0.000500 J**	NA	NA	NA	**0.000680 J**	NA	NA	NA	**0.000860 J**	NA	NA	NA
Calcium	- -	mg/L	**51.3**	NA	NA	NA	**1,080**	NA	NA	NA	**257**	NA	NA	NA
Chromium	0.05	mg/L	**0.00350 J**	NA	NA	NA	**0.00130 J**	NA	NA	NA	**0.00370 J**	NA	NA	NA
Cobalt	- -	mg/L	0.00400 U	NA	NA	NA	**0.00120 J**	NA	NA	NA	**0.00140 J**	NA	NA	NA
Copper	0.2	mg/L	**0.00250 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
Iron	0.3	mg/L	**0.200**	NA	NA	**0.440**	**0.0190 J**	NA	NA	0.0500 U	**0.0230 J**	NA	NA	**0.410**
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA
Magnesium	35	mg/L	**113**	NA	NA	NA	**392 J**	NA	NA	NA	**617**	NA	NA	NA
Manganese	0.3	mg/L	**0.210**	NA	NA	**0.270 B**	**0.0210**	NA	NA	**0.140 B**	**0.200**	NA	NA	**0.0690 B**
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	**0.000120 J**	NA	NA	NA	**0.000140 J**	NA	NA	NA
Nickel	0.1	mg/L	0.0100 U	NA	NA	NA	**0.00380 J**	NA	NA	NA	0.0100 U	NA	NA	NA
Potassium	- -	mg/L	**61.2**	NA	NA	NA	**349**	NA	NA	NA	**215**	NA	NA	NA
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA
Sodium	20	mg/L	**907**	NA	NA	NA	**7,510**	NA	NA	NA	**5,050**	NA	NA	NA
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA
Vanadium	- -	mg/L	**0.00360 J**	NA	NA	NA	0.005 U	NA	NA	NA	**0.00450 J**	NA	NA	NA
Zinc	2	mg/L	**0.00370 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA
General Chemistry														
Alkalinity	- -	mg/L	**519**	NA	NA	**567 B**	12.6 UB	NA	NA	**453 B**	**637**	NA	NA	**229 B**
Alkalinity, Bicarbonate	- -	mg/L	**519**	NA	NA	**567 B**	12.6 UB	NA	NA	**453 B**	**637**	NA	NA	**229 B**
Ammonia Nitrogen	- -	mg/L	**7.3**	NA	NA	NA	**4.9**	NA	NA	NA	**5.1**	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.00015 U	NA	NA	NA	0.015 U	NA	NA	NA	0.15 UJ	NA	NA	NA
Ethene	- -	mg/L	0.00015 U	NA	NA	NA	0.015 U	NA	NA	NA	0.15 UJ	NA	NA	NA
Methane	- -	mg/L	**16 D**	NA	NA	NA	**0.019 J**	NA	NA	NA	**0.42 J**	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 UJ	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA
Orthophosphate	- -	mg/L	**0.14**	NA	NA	NA	**0.06**	NA	NA	NA	**0.43**	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	**15**	NA	NA	NA	**1.7**	NA	NA	NA	**7.9**	NA	NA	NA
Sulfate	250	mg/L	5 U	NA	NA	5 U	**1,850**	NA	NA	**939**	**1,170**	NA	NA	**1,890**
Sulfide	- -	mg/L	**0.078 J**	NA	NA	**0.23**	0.1 U	NA	NA	**17**	**17.2**	NA	NA	0.1 UF1
Total Dissolved Solids	- -	mg/L	**2,840**	NA	NA	NA	**30,100**	NA	NA	NA	**16,900**	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:			01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1,2-Trichloroethane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,1-Dichloroethane	5	ug/L	**2.0 [2.0]**	1.0 U	**1.9**	**2.1**	1.0 U [1.0 U]	2.0 U	**2.9 [3.2 J]**	**0.87 J**	1.0 U	10 U	10 U
1,1-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,2-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**5.0**	10 U	10 U
1,2-Dichloroethane	0.6	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**1.5 J**	10 U	10 U
1,2-Dichloropropane	1	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,3-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
1,4-Dichlorobenzene	3	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
2-Butanone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U
2-Hexanone	50	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	10 U	10 U [25 U]	5.0 U	5.0 U	50 U	50 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U [5.0 U]	10 U	10 U [25 U]	5.0 U	5.0 U	50 U	50 U
Acetone	50	ug/L	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U
Benzene	1	ug/L	**81 [87]**	**2.2**	**1.1**	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**7.2 J**	10 U
Bromodichloromethane	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Bromoform	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Bromomethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Carbon Disulfide	60	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	**0.19 J**	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**7.1**	10 U	10 U
Carbon Tetrachloride	5	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Chlorobenzene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Chloroethane	5	ug/L	1.0 UJ [1.0 UJ]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 UJ	10 U	10 U
Chloroform	7	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Chloromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Cyclohexane	- -	ug/L	**1.4 [1.6]**	1.0 U	**0.39 J**	**0.27 J**	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**4.7 J**	10 U
Dibromochloromethane	50	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Dichlorodifluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Ethylbenzene	5	ug/L	**1.8 [1.8]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Isopropylbenzene	5	ug/L	**0.97 J [1.1]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Methyl acetate	- -	ug/L	1.0 U [1.0 U]	1.0 U	2.5 U	2.5 U	1.0 U [1.0 U]	2.0 U	5.0 U [13 U]	2.5 U	1.0 U	10 U	25 U
Methyl tert-butyl ether	10	ug/L	**680 D [680 D]**	**15**	**94**	**53**	1.0 U **[0.42 J]**	**0.84 J**	**8.1 [7.3]**	**3.0**	**90**	**2.6 J**	10 U
Methylcyclohexane	- -	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**2.8 J**	10 U
Methylene Chloride	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Styrene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Tetrachloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Toluene	5	ug/L	**0.55 J [0.56 J]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Trichloroethene	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**4.1**	10 U	10 U
Trichlorofluoromethane	5	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Vinyl Chloride	2	ug/L	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U
Xylenes (total)	5	ug/L	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	4.0 U	4.0 U [10 U]	2.0 U	2.0 U	20 U	20 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:			01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Semivolatile Organics													
1,1'-Biphenyl	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4,5-Trichlorophenol	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4,6-Trichlorophenol	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4-Dichlorophenol	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4-Dimethylphenol	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,4-Dinitrophenol	10	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
2,4-Dinitrotoluene	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2,6-Dinitrotoluene	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Chloronaphthalene	10	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Chlorophenol	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Methylnaphthalene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Methylphenol	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
2-Nitroaniline	5	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
2-Nitrophenol	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
3,3'-Dichlorobenzidine	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF2	4.8 U	5.2 U	4.6 U
3-Nitroaniline	5	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4-Bromophenyl-phenylether	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Chloro-3-Methylphenol	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Chloroaniline	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Chlorophenyl-phenylether	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
4-Methylphenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4-Nitroaniline	5	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
4-Nitrophenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
Acenaphthene	20	ug/L	**15 [15]**	**2.5 J**	110 U	**3.5 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Acenaphthylene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Acetophenone	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Anthracene	50	ug/L	**0.74 J [0.63 J]**	**0.29 J**	110 U	**0.40 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Atrazine	7.5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzaldehyde	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(a)anthracene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(a)pyrene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(b)fluoranthene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Benzo(g,h,i)perylene	- -	ug/L	4.8 U [4.9 U]	5.1 UJ	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 UF1	4.8 U	5.2 UJ	4.6 U
Benzo(k)fluoranthene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
bis(2-Chloroethoxy)methane	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
bis(2-Chloroethyl)ether	1	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	**7.5 B**	NA	5.3 U	46 U [46 U]	**8.0 B**	4.8 U	5.2 U	4.6 U
Butylbenzylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Caprolactam	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Carbazole	- -	ug/L	**7.5 [7.7]**	**1.0 J**	110 U	**0.57 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Chrysene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Dibenzo(a,h)anthracene	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Dibenzofuran	- -	ug/L	**2.1 J [2.3 J]**	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 U	9.6 U	10 U	9.2 U
Diethylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Dimethylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Di-n-Butylphthalate	50	ug/L	**0.39 J [0.33 J]**	5.1 U	110 U	4.7 U	NA	**0.70 J**	46 U [46 U]	4.6 U	4.8 U	**0.75 J**	4.6 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:		Units	01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Semivolatile Organics (Cont.)													
Di-n-Octylphthalate	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Fluoranthene	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Fluorene	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Hexachlorobenzene	0.04	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Hexachlorobutadiene	0.5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Hexachlorocyclopentadiene	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Hexachloroethane	5	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 UJ	46 U [46 U]	4.6 UF1	4.8 U	5.2 U	4.6 U
Isophorone	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
naphthalene	10	ug/L	**0.92 J [1.0 J]**	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Nitrobenzene	0.4	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
N-Nitrosodiphenylamine	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Pentachlorophenol	- -	ug/L	9.6 U [9.7 U]	10 U	210 U	9.4 U	NA	11 U	93 U [92 U]	9.3 UF1	9.6 U	10 U	9.2 U
Phenanthrene	50	ug/L	**6.5 [6.6]**	**0.59 J**	110 U	**1.2 J**	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Phenol	1	ug/L	4.8 U [4.9 U]	**2.9 J**	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Pyrene	50	ug/L	4.8 U [4.9 U]	5.1 U	110 U	4.7 U	NA	5.3 U	46 U [46 U]	4.6 U	4.8 U	5.2 U	4.6 U
Inorganics - Total													
Aluminum	- -	mg/L	0.200 UB [0.200 UB]	NA	NA	NA	**0.550 [0.380]**	NA	NA	NA	0.200 UB	NA	NA
Antimony	0.003	mg/L	0.020 U [0.020 U]	NA	NA	NA	0.020 U [0.020 U]	NA	NA	NA	0.020 U	NA	NA
Arsenic	0.025	mg/L	0.010 U [0.010 U]	NA	NA	NA	**0.0061 J** [0.010 U]	NA	NA	NA	**0.0061 J**	NA	NA
Barium	1	mg/L	**0.0440 [0.0440]**	NA	NA	NA	**0.0470 [0.0470]**	NA	NA	NA	**0.0990**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.00600 J [0.00790 J]**	NA	NA	NA	**0.00100 [0.00120]**	NA	NA	NA	**0.00110**	NA	NA
Calcium	- -	mg/L	**107 [107]**	NA	NA	NA	**133 [134]**	NA	NA	NA	**289**	NA	NA
Chromium	0.05	mg/L	**0.00390 J [0.00370 J]**	NA	NA	NA	**0.00560 [0.00510]**	NA	NA	NA	**0.00430**	NA	NA
Cobalt	- -	mg/L	**0.00110 J [0.00930 J]**	NA	NA	NA	**0.00860 J [0.00100 J]**	NA	NA	NA	**0.00160 J**	NA	NA
Copper	0.2	mg/L	**0.00300 J [0.00250 J]**	NA	NA	NA	**0.00320 J [0.00160 J]**	NA	NA	NA	0.0100 U	NA	NA
Iron	0.3	mg/L	**0.100 [0.130]**	NA	NA	**1.60**	**0.500 [0.380]**	NA	NA	**0.160**	**0.0950**	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	**0.00360 J** [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**283.000 [279.000]**	NA	NA	NA	**304.000 [303.000]**	NA	NA	NA	**707.000**	NA	NA
Manganese	0.3	mg/L	**0.0940 [0.093]**	NA	NA	**0.0920 B**	**0.150 [0.150]**	NA	NA	**0.120 B**	**0.150**	NA	NA
Mercury	0.0007	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U [0.00200 U]	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	**0.00140 J** [0.010 U]	NA	NA	NA	**0.00390 J**	NA	NA
Potassium	- -	mg/L	**113 [114]**	NA	NA	NA	**123 [123]**	NA	NA	NA	**258**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,400,000400]**	NA	NA	NA	**2,900 [2,870]**	NA	NA	NA	**6,100**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.00520 [0.00540]**	NA	NA	NA	**0.00420 J [0.00470 J]**	NA	NA	NA	**0.00800**	NA	NA
Zinc	2	mg/L	**0.00370 J [0.00180 J]**	NA	NA	NA	**0.00440 J [0.00230 J]**	NA	NA	NA	**0.00230 J**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D1	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-D2	MW-30-VD	MW-30-VD	MW-30-VD
Historical Screen Interval (feet below ground surface)			18 - 28	18 - 28	18 - 28	18 - 28	33 - 43	33 - 43	33 - 43	33 - 43	73 - 83	73 - 83	73 - 83
Current Screen Interval (Feet below current ground surface):			22 - 32	22 - 32	22 - 32	22 - 32	37 - 47	37 - 47	37 - 47	37 - 47	77 - 87	77 - 87	77 - 87
Date Collected:			01/24/11	09/09/13	01/14/16	06/22/16	04/07/11	09/10/13	01/14/16	06/22/16	01/25/11	09/10/13	01/14/16
Inorganics-Dissolved													
Aluminum	- -	mg/L	0.200 UB [0.200 UB]	NA	NA	NA	0.200 U [0.200 U]	NA	NA	NA	0.200 UB	NA	NA
Antimony	0.003	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U [0.0200 U]	NA	NA	NA	0.020.0 U	NA	NA
Arsenic	0.025	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U [0.0100 U]	NA	NA	NA	**0.00780 J**	NA	NA
Barium	1	mg/L	**0.0440 [0.0440]**	NA	NA	NA	**0.047 [0.047]**	NA	NA	NA	**0.100**	NA	NA
Beryllium	0.003	mg/L	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U [0.00200 U]	NA	NA	NA	0.00200 U	NA	NA
Cadmium	0.005	mg/L	**0.000730 J [0.000600 J]**	NA	NA	NA	**0.000890 J [0.000660 J]**	NA	NA	NA	**0.00100**	NA	NA
Calcium	- -	mg/L	**107 [107]**	NA	NA	NA	**138 [137]**	NA	NA	NA	**280**	NA	NA
Chromium	0.05	mg/L	**0.00320 J [0.00360 J]**	NA	NA	NA	**0.00310 J [0.00260 J]**	NA	NA	NA	**0.0038 J**	NA	NA
Cobalt	- -	mg/L	**0.000840 J** [0.00400 U]	NA	NA	NA	0.00400 U [0.00400 U]	NA	NA	NA	**0.00150 J**	NA	NA
Copper	0.2	mg/L	**0.00150 J [0.00210 J]**	NA	NA	NA	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U	NA	NA
Iron	0.3	mg/L	0.0500 U [0.0500 U]	NA	NA	**0.360 B**	0.0500 U [0.0500 U]	NA	NA	0.0500 U	0.0500 U	NA	NA
Lead	0.025	mg/L	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U [0.00500 U]	NA	NA	NA	0.00500 U	NA	NA
Magnesium	35	mg/L	**277 [281]**	NA	NA	NA	**315 [310]**	NA	NA	NA	**703**	NA	NA
Manganese	0.3	mg/L	**0.0860 [0.0860]**	NA	NA	**0.0930 B**	**0.150 [0.150]**	NA	NA	**0.110 B**	**0.160**	NA	NA
Mercury	0.0007	mg/L	0.000200 U [0.000200 U]	NA	NA	NA	0.000200 U [0.000200 U]	NA	NA	NA	0.000200 U	NA	NA
Nickel	0.1	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	0.0100 U **[0.0013 J]**	NA	NA	NA	**0.00320 J**	NA	NA
Potassium	- -	mg/L	**114 [114]**	NA	NA	NA	**138[138]**	NA	NA	NA	**270**	NA	NA
Selenium	0.01	mg/L	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U [0.0150 U]	NA	NA	NA	0.0150 U	NA	NA
Silver	0.05	mg/L	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U [0.00300 U]	NA	NA	NA	0.00300 U	NA	NA
Sodium	20	mg/L	**2,230[2,450]**	NA	NA	NA	**2,940 [2,890]**	NA	NA	NA	**5,830**	NA	NA
Thallium	0.0005	mg/L	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U [0.0200 U]	NA	NA	NA	0.0200 U	NA	NA
Vanadium	- -	mg/L	**0.00550 [0.00450 J]**	NA	NA	NA	**0.00350 J [0.00360 J]**	NA	NA	NA	**0.00650**	NA	NA
Zinc	2	mg/L	0.0100 U [0.0100 U]	NA	NA	NA	**0.00250 J [0.00190 J]**	NA	NA	NA	0.0100 U	NA	NA
General Chemistry													
Alkalinity	- -	mg/L	**939 [898]**	NA	NA	**841 B**	NA	NA	NA	**755 B**	**778**	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**939 [898]**	NA	NA	**841 B**	NA	NA	NA	**755 B**	**778**	NA	NA
Ammonia Nitrogen	- -	mg/L	**8 [7.7]**	NA	NA	NA	NA	NA	NA	NA	**2.6**	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	**5,720 [5,620]**	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	0.15 U [1.5 U]	NA	NA	NA	NA	NA	NA	NA	0.0015 UJ	NA	NA
Ethene	- -	mg/L	0.15 U [1.5 U]	NA	NA	NA	NA	NA	NA	NA	0.0015 UJ	NA	NA
Methane	- -	mg/L	**1.7 J [1.2 J]**	NA	NA	NA	NA	NA	NA	NA	**0.057 DJ**	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U [0.05 U]	NA	NA	NA	NA	NA	NA	NA	0.05 U	NA	NA
Orthophosphate	- -	mg/L	**0.29 J [0.27 J]**	NA	NA	NA	NA	NA	NA	NA	**0.29**	NA	NA
Soluble Organic Carbon	- -	mg/L	**12.3 [12.8]**	NA	NA	NA	NA	NA	NA	NA	**6**	NA	NA
Sulfate	250	mg/L	25 U [25 UB]	NA	NA	**90**	NA	NA	NA	**241**	**1,280**	NA	NA
Sulfide	- -	mg/L	**0.19 J [0.52 J]**	NA	NA	**92.7**	NA	NA	NA	**64.1 F1**	**0.17**	NA	NA
Total Dissolved Solids	- -	mg/L	**7,950 [7,550]**	NA	NA	NA	NA	NA	NA	NA	**19,900**	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:			06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	1.0 U	**1.1**	5.0 U	1.0 U	1.0 U	**0.99 J**	5.0 U	1.0 U	**0.94 J**	1.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	10 U	10 U	50 U	10 U	10 U	10 U	50 U	10 U	10 U	10 U	50 U	10 U	10 U
2-Hexanone	50	ug/L	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U	5.0 U	25 U	5.0 U	5.0 U
Acetone	50	ug/L	**5.9 J**	10 U	50 U	10 U	**11**	**3.9 J**	50 U	10 U	10 U	10 U	50 U	10 U	10 U
Benzene	1	ug/L	1.0 U	**5.6**	**98**	1.0 U	**1.1**	1.0 U	**11**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	**3.7**
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Bromomethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	1.0 U	**0.83 J**	5.0 U	1.0 U	**0.32 J**	**0.58 J**	5.0 U	1.0 U	1.0 U	1.0 U	**1.9 J**	1.0 U	**0.87 J**
Carbon Tetrachloride	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chloroform	7	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	**2.1**	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	1.0 U	1.0 U	R	1.0 U	1.0 U	1.0 U	R	1.0 U	1.0 U	1.0 U	R	1.0 U	**13**
Dibromochloromethane	50	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Ethylbenzene	5	ug/L	1.0 U	**5.3**	**4.5 J**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	**1.0**	5.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	**1.3**	5.0 U	1.0 U	**17**
Methyl acetate	- -	ug/L	2.5 U	1.0 U	5.0 U	2.5 U	2.5 U	1.0 U	5.0 U	2.5 U	2.5 U	1.0 U	5.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	**0.47 J**	**20**	**12**	1.0 U	**3.3**	1.0 U	5.0 U	1.0 U	**0.32 J**	**13**	**8.0**	**4.2**	**3.0**
Methylcyclohexane	- -	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	**2.1**
Methylene Chloride	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Styrene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Toluene	5	ug/L	1.0 U	**2.4**	**8.6**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**3.1 J**	1.0 U	1.0 U	**0.65 J**	5.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	2.0 U	**12**	**7.8 J**	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	2.0 U	10 U	2.0 U	**0.66 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:		Units	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.6 U	**9.4**	**3.0 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4,5-Trichlorophenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4,6-Trichlorophenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4-Dichlorophenol	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4-Dimethylphenol	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,4-Dinitrophenol	10	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
2,4-Dinitrotoluene	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2,6-Dinitrotoluene	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Chloronaphthalene	10	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Chlorophenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Methylnaphthalene	- -	ug/L	4.6 U	**2.8 J**	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Methylphenol	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
2-Nitroaniline	5	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
2-Nitrophenol	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
3-Nitroaniline	5	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4,6-Dinitro-2-methylphenol	- -	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4-Bromophenyl-phenylether	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
4-Chloroaniline	5	ug/L	4.6 U	4.8 U	R	4.9 U	23 U	5.1 U	R	4.8 U	4.7 U	4.7 U	R	4.8 U	4.8 U
4-Chlorophenyl-phenylether	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
4-Methylphenol	- -	ug/L	9.1 U	9.5 U	**0.59 J**	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4-Nitroaniline	5	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
4-Nitrophenol	- -	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
Acenaphthene	20	ug/L	4.6 U	**90**	**44**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**1.5 J**	**0.54 J**	4.8 U	**2.3 J**
Acenaphthylene	- -	ug/L	4.6 U	**1.8 J**	**0.74 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Acetophenone	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Anthracene	50	ug/L	4.6 U	**1.3 J**	**1.8 J**	4.9 U	23 U	5.1 U	**0.52 J**	4.8 U	4.7 U	**1.8 J**	**1.7 J**	4.8 U	4.8 U
Atrazine	7.5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Benzaldehyde	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Benzo(a)anthracene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(a)pyrene	- -	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(b)fluoranthene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(g,h,i)perylene	- -	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	**0.38 J**	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	**11 B**	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	**2.0 J**	4.8 U	**3.7 JB**	4.7 U	4.7 UJ	**1.8 J**	4.8 U
Butylbenzylphthalate	50	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	**0.48 J**	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Caprolactam	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Carbazole	- -	ug/L	4.6 U	**49**	**26**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**21**	**14**	4.8 U	4.8 U
Chrysene	0.002	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Dibenzo(a,h)anthracene	- -	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Dibenzofuran	- -	ug/L	9.1 U	**32**	**9.0 J**	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	**0.69 J**
Diethylphthalate	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Dimethylphthalate	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	**1.9 J**	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Di-n-Butylphthalate	50	ug/L	4.6 U	**0.39 J**	5.1 UB	4.9 U	23 U	5.1 U	5.2 UB	4.8 U	4.7 U	4.7 U	4.7 UB	4.8 U	**0.37 J**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):			77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:			06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Fluoranthene	50	ug/L	4.6 U	**1.0 J**	**0.94 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**1.2 J**	**1.2 J**	4.8 U	4.8 U
Fluorene	50	ug/L	4.6 U	**19**	**5.5**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	**0.40 J**	4.8 U	4.8 U
Hexachlorobenzene	0.04	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Hexachlorobutadiene	0.5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Hexachlorocyclopentadiene	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Hexachloroethane	5	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.6 U	4.8 U	5.1 UJ	4.9 U	23 U	5.1 U	5.2 UJ	4.8 U	4.7 U	4.7 U	4.7 UJ	4.8 U	4.8 U
Isophorone	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
naphthalene	10	ug/L	4.6 U	**130**	**48**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Nitrobenzene	0.4	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
N-Nitrosodiphenylamine	50	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Pentachlorophenol	- -	ug/L	9.1 U	9.5 U	10 U	9.9 U	47 U	10 U	10 U	9.5 U	9.3 U	9.5 U	9.4 U	9.6 U	9.6 U
Phenanthrene	50	ug/L	4.6 U	**25**	**15**	4.9 U	23 U	5.1 U	5.2 UB	4.8 U	4.7 U	**25**	**17**	4.8 U	4.8 U
Phenol	1	ug/L	4.6 U	4.8 U	5.1 U	4.9 U	**29**	5.1 U	5.2 U	4.8 U	4.7 U	4.7 U	4.7 U	4.8 U	4.8 U
Pyrene	50	ug/L	4.6 U	**0.39 J**	**1.5 J**	4.9 U	23 U	5.1 U	5.2 U	4.8 U	4.7 U	**0.46 J**	**0.49 J**	4.8 U	4.8 U
Inorganics - Total															
Aluminum	- -	mg/L	NA	**0.130 J**	NA	NA	NA	**0.210**	NA	NA	NA	0.200 U	NA	**0.690**	**6.200**
Antimony	0.003	mg/L	NA	0.020 U	NA	NA	NA	0.020 U	NA	NA	NA	0.020 U	NA	0.020 U	0.020 U
Arsenic	0.025	mg/L	NA	**0.0081 J**	NA	NA	NA	0.010 U	NA	NA	NA	0.010 U	NA	0.010 U	**0.0076 J**
Barium	1	mg/L	NA	**0.0590**	NA	NA	NA	**0.140**	NA	NA	NA	**0.0290**	NA	**0.0190**	**0.0330**
Beryllium	0.003	mg/L	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	0.00200 U
Cadmium	0.005	mg/L	NA	**0.00610 J**	NA	NA	NA	**0.00760 J**	NA	NA	NA	**0.00780 J**	NA	**0.00940 J**	**0.00650 J**
Calcium	- -	mg/L	NA	**120**	NA	NA	NA	**371**	NA	NA	NA	**89.9**	NA	**74.4**	**111**
Chromium	0.05	mg/L	NA	**0.00390 J**	NA	NA	NA	**0.00350 J**	NA	NA	NA	**0.00240 J**	NA	**0.00320 J**	**0.0150**
Cobalt	- -	mg/L	NA	**0.00800 J**	NA	NA	NA	**0.00170 J**	NA	NA	NA	0.00400 U	NA	0.00400 U	**0.00270 J**
Copper	0.2	mg/L	NA	**0.00230 J**	NA	NA	NA	**0.00160 J**	NA	NA	NA	0.0100 U	NA	**0.00250 J**	**0.00770 J**
Iron	0.3	mg/L	**6.60**	**0.170**	NA	NA	**0.320**	**0.0990**	NA	NA	**2.40**	**0.0440 J**	NA	**0.650**	**8.100**
Lead	0.025	mg/L	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	0.00500 U	**0.00840**
Magnesium	35	mg/L	NA	**273.000 J**	NA	NA	NA	**540.00 J**	NA	NA	NA	**209.000**	NA	**182.000**	**30.500**
Manganese	0.3	mg/L	**0.290 B**	**0.430**	NA	NA	**0.0220 B**	**0.120**	NA	NA	**0.430 B**	**0.0400**	NA	**0.0480**	**0.160**
Mercury	0.0007	mg/L	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U	0.000200 U
Nickel	0.1	mg/L	NA	0.0100 U	NA	NA	NA	**0.00270 J**	NA	NA	NA	0.0100 U	NA	**0.00130 J**	**0.00770 J**
Potassium	- -	mg/L	NA	**118**	NA	NA	NA	**222**	NA	NA	NA	**84.5**	NA	**74**	**21.3**
Selenium	0.01	mg/L	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U	0.0150 U
Silver	0.05	mg/L	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U	0.00300 U
Sodium	20	mg/L	NA	**2,370 J**	NA	NA	NA	**5,180 J**	NA	NA	NA	**1,840**	NA	**1,690**	**273**
Thallium	0.0005	mg/L	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	0.0200 U
Vanadium	- -	mg/L	NA	**0.00580**	NA	NA	NA	**0.00390 J**	NA	NA	NA	**0.00530**	NA	**0.00560**	**0.0170**
Zinc	2	mg/L	NA	**0.00330 J**	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	**0.00380 J**	**0.0260**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-VD	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D1R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-31-D2R	MW-32D	MW-32D	MW-33D	MW-35D
Historical Screen Interval (feet below ground surface)			73 - 83	17 - 27	17 - 27	17 - 27	17 - 27	32 - 42	32 - 42	32 - 42	32 - 42	24 - 34	24 - 34	18 - 28	16 - 26
Current Screen Interval (Feet below current ground surface):			77 - 87	21 - 31	21 - 31	21 - 31	21 - 31	36 - 46	36 - 46	36 - 46	36 - 46	28 - 38	28 - 38	22 - 32	20 - 30
Date Collected:			06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/21/11	09/13/13	01/14/16	06/22/16	01/19/11	09/13/13	01/27/11	01/27/11
Inorganics-Dissolved															
Aluminum	- -	mg/L	NA	0.0500 U	NA	NA	NA	**0.0670 J**	NA	NA	NA	0.200 U	NA	**0.0730 J**	**0.200**
Antimony	0.003	mg/L	NA	0.0500 U	NA	NA	NA	0.020.0 U	NA	NA	NA	0.020.0 U	NA	0.020.0 U	0.020.0 U
Arsenic	0.025	mg/L	NA	0.0500 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	0.0100 U
Barium	1	mg/L	NA	0.0500 U	NA	NA	NA	**0.130**	NA	NA	NA	**0.0280**	NA	**0.0190**	**0.0110**
Beryllium	0.003	mg/L	NA	0.0500 U	NA	NA	NA	0.00200 U	NA	NA	NA	0.00200 U	NA	0.00200 U	0.00200 U
Cadmium	0.005	mg/L	NA	0.0500 U	NA	NA	NA	**0.00110**	NA	NA	NA	**0.000950 J**	NA	**0.000770 J**	**0.000480 J**
Calcium	- -	mg/L	NA	0.0500 U	NA	NA	NA	**363**	NA	NA	NA	**90.5**	NA	**73**	**97.1**
Chromium	0.05	mg/L	NA	0.0500 U	NA	NA	NA	**0.00220 J**	NA	NA	NA	**0.00250 J**	NA	**0.00140 J**	**0.00100 J**
Cobalt	- -	mg/L	NA	0.0500 U	NA	NA	NA	**0.00100 J**	NA	NA	NA	0.00400 U	NA	0.00400 U	0.00400 U
Copper	0.2	mg/L	NA	0.0500 U	NA	NA	NA	0.0100 UB	NA	NA	NA	**0.00170 J**	NA	**0.00360 J**	**0.00230 J**
Iron	0.3	mg/L	**4.90 B**	0.0500 U	NA	NA	**0.230 B**	**0.0250 J**	NA	NA	**2.20 B**	0.0500 U	NA	0.0500 U	**0.250**
Lead	0.025	mg/L	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	NA	NA	0.00500 U	NA	0.00500 U	0.00500 U
Magnesium	35	mg/L	NA	**268**	NA	NA	NA	**595**	NA	NA	NA	**215**	NA	**186**	**27.3**
Manganese	0.3	mg/L	**0.260 B**	**0.420**	NA	NA	**0.0250 B**	**0.120**	NA	NA	**0.430 B**	**0.0370**	NA	**0.0400**	**0.0630**
Mercury	0.0007	mg/L	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	NA	NA	0.000200 U	NA	0.000200 U	0.000200 U
Nickel	0.1	mg/L	NA	0.0100 U	NA	NA	NA	**0.00320 J**	NA	NA	NA	0.0100 U	NA	0.0100 U	0.0100 U
Potassium	- -	mg/L	NA	**106**	NA	NA	NA	**204**	NA	NA	NA	**92.4**	NA	**75.3**	**20.6**
Selenium	0.01	mg/L	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	NA	NA	0.0150 U	NA	0.0150 U	0.0150 U
Silver	0.05	mg/L	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	NA	NA	0.00300 U	NA	0.00300 U	0.00300 U
Sodium	20	mg/L	NA	**2,460**	NA	NA	NA	**4,800**	NA	NA	NA	**1,890**	NA	**1,660**	**281**
Thallium	0.0005	mg/L	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	NA	NA	0.0200 U	NA	0.0200 U	0.0200 U
Vanadium	- -	mg/L	NA	**0.006**	NA	NA	NA	**0.00380 J**	NA	NA	NA	**0.00480 J**	NA	**0.00270 J**	**0.00180 J**
Zinc	2	mg/L	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	NA	NA	0.0100 U	NA	0.0100 U	**0.00200 J**
General Chemistry															
Alkalinity	- -	mg/L	**713 B**	**854**	NA	NA	**221 B**	**537**	NA	NA	**508 B**	**924**	NA	**597**	**282**
Alkalinity, Bicarbonate	- -	mg/L	**713 B**	**854**	NA	NA	**221 B**	**537**	NA	NA	**508 B**	**924**	NA	**597**	**282**
Ammonia Nitrogen	- -	mg/L	NA	**5.1**	NA	NA	NA	**1.9**	NA	NA	NA	**5.8**	NA	**2.9**	**5.1**
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	- -	mg/L	NA	0.3 U	NA	NA	NA	0.3 U	NA	NA	NA	0.0015 U	NA	0.15 UJ	1.5 UJ
Ethene	- -	mg/L	NA	0.3 U	NA	NA	NA	0.3 U	NA	NA	NA	0.0015 U	NA	0.15 UJ	1.5 UJ
Methane	- -	mg/L	NA	**0.59**	NA	NA	NA	**0.27**	NA	NA	NA	**1.7 DJ**	NA	**0.31 J**	**12 J**
Nitrate Nitrogen	- -	mg/L	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	0.05 U	0.05 U
Nitrite Nitrogen	- -	mg/L	NA	0.05 U	NA	NA	NA	0.05 U	NA	NA	NA	0.05 U	NA	0.05 U	0.05 U
Orthophosphate	- -	mg/L	NA	1 U	NA	NA	NA	**0.27**	NA	NA	NA	**0.38**	NA	**0.59**	**1.3**
Soluble Organic Carbon	- -	mg/L	NA	**13.1**	NA	NA	NA	**20.9**	NA	NA	NA	**13.3**	NA	**11**	**19.1**
Sulfate	250	mg/L	**1,770**	**149**	NA	NA	**47.2**	**1,360**	NA	NA	**750**	**15.2**	NA	**181**	**6.1**
Sulfide	- -	mg/L	0.1 U	**0.12**	NA	NA	**0.6**	**5.5**	NA	NA	**2.8**	**0.47**	NA	**13.2**	**1**
Total Dissolved Solids	- -	mg/L	NA	**7,590**	NA	NA	NA	**17,300**	NA	NA	NA	**6,040**	NA	**4,920**	**1,050**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:		Units	01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Volatile Organics															
1,1,1-Trichloroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	10 U	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
2-Butanone	50	ug/L	50 U	100 U	100 U	**19 J**	200 U	50 U [50 U]	50 U	50 U	50 U	**36 J**	50 U	10 U	10 U
2-Hexanone	50	ug/L	25 U	50 U	50 U	10 U	100 U	25 U [25 U]	25 U	25 U	25 U	25 U	25 U	5.0 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	25 U	50 U	50 U	10 U	100 U	25 U [25 U]	25 U	25 U	25 U	25 U	25 U	5.0 U	5.0 U
Acetone	50	ug/L	50 U	100 U	100 U	**37**	200 U*	**29 J [34 J]**	50 U	50 U*	50 U	**220**	50 U*	**23**	**5.8 J**
Benzene	1	ug/L	**9.5**	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	**5.7**	5.0 U	5.0 U	5.0 U	**3.1**	1.0 U
Bromodichloromethane	50	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Bromoform	50	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Bromomethane	5	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Carbon Disulfide	60	ug/L	5.0 U	10 UJ	**6.8 J**	**8.8**	20 U	**1.2 J [1.2 J]**	**66**	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	**15**
Carbon Tetrachloride	5	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chlorobenzene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chloroethane	5	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	R
Chloroform	7	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Chloromethane	5	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	10 U	**55**	**27**	**100**	**5.2 [4.8 J]**	5.0 U	**50**	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Cyclohexane	- -	ug/L	**6.9**	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	R	5.0 U	**8.6**	**0.99 J**
Dibromochloromethane	50	ug/L	5.0 U	10 UJ	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	5	ug/L	5.0 U	10 UJ	10 UJ	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 UJ
Ethylbenzene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Isopropylbenzene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**2.6**	1.0 U
Methyl acetate	- -	ug/L	5.0 U	10 U	**17**	2.0 U	50 U	5.0 U [5.0 U]	5.0 U	13 U	5.0 U	5.0 U	13 U	1.0 U	1.0 U
Methyl tert-butyl ether	10	ug/L	**7.6**	**2.7 J**	**860**	**130**	**640**	**160 [160]**	**34**	**240**	**150**	**65**	**250**	1.0 U	**0.67 J**
Methylcyclohexane	- -	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**11**	**1.1**
Methylene Chloride	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Styrene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Toluene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**0.72 J**	1.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	10 UJ	10 U	2.0 UJ	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Trichloroethene	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	**10**	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Trichlorofluoromethane	5	ug/L	5.0 U	10 U	10 U	2.0 U	20 U	5.0 U [5.0 U]	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Vinyl Chloride	2	ug/L	5.0 U	10 U	10 U	**1.8 J**	**500**	5.0 U [5.0 U]	5.0 U	**32**	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U
Xylenes (total)	5	ug/L	10 U	20 U	20 U	4.0 U	40 U	10 U [10 U]	10 U	**4.1 J**	10 U	10 U	10 U	**0.86 J**	2.0 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:		Units	01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Semivolatile Organics															
1,1'-Biphenyl	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4,5-Trichlorophenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4,6-Trichlorophenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4-Dichlorophenol	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,4-Dimethylphenol	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	**6.2 J**	NA	4.9 U	4.6 U	NA	4.8 U
2,4-Dinitrophenol	10	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 UJ	9.3 U	NA	9.5 U
2,4-Dinitrotoluene	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2,6-Dinitrotoluene	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Chloronaphthalene	10	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Chlorophenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Methylnaphthalene	- -	ug/L	4.7 U	**2.3 J**	NA	**3.2 J**	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**1.9 J**
2-Methylphenol	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
2-Nitroaniline	5	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
2-Nitrophenol	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
3,3'-Dichlorobenzidine	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	R
3-Nitroaniline	5	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 UJ
4,6-Dinitro-2-methylphenol	- -	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
4-Bromophenyl-phenylether	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
4-Chloro-3-Methylphenol	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
4-Chloroaniline	5	ug/L	4.7 U	5.2 UJ	NA	5.0 UJ	4.8 U	NA	5.0 U	52 U	NA	R	4.6 U	NA	4.8 UJ
4-Chlorophenyl-phenylether	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
4-Methylphenol	- -	ug/L	9.4 U	10 U	NA	**0.36 J**	9.7 U	NA	9.9 U	100 U	NA	**0.65 J**	9.3 U	NA	**0.62 J**
4-Nitroaniline	5	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
4-Nitrophenol	- -	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
Acenaphthene	20	ug/L	4.7 U	**0.85 J**	NA	**11**	**22**	NA	**2.5 J**	**14 J**	NA	4.9 U	4.6 U	NA	**2.0 J**
Acenaphthylene	- -	ug/L	4.7 U	5.2 U	NA	**3.2 J**	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Acetophenone	- -	ug/L	4.7 U	**0.76 J**	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Anthracene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Atrazine	7.5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	R
Benzaldehyde	- -	ug/L	4.7 U	**0.41 J**	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**0.56 J**
Benzo(a)anthracene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	**0.39 J**
Benzo(a)pyrene	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**0.50 J**
Benzo(b)fluoranthene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**1.0 J**
Benzo(g,h,i)perylene	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Benzo(k)fluoranthene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
bis(2-Chloroethoxy)methane	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
bis(2-Chloroethyl)ether	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
bis(2-Ethylhexyl)phthalate	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	**120 D**
Butylbenzylphthalate	50	ug/L	4.7 U	5.2 U	NA	5.0 U	**0.51 JB**	NA	5.0 U	52 U	NA	4.9 UJ	**0.58 JB**	NA	4.8 U
Caprolactam	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 UJ
Carbazole	- -	ug/L	4.7 U	5.2 U	NA	**5.2**	**6.5**	NA	**0.84 J**	**4.1 J**	NA	4.9 U	4.6 U	NA	4.8 U
Chrysene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	**0.75 J**
Dibenzo(a,h)anthracene	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Dibenzofuran	- -	ug/L	9.4 U	10 U	NA	**2.9 J**	**4.6 J**	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
Diethylphthalate	50	ug/L	4.7 U	**1.9 J**	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Dimethylphthalate	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Di-n-Butylphthalate	50	ug/L	4.7 U	5.2 U	NA	**0.31 J**	4.8 U	NA	**0.43 J**	52 U	NA	4.9 UB	4.6 U	NA	4.8 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:		Units	01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Semivolatile Organics (Cont.)															
Di-n-Octylphthalate	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 UJ	4.6 U	NA	4.8 U
Fluoranthene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	**7.8**	52 U	NA	4.9 U	4.6 U	NA	**1.1 J**
Fluorene	50	ug/L	4.7 U	5.2 U	NA	**1.6 J**	**2.0 J**	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachlorobenzene	0.04	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachlorobutadiene	0.5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachlorocyclopentadiene	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Hexachloroethane	5	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Isophorone	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
naphthalene	10	ug/L	4.7 U	5.2 U	NA	**4.2 J**	**3.5 J**	NA	**3.3 J**	**24 J**	NA	4.9 U	4.6 U	NA	**1.3 J**
Nitrobenzene	0.4	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
N-Nitroso-di-n-propylamine	- -	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
N-Nitrosodiphenylamine	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	R
Pentachlorophenol	- -	ug/L	9.4 U	10 U	NA	9.9 U	9.7 U	NA	9.9 U	100 U	NA	9.9 U	9.3 U	NA	9.5 U
Phenanthrene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	**0.45 J**	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	4.8 U
Phenol	1	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	5.0 U	52 U	NA	4.9 U	4.6 U	NA	**1.3 J**
Pyrene	50	ug/L	4.7 U	5.2 U	NA	5.0 U	4.8 U	NA	**3.7 J**	52 U	NA	4.9 UJ	4.6 U	NA	**1.4 J**
Inorganics - Total															
Aluminum	- -	mg/L	**1.700**	NA	**0.290**	NA	NA	**0.140 J [0.110 J]**	NA	NA	**0.220**	NA	NA	**0.110 J**	NA
Antimony	0.003	mg/L	0.020 U	NA	0.0200 U	NA	NA	0.0200 U [0.0200 U]	NA	NA	0.0200 U	NA	NA	0.0200 U	NA
Arsenic	0.025	mg/L	**0.039**	NA	**0.0110**	NA	NA	0.0100 U **[0.00670 J]**	NA	NA	**0.00590 J**	NA	NA	0.010 U	NA
Barium	1	mg/L	**0.0310**	NA	**0.0900**	NA	NA	**0.0630 [0.0600]**	NA	NA	**0.0290**	NA	NA	**0.0220**	NA
Beryllium	0.003	mg/L	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U [0.00200 U]	NA	NA	0.00200 U	NA	NA	0.00200 U	NA
Cadmium	0.005	mg/L	**0.00110**		**0.000850 J**	NA	NA	0.00100 U **[0.000660 J]**	NA	NA	**0.000670 J**	NA	NA	0.00100 U	NA
Calcium	- -	mg/L	**46 J**	NA	**171**	NA	NA	**116 [109]**	NA	NA	**90.2**	NA	NA	**138**	NA
Chromium	0.05	mg/L	**0.00580**	NA	**0.00690**	NA	NA	**0.00780 [0.00750]**	NA	NA	**0.00520**	NA	NA	**0.00720**	NA
Cobalt	- -	mg/L	**0.00990 J**	NA	0.00400 U	NA	NA	0.00400 U [0.00400 U]	NA	NA	0.00400 U	NA	NA	0.00400 U	NA
Copper	0.2	mg/L	**0.00930 J**	NA	**0.00320 J**	NA	NA	**0.00650 JB [0.00580 JB]**	NA	NA	**0.00440 JB**	NA	NA	0.0100 U	NA
Iron	0.3	mg/L	**3.200**	NA	**0.610**	NA	NA	**0.580 [0.530]**	NA	NA	**0.480**	NA	NA	**3.500**	NA
Lead	0.025	mg/L	**0.00940**	NA	**0.00300 J**	NA	NA	**0.00360 J [0.00460 J]**	NA	NA	0.00500 U	NA	NA	**0.00490 J**	NA
Magnesium	35	mg/L	**20.400**	NA	**371**	NA	NA	**186 [178]**	NA	NA	**185**	NA	NA	**10.700**	NA
Manganese	0.3	mg/L	**0.0660**	NA	**0.130**	NA	NA	**0.220 [0.200]**	NA	NA	**0.0940**	NA	NA	**0.260**	NA
Mercury	0.0007	mg/L	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U [0.000200 U]	NA	NA	0.000200 U	NA	NA	0.000200 U	NA
Nickel	0.1	mg/L	**0.00370 J**	NA	0.0100 U	NA	NA	**0.00130 J** [0.0100 U]	NA	NA	0.0100 U	NA	NA	**0.00610 J**	NA
Potassium	- -	mg/L	**16.5**	NA	**110**	NA	NA	**75.7 [73.5]**	NA	NA	**76.6**	NA	NA	**8.6**	NA
Selenium	0.01	mg/L	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U [0.0150 U]	NA	NA	0.0150 U	NA	NA	0.0150 U	NA
Silver	0.05	mg/L	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U [0.00300 U]	NA	NA	0.00300 U	NA	NA	0.00300 U	NA
Sodium	20	mg/L	**186**	NA	**2,840**	NA	NA	**1.67 [1.52]**	NA	NA	**1.57**	NA	NA	**53.6**	NA
Thallium	0.0005	mg/L	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U [0.0200 U]	NA	NA	0.0200 U	NA	NA	0.0200 U	NA
Vanadium	- -	mg/L	**0.0070**	NA	**0.0100**	NA	NA	**0.0100 [0.0100]**	NA	NA	**0.00790**	NA	NA	**0.00340 J**	NA
Zinc	2	mg/L	**0.0320**	NA	**0.00670 J**	NA	NA	0.0100 U [0.0100 U]	NA	NA	0.0100 U	NA	NA	**0.00630 J**	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-DR	MW-DR	OW-1-D1	OW-1-D1	OW-1-D1	OW-2-D1	OW-2-D1	OW-2-D1	OW-3-D1	OW-3-D1	OW-3-D1	P-10	P-10
Historical Screen Interval (feet below ground surface)			NA	NA	19 - 24	19 - 24	19 - 24	25 - 29	25 - 29	25 - 29	19 - 29	19 - 29	19 - 29	NA	NA
Current Screen Interval (Feet below current ground surface):			NA	NA	23 - 28	23 - 28	23 - 28	29 - 33	29 - 33	29 - 33	23 - 33	23 - 33	23 - 33	NA	NA
Date Collected:			01/26/11	09/12/13	02/20/13	09/12/13	01/13/16	02/21/13	09/11/13	01/12/16	02/21/13	09/13/13	01/13/16	04/07/11	09/17/13
Inorganics-Dissolved															
Aluminum	- -	mg/L	0.200 U	NA	0.200 U	NA	NA	0.200 U	NA	NA	0.200 U	NA	NA	0.200 U	NA
Antimony	0.003	mg/L	0.020.0 U	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.020.0 U	NA
Arsenic	0.025	mg/L	**0.020**	NA	**0.00820 J**	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA	0.0100 U	NA
Barium	1	mg/L	**0.0300**	NA	**0.0970**	NA	NA	**0.0500**	NA	NA	**0.0280**	NA	NA	**0.0220**	NA
Beryllium	0.003	mg/L	0.00200 U	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA	NA	0.00200 U	NA
Cadmium	0.005	mg/L	**0.000550 J**	NA	**0.000820 J**	NA	NA	**0.000610 J**	NA	NA	**0.000510 J**	NA	NA	0.00100 U	NA
Calcium	- -	mg/L	**54 J**	NA	**172**	NA	NA	**101**	NA	NA	**86.7**	NA	NA	**136**	NA
Chromium	0.05	mg/L	**0.00120 J**	NA	**0.00550**	NA	NA	**0.00590**	NA	NA	**0.00340 J**	NA	NA	0.00400 U	NA
Cobalt	- -	mg/L	0.00400 U	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	0.00400 U	NA	NA	0.00400 U	NA
Copper	0.2	mg/L	**0.00170 J**	NA	0.0100 UB	NA	NA	**0.00480 JB**	NA	NA	**0.00450 JB**	NA	NA	**0.00170 J**	NA
Iron	0.3	mg/L	**1.70**	NA	0.0500 U	NA	NA	**0.310**	NA	NA	**0.0490 J**	NA	NA	**2.80**	NA
Lead	0.025	mg/L	0.00500 U	NA	**0.00330 J**	NA	NA	0.00500 U	NA	NA	0.00500 U	NA	NA	0.00500 U	NA
Magnesium	35	mg/L	**25.8**	NA	**353**	NA	NA	**182**	NA	NA	**184**	NA	NA	**10**	NA
Manganese	0.3	mg/L	**0.0850**	NA	**0.130**	NA	NA	**0.160**	NA	NA	**0.0890**	NA	NA	**0.250**	NA
Mercury	0.0007	mg/L	0.000200 U	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA	NA	0.000200 U	NA
Nickel	0.1	mg/L	**0.00170 J**	NA	**0.00340 J**	NA	NA	**0.00140 J**	NA	NA	**0.00270 J**	NA	NA	0.0100 U	NA
Potassium	- -	mg/L	**18.5**	NA	**117**	NA	NA	**75.7 B**	NA	NA	**75.4 B**	NA	NA	**7.9**	NA
Selenium	0.01	mg/L	0.0150 U	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA	NA	0.0150 U	NA
Silver	0.05	mg/L	0.00300 U	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA	NA	0.00300 U	NA
Sodium	20	mg/L	**206**	NA	**2,890**	NA	NA	**1,540**	NA	NA	**1,570**	NA	NA	**44.5**	NA
Thallium	0.0005	mg/L	0.0200 U	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA	NA	0.0200 U	NA
Vanadium	- -	mg/L	**0.00320 J**	NA	**0.0100**	NA	NA	**0.00850**	NA	NA	**0.00650**	NA	NA	**0.00150 J**	NA
Zinc	2	mg/L	0.0100 U	NA	0.0100 U	NA	NA	0.0100 U	NA	NA	0.0100 U	NA	NA	**0.00200 J**	NA
General Chemistry															
Alkalinity	- -	mg/L	**228**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**228**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ammonia Nitrogen	- -	mg/L	**1.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**59.3**	NA
Ethane	- -	mg/L	0.15 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	- -	mg/L	0.15 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	- -	mg/L	**1.4 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orthophosphate	- -	mg/L	**0.33 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	**14.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	250	mg/L	**31.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfide	- -	mg/L	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	**730**	NA	**9,720**	NA	NA	**5,600 [5,530]**	NA	NA	**5,800**	NA	NA	NA	NA

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:			P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):	NYSDEC TOGS 1.1.1 Water Guidance Values		6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:		Units	01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Volatile Organics							
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1,2-Trichloroethane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,1-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2,4-Trichlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dibromoethane	0.0006	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dichloroethane	0.6	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,2-Dichloropropane	1	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,3-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
1,4-Dichlorobenzene	3	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
2-Butanone	50	ug/L	50 U	50 U	10 U	**16**	1,000 U
2-Hexanone	50	ug/L	25 U	25 U	5.0 U	5.0 U	500 U
4-Methyl-2-pentanone	- -	ug/L	25 U	25 U	5.0 U	5.0 U	500 U
Acetone	50	ug/L	50 U	**40 J***	**9.6 J**	**98**	1,000 U
Benzene	1	ug/L	**160**	**42**	**4.7**	**6.8**	100 U
Bromodichloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Bromoform	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Bromomethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Carbon Disulfide	60	ug/L	5.0 U	5.0 U	1.0 U	**1.8**	100 U
Carbon Tetrachloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chloroethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chloroform	7	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Chloromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Cyclohexane	- -	ug/L	**30**	**9.3**	**19**	**30**	100 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Dichlorodifluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Ethylbenzene	5	ug/L	**3.8 J**	5.0 U	**1.1**	**1.3**	**930**
Isopropylbenzene	5	ug/L	**36**	**16**	**6.3**	**10**	100 U
Methyl acetate	- -	ug/L	5.0 U	13 U	2.5 U	2.5 U	250 U
Methyl tert-butyl ether	10	ug/L	5.0 U	**19**	1.0 U	1.0 U	100 U
Methylcyclohexane	- -	ug/L	**14**	**3.6 J**	**21**	**60**	100 U
Methylene Chloride	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Styrene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Tetrachloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Toluene	5	ug/L	**4.0 J**	5.0 U	**1.9**	**1.0**	100 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Trichloroethene	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Trichlorofluoromethane	5	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	100 U
Xylenes (total)	5	ug/L	**9.0 J**	10 U	**6.2**	**7.1**	**5,600**

See Notes on Page 53.

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:			01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Semivolatile Organics							
1,1'-Biphenyl	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,2'-Oxybis(1-Chloropropane)	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4,5-Trichlorophenol	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4,6-Trichlorophenol	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4-Dichlorophenol	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4-Dimethylphenol	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,4-Dinitrophenol	10	ug/L	11 U	95 U	94 U	38 U	93 U
2,4-Dinitrotoluene	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2,6-Dinitrotoluene	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Chloronaphthalene	10	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Chlorophenol	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Methylnaphthalene	- -	ug/L	**22**	47 U	**8.6 J**	**48**	**14 J**
2-Methylphenol	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
2-Nitroaniline	5	ug/L	11 U	95 U	94 U	38 U	93 U
2-Nitrophenol	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
3,3'-Dichlorobenzidine	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
3-Nitroaniline	5	ug/L	11 U	95 U	94 U	38 U	93 U
4,6-Dinitro-2-methylphenol	- -	ug/L	11 U	95 U	94 U	38 U	93 U
4-Bromophenyl-phenylether	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Chloro-3-Methylphenol	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Chloroaniline	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Chlorophenyl-phenylether	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
4-Methylphenol	- -	ug/L	**1.2 J**	95 U	94 U	**11 J**	**12 J**
4-Nitroaniline	5	ug/L	11 U	95 U	94 U	38 U	93 U
4-Nitrophenol	- -	ug/L	11 U	95 U	94 U	38 U	93 U
Acenaphthene	20	ug/L	**9.8**	47 U	47 U	**3.1 J**	**6.2 J**
Acenaphthylene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Acetophenone	- -	ug/L	5.3 U	47 U	47 U	19 U	**6.3 J**
Anthracene	50	ug/L	**0.63 J**	47 U	47 U	19 U	47 U
Atrazine	7.5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzaldehyde	- -	ug/L	5.3 U	47 U	47 U	19 U	**4.0 J**
Benzo(a)anthracene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(a)pyrene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(b)fluoranthene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(g,h,i)perylene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Benzo(k)fluoranthene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
bis(2-Chloroethoxy)methane	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
bis(2-Chloroethyl)ether	1	ug/L	5.3 U	47 U	47 U	19 U	47 U
bis(2-Ethylhexyl)phthalate	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Butylbenzylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Caprolactam	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Carbazole	- -	ug/L	**1.7 J**	47 U	**7.2 J**	**2.0 J**	**9.5 J**
Chrysene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Dibenzo(a,h)anthracene	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
Dibenzofuran	- -	ug/L	**2.2 J**	95 U	94 U	**1.9 J**	93 U
Diethylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Dimethylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Di-n-Butylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:			01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Semivolatile Organics (Cont.)							
Di-n-Octylphthalate	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Fluoranthene	50	ug/L	**0.65 J**	47 U	**6.2 J**	19 U	47 U
Fluorene	50	ug/L	**4.0 J**	47 U	47 U	**3.5 J**	**5.3 J**
Hexachlorobenzene	0.04	ug/L	5.3 U	47 U	47 U	19 U	47 U
Hexachlorobutadiene	0.5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Hexachlorocyclopentadiene	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Hexachloroethane	5	ug/L	5.3 U	47 U	47 U	19 U	47 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	5.3 U	47 U	47 U	19 U	47 U
Isophorone	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
naphthalene	10	ug/L	**6.3**	47 U	**13 J**	**15 J**	**49**
Nitrobenzene	0.4	ug/L	5.3 U	47 U	47 U	19 U	47 U
N-Nitroso-di-n-propylamine	- -	ug/L	5.3 U	47 U	47 U	19 U	47 U
N-Nitrosodiphenylamine	50	ug/L	5.3 U	47 U	47 U	19 U	47 U
Pentachlorophenol	- -	ug/L	11 U	95 U	94 U	38 U	93 U
Phenanthrene	50	ug/L	**2.3 J**	47 U	**7.5 J**	**2.5 J**	**5.9 J**
Phenol	1	ug/L	5.3 U	47 U	**9.3 J**	**55**	**200**
Pyrene	50	ug/L	**0.46 J**	47 U	**6.0 J**	19 U	47 U
Inorganics - Total							
Aluminum	- -	mg/L	**0.270**	NA	**3.90**	**3.00**	**4.70**
Antimony	0.003	mg/L	0.0200 U	NA	0.0200 U	0.0200 U	0.0200 U
Arsenic	0.025	mg/L	**0.0056 J**	NA	**0.0130 J**	**0.00990 J**	**0.0350**
Barium	1	mg/L	**0.043**	NA	**0.0830**	**0.0150**	**0.0550**
Beryllium	0.003	mg/L	0.00200 U	NA	0.00200 U	0.00200 U	0.00200 U
Cadmium	0.005	mg/L	**0.00500 J**	NA	0.00200 U	0.00200 U	0.00200 U
Calcium	- -	mg/L	**81**	NA	**122 B**	**138 B**	**166 B**
Chromium	0.05	mg/L	**0.00110 J**	NA	**0.0150**	**0.00800**	**0.00530**
Cobalt	- -	mg/L	**0.00150 J**	NA	**0.00190 J**	**0.000900 J**	**0.00210 J**
Copper	0.2	mg/L	**0.00180 J**	NA	**0.0110**	**0.00270 J**	**0.0120**
Iron	0.3	mg/L	**8.700**	NA	**5.90 ^**	**1.80**	**2.70**
Lead	0.025	mg/L	0.00500 U	NA	**0.0540**	**0.0160**	**0.0460**
Magnesium	35	mg/L	**16.100**	NA	**8.60**	**3.50**	**1.70**
Manganese	0.3	mg/L	**0.420**	NA	**0.100 ^**	**0.0180**	**0.0380**
Mercury	0.0007	mg/L	0.000200 U	NA	0.000200 U	0.000200 U	**0.000150 J**
Nickel	0.1	mg/L	**0.00360 J**	NA	**0.00850 J**	**0.0170**	**0.0290**
Potassium	- -	mg/L	**15.5**	NA	**30.1**	**21.5**	**58.4**
Selenium	0.01	mg/L	0.0150 U	NA	0.0250 U	0.0250 U	0.0250 U
Silver	0.05	mg/L	0.00300 U	NA	0.00600 U	0.00600 U	0.00600 U
Sodium	20	mg/L	**73.9**	NA	**296**	**191**	**383**
Thallium	0.0005	mg/L	0.0200 U	NA	0.0200 U	0.0200 U	0.0200 U
Vanadium	- -	mg/L	**0.00590**	NA	**0.0130**	**0.00670**	**0.0310**
Zinc	2	mg/L	**0.00850 J**	NA	**0.120 B**	**0.00780 JB**	**0.0380 B**

See Notes on Page 53.

Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18R	P-18R	TW-1	TW-2	TW-3
Historical Screen Interval (feet below ground surface)			2 - 8	2 - 8	NA	NA	NA
Current Screen Interval (Feet below current ground surface):			6 - 12	6 - 12	6 - 16	6 - 16	6 - 16
Date Collected:			01/27/11	01/12/16	06/16/16	06/16/16	06/16/16
Inorganics-Dissolved							
Aluminum	- -	mg/L	**0.0600 J**	NA	NA	NA	NA
Antimony	0.003	mg/L	0.020.0 U	NA	NA	NA	NA
Arsenic	0.025	mg/L	**0.00610 J**	NA	NA	NA	NA
Barium	1	mg/L	**0.0420**	NA	NA	NA	NA
Beryllium	0.003	mg/L	0.00200 U	NA	NA	NA	NA
Cadmium	0.005	mg/L	**0.000530 J**	NA	NA	NA	NA
Calcium	- -	mg/L	**80.9**	NA	NA	NA	NA
Chromium	0.05	mg/L	**0.00100 J**	NA	NA	NA	NA
Cobalt	- -	mg/L	**0.00140 J**	NA	NA	NA	NA
Copper	0.2	mg/L	**0.00220 J**	NA	NA	NA	NA
Iron	0.3	mg/L	**9.50**	NA	NA	NA	NA
Lead	0.025	mg/L	0.00500 U	NA	NA	NA	NA
Magnesium	35	mg/L	**16.8**	NA	NA	NA	NA
Manganese	0.3	mg/L	**0.450**	NA	NA	NA	NA
Mercury	0.0007	mg/L	0.000200 U	NA	NA	NA	NA
Nickel	0.1	mg/L	**0.00340 J**	NA	NA	NA	NA
Potassium	- -	mg/L	**15.2**	NA	NA	NA	NA
Selenium	0.01	mg/L	0.0150 U	NA	NA	NA	NA
Silver	0.05	mg/L	0.00300 U	NA	NA	NA	NA
Sodium	20	mg/L	**80.4**	NA	NA	NA	NA
Thallium	0.0005	mg/L	0.0200 U	NA	NA	NA	NA
Vanadium	- -	mg/L	**0.00510**	NA	NA	NA	NA
Zinc	2	mg/L	**0.00650 J**	NA	NA	NA	NA
General Chemistry							
Alkalinity	- -	mg/L	**270**	NA	NA	NA	NA
Alkalinity, Bicarbonate	- -	mg/L	**270**	NA	NA	NA	NA
Ammonia Nitrogen	- -	mg/L	**5.1**	NA	NA	NA	NA
Chloride	250	mg/L	NA	NA	NA	NA	NA
Ethane	- -	mg/L	1.5 UJ	NA	NA	NA	NA
Ethene	- -	mg/L	1.5 UJ	NA	NA	NA	NA
Methane	- -	mg/L	**12 J**	NA	NA	NA	NA
Nitrate Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA
Nitrite Nitrogen	- -	mg/L	0.05 U	NA	NA	NA	NA
Orthophosphate	- -	mg/L	**0.39**	NA	NA	NA	NA
Soluble Organic Carbon	- -	mg/L	**14.3**	NA	NA	NA	NA
Sulfate	250	mg/L	5 UB	NA	NA	NA	NA
Sulfide	- -	mg/L	0.1 U	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	**493**	NA	NA	NA	NA

See Notes on Page 53.

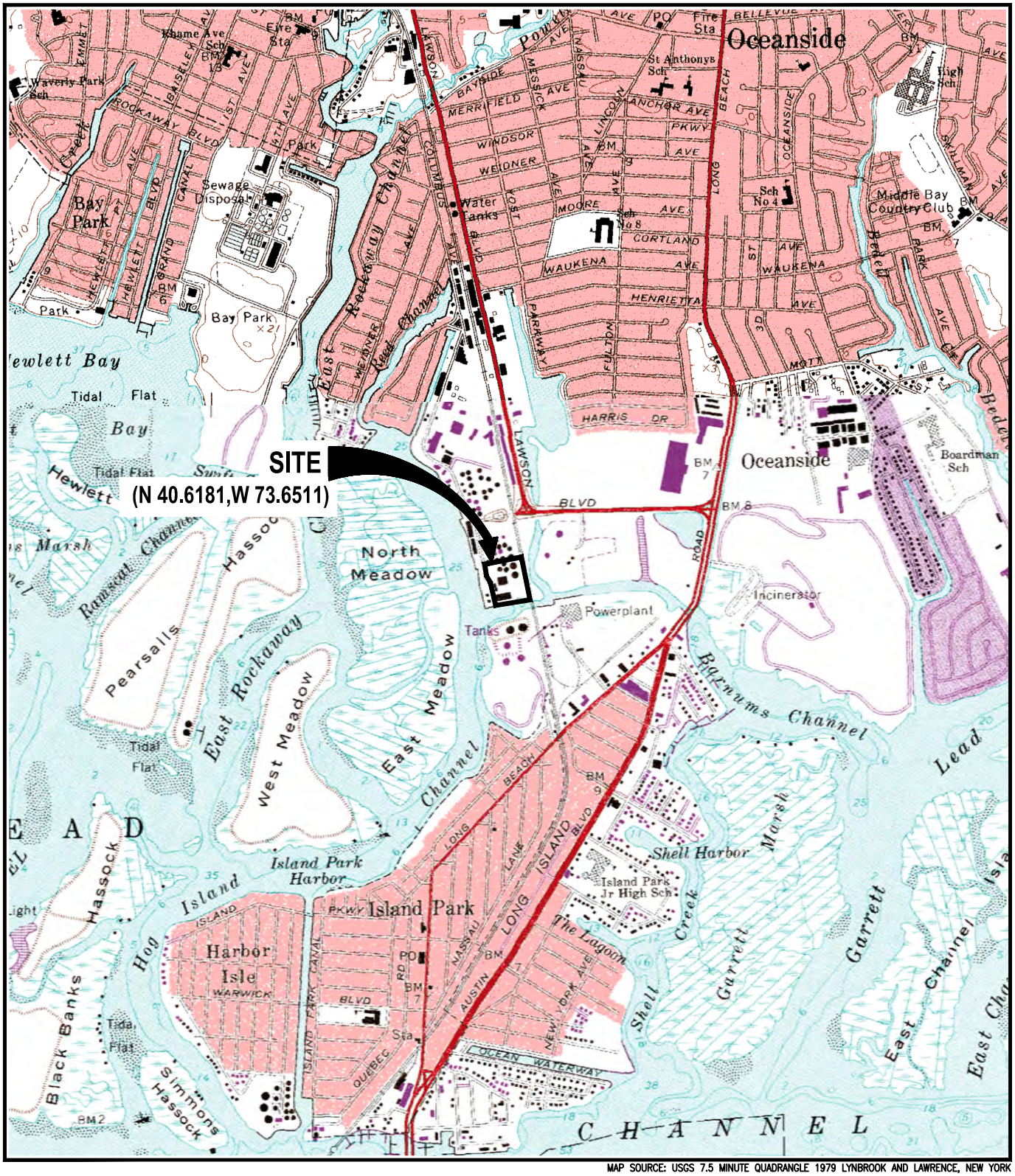
Table 6
Summary of 2011 to 2016 Groundwater Analytical Data

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Results compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values.
2. Field duplicate sample results are presented in brackets, [ ].
   Gray font = not detected. Bold font = detected. Bold font with Gray shading = Result detected above NYSDEC TOGS 1.1.1.
3. Abbreviations:
   - - = NYSDEC TOGS 1.1.1 not available.
   ug/L = micrograms per Liter.
   NA = Not analyzed.
   ND = Not detected.
   NYSDEC = New York State Department of Environmental Conservation.
   VOC = Volatile Organic Compounds.
   SVOC = Semi-Volatile Organic Compounds.
4. Qualifier Definitions:
   B = Compound quantitated using a secondary dilution. Indicates an estimated value between the instrument detection limit and the Reporting Limit (RL).
   D = Compound quantitated using a secondary dilution.
   E = Estimated value. Result exceeds calibration limit.
   J = Estimated value. Result is greater than the RL but less than the MDL.
   R = Data was rejected as part of validation.
   U = Analyte not detected at listed reporting detection limit.
   F1 = MS and/or MSD Recovery is outside acceptance limits.

FIGURES



MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE 1979 LYNBROOK AND LAWRENCE, NEW YORK

FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

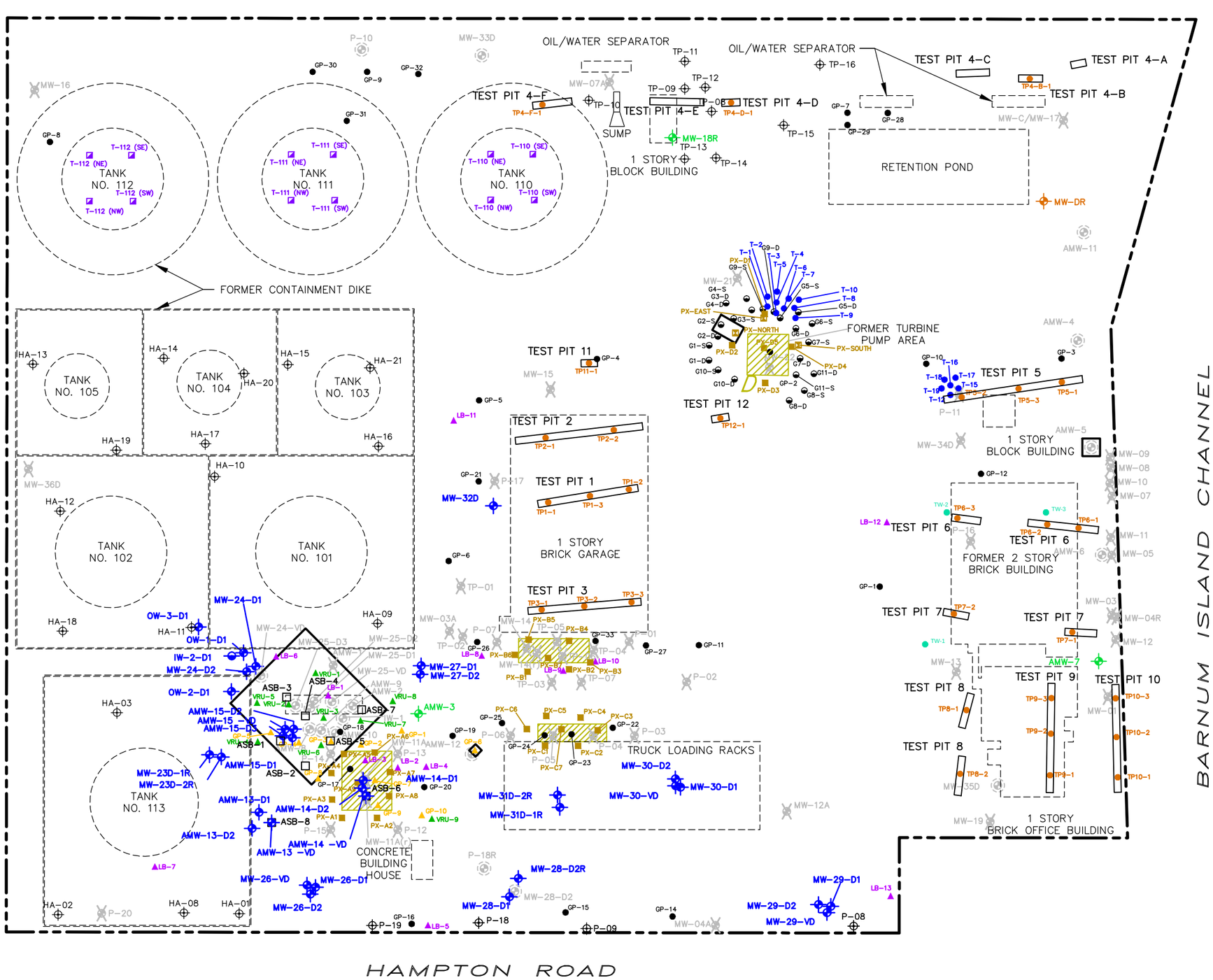
SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE
1

XREFS: IMAGES: PROJECTNAME:
47517X01.TIF
47517X02.TIF

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A.HEBERT PM:B.MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB0047517\00230\0001\DWG\47517N01.dwg LAYOUT: 1 SAVED: 9/26/2014 2:28 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: PDF-AP PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/16/2016 12:46 PM BY: HOWES, DAVID



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

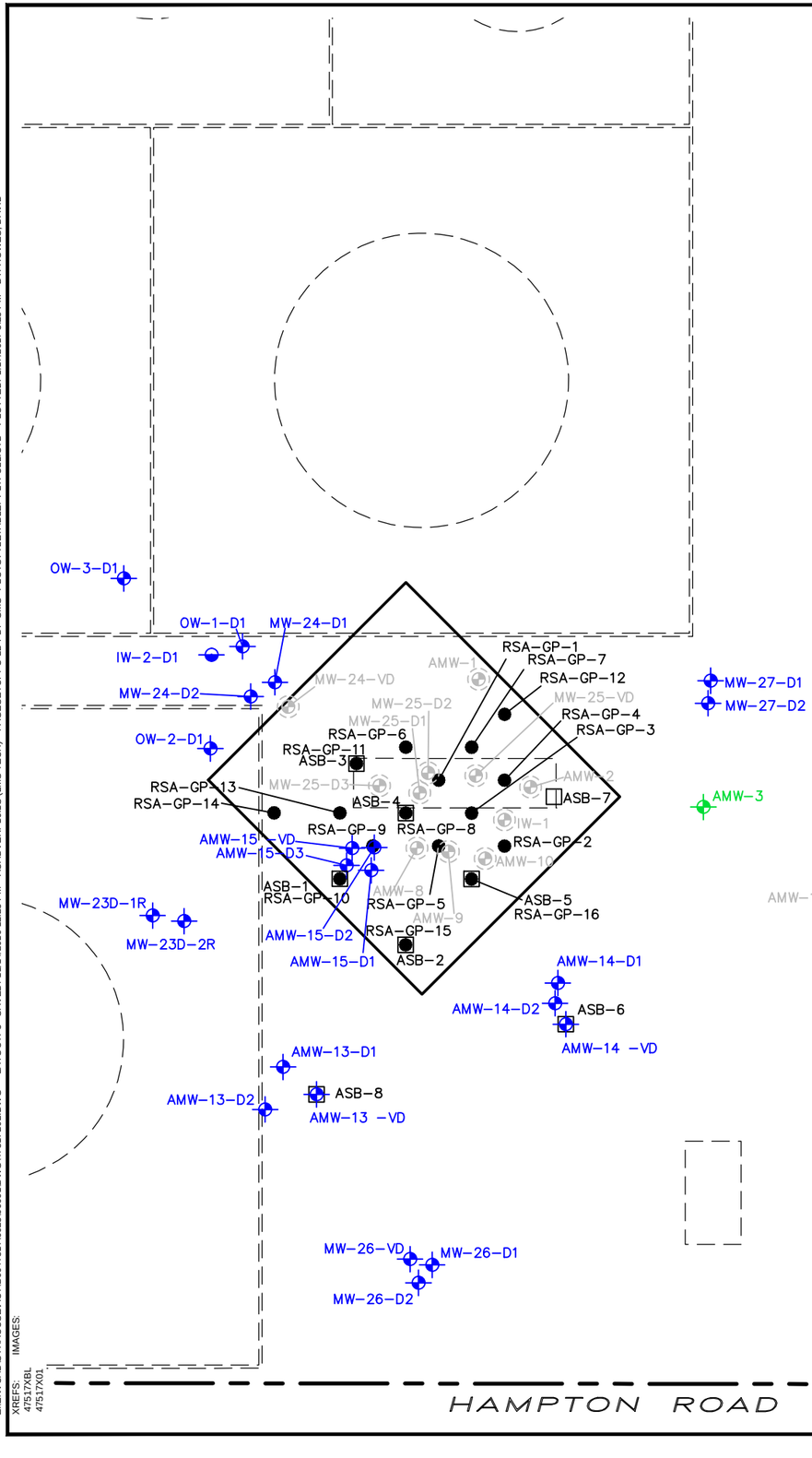
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

SITE PLAN

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R.ALLEN LD: PIC: J.VOGELEY PM: W.McCUNE TM: W.McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIVE\00475170023000001\DWG\47517B01.DWG LAYOUT: 2 SAVED: 11/14/2016 11:39 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/14/2016 12:12 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01
IMAGES:



LEGEND:

- 2016 SOIL BORINGS
- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- MIPS POINTS
- LIMIT OF FORMER VRU AREA EXCAVATION
- FORMER SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 30' 60'

GRAPHIC SCALE

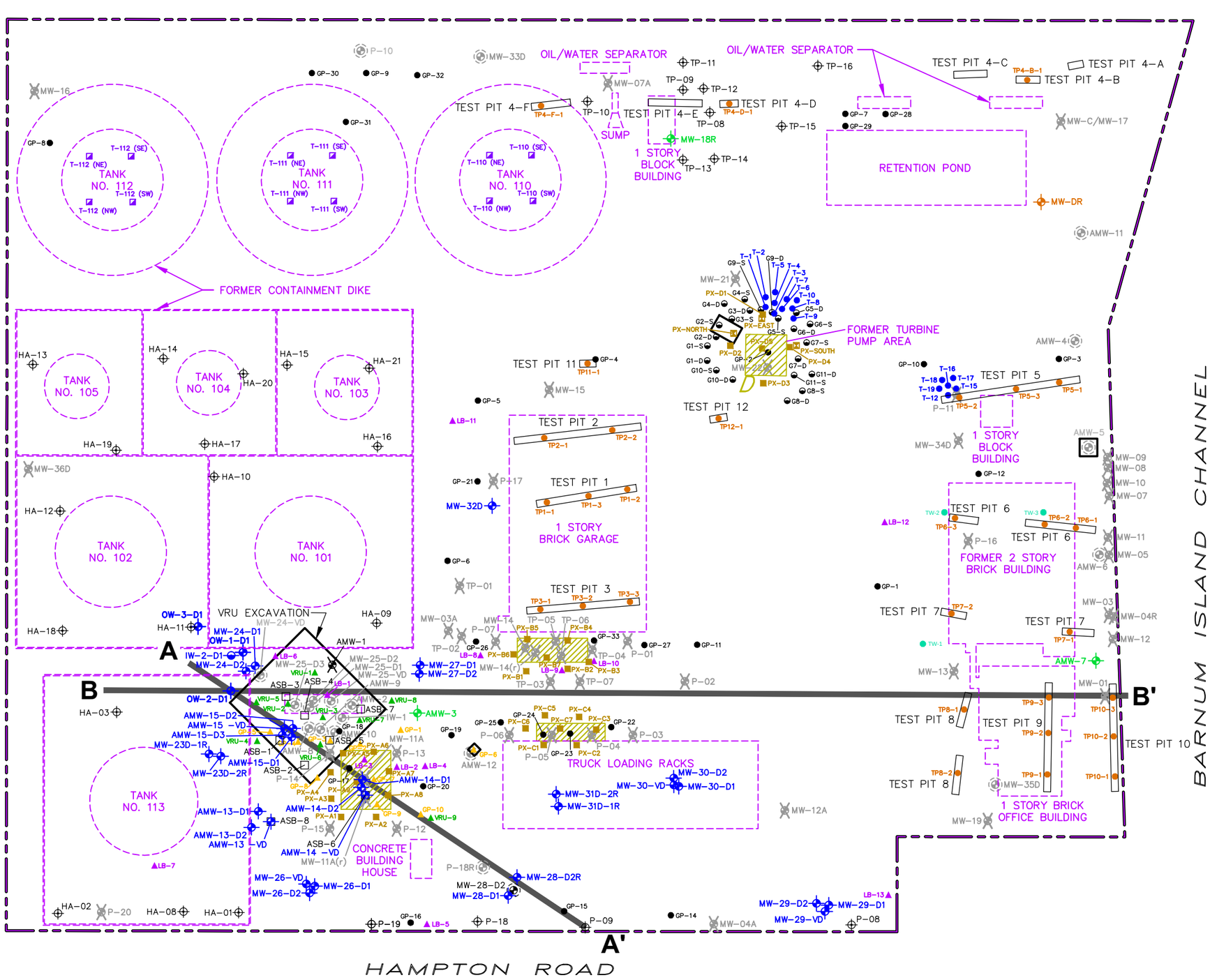
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

RESIDUAL SOURCE ASSESSMENT LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACT\B0047517\00230000\1\DWG\47517B02.DWG LAYOUT: 3 SAVED: 11/14/2016 12:25 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:25 PM BY: HOWES, DAVID
XREFS:
47517XBL
47517X01
IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- A—A' LINE OF CROSS SECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

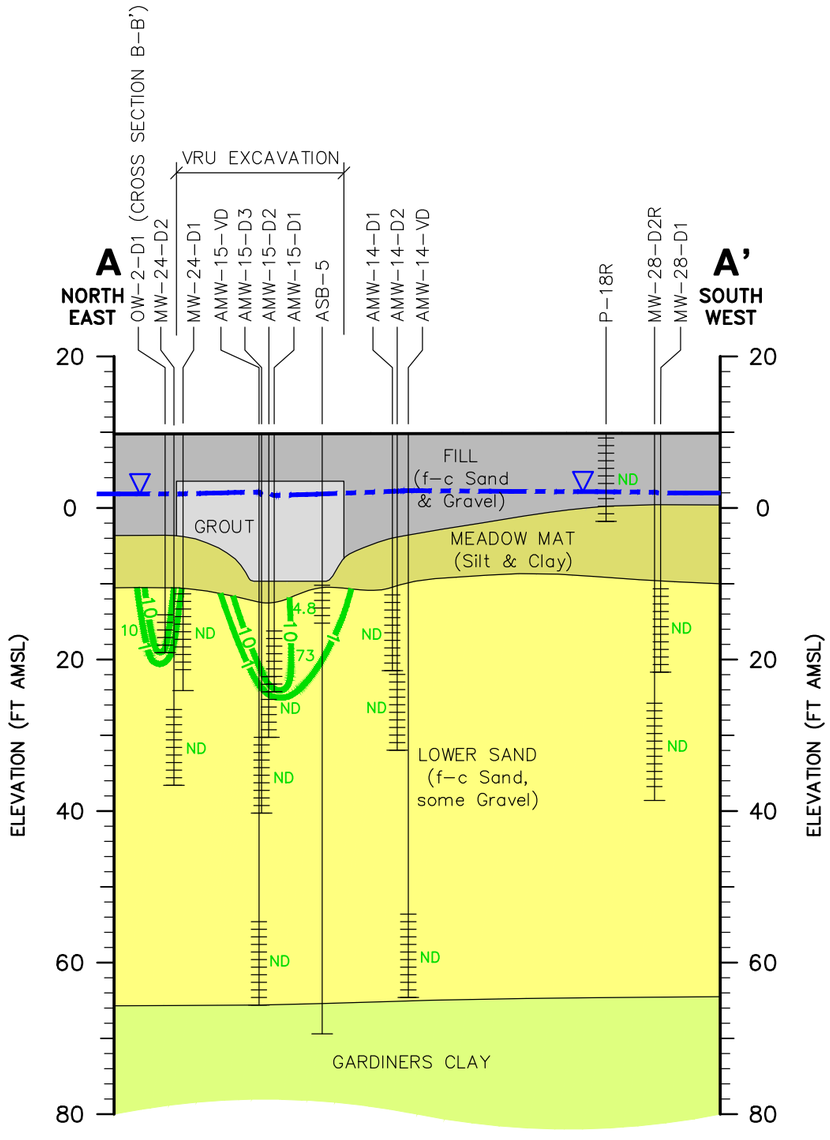
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

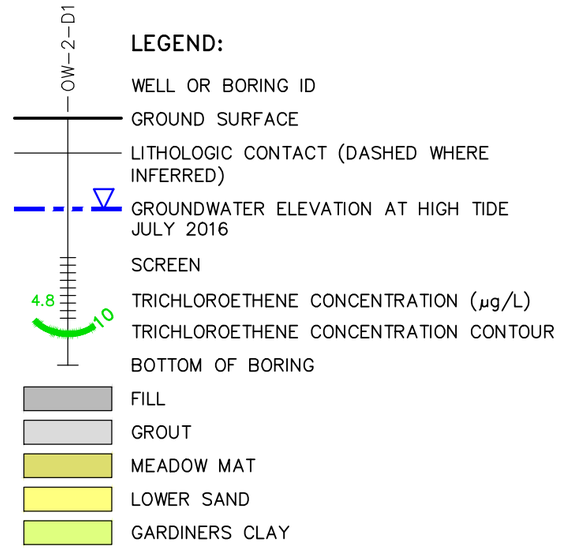
CROSS-SECTION LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\00230002\DWG\47517V04.DWG LAYOUT: 4 SAVED: 11/29/2016 2:56 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/29/2016 3:00 PM BY: ALLEN, ROYCE
XREFS: 47517XBL 47517X01 IMAGES:





NOTES:

1. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

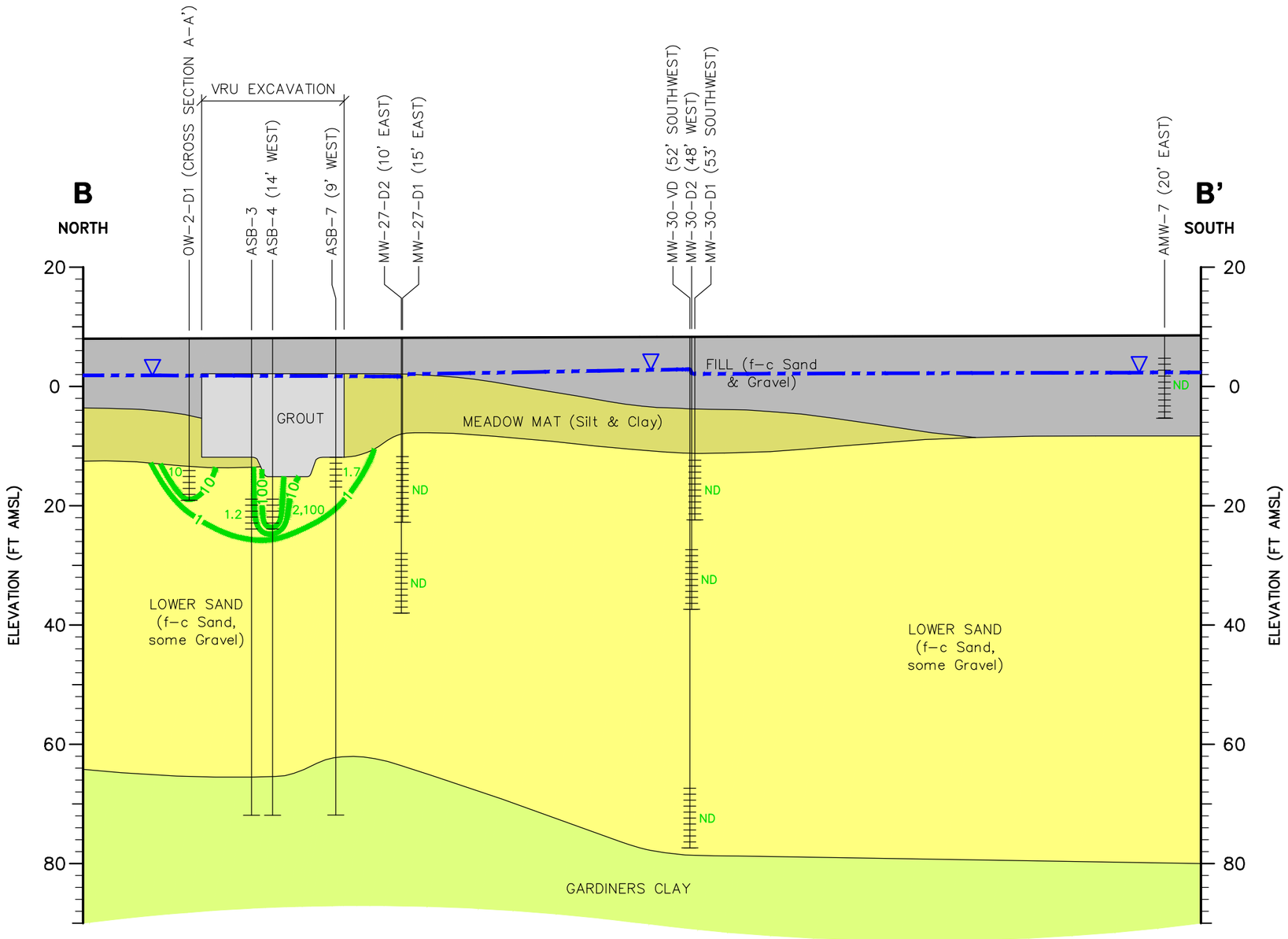
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

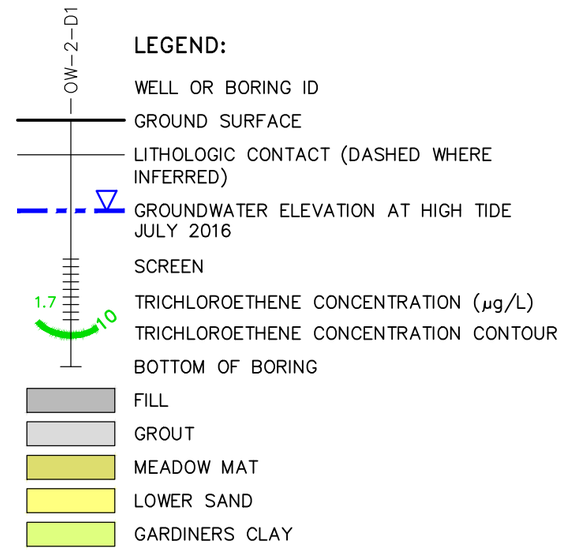
GEOLOGIC CROSS SECTION A - A' WITH TRICHLOROETHENE (TCE) CONCENTRATIONS - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE 5

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: L. FORAKER, R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0023\0002\DWG\47517X02.DWG LAYOUT: 5 SAVED: 11/22/2016 11:00 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/22/2016 11:02 AM BY: ALLEN, ROYCE
XREFS: 47517X01 47517XBL
IMAGES:





LEGEND:

- WELL OR BORING ID
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION AT HIGH TIDE JULY 2016
- SCREEN
- TRICHLOROETHENE CONCENTRATION (µg/L)
- TRICHLOROETHENE CONCENTRATION CONTOUR
- BOTTOM OF BORING
- FILL
- GROUT
- MEADOW MAT
- LOWER SAND
- GARDINERS CLAY

NOTES:

1. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

GEOLOGIC CROSS SECTION B - B' WITH TRICHLOROETHENE (TCE) CONCENTRATIONS - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE 6

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: R.ALLEN LD:
G:\ENVCAD\SYRACUSE\ACTIB\047517\00230\0002\DWG\47517V03.DWG LAYOUT: 6 SAVED: 11/22/2016 10:55 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/22/2016 10:57 AM BY: ALLEN, ROYCE
PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
XREFS: IMAGES:
47517X01
47517XBL

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIVE\B0047517\0023\0001\DWG\47517C02.DWG LAYOUT: 7 SAVED: 11/23/2016 4:32 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:37 PM BY: HOWES, DAVID
XREFS:
475117X01
475117X00

G10-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/17/2004
VOCs	
Benzene	**0.16**

G10-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
n-Propylbenzene	**4.5**

G10-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**0.25**
Ethylbenzene	**7.8**
Xylenes (total)	**6.3**
Naphthalene	**17**
1,2,4-TrimEthylbenzene	**11**
n-Propylbenzene	**6.7**

G10-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**3.0**
Xylenes (total)	**1.1**
n-Butylbenzene	**16**
n-Propylbenzene	**25**

G2-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**4.1**
Ethylbenzene	**7.3**
Xylenes (total)	**2.3**
Naphthalene	**23**
n-Propylbenzene	**10**
sec-Butylbenzene	**2.2**

G3-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**5.7**
Ethylbenzene	**28**
Xylenes (total)	**1.9**
Naphthalene	**36**
n-Butylbenzene	**13**
n-Propylbenzene	**20**

G4-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**4.7**
Ethylbenzene	**20**
Xylenes (total)	**2.0**
Naphthalene	**33**
n-Butylbenzene	**12**
n-Propylbenzene	**16**

G4-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**3.5**
Ethylbenzene	**40**
Xylenes (total)	**13**
Naphthalene	**20**
1,2,4-TrimEthylbenzene	**8.2**
n-Propylbenzene	**15**

G3-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**8.3**
Ethylbenzene	**40**
Xylenes (total)	**1.8**
Naphthalene	**40**
n-Butylbenzene	**14**
n-Propylbenzene	**24**

G4-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**4.2**
Ethylbenzene	**41**
Xylenes (total)	**3.1**
Naphthalene	**43**
n-Butylbenzene	**13**
n-Propylbenzene	**20**

G4-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**3.2**
Ethylbenzene	**41**
Xylenes (total)	**13**
Naphthalene	**32**
1,2,4-TrimEthylbenzene	**4.8**
n-Propylbenzene	**16**

G9-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**1.6**
Ethylbenzene	**31**
Xylenes (total)	**11**
Naphthalene	**17**
1,2,4-TrimEthylbenzene	**7.7**
n-Propylbenzene	**14**

G8-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**1.7**
Ethylbenzene	**31**
Xylenes (total)	**3.5**
Naphthalene	**15**
n-Propylbenzene	**13**

PX-D1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**6.0**
Ethylbenzene	**53**
Xylenes (total)	**3.6**

PX-EAST	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	11/18/2004
VOCs	
Benzene	**3.1**
Ethylbenzene	**17**
Xylenes (total)	**3.1**
Naphthalene	**16**
n-Propylbenzene	**13**

G9-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**0.71**
Ethylbenzene	**4.6**
n-Propylbenzene	**7.7**

G9-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**5.7**
Ethylbenzene	**25**
Xylenes (total)	**66**
Naphthalene	**21**
1,2,4-TrimEthylbenzene	**12**
n-Butylbenzene	**12**
n-Propylbenzene	**23**

G5-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**6.4**
Ethylbenzene	**46**
Xylenes (total)	**4.1**
Naphthalene	**16**
n-Propylbenzene	**19**

G5-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**9.1**
Ethylbenzene	**58**
Xylenes (total)	**3.1**
Naphthalene	**13**
n-Butylbenzene	**13**
n-Propylbenzene	**24**

G5-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**3.3**
Ethylbenzene	**4.4**
n-Propylbenzene	**8.0**

MW-17	
Historical Depth(feet)	(4)
Current Depth(feet)	(8)
Date	12/12/1995
SVOCs	
Benzo(a)anthracene	**4.4**
Benzo(b)fluoranthene	**4.9**
Benzo(k)fluoranthene	**2.2**
Chrysene	**4.2**

G5-D1	
Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**5.7**
Ethylbenzene	**9.1**
Xylenes (total)	**2.5**
n-Propylbenzene	**14**

G6-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**6.2**
Ethylbenzene	**3.4**
Naphthalene	**19**
n-Propylbenzene	**12**

G6-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**10**
Ethylbenzene	**3.3**
n-Propylbenzene	**12**

G6-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**10**
Ethylbenzene	**5.7**
Xylenes (total)	**1.6**
n-Propylbenzene	**10**

G6-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**4.2**
Ethylbenzene	**13**
Xylenes (total)	**5.7**
1,2,4-TrimEthylbenzene	**7.4**
n-Propylbenzene	**14**

PX-SOUTH	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	11/18/2004
VOCs	
Benzene	**1.7**
Ethylbenzene	**3.3**
n-Propylbenzene	**4.6**

PX-D4	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**7.9**
Toluene	**0.72**
Ethylbenzene	**63**
Xylenes (total)	**7.6**

G11-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**1.6**
Ethylbenzene	**1.3**
Xylenes (total)	**2.1**
n-Propylbenzene	**11**

TP5-2	
Historical Depth(feet)	(5.5)
Current Depth(feet)	(9.5)
Date	12/2/2010
VOCs	
Methylene Chloride	**0.11**

T12-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/17/2004
VOCs	
Benzene	**11**
Ethylbenzene	**6.7**
Xylenes (total)	**2.1**
n-Propylbenzene	**5.1**

T12-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**8.2**
Ethylbenzene	**3.6**

T12-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**23**
Ethylbenzene	**13**
Xylenes (total)	**2.8**
n-Propylbenzene	**6.7**

T12-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**17**
Ethylbenzene	**13**
Xylenes (total)	**3.6**
n-Propylbenzene	**4.6**

AMW-6			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/18/2010	11/18/2010	11/18/2010
VOCs			
Acetone	0.027 U	**0.059**	**0.18**
Inorganics			
Arsenic	**16.2**	**20.1**	**10.6**

TP6-1	
Historical Depth(feet)	(5)
Current Depth(feet)	(9)
Date	12/3/2010
VOCs	
Acetone	**0.080**
Inorganics	
Arsenic	**28.1**

TP6-3	
Historical Depth(feet)	(5.5)
Current Depth(feet)	(9.5)
Date	12/3/2010
SVOCs	
Benzo(a)anthracene	**2.7 J**
Benzo(b)fluoranthene	**2.8 J**
Chrysene	**2.3 J**

TP10-2	
Historical Depth(feet)	(6)
Current Depth(feet)	(10)
Date	12/7/2010
Inorganics	
Arsenic	**20.7**

Protection of Groundwater SCO	(mg/kg)
1,2,4 Trimethylbenzene	3.6
Acetone	0.05
Arsenic	16
Benzene	0.06
Benzo(a)pyrene	22
Benzo(b)fluoranthene	1.7
Benzo(k)fluoranthene	1.7
Chrysene	1
Ethylbenzene	1.1
Mercury	0.73
Methylene Chloride	0.05
MTBE	0.93
Naphthalene	12
n-Butylbenzene	12
n-Propylbenzene	3.9
Toluene	0.7
Xylenes	1.6

PX-B4	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.12**
Ethylbenzene	**1.2**
Xylenes (total)	**1.9**

LB-9	
Historical Depth(feet)	(2.5 - 3)
Current Depth(feet)	(6.5 - 7)
Date	3/11/2004
VOCs	
Benzene	**0.18**
Methylene Chloride	**0.078**

PX-B1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**1.2**
Ethylbenzene	**2.5**

LB-8	
Historical Depth(feet)	(4 - 4.5)
Current Depth(feet)	(8 - 8.5)
Date	3/11/2004
VOCs	
Benzene	**3.3**
Ethylbenzene	**38**
Xylenes (total)	**13**

PX-C6	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.066**
Ethylbenzene	**4.8**

GP-2(2002)	
Historical Depth(feet)	(6)
Current Depth(feet)	(10)
Date	5/2/2002
VOCs	
Ethylbenzene	**8.8**
Xylenes (total)	**11**

LB-2	
Historical Depth(feet)	(4 - 4.5)
Current Depth(feet)	(8 - 8.5)
Date	3/10/2004
VOCs	
Ethylbenzene	**7.5**
Xylenes (total)	**14**

PX-A7	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**5.4**
Toluene	**1.9**
Ethylbenzene	**98**
Xylenes (total)	**160**

PX-A3	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.15 [0.18]**
Ethylbenzene	**46 [38]**

GP-9(2002)	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	5/2/2002
VOCs	
Benzene	**0.20**

PX-A2	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**1.9**
Ethylbenzene	**80**
Xylenes (total)	**37**

PX-C1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Ethylbenzene	**1.4**

MW-31D-2R			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/17/2010	11/17/2010	11/17/2010
SVOCs			
Benzo(a)anthracene	**3.3**	**0.64 [0.78]**	**8.9**
Benzo(b)fluoranthene	**3.9**	**0.74 [0.75]**	**11**
Benzo(k)fluoranthene	**1.2**	**0.26 [0.28]**	**4.5**
Chrysene	**2.5**	**0.50 [0.61]**	**8.5**

PX-D2	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**14**
Toluene	**2.1**
Ethylbenzene	**230**
Xylenes (total)	**400**

PX-B7	
Historical Depth(feet)	(4 - 4.5)
Current Depth(feet)	(8 - 8.5)
Date	10/30/2002
VOCs	
Benzene	**3.0**
Ethylbenzene	**22**
Xylenes (total)	**3.6**

PX-B6	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**3.5**
Ethylbenzene	**73**
Xylenes (total)	**6.9**

PX-C4	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Ethylbenzene	**20**

PX-C5	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.23**
Ethylbenzene	**6.6**

AMW-3			
Historical Depth(feet)	(0 - 2)	(2 - 4)	(4 - 6)
Current Depth(feet)	(4 - 6)	(6 - 8)	(8 - 10)
Date	11/30/2010	11/30/2010	11/30/2010
VOCs			
Benzene	0.13 U	**0.12 U [0.11 J]**	**0.11 J**
Ethylbenzene	**2.4**	**6.7 [10]**	**2.0**
Xylenes (total)	**5.2**	**6.1 [8.2]**	**0.26**
Methylene Chloride	0.13 UJ	0.12 UJ [0.19 UJ]	**0.062 J**
SVOCs			
Naphthalene	**5.4**	**11 [29]**	**2.6 J**

PX-A6	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.57**
Ethylbenzene	**9.6**
Xylenes (total)	**21**

PX-A5	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.15**
Ethylbenzene	**26**
Xylenes (total)	**6.9**

GP-7(2002)	
Historical Depth(feet)	(3 - 4)
Current Depth(feet)	(7 - 8)
Date	5/2/2002
VOCs	
Benzene	**2.8**
Ethylbenzene	**76**
Xylenes (total)	**3.0**
Naphthalene	**44**

PX-A8	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.082**
Ethylbenzene	**16**
Xylenes (total)	**87**

PX-A1	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.72**
Ethylbenzene	**32**
Xylenes (total)	**4.2**

GP-10(2002)	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	5/2/2002
VOCs	
Ethylbenzene	**7.2**

PX-C2	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Ethylbenzene	**3.3**

P-18R			
Historical Depth(feet)	(0 - 2)	(4 - 6)	(6 - 8)
Current Depth(feet)	(4 - 6)	(8 - 10)	(10 - 12)
Date	12/2/2010	12/2/2010	12/2/2010
SVOCs			
Benzo(a)anthracene	**2.0**	**0.038 J**	**0.063 J**
Chrysene	**1.8**	**0.040 J**	**0.065 J**

TP12-1	
Historical Depth(feet)	(4.7)
Current Depth(feet)	(8.7)
Date	12/7/2010
Inorganics	
Mercury	**1.35**

PX-D3	
Historical Depth(feet)	(2 - 3)
Current Depth(feet)	(6 - 7)
Date	10/30/2002
VOCs	
Benzene	**0.52**
Ethylbenzene	**3.1**

G8-D1	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/16/2004
VOCs	
Benzene	**0.98**
Ethylbenzene	**1.3**
Xylenes (total)	**5.8**
Naphthalene	**12**
1,2,4-TrimEthylbenzene	**4.7**
n-Butylbenzene	**13**
n-Propylbenzene	**17**

G8-S1	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/16/2004
VOCs	
Benzene	**14**
Toluene	**0.80**
Ethylbenzene	**2.2**
Xylenes (total)	**4.3**
Naphthalene	**15**
n-Butylbenzene	**30**
n-Propylbenzene	**40**

G8-D2	
Historical Depth(feet)	(3 - 3.5)
Current Depth(feet)	(7 - 7.5)
Date	11/18/2004
VOCs	
Benzene	**2.1**
Ethylbenzene	**1.1**
Xylenes (total)	**6.2**
Naphthalene	**21**
1,2,4-TrimEthylbenzene	**4.2**
n-Butylbenzene	**15**
n-Propylbenzene	**20**

G8-S2	
Historical Depth(feet)	(1.5 - 2)
Current Depth(feet)	(5.5 - 6)
Date	11/18/2004
VOCs	
Benzene	**3.8**
Ethylbenzene	**7.0**
n-Propylbenzene	**7.3**

LB-13	
Historical Depth(feet)	(3.5 - 4)
Current Depth(feet)	(7.5 - 8)
Date	3/11/2004
VOCs	
Benzene	**0.16**
Methyl tert-butyl ether	**0.99**

TP8-1	
Historical Depth(feet)	(4.5)
Current Depth(feet)	(8.5)
Date	12/6/2010
VOCs	
Methylene Chloride	**0.082 J**

TP7-2	
Historical Depth(feet)	(9)
Current Depth(feet)	(13)
Date	12/6/2010
SVOCs	
Benzo(a)anthracene	**3.7 J**
Benzo(b)fluoranthene	**4.1 J**
Chrysene	**3.5 J**

TP9-3	
Historical Depth(feet)	(6.5)
Current Depth(feet)	(10.5)
Date	12/7/2010
VOCs	
Acetone	**0.055**

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (MG/KG) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED PART 375 PROTECTION OF GROUNDWATER CLEAN-UP OBJECTIVES (SCOS).
6. ONLY EXCEEDANCES OF COMMERCIAL SCOS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. J = INDICATES AN ESTIMATED VALUE.
9. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

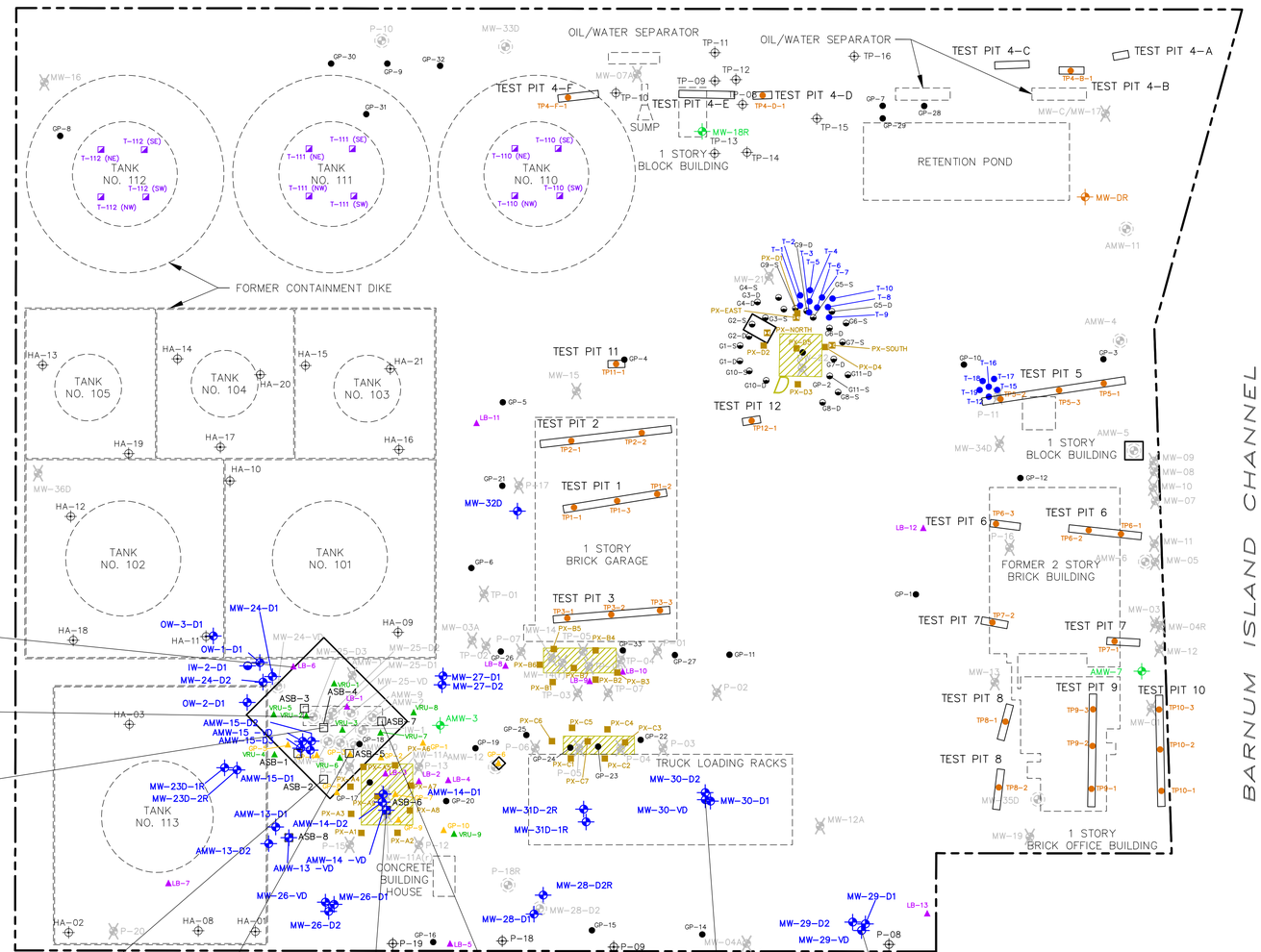
0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

PROTECTION OF GROUNDWATER SCO EXCEEDANCES - FILL UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE 7



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (MG/KG) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED PART 375 PROTECTION OF GROUNDWATER CLEAN UP OBJECTIVES (SCOS).
6. ONLY EXCEEDANCES OF PROTECTION OF GROUNDWATER SCOs ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. * = LCS OR LSCD EXCEEDS CONTROL LIMIT.
9. B = CONSISTUENT DETECTED IN METHOD BLANK.
10. J = INDICATES AN ESTIMATED VALUE.
11. NA = NOT ANALYZED.
12. ND = NOT DETECTED.
13. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

Protection of Groundwater SCO	(mg/kg)
Cis 1-2-dichloroethene	0.25
Methylene Chloride	0.05
TCE	0.47
Vinyl Chloride	0.02
Phenol	0.33

0 40' 80'
GRAPHIC SCALE

LB-6	
Historical Depth(feet)	(18 - 18.5)
Current Depth(feet)	(22 - 22.5)
Date	3/11/2004
VOCs	
cis-1,2-Dichloroethene	**0.57**
Trichloroethene	**2.9**

MW-25-D3	
Historical Depth(feet)	(21 - 23)
Current Depth(feet)	(24 - 27)
Date	12/9/2010
VOCs	
Methylene Chloride	**0.12 B**

ASB-4		
Current Depth(Feet)	(24 - 25)	(28 - 30)
Date	6/6/2016	6/6/2016
VOCs		
cis-1,2-Dichloroethene	**0.0039 J**	**0.96**
Methylene Chloride	**0.0032 JB**	**0.077 J**
Vinyl Chloride	0.0059 U	**0.45**

ASB-2		
Current Depth(Feet)	(24 - 25)	(28 - 30)
Date	6/3/2016	6/3/2016
VOCs		
Vinyl Chloride	0.0065 U	**0.067 J**

ASB-5		
Current Depth(Feet)	(20.5 - 21)	(28 - 30)
Date	6/2/2016	6/2/2016
VOCs		
Vinyl Chloride	**0.14**	**0.0040 J [0.0039 J]**
SVOCs		
Phenol	**0.58**	NA

ASB-6		
Current Depth(Feet)	(26 - 28)	(36 - 38)
Date	6/13/2016	6/13/2016
VOCs		
Vinyl Chloride	**0.061 ***	0.0055 U*

ASB-7		
Current Depth(Feet)	(21 - 23)	(30 - 32)
Date	6/1/2016	6/1/2016
VOCs		
cis-1,2-Dichloroethene	**2.7**	0.0048 U
Vinyl Chloride	**0.58**	0.0048 U

MW-30-VD		
Historical Depth(feet)	(28 - 30)	(68 - 70)
Current Depth(feet)	(32 - 34)	(72 - 74)
Date	12/27/2006	12/27/2006
VOCs		
Methylene Chloride	**0.0083**	**0.12**

MW-29-VD		
Historical Depth(feet)	(19 - 21)	(58 - 60)
Current Depth(feet)	(23 - 25)	(62 - 64)
Date	12/26/2006	12/26/2006
VOCs		
Methylene Chloride	**0.11**	ND

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

PROTECTION OF GROUNDWATER SCO EXCEEDANCES - LOWER SAND UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE 8

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIB\00475170023000001\DWG\47517C03.DWG LAYOUT: 8 SAVED: 11/23/2016 4:06 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:40 PM BY: HOWES, DAVID
XREFS:
47517X01
47517X00

MW-31D-2R			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/17/2010	11/17/2010	11/17/2010
SVOCs			
Benzo(a)anthracene	**3.3**	**0.64 [0.78]**	**8.9**
Benzo(a)pyrene	**3.0**	**0.61 [0.63]**	**11**
Benzo(b)fluoranthene	**3.9**	**0.74 [0.75]**	**11**
Dibenzo(a,h)anthracene	**0.27 J**	**0.053 J [0.057 J]**	**1.7 J**
Indeno(1,2,3-cd)pyrene	**0.87**	**0.16 J [0.19 J]**	**5.8**

TP7-2	
Historical Depth(feet)	(5)
Current Depth(feet)	(9)
Date	12/6/2010
SVOCs	
Benzo(a)pyrene	**3.7 J**

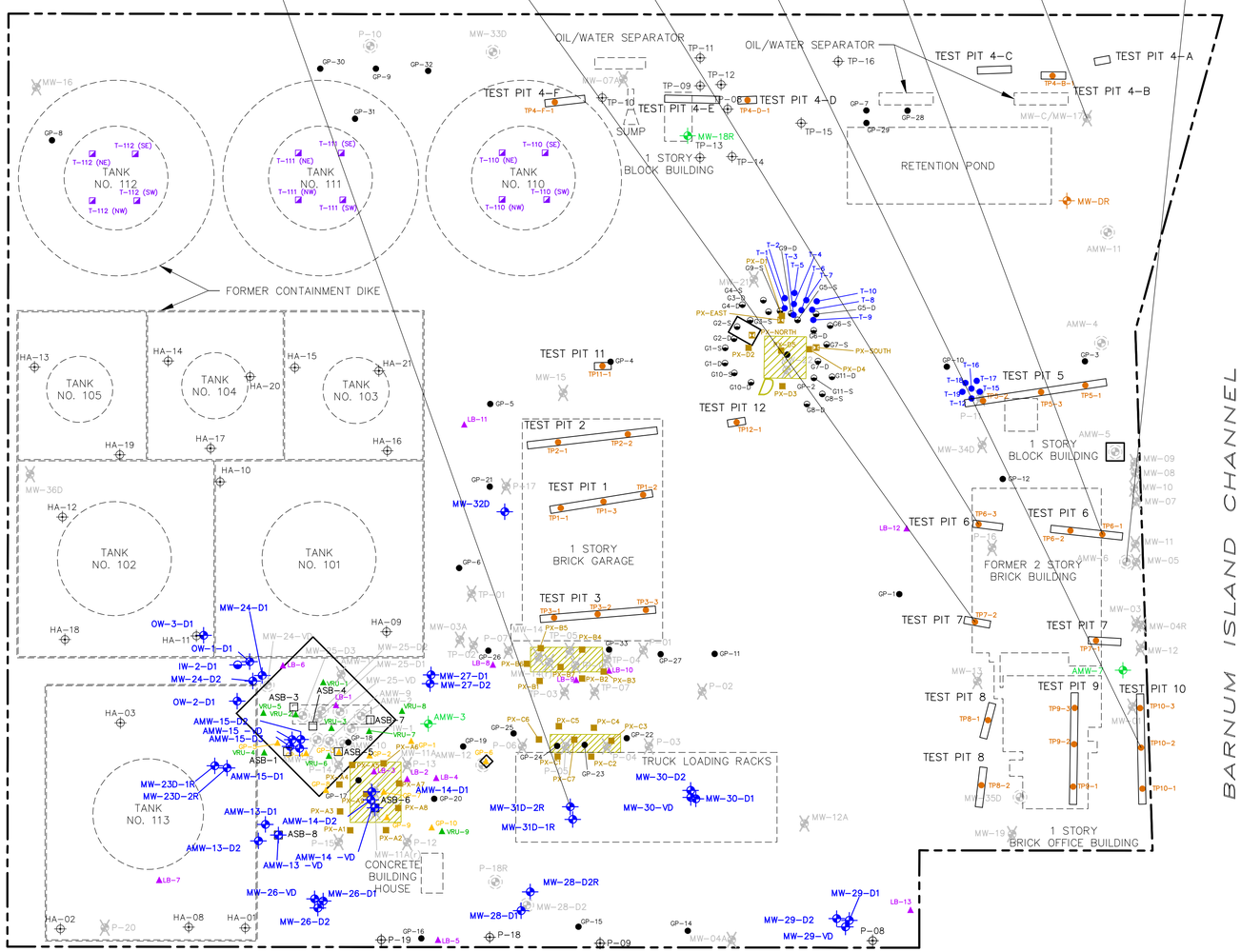
TP6-3	
Historical Depth(feet)	(5,5)
Current Depth(feet)	(9,5)
Date	12/3/2010
SVOCs	
Benzo(a)pyrene	**2.7 J**

TP10-2	
Historical Depth(feet)	(6)
Current Depth(feet)	(10)
Date	12/7/2010
Inorganics	
Arsenic	**20.7**

TP6-1	
Historical Depth(feet)	(5)
Current Depth(feet)	(9)
Date	12/3/2010
Inorganics	
Arsenic	**28.1**

MW-17	
Historical Depth(feet)	(4)
Current Depth(feet)	(8)
Date	12/12/1995
SVOCs	
Benzo(a)pyrene	**4.0**

AMW-6			
Historical Depth(feet)	(2 - 4)	(4 - 6)	(6 - 8)
Current Depth(feet)	(6 - 8)	(8 - 10)	(10 - 12)
Date	11/18/2010	11/18/2010	11/18/2010
Inorganics			
Arsenic	**16.2**	**20.1**	**10.6**



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER KILOGRAM (MG/KG) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED PART 375 COMMERCIAL USE CLEAN UP OBJECTIVES (SCOS).
6. ONLY EXCEEDANCES OF COMMERCIAL SCOS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. J = INDICATES AN ESTIMATED VALUE.

Commercial Use SCOs	(mg/kg)
Arsenic	16
Benzo(a)anthracene	5.6
Benzo(a)pyrene	1
Benzo(b)fluoranthene	5.6
Dibenzo(a,h)anthracene	0.56
Indeno(1,2,3-cd)pyrene	5.6

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

COMMERCIAL SCO EXCEEDANCES IN SOIL - FILL UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE
9

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIVE\00475170023000\01DWG\47517C01.DWG LAYOUT: 9 SAVED: 11/23/2016 4:34 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:45 PM BY: HOWES, DAVID
XREFS:
47517X01
47517X00

P-18R		
Depth(Feet)	6 - 12	
Date	1/27/2011	1/12/2016
VOCs		
Benzene	**160**	**42**
Toluene	**4.0 J**	5.0 U
Ethylbenzene	**3.8 J**	5.0 U
Xylenes (total)	**9.0 J**	10 U
Methyl tert-butyl ether	5.0 U	**19**
Isopropylbenzene	**36**	**16**
Acetone	50 U	**40 J***
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

AMW-3				
Depth(Feet)	8 - 13			
Date	1/20/2011	9/11/2013	1/13/2016	6/21/2016
VOCs				
Benzene	**510**	**93**	**280**	1.0 U
Toluene	**36**	8.0 U	**6.9**	1.0 U
Ethylbenzene	**140**	8.0 U	**29**	1.0 U
Xylenes (total)	**100**	16 U	**20**	2.0 U
Methyl tert-butyl ether	**26**	**95**	5.0 U	**0.40 J**
Isopropylbenzene	**110**	**32**	**65**	1.0 U
Acetone	**34 J**	80 U	50 U*	**21**
cis-1,2-Dichloroethene	8.0 U	8.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	8.0 U	8.0 U	**4.8 J**	1.0 U
Methylene Chloride	8.0 U	8.0 U	**15**	1.0 U

AMW-12			
Depth(Feet)	7 - 12		
Date	2/20/2013	9/13/2013	1/14/2016
VOCs			
Benzene	**440**	**280**	**80**
Toluene	**7.2 J**	**5.1**	5.0 U
Ethylbenzene	10 U	**4.3 J**	5.0 U
Xylenes (total)	**6.9 J**	**7.1 J**	10 U
Methyl tert-butyl ether	**80**	**52**	**32**
Isopropylbenzene	**38**	**44**	**24**
Acetone	100 U	**43 J**	**25 J**
cis-1,2-Dichloroethene	10 U	5.0 U	5.0 U
1,1,2-Trichloroethane	10 U	5.0 U	5.0 U
Methylene Chloride	10 U	5.0 U	5.0 U

P-10		
Depth(Feet)	NA	
Date	4/7/2011	9/17/2013
VOCs		
Benzene	**3.1**	1.0 U
Toluene	**0.72 J**	1.0 U
Ethylbenzene	1.0 U	1.0 U
Xylenes (total)	**0.86 J**	2.0 U
Methyl tert-butyl ether	1.0 U	**0.67 J**
Isopropylbenzene	**2.6**	1.0 U
Acetone	**23**	**5.8 J**
cis-1,2-Dichloroethene	1.0 U	1.0 U
1,1,2-Trichloroethane	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U

MW-18R			
Depth(Feet)	6 - 11		
Date	2/20/2013	9/13/2013	6/22/2016
VOCs			
Benzene	**74**	**230**	**310**
Toluene	5.0 U	**3.4 J**	10 U
Ethylbenzene	**5.5**	**20**	10 U
Xylenes (total)	10 U	**3.8 J**	20 U
Methyl tert-butyl ether	**16**	**49**	**65**
Isopropylbenzene	5.0 U	**16**	**14**
Acetone	50 U	50 U	100 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	**14**
1,1,2-Trichloroethane	5.0 U	5.0 U	10 U
Methylene Chloride	5.0 U	5.0 U	10 U

AMW-4		
Depth(Feet)	6 - 16	
Date	1/26/2011	9/11/2013
VOCs		
Benzene	**22**	**97**
Toluene	**3.0 J**	**4.5 J**
Ethylbenzene	5.0 U	5.0 U
Xylenes (total)	**13**	**6.9 J**
Methyl tert-butyl ether	5.0 U	5.0 U
Isopropylbenzene	**11**	**21**
Acetone	50 U	50 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

AMW-11		
Depth(Feet)	6 - 16	
Date	1/26/2011	9/11/2013
VOCs		
Benzene	**68**	**26**
Toluene	**4.8 J**	**9.6**
Ethylbenzene	**5.7**	**13**
Xylenes (total)	**18**	**32**
Methyl tert-butyl ether	5.0 U	**5.5**
Isopropylbenzene	**15**	**15**
Acetone	50 U	50 U
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

AMW-5		
Depth(Feet)	6 - 16	
Date	1/26/2011	9/11/2013
VOCs		
Benzene	**7.0**	**2.5 J**
Toluene	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U
Xylenes (total)	**4.0 J**	10 U
Methyl tert-butyl ether	5.0 U	**3.7 J**
Isopropylbenzene	5.0 U	5.0 U
Acetone	**46 J**	**17 J**
cis-1,2-Dichloroethene	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U

TW-3	
Depth(Feet)	6 - 16
Date	6/16/2016
VOCs	
Benzene	100 U
Toluene	100 U
Ethylbenzene	**930**
Xylenes (total)	**5,600**
Methyl tert-butyl ether	100 U
Isopropylbenzene	100 U
Acetone	1,000 U
cis-1,2-Dichloroethene	100 U
1,1,2-Trichloroethane	100 U
Methylene Chloride	100 U

TW-2	
Depth(Feet)	6 - 16
Date	6/16/2016
VOCs	
Benzene	**6.8**
Toluene	**1**
Ethylbenzene	**1.3**
Xylenes (total)	**7.1**
Methyl tert-butyl ether	1.0 U
Isopropylbenzene	**10**
Acetone	**98**
cis-1,2-Dichloroethene	1.0 U
1,1,2-Trichloroethane	1.0 U
Methylene Chloride	1.0 U

TW-1	
Depth(Feet)	6 - 16
Date	6/16/2016
VOCs	
Benzene	**4.7**
Toluene	**1.9**
Ethylbenzene	**1.1**
Xylenes (total)	**6.2**
Methyl tert-butyl ether	1.0 U
Isopropylbenzene	**6.3**
Acetone	**9.6 J**
cis-1,2-Dichloroethene	1.0 U
1,1,2-Trichloroethane	1.0 U
Methylene Chloride	1.0 U

AMW-7				
Depth(Feet)	6 - 16	(6 - 16')		
Date	1/26/2011	9/10/2013	1/12/2016	6/21/2016
VOCs				
Benzene	**6.4**	1.0 U	**5.7**	**1.1**
Toluene	5.0 U	1.0 U	5.0 U	1.0 U
Ethylbenzene	5.0 U	1.0 U	5.0 U	1.0 U
Xylenes (total)	**4.1 J**	2.0 U	10 U	**0.79 J**
Methyl tert-butyl ether	**3.5 J**	**0.87 J**	**1.4 J**	**0.23 J**
Isopropylbenzene	5.0 U	1.0 U	5.0 U	**2.8**
Acetone	**20 J**	10 U	**30 J**	**6.2 J**
cis-1,2-Dichloroethene	5.0 U	1.0 U	5.0 U	1.0 U
1,1,2-Trichloroethane	5.0 U	1.0 U	5.0 U	1.0 U
Methylene Chloride	5.0 U	1.0 U	5.0 U	1.0 U

TOGs guidance value	(ug/L)
1,1,2-Trichloroethane	1
Acenaphthalene	20
Benzene	1
Benzo (a) anthracene	0.002
Benzo (b) fluoranthene	0.002
Bis(2-ethylhexyl)phthalate	5
Chrysene	0.002
cis-1,2-Dichloroethene	5
Ethylbenzene	5
Fluorene	50
Isopropylbenzene	5
Methylene Chloride	5
MTBE	10
Naphthalene	10
Phenathrene	50
Phenol	1
Toluene	5
Xylenes	5

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- 2016 TEMPORARY MONITORING WELL
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED NYSDEC TECHNICAL AND OPERATIONS GUIDANCE VALUES SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES ARE SHOWN.
6. ONLY EXCEEDANCES OF TOGS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. * = LCS OR LSCD EXCEEDS CONTROL LIMIT.
9. J = INDICATES AN ESTIMATED VALUE.
10. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TOGS EXCEEDANCES IN GROUNDWATER - FILL UNIT

ARCADIS Design & Consultancy for natural and built assets

FIGURE 10

HAMPTON ROAD

BARNUM ISLAND CHANNEL

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIVE\B0047517\00230000\1DWG\47517C04.DWG LAYOUT: 10 SAVED: 11/23/2016 4:32 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:47 PM BY: HOWES, DAVID

XREFS:
47517X01
47517X00

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACTIVE\B0047517\0023000001\DWG\47517C05.DWG LAYOUT: 11 SAVED: 11/23/2016 4:19 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LD-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 1/17/2017 3:54 PM BY: HOWES, DAVID
XREFS:
47517X01
47517X00

MW-24 CLUSTER										
	MW-24-D1				MW-24-D2				MW-24-VD	
Depth(Feet)	(21 - 31)				(36 - 46)				(67 - 77)	
Date	1/19/2011	9/12/2013	1/13/2016	6/21/2016	1/19/2011	9/11/2013	1/13/2016	6/21/2016	1/19/2011	8/21/2013
Benzene	**22**	25 U [25 U]	5.0 U	**5.4**	**3.5**	20 U	**3.1 J [3.3 J]**	**0.97 J**	1.0 U	1.0 U
Toluene	**19**	**13 J [13 J]**	5.0 U	4.0 U	**3**	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
Ethylbenzene	**11**	25 U [25 U]	5.0 U	**3.1 J**	**1.9**	20 U	5.0 U [5.0 U]	**0.84 J**	1.0 U	1.0 U
Xylenes (total)	**31**	50 U [50 U]	10 U	**9.3**	**4.8**	40 U	10 U [10 U]	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**1,100 D**	**430 [430]**	**220**	**160**	**280 D**	**130**	**250 [260]**	**130**	1.0 U	**1.9**
Isopropylbenzene	**1.1**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U

AMW-15 CLUSTER								
	AMW-15-D1		AMW-15-D2		AMW-15-D3		AMW-15-VD	
Depth(Feet)	(23.5 - 33.5)		(30 - 40)		(40 - 50)		(60 - 70)	
Date	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
Benzene	**0.48 J**	**3.9 J**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Toluene	**3**	**7.5**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	**0.52 J**	**15**
Ethylbenzene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Xylenes (total)	2.0 U	**6.5 J**	2.0 U [2.0 U]	2.0 U	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**29**	**51**	**66 [68]**	**43**	**2.6 [2.4]**	**23**	**1.1**	1.0 U
Isopropylbenzene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

MW-25 CLUSTER										
	MW-25-D1		MW-25-D2				MW-25-D3		MW-25-VD	
Depth(feet)	(20 - 30)		(35 - 45)				(44 - 54)		(67 - 77)	
Date	1/19/2011	8/21/2013	1/19/2011	6/26/2013	8/21/2013		1/21/2011	8/21/2013	1/19/2011	8/21/2013
Benzene	**25**	**100 U [25]**	**9.5**	8,000 U	8,000 U		1.0 U	1.0 U	1.0 U	1.0 U
Toluene	**31**	**100 U [34]**	**24**	8,000 U	8,000 U		1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	**12**	**100 U [14]**	**3.9**	8,000 U	8,000 U		1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	**40**	**200 U [49]**	**16**	16,000 U	16,000 U		2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**960 D**	**820 [890 D]**	**130 E**	**2,500 J**	**2,300 J**		1.0 U	**1.9**	1.0 U	**0.16 J**
Isopropylbenzene	**1.5**	100 U [5.0 U]	**0.86 J**	8,000 U	8,000 U		1.0 U	1.0 U	1.0 U	1.0 U

ASB-3	
Depth (ft bgs)	(27 - 32)
Date	6/8/2016
Benzene	1.0 U
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	2.0 U
Methyl tert-butyl ether	**8.5**
Isopropylbenzene	1.0 U

ASB-4	
Depth (ft bgs)	(27 - 32)
Date	6/7/2016
Benzene	**3.0 J**
Toluene	**9.0**
Ethylbenzene	**6.7**
Xylenes (total)	**36**
Methyl tert-butyl ether	**13**
Isopropylbenzene	5.0 U

MW-33D	
Depth(feet)	(22 - 32)
Date	1/27/2011
Benzene	1.0 U
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	2.0 U
Methyl tert-butyl ether	**4.2**
Isopropylbenzene	1.0 U

MW-32D		
Depth (ft bgs)	(28 - 38)	
Date	1/19/2011	9/13/2013
Benzene	1.0 U	5.0 U
Toluene	1.0 U	5.0 U
Ethylbenzene	**1**	5.0 U
Xylenes (total)	2.0 U	10 U
Methyl tert-butyl ether	**13**	**8**
Isopropylbenzene	**1.3**	5.0 U

IW-1	
Depth (ft bgs)	(23 - 28)
Date	8/21/2013
Benzene	**8.5**
Toluene	**14**
Ethylbenzene	**5.2**
Xylenes (total)	**18**
Methyl tert-butyl ether	**360 D**
Isopropylbenzene	1.0 U

ASB-7	
Depth (ft bgs)	(20 - 25)
Date	6/2/2016
Benzene	2.0 U
Toluene	2.0 U
Ethylbenzene	2.0 U
Xylenes (total)	4.0 U
Methyl tert-butyl ether	**5.5**
Isopropylbenzene	2.0 U

OW-1-D1			
Depth (ft bgs)	(28 - 33)		
Date	2/20/2013	9/12/2013	1/13/2016
Benzene	10 U	2.0 U	20 U
Toluene	10 U	2.0 U	20 U
Ethylbenzene	10 U	2.0 U	20 U
Xylenes (total)	20 U	4.0 U	40 U
Methyl tert-butyl ether	**860**	**130**	**640**
Isopropylbenzene	10 U	2.0 U	20 U

IW-2-D1			
Depth (ft bgs)	(23 - 33)		
Date	2/20/2013	9/12/2013	1/13/2016
Benzene	**3.0 J**	1.0 U	**9.0 J**
Toluene	**3.1 J**	1.0 U	**6.4 J**
Ethylbenzene	4.0 U	1.0 U	10 U
Xylenes (total)	**5.7 J**	2.0 U	**21**
Methyl tert-butyl ether	**190**	**27**	**540**
Isopropylbenzene	4.0 U	1.0 U	10 U

OW-3-D1			
Depth (ft bgs)	(33 - 43)		
Date	2/21/2013	9/13/2013	1/13/2016
Benzene	5.0 U	5.0 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U
Xylenes (total)	10 U	10 U	10 U
Methyl tert-butyl ether	**150**	**65**	**250**
Isopropylbenzene	5.0 U	5.0 U	5.0 U

OW-2-D1			
Depth (ft bgs)	(29 - 33)		
Date	2/21/2013	9/11/2013	1/12/2016
Benzene	5.0 U [5.0 U]	5.0 U	**5.7**
Toluene	5.0 U [5.0 U]	5.0 U	5.0 U
Ethylbenzene	5.0 U [5.0 U]	5.0 U	5.0 U
Xylenes (total)	10 U [10 U]	10 U	**4.1 J**
Methyl tert-butyl ether	**160 [160]**	**34**	**240**
Isopropylbenzene	5.0 U [5.0 U]	5.0 U	5.0 U

MW-DR		
Depth(Feet)	(19 - 29)	
Date	1/26/2011	9/12/2013
Benzene	**9.5**	10 U
Toluene	5.0 U	10 U
Ethylbenzene	5.0 U	10 U
Xylenes (total)	10 U	20 U
Methyl tert-butyl ether	**7.6**	**2.7 J**
Isopropylbenzene	5.0 U	10 U

MW-27 CLUSTER								
	MW-27-D1				MW-27-D2			
Depth(feet)	(22 - 32)				(37 - 47)			
Date	1/18/2011	9/11/2013	1/13/2016	6/21/2016	1/18/2011	9/11/2013	1/13/2016	6/21/2016
Benzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**160**
Toluene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**17**
Ethylbenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**92**
Xylenes (total)	2.0 U	10 U	10 U	2.0 U	2.0 U	10 U	10 U	**68**
Methyl tert-butyl ether	**26**	**18**	5.0 U	**10**	1.0 U	**4.8 J**	5.0 U	**8.1**
Isopropylbenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**38**

ASB-5	
Depth (ft bgs)	(20 - 25)
Date	6/2/2016
Benzene	1.0 U
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	**0.89 J**
Methyl tert-butyl ether	**4.6**
Isopropylbenzene	1.0 U

AMW-14 CLUSTER						
	AMW-14-D1		AMW-14-D2		AMW-14-VD	
Depth(Feet)	(22 - 32)		(32 - 42)		(64 - 74)	
Date	6/24/2016	7/26/2016	6/23/2016	7/26/2016	6/23/2016	7/27/2016
Benzene	1.0 U	**4.3**	1.0 U	**0.88 J**	1.0 U	1.0 U [1.0 U]
Toluene	1.0 U	**7.1**	**0.81 J**	**0.64 J**	**10**	**8.2 [7.7]**
Ethylbenzene	1.0 U	**3.6**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Xylenes (total)	2.0 U	**11**	2.0 U	2.0 U	**0.79 J**	2.0 U [2.0 U]
Methyl tert-butyl ether	**12**	**140**	**3.1**	**24**	**0.91 J**	**0.59 J [0.58 J]**
Isopropylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]

MW-30 CLUSTER										
	MW-30-D1				MW-30-D2				MW-30-VD		
Depth(feet)	(22 - 32)				(37 - 47)				(77 - 87)		
Date	1/24/2011	9/8/2013	1/14/2016	6/22/2016	4/7/2011	9/10/2013	1/14/2016	6/22/2016	1/25/2011	9/10/2013	1/14/2016	6/22/2016
Benzene	**81 [87]**	**2.2**	**1.1**	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	**7.2 J**	10 U	1.0 U
Toluene	**0.55 J [0.56 J]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	**1.8 [1.8]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes (total)	2.0 U [2.0 U]	2.0 U	2.0 U	2.0 U	2.0 U [2.0 U]	4.0 U	4.0 U [10 U]	2.0 U	2.0 U	20 U	20 U	2.0 U
Methyl tert-butyl ether	**680 D [680 D]**	**15**	**94**	**53**	**1.0 U [0.42 J]**	**0.84 J**	**8.1 [7.3]**	**3**	**90**	**2.6 J**	10 U	**0.47 J**
Isopropylbenzene	**0.97 J [1.1]**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U

MW-35D	
Depth(feet)	(20 - 30)
Date	1/27/2011
Benzene	**3.7**
Toluene	1.0 U
Ethylbenzene	1.0 U
Xylenes (total)	**0.66 J**
Methyl tert-butyl ether	**3**
Isopropylbenzene	**17**

TOGs guidance value	(µg/L)
Benzene	1
Ethylbenzene	5
Isopropylbenzene	5
MTBE	10
Toluene	5
Xylenes	5

ASB-2	
Depth (ft bgs)	(20 - 25)
Date	6/6/2016
Benzene	**1.8**
Toluene	**0.87 J**
Ethylbenzene	1.0 U
Xylenes (total)	2.0 U
Methyl tert-butyl ether	**55**
Isopropylbenzene	1.0 U

MW-23 CLUSTER								
	MW-23-D1R				MW-23-D2R			
Depth(Feet)	(20.5 - 30.5)				(35 - 45)			
Date	1/19/2011	9/10/2013	1/12/2016	6/20/2016	1/20/2011	9/11/2013	1/12/2016	6/20/2016
Benzene	**21**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Toluene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Ethylbenzene	**2.4**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Xylenes (total)	**1.3 J**	10 U	10 U	2.0 U	2.0 U [2.0 U]	8.0 U	10 U	2.0 U
Methyl tert-butyl ether	**100 D**	**9.5**	**210**	**30**	**200 D [190 D]**	**200**	**130**	**26**
Isopropylbenzene	**18**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U

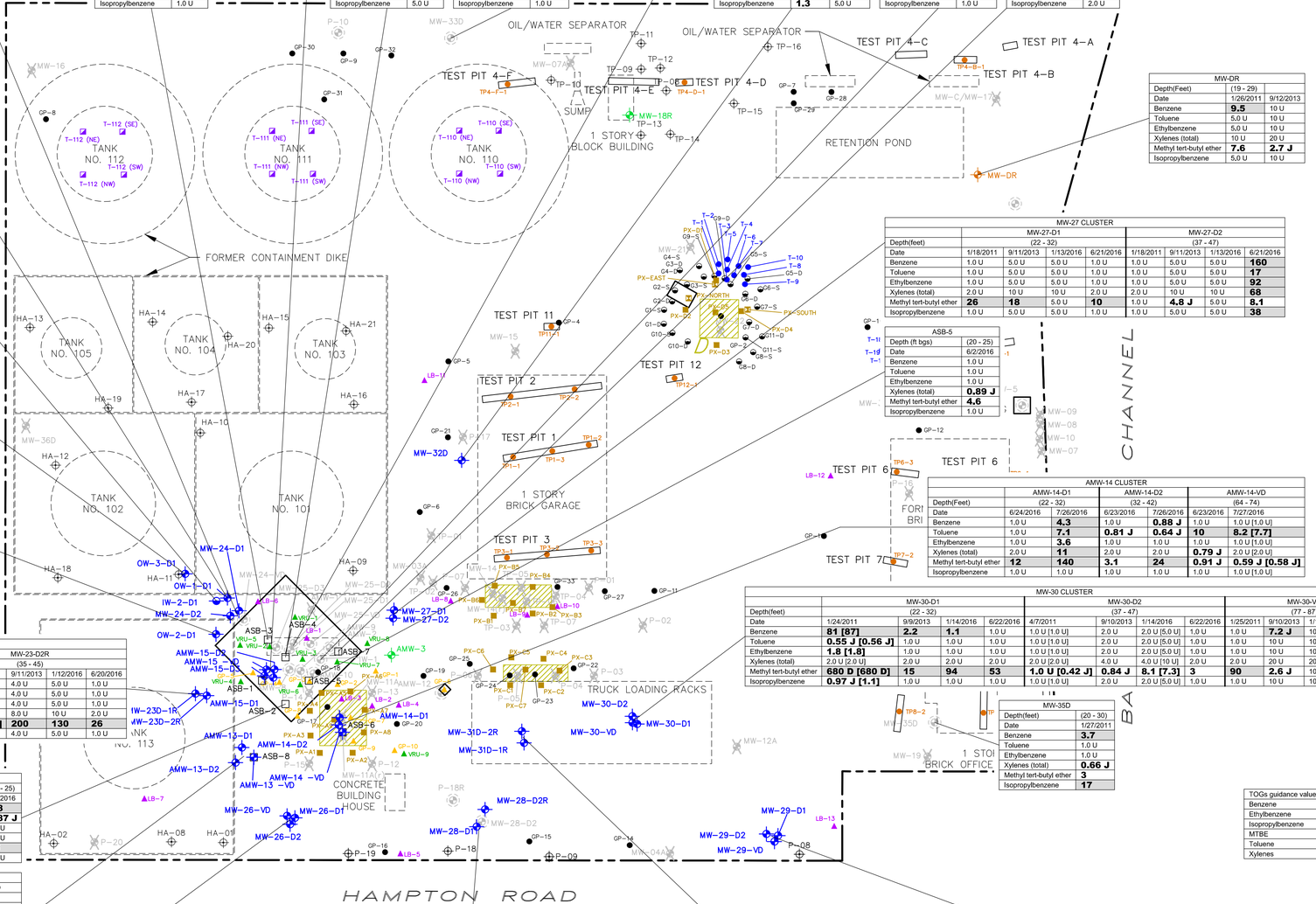
AMW-13 CLUSTER						
	AMW-13-D1		AMW-13-D2		AMW-13-VD	
Depth(Feet)	(22 - 32)		(32 - 42)		(60 - 70)	
Date	6/24/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
Benzene	1.0 U	**4.5**	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	**1.3**	1.0 U	**1.6**	**1.3**
Ethylbenzene	1.0 U	**1.8**	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**10**	**63 F1**	**3.5**	**41**	**5**	**3.4**
Isopropylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

MW-31 CLUSTER								
	MW-31-D1R				MW-31-D2R			
Depth(Feet)	(21 - 31)				(36 - 46)			
Date	1/21/2011	9/13/2013	1/14/2016	6/22/2016	1/21/2011	9/13/2013	1/14/2016	6/22/2016
Benzene	**5.6**	**98**	1.0 U	**1.1**	1.0 U	**11**	1.0 U	1.0 U
Toluene	**2.4**	**8.6**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Ethylbenzene	**5.3**	**4.5 J**	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Xylenes (total)	**12**	**7.8 J**	2.0 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U
Methyl tert-butyl ether	**20**	**12**	1.0 U	**3.3**	1.0 U	5.0 U	1.0 U	**0.32 J**
Isopropylbenzene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U

MW-26 CLUSTER												
	MW-26-D1				MW-26-D2				MW-26-VD			
Depth(feet)	(21 - 31)				(34 - 44)				(62 - 72)			
Date	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/18/2011	9/10/2013	1/13/2016	6/22/2016
Benzene	5.0 U	**7.7 [7.3]**	**9.1**	**9.3**	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Toluene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	**0.93 J**	10 U	1.0 U	1.0 U
Ethylbenzene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Xylenes (total)	10 U	10 U [10 U]	10 U	8.0 U	2.0 U	10 U	10 U	2.0 U	2.0 U	20 U	2.0 U	2.0 U
Methyl tert-butyl ether	5.0 U	**420 [410]**	**380**	**340**	1.0 U	**47**	5.0 U	**59**	**1.5**	10 U	1.0 U	**0.96 J**
Isopropylbenzene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U

MW-28 CLUSTER						
	MW-28-D1			MW-28-D2	MW-28-D2R	
Depth(feet)	(21.5 - 31.5)			(36.5 - 46.5)	(36.5 - 46.5)	
Date	1/25/2011	6/24/2016	7/28/2016	1/25/2011	6/24/2016	7/28/2016
Benzene	**12**	**2.1**	10 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	**4.2**	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	**0.91 J**	2.0 U	20 U	2.0 U	2.0 U	2.0 U
Methyl tert-butyl ether	**38**	**6.2**	**4.7 J**	**2.7**	1.0 U	**0.25 J**
Isopropylbenzene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U

MW-29 CLUSTER												
	MW-29-D1				MW-29-D2				MW-29-VD			
Depth(feet)	(21 - 31)				(36 - 46)				(57 - 67)			
Date	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016
Benzene	**130 D**	**87**	**81**	**6.3**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Toluene	**3.7**	**3.8 J**	5.0 U	**1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Xylenes (total)	**16**	**11**	10 U	**2**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U	20 U	2.0 U
Methyl tert-butyl ether	**550 D**	**85**	**34**	**23**	1.0 U	1.0 U	**66**	**51**	**15**	**140**	10 U	**0.42 J**
Isopropylbenzene	**16**	**18**	**24**	**5.4**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED NYSDEC TECHNICAL AND OPERATIONS GUIDANCE VALUES SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AD GUIDANCE VALUES ARE SHOWN.
6. ONLY EXCEEDANCES OF TOGS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. B = CONSISTUENT DETECTED IN METHOD BLANK.
9. D = CONCENTRAIONS BASED ON A DILUTED ANALYSIS.
10. E = INDICATES AN ESTIMATED VALUE.
11. J = INDICATES AN ESTIMATED VALUE.
12. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

0 40' 80'
GRAPHIC SCALE

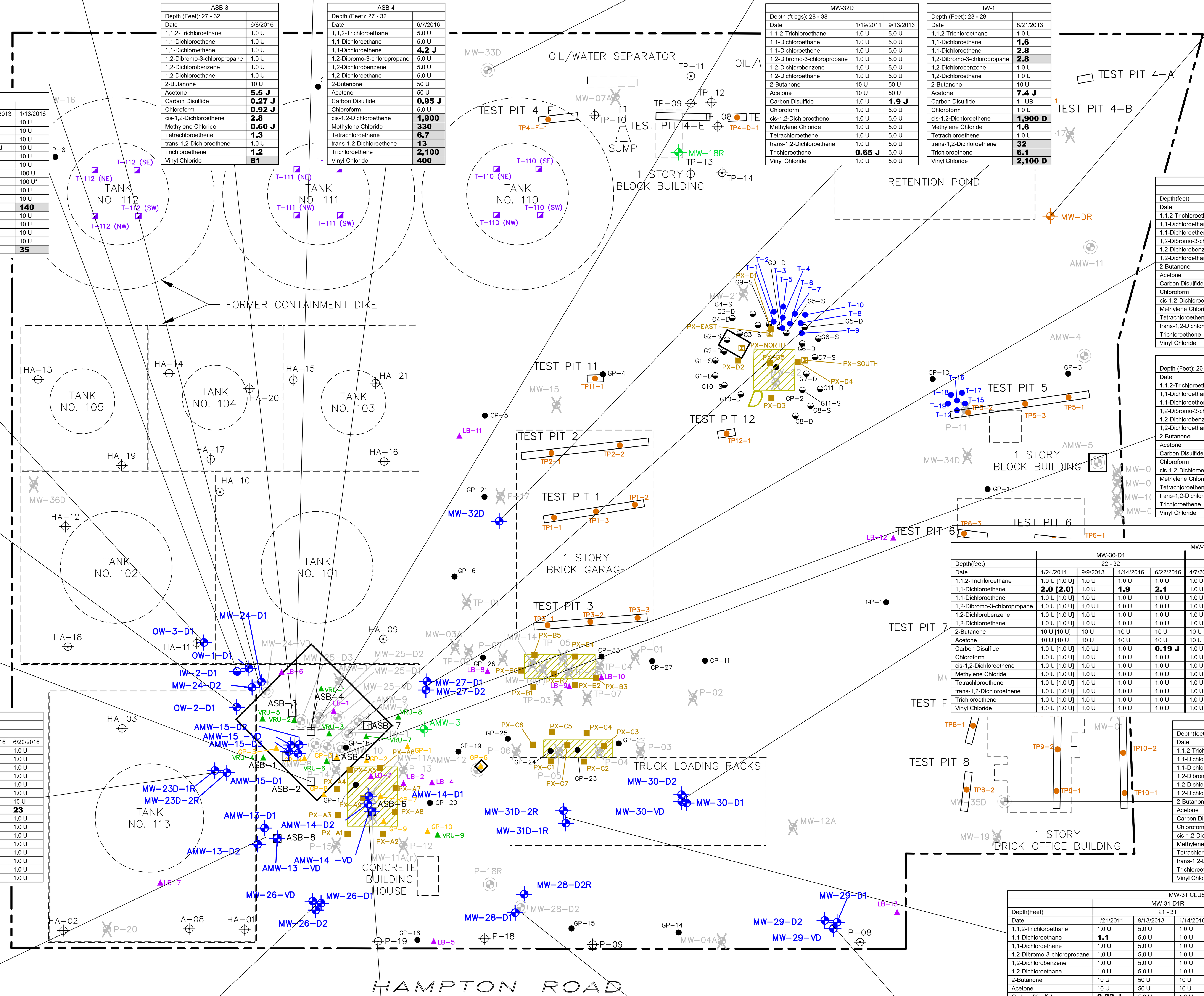
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TOGS EXCEEDANCES IN GROUNDWATER - LOWER SAND UNIT (BTEX)

ARCADIS Design & Consultancy for natural and built assets

FIGURE 11

CITY: SYRACUSE, NY   DIV/GROUP: ENV/IM-DV   DB: L. FORAKER, R. ALLEN   LD: PIC: J. VOGELEY   PM: W. McCUNE   TM: W. McCUNE   LYR: ON=*; OFF=*REF*
Z:\ENVCAD\SYRACUSE\ACT\B0047517\0023\00001\DWG\47517C06.DWG   LAYOUT: 12   SAVED: 11/23/2016 4:32 PM   ACADVER: 19.1S (LMS TECH)   PAGESETUP: C-LD-PDF-GMS   PLOTSTYLETABLE: PLTFULL.CTB   PLOTTED: 1/17/2017 3:56 PM   BY: HOWES, DAVID
XREFS: 47517X01 47517X00



MW-24 CLUSTER	MW-24-D1				MW-24-D2				MW-24-VD	
Depth(Feet)	21 - 31				36 - 46				67 - 77	
Date	1/19/2011	9/12/2013	1/13/2016	6/21/2016	1/19/2011	9/11/2013	1/13/2016	6/21/2016	1/19/2011	8/21/2013
1,1,2-Trichloroethane	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	**23**	25 U [25 U]	5.0 U	4.0 U	**3.8**	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	25 UJ [25 UJ]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 UJ
1,2-Dichlorobenzene	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	**0.61 J**	1.0 U
2-Butanone	10 U	250 U [250 U]	50 U	40 U	10 U	200 U	50 U [50 U]	10 U	10 U	10 U
Acetone	10 U	250 U [250 U]	50 U*	40 U	10 U	200 U	50 U* [50 U*]	10 U	10 U	**6.5 J**
Carbon Disulfide	1.0 U	25 U [25 U]	5.0 U	**1.6 J**	1.0 U	20 U	5.0 U [5.0 U]	**0.31 J**	1.0 U	**84 UB**
Chloroform	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	**7,400 D**	**2,200 [2,200]**	**10**	**4.9**	**1,200 D**	20 U	5.0 U [5.0 U]	**1.6**	1.0 U	**1.7**
Methylene Chloride	**0.76 J**	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	25 U [25 U]	5.0 U	4.0 U	1.0 U	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	**44**	**34 [34]**	5.0 U	**11**	**6.7**	20 U	5.0 U [5.0 U]	**0.98 J**	1.0 U	1.0 U
Trichloroethene	**65**	25 U [25 U]	5.0 U	4.0 U	**2.5**	20 U	5.0 U [5.0 U]	1.0 U	1.0 U	**1.4**
Vinyl Chloride	**1,800 D**	**1,600 [1,600]**	**99**	**35**	**300 D**	20 U	**170 [180]**	**38**	1.0 U	1.0 U

AMW-15 CLUSTER	AMW-15-D1		AMW-15-D2		AMW-15-D3		AMW-15-VD	
Depth(Feet)	23.5 - 33.5		30 - 40		40 - 50		60 - 70	
Date	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
2-Butanone	10 U	50 U	**1.3 J [10 U]**	10 U	10 U [10 U]	10 U	10 U	10 U
Acetone	**4.2 J**	50 U	**11 [9.3 J]**	**3.8 J**	**7.3 J [6.9 J]**	**3.6 J**	**3.2 J**	**8.3 J**
Carbon Disulfide	**0.46 J**	5.0 U	**1.6 [1.8]**	**0.42 J**	**4.6 [4.4]**	**1.4**	1.0 U	1.0 U
Chloroform	**0.51 J**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	**0.74 J**
cis-1,2-Dichloroethene	**20**	**220**	**3.0 [3.3]**	**1.7**	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Methylene Chloride	**9.9**	**140**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Tetrachloroethene	**0.43 J**	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Trichloroethene	**5.5**	**73**	1.0 U [1.0 U]	1.0 U	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U
Vinyl Chloride	**70**	**410**	**1.7 [1.8]**	**3.5**	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U

MW-33D	
Depth(feet): 22 - 33	
Date	1/27/2011
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	10 U
Carbon Disulfide	1.0 U
Chloroform	1.0 U
cis-1,2-Dichloroethene	1.0 U
Methylene Chloride	1.0 U
Tetrachloroethene	1.0 U
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	1.0 U
Vinyl Chloride	1.0 U

MW-25 CLUSTER	MW-25-D1		MW-25-D2			MW-25-D3		MW-25-VD	
Depth(feet)	20 - 30		35 - 45			44 - 54		67 - 77	
Date	1/19/2011	8/21/2013	1/19/2011	6/26/2013	8/21/2013	1/21/2011	8/21/2013	1/19/2011	8/21/2013
1,1,2-Trichloroethane	1.0 U	100 U [5.0 U]	**0.57 J**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	**2.3**	100 U [3.2J]	**2**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	**23**	**100 U [19]**	**5.7**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	100 UJ [5.0 UJ]	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 UJ
1,2-Dichlorobenzene	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	10 U	**12**	10 U	10 U
Acetone	10 U	1,000 U [50 U]	10 U	80,000 U	80,000 U	**5.3 J**	**49**	10 U	10 U
Carbon Disulfide	**12**	100 UB [26 UB]	**1.2**	8,000 U	8,000 U	**2**	**62 D**	**13**	**3.3 UB**
Chloroform	1.0 U	100 U [5.0 U]	1.0 U	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	**5,100 D**	**6,500 [7,600 D]**	**3,500 D**	**120,000**	**83,000**	**1.3**	**2.5**	**11**	1.0 U
Methylene Chloride	**340 D**	**540 [450]**	**3,700 D**	**110,000**	**100,000**	**43**	**53**	**3.4**	1.0 U
Tetrachloroethene	1.0 U	100 U [5.0 U]	**4.5**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	**58**	**100 UJ [62]**	1.0 U	8,000 U	8,000 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U
Trichloroethene	**110 D**	**96 J [96]**	**17,000 D**	**450,000**	**340,000**	**4.5**	**8.7**	**180 D**	1.0 U
Vinyl Chloride	**5,900 D**	**6,300 [6,100 D]**	**140 EJ**	8,000 U	8,000 U	1.0 U	1.0 U	1.0 U	1.0 U

MW-DR		
Depth(Feet): 19 - 29		
Date	1/26/2011	9/12/2013
1,1,2-Trichloroethane	5.0 U	10 U
1,1-Dichloroethane	5.0 U	10 U
1,1-Dichloroethene	5.0 U	10 U
1,2-Dibromo-3-chloropropane	5.0 U	10 UJ
1,2-Dichlorobenzene	5.0 U	10 U
1,2-Dichloroethane	5.0 U	10 U
2-Butanone	50 U	100 U
Acetone	50 U	100 U
Carbon Disulfide	5.0 U	10 UJ
Chloroform	5.0 U	10 U
cis-1,2-Dichloroethene	5.0 U	10 U
Methylene Chloride	5.0 U	10 U
Tetrachloroethene	5.0 U	10 U
trans-1,2-Dichloroethene	5.0 U	10 U
Trichloroethene	5.0 U	10 U
Vinyl Chloride	5.0 U	10 U

OW-1-D1			
Depth (ft bgs): 24 - 29			
Date	2/20/2013	9/12/2013	1/13/2016
1,1,2-Trichloroethane	10 U	2.0 U	20 U
1,1-Dichloroethane	10 U	2.0 U	20 U
1,1-Dichloroethene	10 U	2.0 U	20 U
1,2-Dibromo-3-chloropropane	10 U	2.0 UJ	20 U
1,2-Dichlorobenzene	10 U	2.0 U	20 U
1,2-Dichloroethane	10 U	2.0 U	20 U
2-Butanone	100 U	**19 J**	200 U
Acetone	100 U	**37**	200 U*
Carbon Disulfide	**6.8 J**	**8.8**	20 U
Chloroform	10 U	2.0 U	20 U
cis-1,2-Dichloroethene	**55**	**27**	**100**
Methylene Chloride	10 U	2.0 U	20 U
Tetrachloroethene	10 U	2.0 U	20 U
trans-1,2-Dichloroethene	10 U	2.0 U	20 U
Trichloroethene	10 U	2.0 U	20 U
Vinyl Chloride	10 U	**1.8 J**	**500**

IW-2-D1			
Depth (Feet): 23 - 33			
Date	2/20/2013	9/12/2013	1/13/2016
1,1,2-Trichloroethane	4.0 U	1.0 U	10 U
1,1-Dichloroethane	4.0 U	1.0 U	10 U
1,1-Dichloroethene	4.0 U	1.0 U	10 U
1,2-Dibromo-3-chloropropane	4.0 U	1.0 UJ	10 U
1,2-Dichlorobenzene	4.0 U	1.0 U	10 U
1,2-Dichloroethane	4.0 U	1.0 U	10 U
2-Butanone	40 U	10 U	100 U
Acetone	**19 J**	10 U	100 U*
Carbon Disulfide	4.0 U	1.0 U	10 U
Chloroform	4.0 U	1.0 U	10 U
cis-1,2-Dichloroethene	**34**	1.0 U	**140**
Methylene Chloride	4.0 U	1.0 U	10 U
Tetrachloroethene	4.0 U	1.0 U	10 U
trans-1,2-Dichloroethene	4.0 U	1.0 U	10 U
Trichloroethene	4.0 U	1.0 U	10 U
Vinyl Chloride	4.0 U	1.0 U	**35**

OW-3-D1			
Depth (ft bgs): 33 - 43			
Date	2/21/2013	9/13/2013	1/13/2016
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U
2-Butanone	50 U	**36 J**	50 U
Acetone	50 U	**220**	50 U*
Carbon Disulfide	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U
Methylene Chloride	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U

OW-2-D1			
Depth (ft bgs): 29 - 33			
Date	2/21/2013	9/11/2013	1/12/2016
1,1,2-Trichloroethane	5.0 U [5.0 U]	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U [5.0 U]	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U [5.0 U]	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U [5.0 U]	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U [5.0 U]	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U [5.0 U]	5.0 U	5.0 U
2-Butanone	50 U [50 U]	50 U	50 U
Acetone	**29 J [34 J]**	50 U	50 U*
Carbon Disulfide	**1.2 J [1.2 J]**	**66**	5.0 U
Chloroform	5.0 U [5.0 U]	5.0 U	5.0 U
cis-1,2-Dichloroethene	**5.2 [4.8 J]**	5.0 U	**50**
Methylene Chloride	5.0 U [5.0 U]	5.0 U	5.0 U
Tetrachloroethene	5.0 U [5.0 U]	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U [5.0 U]	5.0 U	5.0 U
Trichloroethene	5.0 U [5.0 U]	5.0 U	**10**
Vinyl Chloride	5.0 U [5.0 U]	5.0 U	**32**

ASB-2	
Depth (Feet): 20 - 25	
Date	6/6/2016
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	**20**
Carbon Disulfide	**1.1**
Chloroform	**14**
cis-1,2-Dichloroethene	**5.6**
Methylene Chloride	1.0 U
Tetrachloroethene	**1.4**
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	**4.4**
Vinyl Chloride	**6.0**

ASB-3	
Depth (Feet): 27 - 32	
Date	6/8/2016
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	**5.5 J**
Carbon Disulfide	**0.27 J**
Chloroform	**0.92 J**
cis-1,2-Dichloroethene	**2.8**
Methylene Chloride	**0.60 J**
Tetrachloroethene	**1.3**
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	**1.2**
Vinyl Chloride	**81**

ASB-4	
Depth (Feet): 27 - 32	
Date	6/7/2016
1,1,2-Trichloroethane	5.0 U
1,1-Dichloroethane	5.0 U
1,1-Dichloroethene	**4.2 J**
1,2-Dibromo-3-chloropropane	5.0 U
1,2-Dichlorobenzene	5.0 U
1,2-Dichloroethane	5.0 U
2-Butanone	50 U
Acetone	50 U
Carbon Disulfide	**0.95 J**
Chloroform	5.0 U
cis-1,2-Dichloroethene	**1,900**
Methylene Chloride	**330**
Tetrachloroethene	**6.7**
trans-1,2-Dichloroethene	**13**
Trichloroethene	**2,100**
Vinyl Chloride	**400**

MW-32D		
Depth (ft bgs): 28 - 38		
Date	1/19/2011	9/13/2013
1,1,2-Trichloroethane	1.0 U	5.0 U
1,1-Dichloroethane	1.0 U	5.0 U
1,1-Dichloroethene	1.0 U	5.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U
1,2-Dichloroethane	1.0 U	5.0 U
2-Butanone	10 U	50 U
Acetone	10 U	50 U
Carbon Disulfide	1.0 U	**1.9 J**
Chloroform	1.0 U	5.0 U
cis-1,2-Dichloroethene	1.0 U	5.0 U
Methylene Chloride	1.0 U	5.0 U
Tetrachloroethene	1.0 U	5.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U
Trichloroethene	**0.65 J**	5.0 U
Vinyl Chloride	1.0 U	5.0 U

IW-1	
Depth (Feet): 23 - 28	
Date	8/21/2013
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	**1.6**
1,1-Dichloroethene	**2.8**
1,2-Dibromo-3-chloropropane	**2.8**
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	**7.4 J**
Carbon Disulfide	11 UB
Chloroform	1.0 U
cis-1,2-Dichloroethene	**1,900 D**
Methylene Chloride	**1.6**
Tetrachloroethene	1.0 U
trans-1,2-Dichloroethene	**32**
Trichloroethene	**6.1**
Vinyl Chloride	**2,100 D**

MW-27 CLUSTER	MW-27-D1				MW-27-D2			
Depth(feet)	22 - 32				37 - 47			
Date	1/18/2011	9/11/2013	1/13/2016	6/21/2016	1/18/2011	9/11/2013	1/13/2016	6/21/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,1-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	**0.44 J**	5.0 U	5.0 U	4.0 U
1,1-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
1,2-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
2-Butanone	10 U	50 U	50 U	**1.7 J**	10 U	50 U	50 U	**8.2 J**
Acetone	10 U	50 U	**53**	**5.0 J**	10 U	50 U	50 U*	**38 J**
Carbon Disulfide	1.0 U	**1.0 J**	5.0 U	**0.66 J**	1.0 U	**1.0 J**	5.0 U	4.0 U
Chloroform	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
cis-1,2-Dichloroethene	**29**	5.0 U	5.0 U	**1**	1.0 U	5.0 U	5.0 U	4.0 U
Methylene Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	**5.7**
Tetrachloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
Trichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	4.0 U
Vinyl Chloride	1.0 U	5.0 U	5.0 U	**0.97 J**	1.0 U	5.0 U	5.0 U	4.0 U

ASB-7	
Depth (Feet): 20 - 25	
Date	6/2/2016
1,1,2-Trichloroethane	2.0 U
1,1-Dichloroethane	2.0 U
1,1-Dichloroethene	2.0 U
1,2-Dibromo-3-chloropropane	2.0 U
1,2-Dichlorobenzene	2.0 U
1,2-Dichloroethane	2.0 U
2-Butanone	20 U
Acetone	20 U
Carbon Disulfide	**1.1 J**
Chloroform	**21**
cis-1,2-Dichloroethene	**67**
Methylene Chloride	2.0 U
Tetrachloroethene	**1.2 J**
trans-1,2-Dichloroethene	2.0 U
Trichloroethene	**1.7 J**
Vinyl Chloride	**31**

ASB-5	
Depth (Feet): 20 - 25	
Date	6/2/2016
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	**1.4 J**
Acetone	**12**
Carbon Disulfide	**0.53 J**
Chloroform	**19**
cis-1,2-Dichloroethene	**2.2**
Methylene Chloride	1.0 U
Tetrachloroethene	**1.2**
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	**4.8**
Vinyl Chloride	**11**

MW-30 CLUSTER	MW-30-D1				MW-30-D2				MW-30-VD			
Depth(feet)	22 - 32				37 - 47				77 - 87			
Date	1/24/2011	9/9/2013	1/14/2016	6/22/2016	4/7/2011	9/10/2013	1/14/2016	6/22/2016	1/25/2011	9/10/2013	1/14/2016	6/22/2016
1,1,2-Trichloroethane	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	**2.0 [2.0]**	1.0 U	**1.9**	**2.1**	1.0 U [1.0 U]	2.0 U	**2.9 [3.2 J]**	**0.87 J**	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U [1.0 U]	1.0 UJ	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**5.0**	10 U	10 U	1.0 U
1,2-Dichloroethane	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**1.5 J**	10 U	10 U	1.0 U
2-Butanone	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U	10 U
Acetone	10 U [10 U]	10 U	10 U	10 U	10 U [10 U]	20 U	20 U [50 U]	10 U	10 U	100 U	100 U	**5.9 J**
Carbon Disulfide	1.0 U [1.0 U]	1.0 UJ	1.0 U	**0.19 J**	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**7.1**	10 U	10 U	1.0 U
Chloroform	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U
Trichloroethene	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	**4.1**	10 U	10 U	1.0 U
Vinyl Chloride	1.0 U [1.0 U]	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]	2.0 U	2.0 U [5.0 U]	1.0 U	1.0 U	10 U	10 U	1.0 U

MW-35D	
Depth(feet): 20 - 30	
Date	1/27/2011
1,1,2-Trichloroethane	1.0 U
1,1-Dichloroethane	1.0 U
1,1-Dichloroethene	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U
1,2-Dichlorobenzene	1.0 U
1,2-Dichloroethane	1.0 U
2-Butanone	10 U
Acetone	10 U
Carbon Disulfide	**0.87 J**
Chloroform	1.0 U
cis-1,2-Dichloroethene	1.0 U
Methylene Chloride	1.0 U
Tetrachloroethene	1.0 U
trans-1,2-Dichloroethene	1.0 U
Trichloroethene	1.0 U
Vinyl Chloride	1.0 U

TOGs guidance value	(μg/L)
Acenaphthalene	20
Acetone	50
Bis(2-ethylhexyl)phthalate	5
Butylbenzylphthalate	50
Chloroform	7
cis-1,2-Dichloroethene	5
Methylene Chloride	5
Naphthalene	10
Phenol	1
TCE	5
Tetrachloroethene	5
trans-1,2-Dichloroethene	5
Vinyl Chloride	2

MW-23 CLUSTER	MW-23-D1R				MW-23-D2R			
Depth(Feet)	20.5 - 30.5				35 - 45			
Date	1/19/2011	9/10/2013	1/12/2016	6/20/2016	1/20/2011	9/11/2013	1/12/2016	6/20/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,1-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,1-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
2-Butanone	10 U	50 U	50 U	10 U	10 U [10 U]	40 U	50 U	10 U
Acetone	10 U	50 U	50 U*	**6.4 J**	10 U [10 U]	40 U	50 U*	**23**
Carbon Disulfide	1.0 U	5.0 U	5.0 U	1.0 U	**1.3 [1.2]**	**1.2 J**	5.0 U	1.0 U
Chloroform	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Methylene Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Tetrachloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Trichloroethene	**2.6**	5.0 U	5.0 U	1.0 U	1.0 U [1.0 U]	4.0 U	5.0 U	1.0 U
Vinyl Chloride	1.0 U	5.0 U	5.0 U	1.0 U	**7.8 [6.5]**	4.0 U	5.0 U	1.0 U

AMW-13 CLUSTER	AMW-13-D1		AMW-13-D2		AMW-13-VD	
Depth(Feet)	22 - 32		32 - 42		60 - 70	
Date	6/24/2016	7/27/2016	6/23/2016	7/27/2016	6/23/2016	7/27/2016
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	10 U	10 U	10 U	10 U	**3.2 J**	**5.8 J**
Acetone	**6.5 J**	**3.4 J**	**3.2 J**	**4.8 J**	**18**	**46**
Carbon Disulfide	**2.7**	**2.8**	**0.66 J**	**12**	1.5	**7.9**
Chloroform	**0.37 J**	1.0 U	**0.36 J**	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	**0.38 J**	1.0 U	**0.57 J**	1.0 U	**1.5**	**1**
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl Chloride	**1.3**	**9.9**	1.0 U	1.0 U	1.0 U	1.0 U

MW-26 CLUSTER	MW-26-D1				MW-26-D2				MW-26-VD			
Depth(feet)	21 - 31				34 - 44				62 - 72			
Date	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/25/2011	9/10/2013	1/12/2016	6/22/2016	1/18/2011	9/10/2013	1/13/2016	6/22/2016
1,1,2-Trichloroethane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	**0.51 J**	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
1,2-Dichloroethane	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
2-Butanone	**31 J**	50 U [50 U]	50 U	40 U	10 U	50 U	50 U	10 U	**53**	100 U	10 U	10 U
Acetone	**74 J**	50 U [50 U]	50 U*	40 U	10 U	50 U	50 U*	10 U	**84**	100 U	10 U*	**170**
Carbon Disulfide	**37**	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	**1.4**	**59**	10 U	1.0 U	**0.19 J**
Chloroform	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	**0.86 J**	1.0 U	10 U	1.0 U	1.0 U
Methylene Chloride	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Tetrachloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Trichloroethene	5.0 U	5.0 U [5.0 U]	5.0 U	4.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U
Vinyl Chloride	5.0 U	**13 [11]**	**16**	**20**	1.0 U	5.0 U	5.0 U	**1.2**	1.0 U	10 U	1.0 U	1.0 U

AMW-14 CLUSTER	AMW-14-D1		AMW-14-D2		AMW-14-VD	
Depth(Feet)	22 - 32		32 - 42		64 - 74	
Date	6/24/2016	7/26/2016	6/23/2016	7/26/2016	6/23/2016	7/27/2016
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethane	1.0 U	0.91 J	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
2-Butanone	10 U	10 U	10 U	10 U	**3.9 J**	10 U [10 U]
Acetone	**4.6 J**	**3.9 J**	**3.3 J**	**3.1 J**	**22**	**8.9 J [9.6 J]**
Carbon Disulfide	**2.6**	**2.8**	**5.5**	**12**	**0.63 J**	**9.9 [8.4]**
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.37 J [1.0 U]**
cis-1,2-Dichloroethene	1.0 U	**1**	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	**0.59 J**	**0.41 J [0.38 J]**
trans-1,2-Dichloroethene	1.0 U	**7.8**	1.0 U	**0.90 J**	1.0 U	1.0 U [1.0 U]
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U [1.0 U]
Vinyl Chloride	**1.4**	**2,100**	1.0 U	**3.6**	1.0 U	1.0 U [1.0 U]

MW-28 CLUSTER	MW-28-D1			MW-28-D2	MW-28-D2R	
Depth(feet)	21.5 - 31.5			36.5 - 46.5	36.5 - 46.5	
Date	1/25/2011	6/24/2016	7/28/2016	1/25/2011	6/24/2016	7/28/2016
1,1,2-Trichloroethane	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	**1.1**	**0.76 J**	10 U	**0.87 J**	**0.48 J**	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	1.0 U	10 U	1.0 U	**0.21 J**	1.0 U
2-Butanone	10 U	**2.3 J**	100 U	10 U	10 U	10 U
Acetone	**4.2 J**	**45**	**280**	**4.2 J**	**3.3 J**	**4.4 J**
Carbon Disulfide	1.0 U	**1**	10 U	1.0 U	1.0 U	**0.52 J**
Chloroform	1.0 U	1.0 U	10 U	1.0 U	1.0 U	**0.51 J**
cis-1,2-Dichloroethene	**1.1**	1.0 U	10 U	**6.6**	1.0 U	1.0 U
Methylene Chloride	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	10 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	10 U	**0.51 J**	1.0 U	1.0 U
Vinyl Chloride	**1.4**	1.0 U	10 U	1.0 U	1.0 U	1.0 U

MW-29 CLUSTER	MW-29-D1				MW-29-D2				MW-29-VD			
Depth(feet)	21 - 31				36 - 46				57 - 67			
Date	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016	1/25/2011	9/10/2013	1/14/2016	6/21/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**7.3**	**4.8**	**2.6**	**4.9 J**	10 U	1.0 U
1,1-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
2-Butanone	10 U	50 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	100 U	100 U	10 U
Acetone	**8.9 J**	50 U	**25 J**	**9.5 J**	**4.8 J**	10 U	10 U	10 U	10 U	100 U	100 U	10 U
Carbon Disulfide	1.0 U	5.0 U	5.0 U	1.0 U	**2.4**	1.0 U	1.0 U	**0.62 J**	1.0 U	10 U	10 U	1.0 U
Chloroform	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Methylene Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Trichloroethene	1.0 U	5.0 U	5.0 U	1.0 U	**0.86 J**	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U
Vinyl Chloride	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U

MW-31 CLUSTER	MW-31-D1R				MW-31-D2R			
Depth(Feet)	21 - 31				36 - 46			
Date	1/21/2011	9/13/2013	1/14/2016	6/22/2016	1/21/2011	9/13/2013	1/14/2016	6/22/2016
1,1,2-Trichloroethane	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,1-Dichloroethane	**1.1**	5.0 U	1.0 U	1.0 U	**0.99 J**	5.0 U	1.0 U	**0.94 J**
1,1-Dichloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
1,2-Dichloroethane	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
2-Butanone	10 U	50 U	10 U	10 U	10 U	50 U	10 U	10 U
Acetone	10 U	50 U	10 U	**11**	**3.9 J**	50 U	10 U	10 U
Carbon Disulfide	**0.83 J**	5.0 U	1.0 U	**0.32 J**	**0.58 J**	5.0 U	1.0 U	1.0 U
Chloroform	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	**2.1**	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Methylene Chloride	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**3.1 J**	1.0 U	1.0 U
Vinyl Chloride	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U

LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURES

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN-GULF OIL COMPANY-U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L) AND DEPTH INTERVALS ARE IN FEET BELOW CURRENT GROUNDSURFACE.
5. BOLDED VALUES ARE DETECTIONS AND SHADED VALUES EXCEED NYSDEC TECHNICAL AND OPERATIONS GUIDANCE VALUES SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES ARE SHOWN.
6. ONLY EXCEEDANCES OF TOGS ARE SHOWN IN DATABOXES.
7. DUPLICATE RESULTS ARE SHOWN IN BRACKETS.
8. B = CONSISTUENT DETECTED IN METHOD BLANK.
9. D = CONCENTRAIONS BASED ON A DILUTED ANALYSIS.
10. E = INDICATES AN ESTIMATED VALUE.
11. F1 =MS AND/OR MSD RECOVERY IS OUTSIDE ACCEPTANCE LIMITS.
12. J = INDICATES AN ESTIMATED VALUE.
13. U = CONSTITUENT NOT DETECTED. LISTED VALUE IS ASSOCIATED DETECTION LIMIT.

0 40' 80'
GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

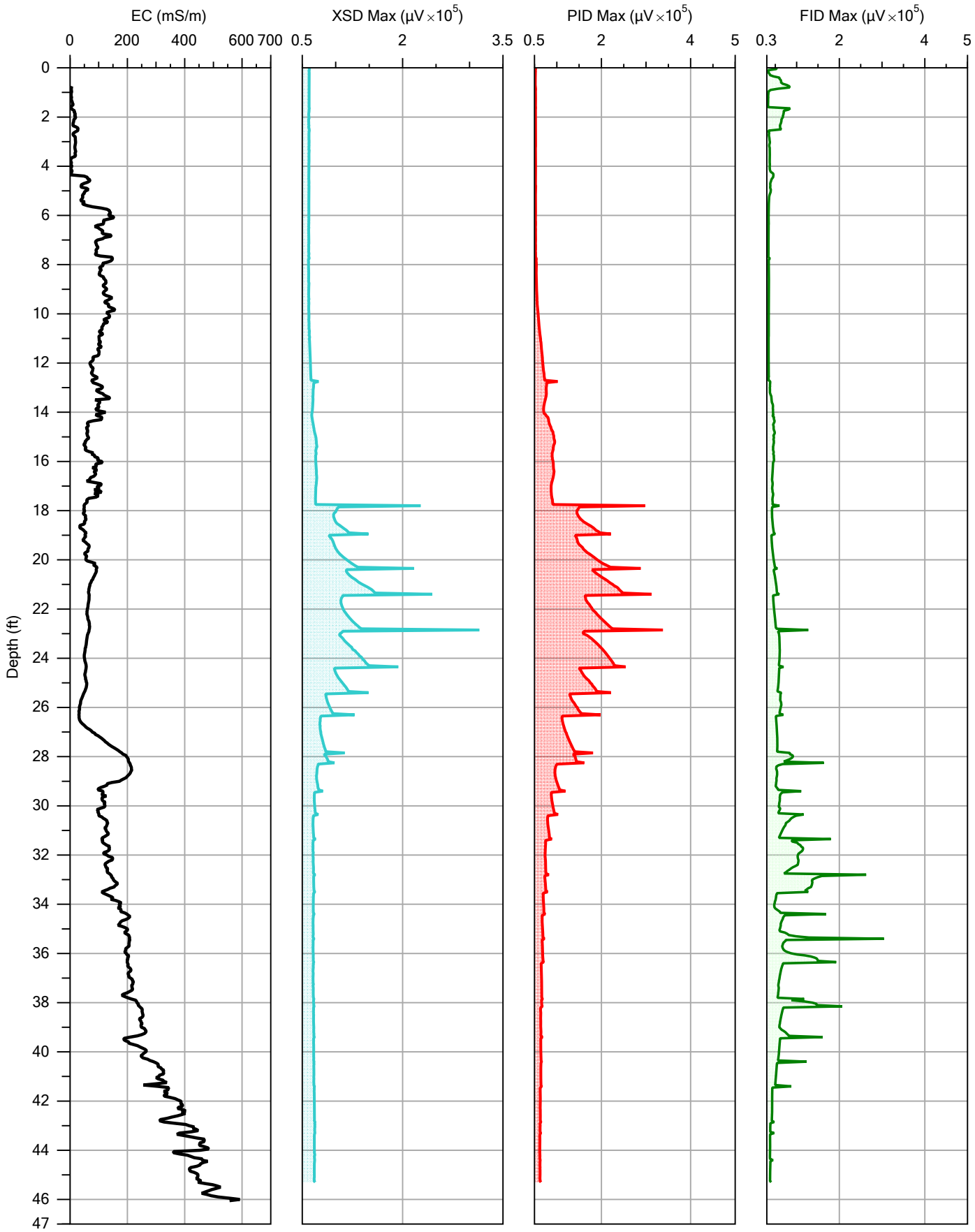
TOGS EXCEEDANCES IN GROUNDWATER - LOWER SAND UNIT (CVOCs)

ARCADIS Design & Consultancy for natural and built assets

FIGURE 12

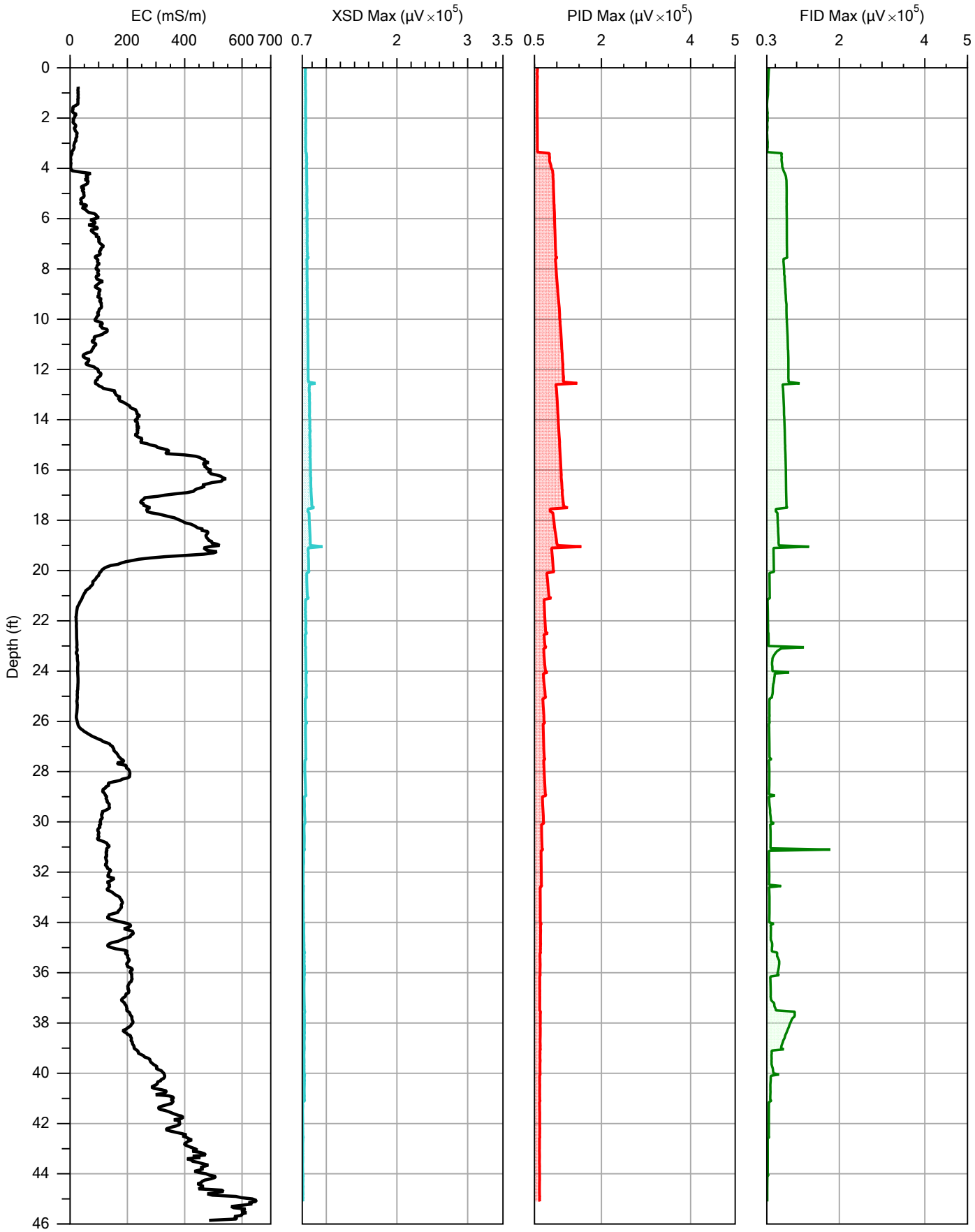
APPENDIX A

MIPs Data



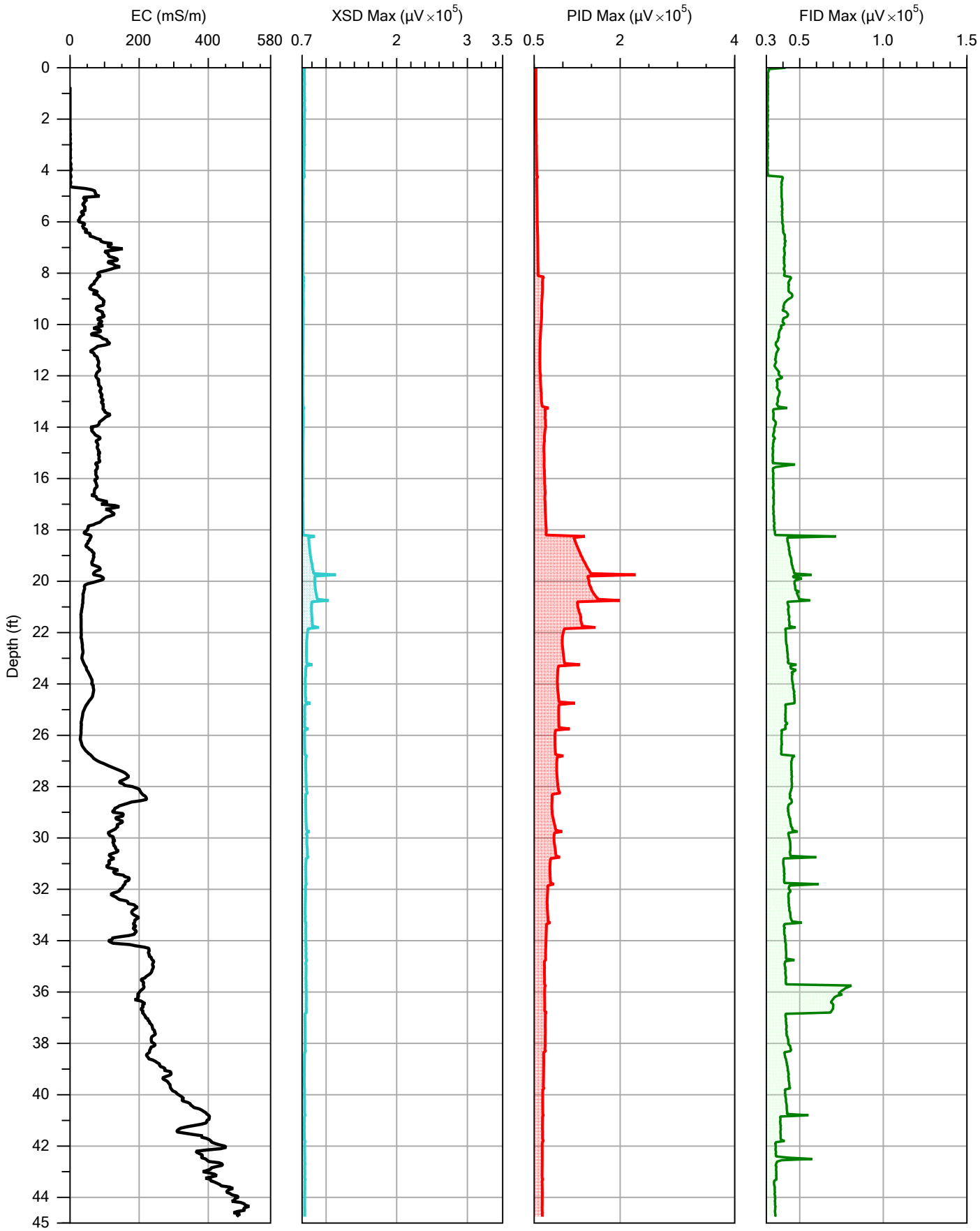
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-01.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/16/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



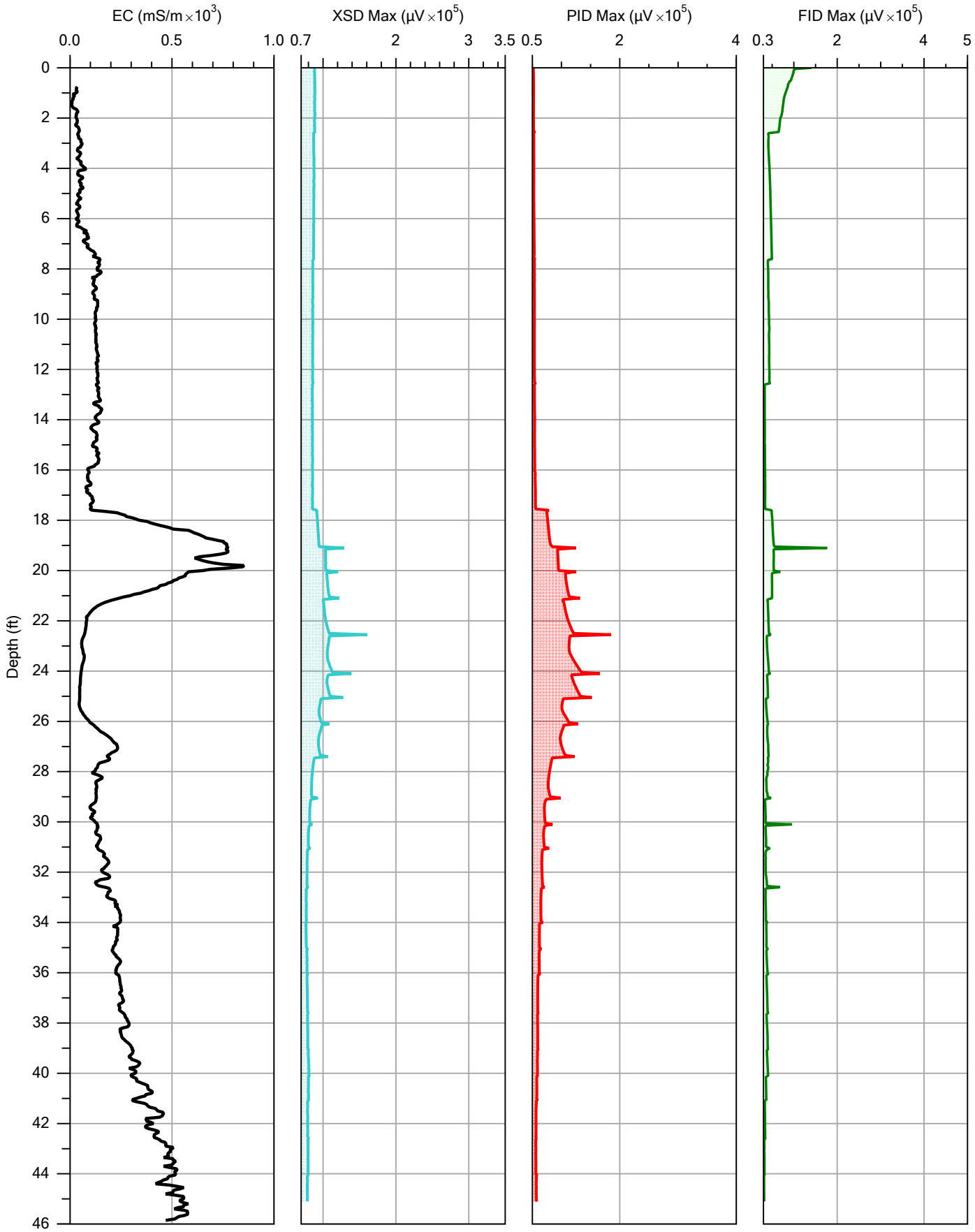
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-02.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/16/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



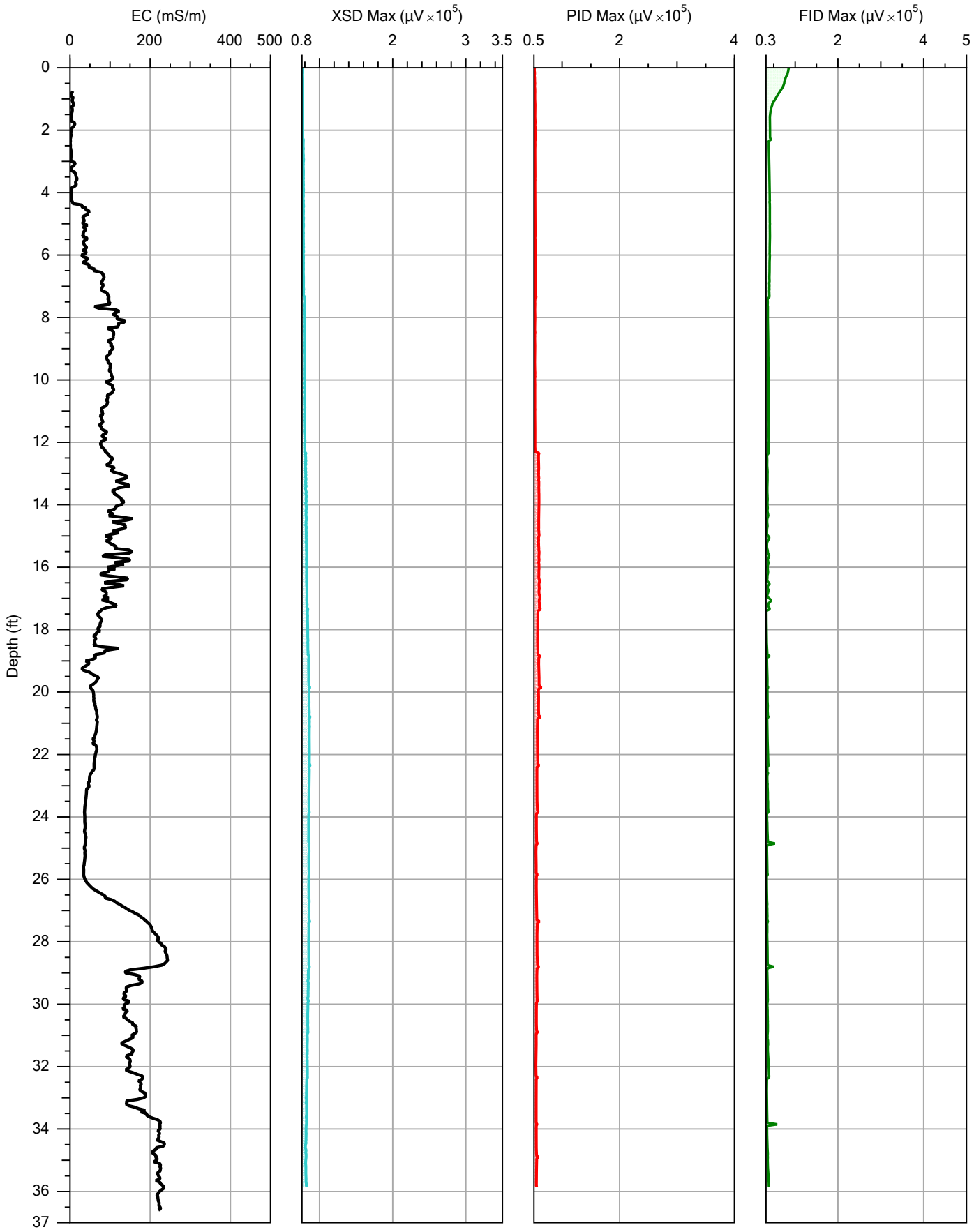
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-03.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/17/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



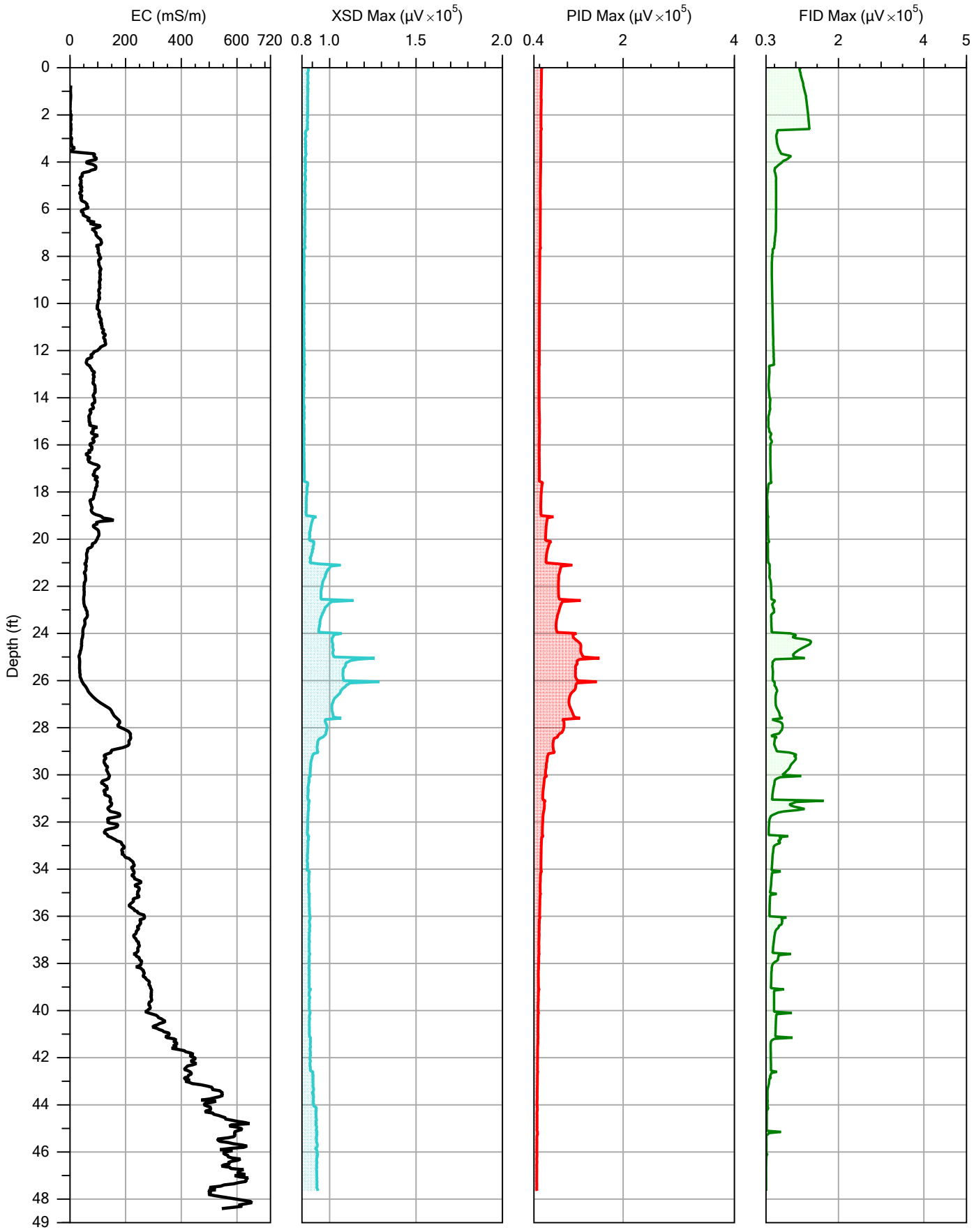
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-04.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/17/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



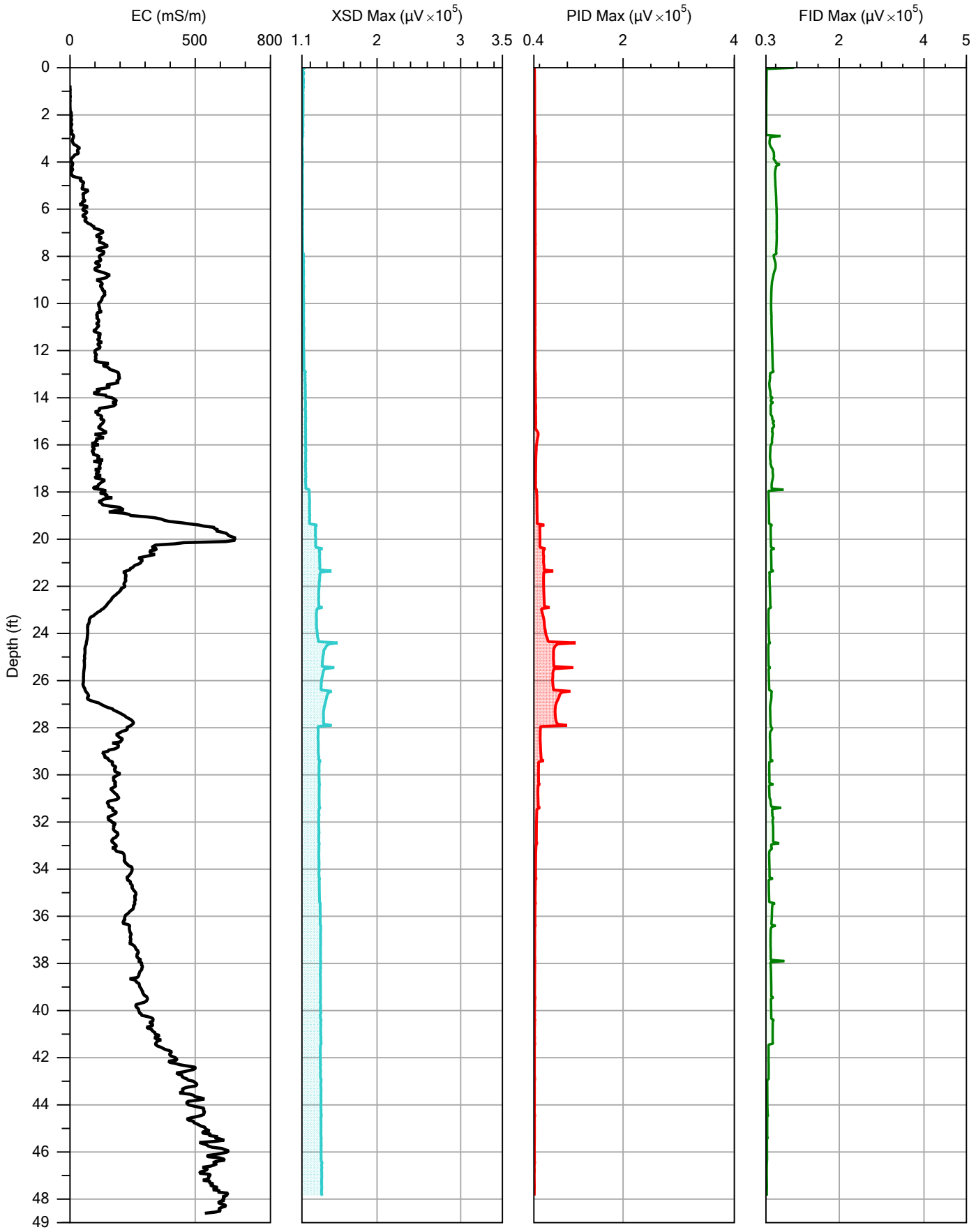
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-05.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/17/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



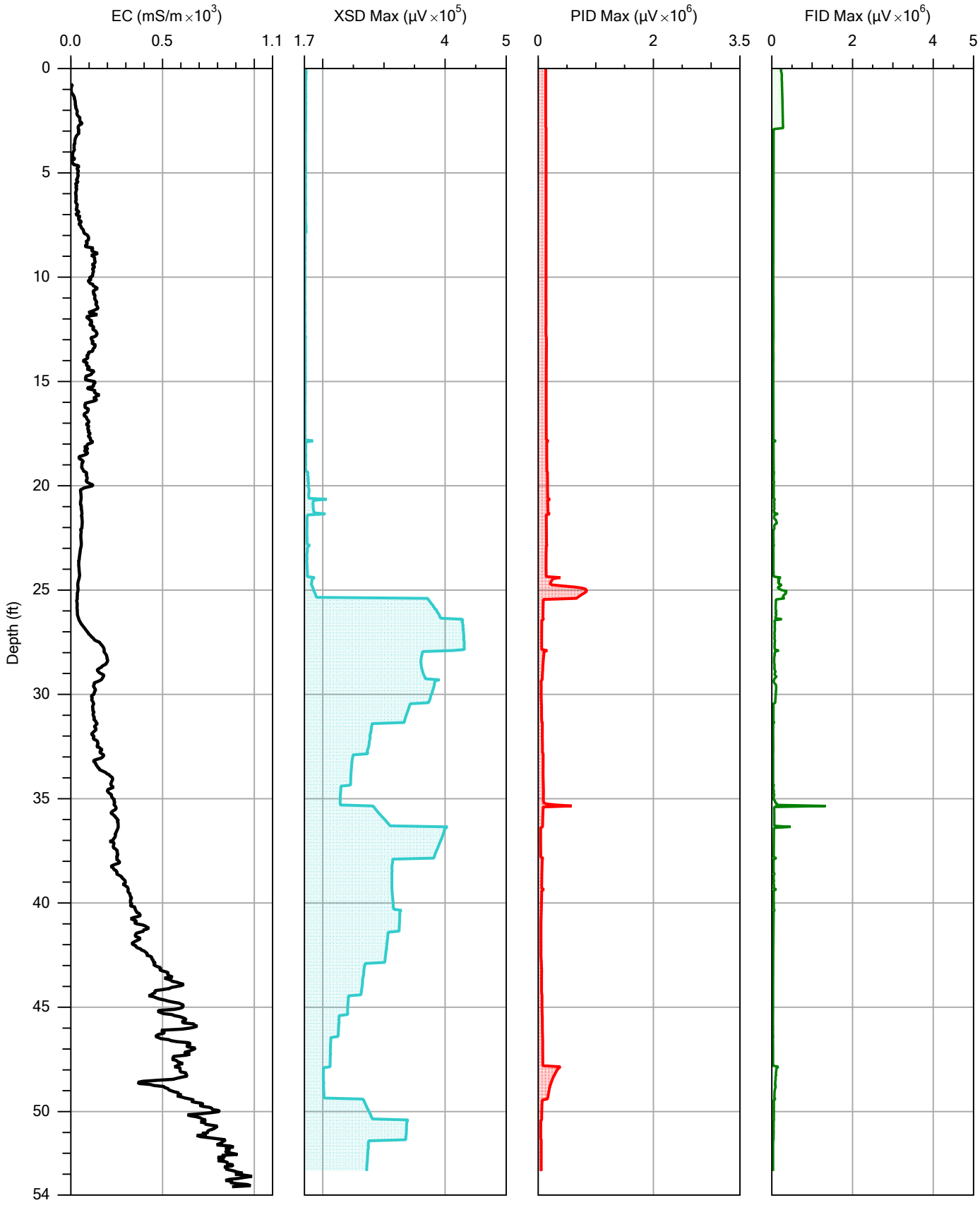
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-06.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/18/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



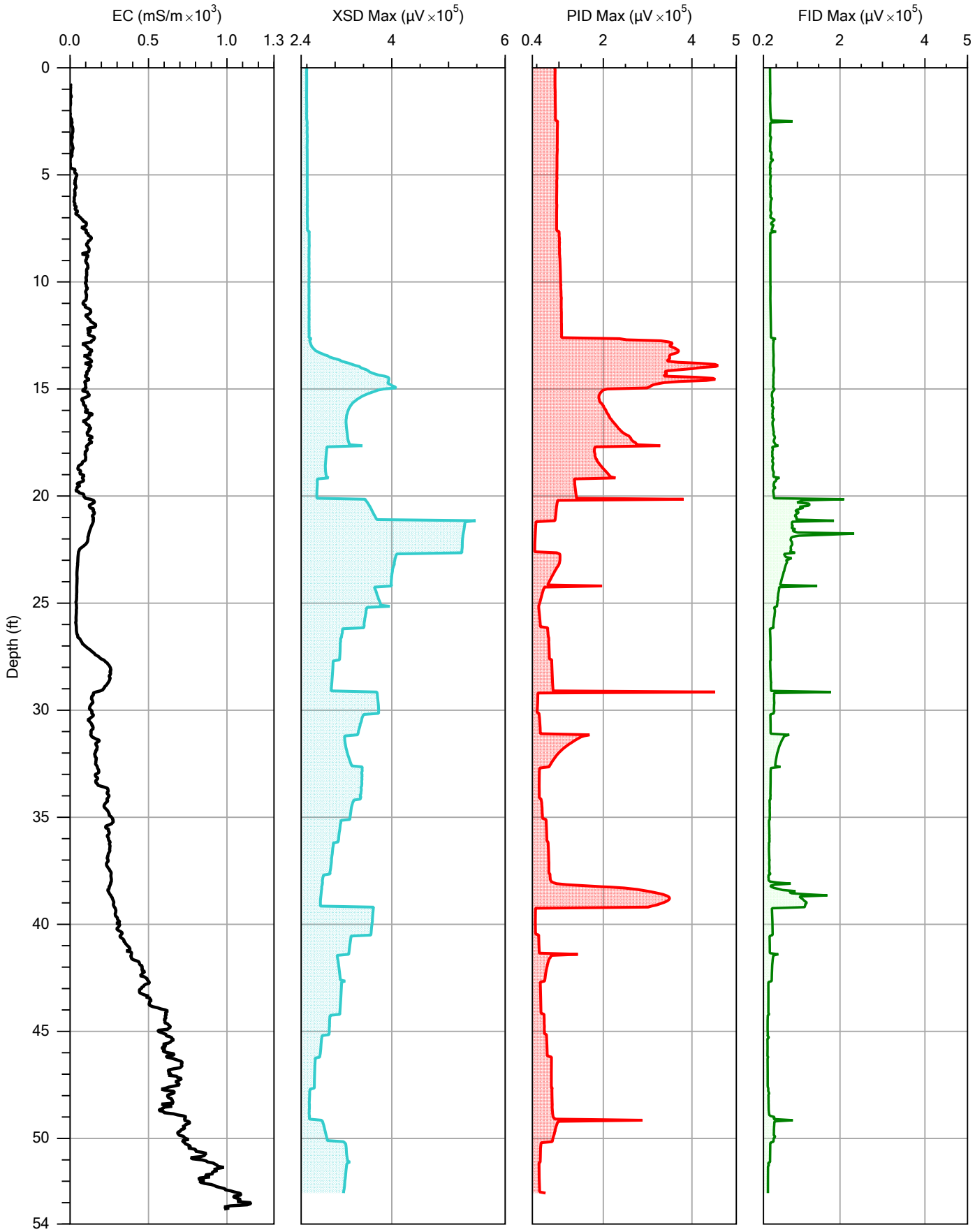
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-07.MIP
Company:	Operator:	Date: 2/18/2016
Project ID:	Client:	Location:



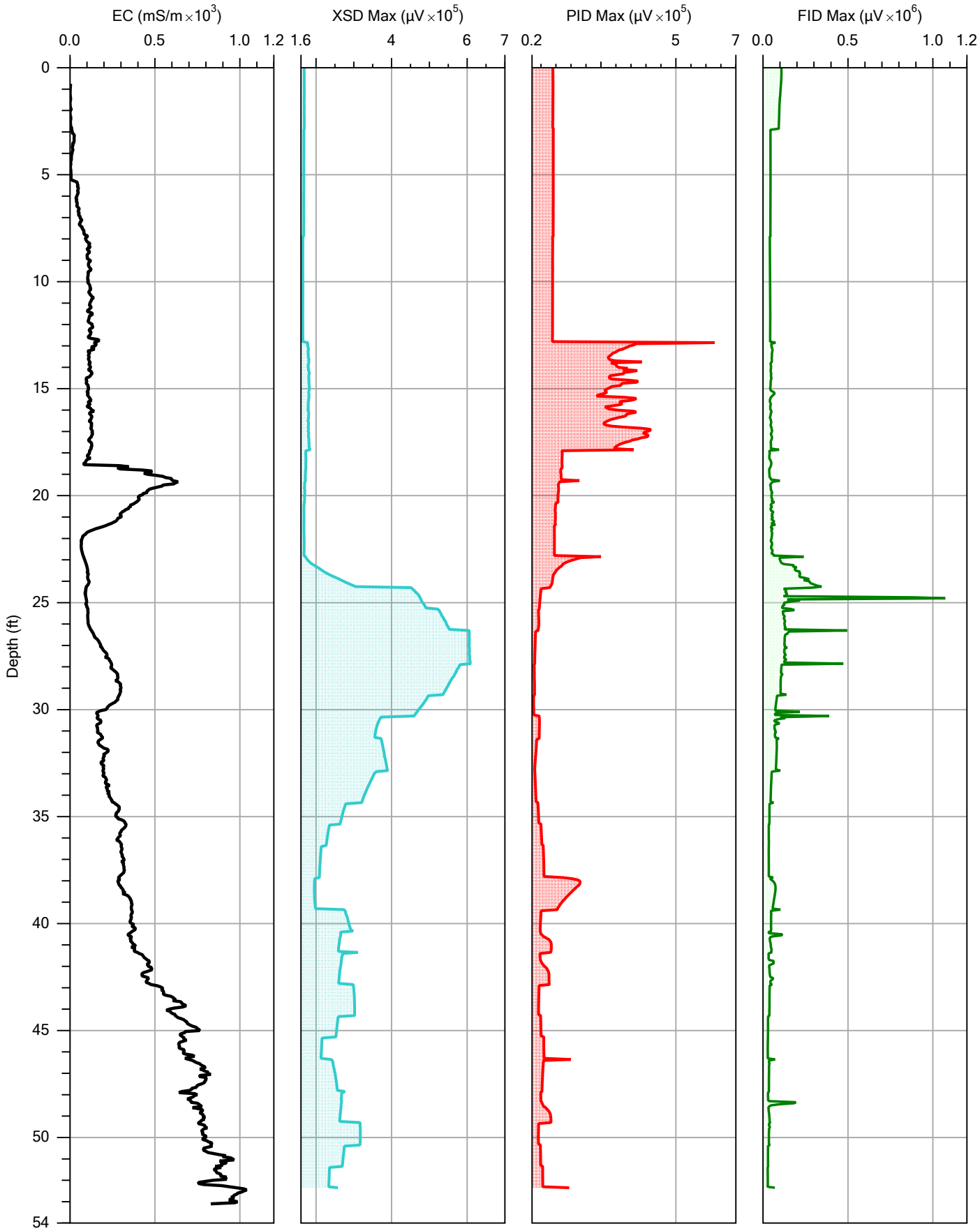
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-08A.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/18/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



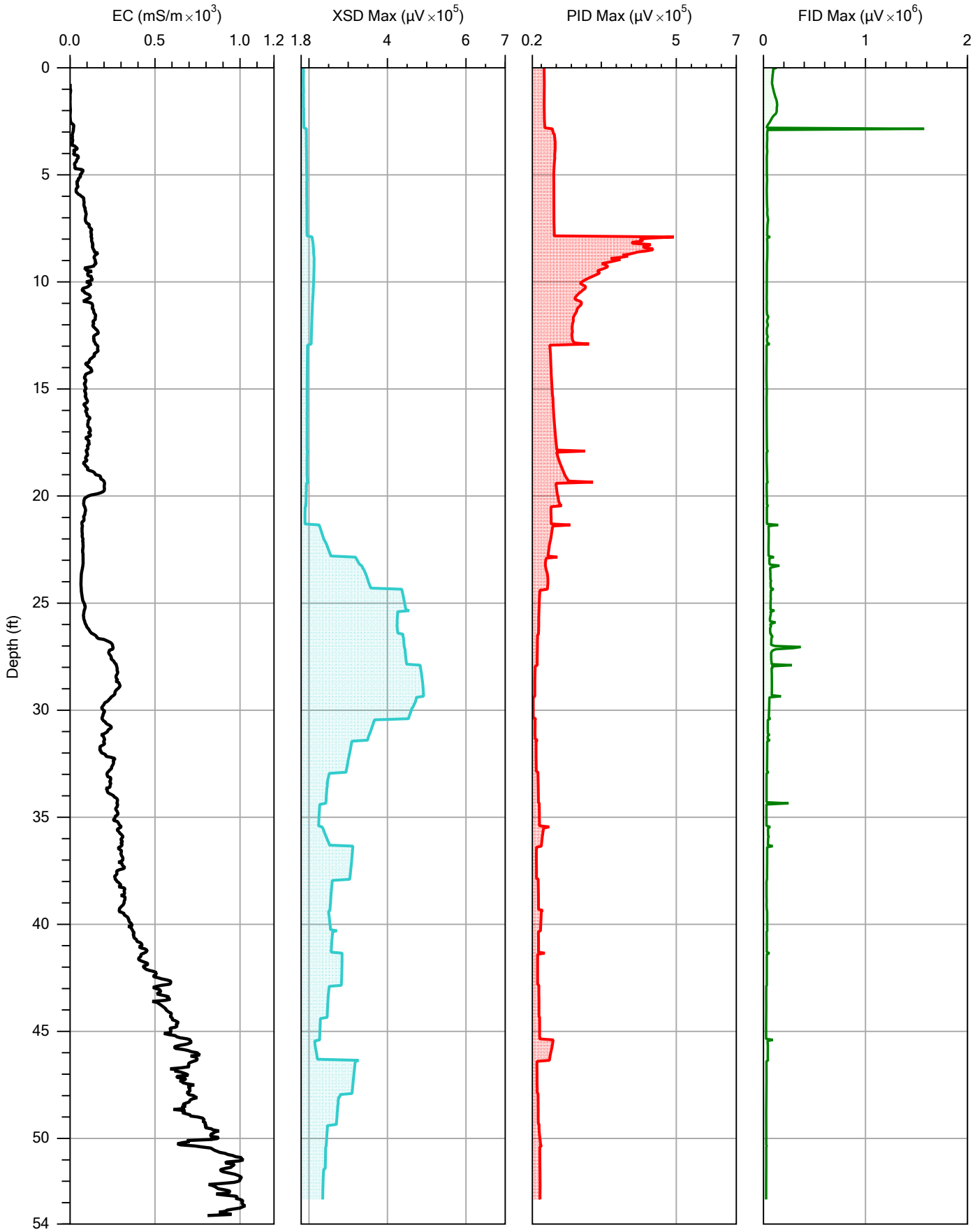
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-09.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/18/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



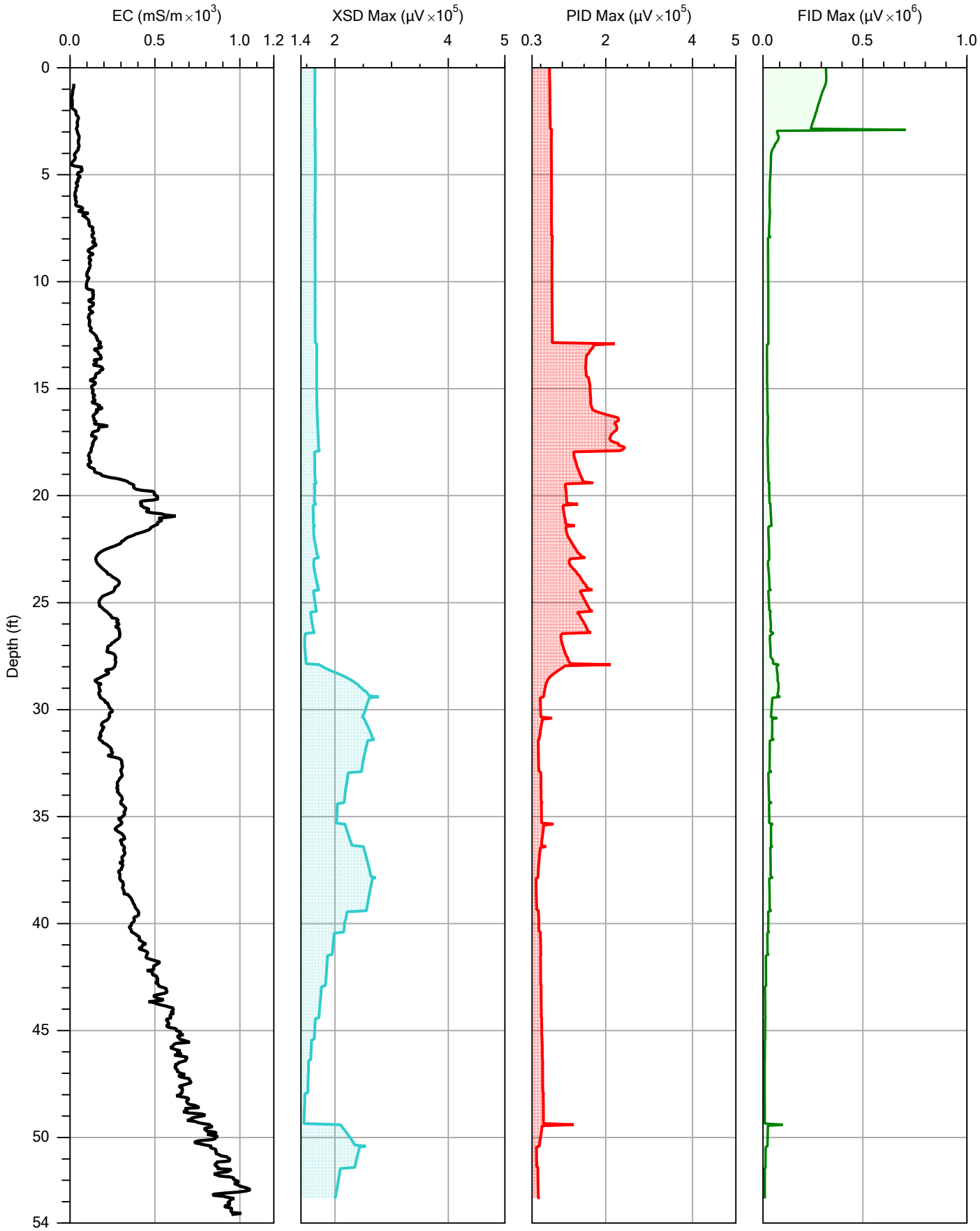
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-10.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/19/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



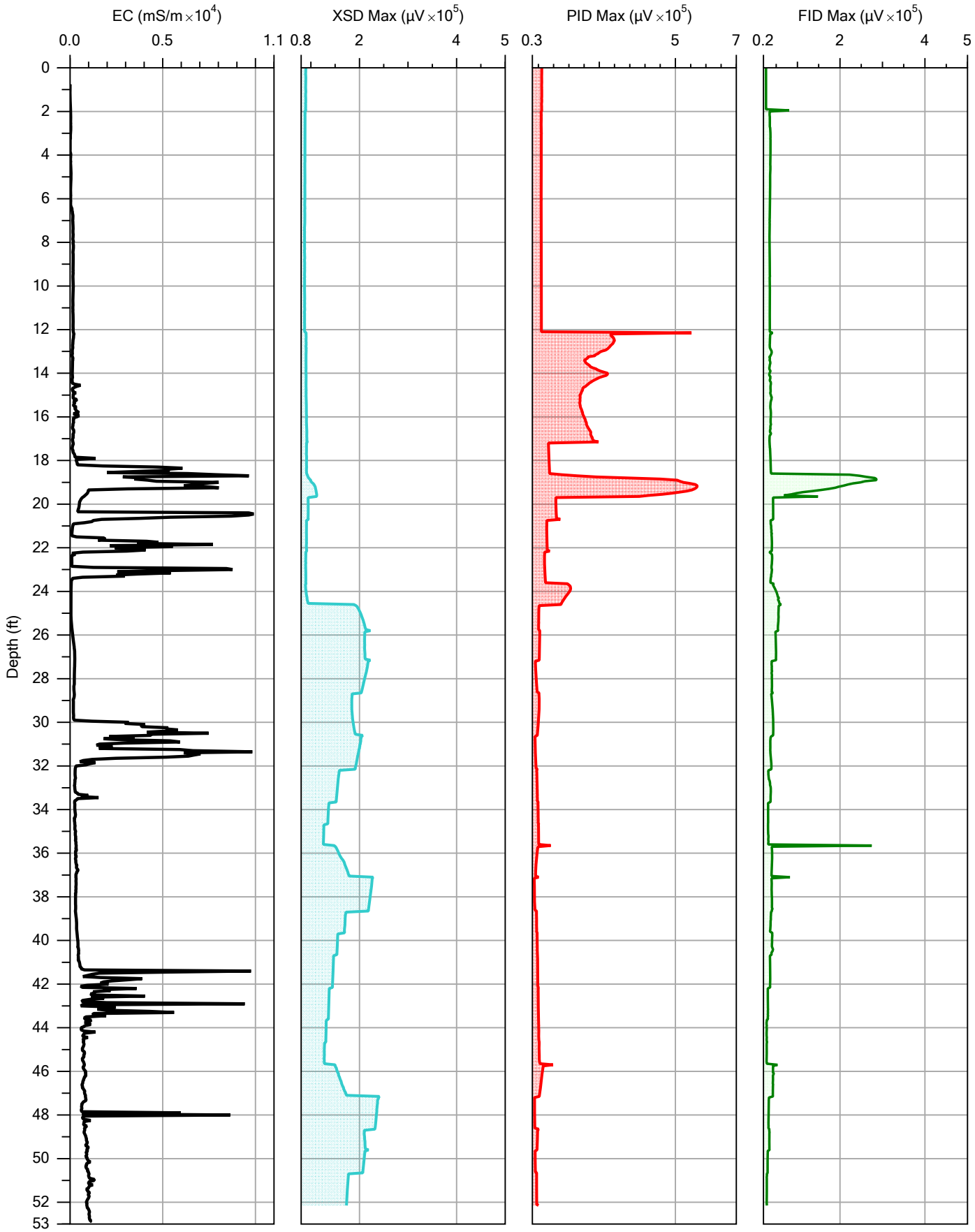
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-11.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/19/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



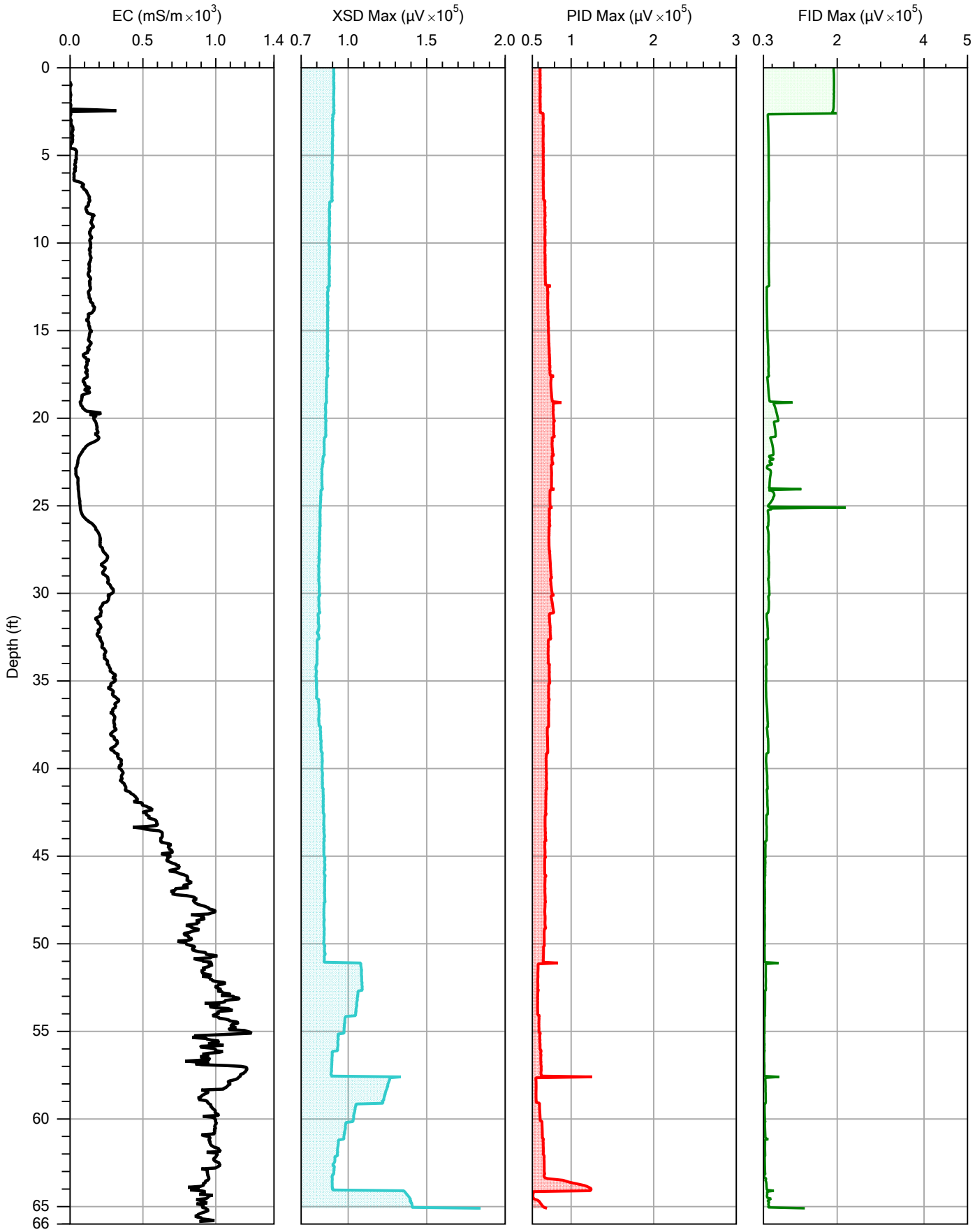
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-12.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/19/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



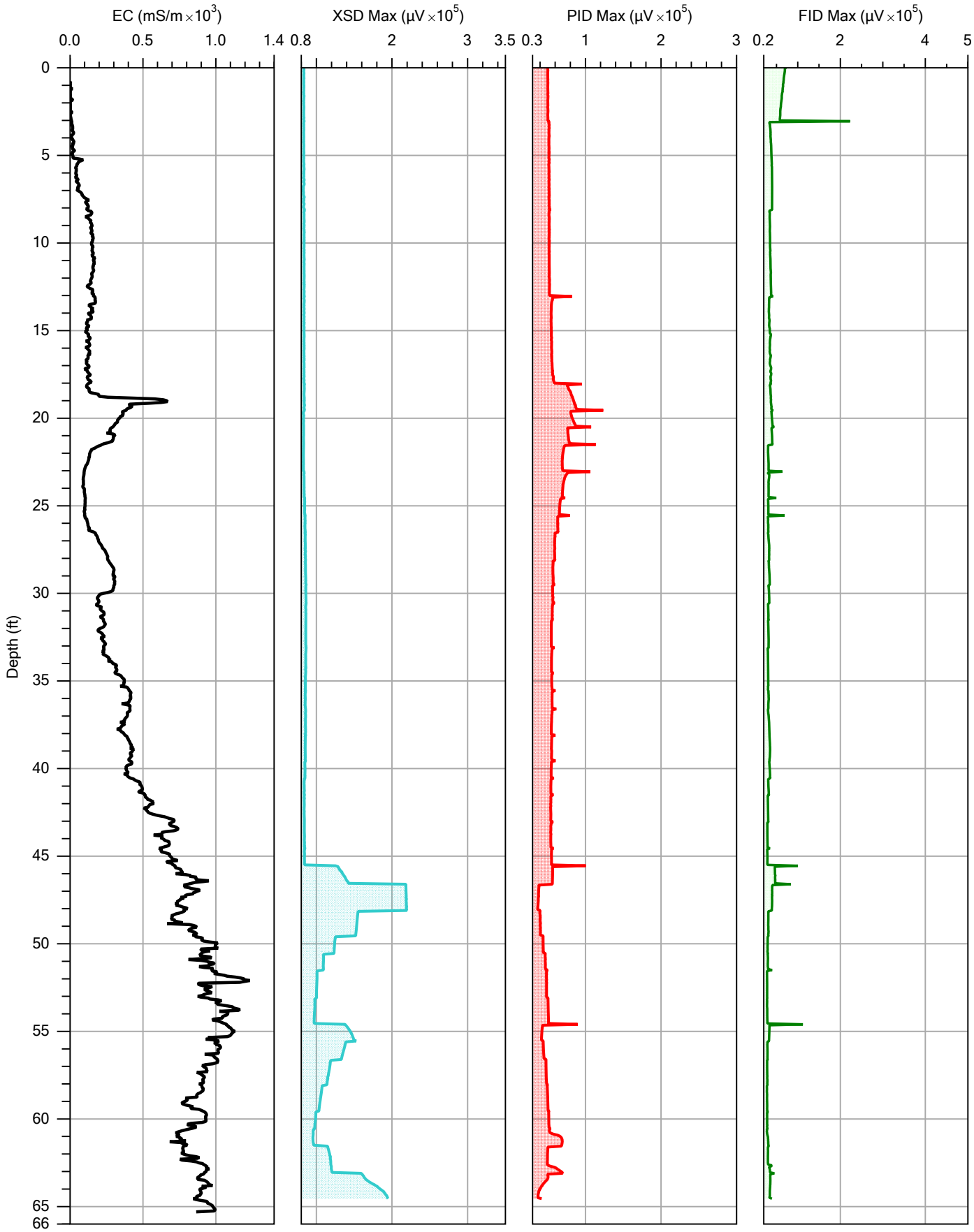
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-13.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/19/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



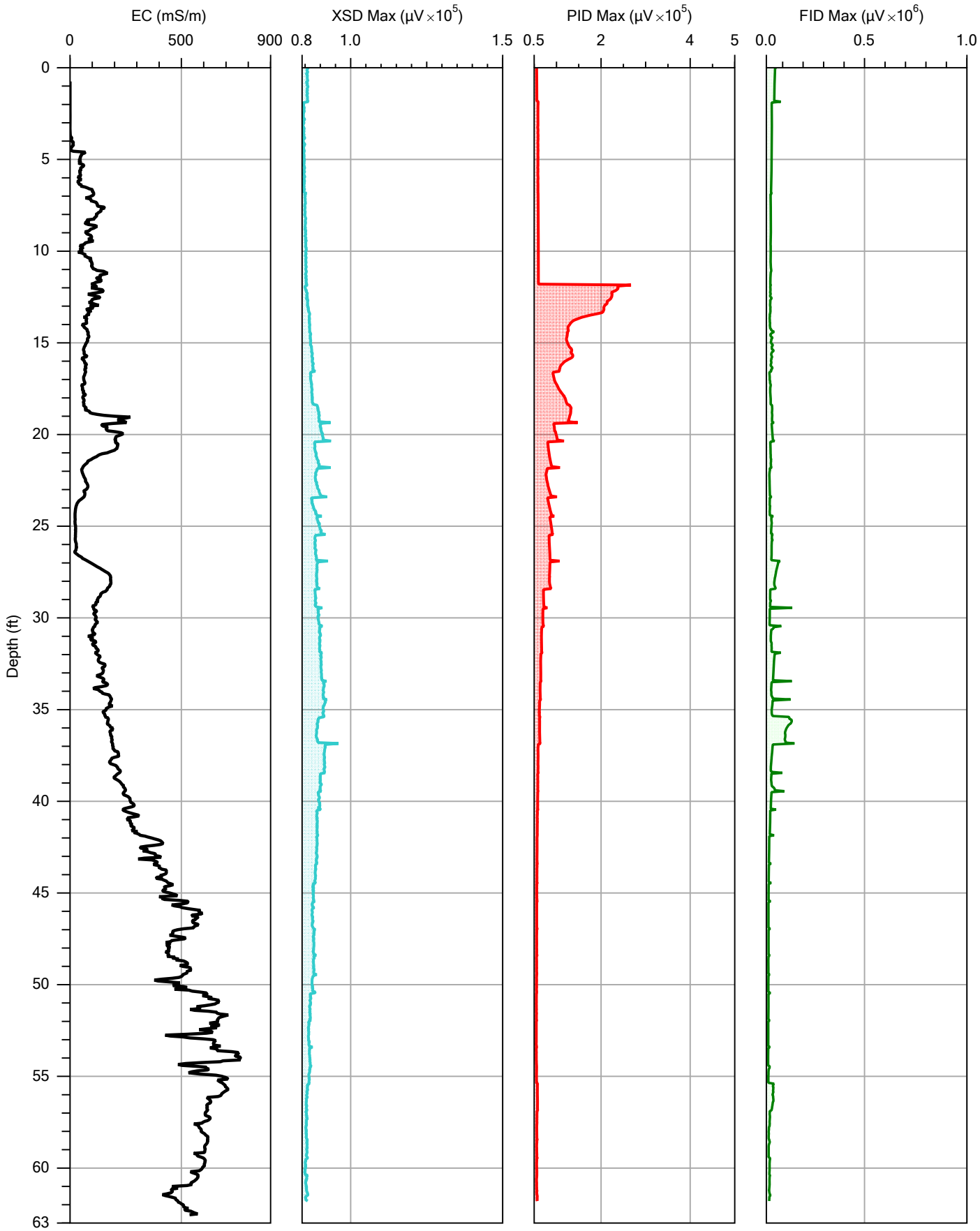
CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-14.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/22/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-15.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/22/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:



CASCADE
DRILLING | TECHNICAL SERVICES

		File: RSA GP-16.MIP
Company: Cascade Technical Services	Operator: John Diamond	Date: 2/22/2016
Project ID: 201-15-6180	Client: ARCADIS	Location:

APPENDIX B

Boring Logs

Date Start/Finish: 6/7 - 6/8/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080910.2730
Easting: 164763.4419
Casing Elevation: NA
Surface Elevation: 9.00' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-1**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
0 / 9	1	0-5	3	0.0	0.0			Dark brown SILT and SAND, little fine to coarse angular to round Gravel, trace medium to coarse Sand and red Brick, moist. [FILL]	
				0.1	0.0				
				0.2	0.0				
5 / 4				0.2	0.0				
				0.1	0.0				
5 / 4	2	5-10	5	0.0	0.0			Gray angular fine to coarse GRAVEL, trace fine to coarse SAND, wet. [FILL]	
				0.0	0.0				
				0.0	0.0			Green SILT, trace fine to coarse Sand, wet. [GROUT]	
0 / -1				0.0	0.0				
				0.0	0.0				
10 / -1	3	10-15	5	0.0	0.0				
				0.0	0.0				
				0.0	0.0				
-5 / -6				0.0	0.0				
				0.0	0.0				
15 / -6				0.0	0.0				

Grouted from 80' bgs to grade.

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
		4	15-20	5	0.0	0.0				
					0.0	0.0				
	-10				0.0	0.0				
20										
					0.0	0.0				
					0.0	6.0				
		5	20-25	4.7	6.6	2.0			Brown and gray CLAY and PEAT, sulfur-like odor, moist.	
									Gray fine to medium SAND, sulfur-like odor, wet.	
					0.4	8.1			Brown fine to medium SAND, trace coarse Sand and fine round Gravel.	
	-15									
					11.8	0.1			Light brownish gray fine SAND, trace Mica and medium to coarse Sand, sulfur-like odor, wet.	
25										
					0.0	0.0			Grayish brown fine SAND, trace fine round Gravel and Mica, sulfur-like odor, wet.	
					0.4	0.0				
		6	25-30	3.8	5.1	0.0				
					0.0	0.0				
	-20									
					6.6	6.6				
30										
					3.2	1.6				
						0.0				
					1.4					
		7	30-35	3.5		0.9			Light gray fine to coarse SAND, little fine round Gravel, trace medium Gravel, wet.	
					1.8	0.0				
	-25									
					1.8	0.0				
35										
					0.0	0.0			Light gray fine to coarse SAND, trace fine round Gravel, wet.	

Grouted from 80' bgs to grade.

Grouted from 80' bgs to grade.

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.2	0.0	0.0				
-30				0.0	0.0				
				16.7	2.3				
40									
				0.0	0.0				
				0.1	0.0				
	9	40-45	4.5					Light brownish gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet. Gray SILT lens at 43' bgs.	
-35				0.1	0.0				
				0.2	0.0				
45				0.0	0.0			Light brownish gray fine SAND, trace medium to coarse Sand and fine to medium round Gravel, wet.	
				0.0	0.0				
								Light gray fine to coarse SAND, little fine round Gravel, trace medium Gravel, wet.	
	10	45-50	4.4	0.0	0.0				
-40				0.0	0.0				
				0.0	0.0				
50								Trace medium round Gravel.	Grouted from 80' bgs to grade.
				0.0	0.0				
				0.0	0.0				
	11	50-55	4.2	0.0	0.0				
				0.0	0.0			Light fine to coarse SAND, trace fine to medium round Gravel, wet.	
-45				0.0	0.0				
55									
				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
				0.0	0.0			Light brownish gray fine to medium SAND, grading to fine Sand, trace fine to medium round Gravel, wet.	
	12	55-60	5	0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0				
				0.0	0.0			Light greenish gray fine to medium SAND, trace Mica and fine to medium round Gravel, wet.	
				0.0	0.0				
	13	60-65	5	0.0	0.0				
-55				0.0	0.0			Light yellowish brown fine to coarse SAND, trace fine to coarse round Gravel, wet.	
				0.0	0.0				
65				0.0	0.0			Light greenish gray fine to coarse SAND, trace fine to medium round Gravel and Mica, wet.	
				0.0	0.0			Light greenish gray fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	
	14	65-70	5	0.0	0.0				
-60				0.0	0.0				
				0.0	0.0			Light greenish gray fine SAND, trace fine round Gravel and Mica.	
70				0.0	0.0			Light greenish gray fine SAND, trace medium to coarse Sand, fine to medium round Gravel and Mica.	Grouted from 80' bgs to grade.
				0.0	0.0				
	15	70-75	5	0.0	0.0			Grades to light greenish gray fine SAND, trace Mica and fine to medium round Gravel, wet.	
-65				0.0	0.0				
75				0.0	0.0			Light greenish gray fine to medium SAND, trace coarse Sand, Mica, and fine to medium round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-1**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80	NR	0.0	0.0				
				0.0	0.0			Orange brown SILT and CLAY, trace fine to medium angular Gravel.	Grouted from 80' bgs to grade.
-70								Greenish gray CLAY and SILT, trace Mica, stiff to very stiff, moist.	
				0.0	0.0				
80								End of boring 80' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Analytical soil samples collected at 23-25' and 28-30' bgs.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/3 - 6/4/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080899.3650
Easting: 164746.6786
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 79.5' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-2**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
5 / 5	1	0-5	3.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Dark brown fine to coarse SAND and SILT, some fine to coarse angular to round Gravel, trace red Brick, moist. [FILL]	
0 / 10	2	5-10	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Gray angular fine to coarse GRAVEL, little fine to coarse Sand, wet. [GROUT] Dark green SILT, trace fine to coarse Sand and fine to coarse Gravel, wet. [GROUT]	Grouted from 25' bgs to grade.
-5 / 15	3	10-15	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	4	15-20	5.0	0.0	0.0				
				0.0	0.0				
-10				0.0	0.0				
20								Dark brown PEAT, sulfur-like odor, wet.	
				0.4	0.0			Gray fine to medium SAND, little Silt, trace coarse Sand, fine round Gravel and Peat, sulfur-like odor, wet.	
				13.1	2.8			Brown fine to medium SAND, trace coarse Sand and fine ground Gravel, sulfur-like odor, wet.	
	5	20-25	4.7	85.6	22.5				
				169	60.1			Brown fine SAND, trace round Gravel and Mica, sulfur-like odor, wet.	
-15				78.3	0.0				
25				0.0	0.0			Brown fine to medium SAND, trace coarse Sand, Mica, and fine to medium round Gravel, wet.	
				0.0	0.0			Grayish brown fine SAND, trace Mica and fine round Gravel, trace Silt layers between 26-27' bgs (~1mm thick).	
	6	25-30	3.8	0.0	0.0				
				4.0	0.0				
-20				11.6	0.0				
30				0.0	0.0			Grayish brown fine to medium SAND, trace coarse Sand and fine round Gravel, wet.	Native collapse from 25-79.5' bgs.
				0.0	0.0			Light grayish brown fine to coarse SAND, some fine round Gravel, wet. Light gray.	
	7	30-35	3.5	0.4	0.0				
				1.2	0.0			Gray silt lenses at 34' bgs.	
-25				0.6	0.0				
35								Light gray fine to coarse SAND, trace fine to medium round Gravel, wet.	
				0.0	0.0				

Grouted from 25' bgs to grade.

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.2	0.0	0.0			2-inch SILT lenses.	
				0.0	0.0				
-30				0.0	0.0				
40				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, wet. Gray SILT lens at 40.5' bgs.	
				0.0	0.0				
	9	40-45	4.5	0.0	0.0			Gray SILT lens.	
				0.0	0.0			Bands of yellowish brown.	
-35				0.0	0.0			Gray SILT lens.	
45				0.0	0.0			Light gray fine to coarse SAND, some fine round multicolored GRAVEL, trace medium round Gravel, wet. Gray SILT lens at 45.5' bgs. Gray SILT lens at 49' bgs.	
				0.0	0.0				
	10	45-50	4.4	0.0	0.0				
				0.0	0.0				
-40				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, wet.	
50				0.0	0.0				Native collapse from 25-79.5' bgs.
				0.0	0.0				
	11	50-55	4.2	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0				
55				0.0	0.0			Light grayish brown fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	12	55-60	5.0	0.0	0.0			Light grayish brown fine SAND, wet.	
				0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0			Light grayish brown fine SAND, trace fine to medium round Gravel, wet.	
				0.0	0.0				
	13	60-65	5.0	0.0	0.0			Light grayish brown fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65				0.0	0.0			Light gray fine SAND, trace Mica, wet.	
				0.0	0.0				
	14	65-70	5.0	0.0	0.0				
				0.0	0.0				
-60				0.0	0.0			Light grayish brown SILT, wet. Dark gray to black lines.	
70				0.0	0.0			Light grayish brown fine to medium SAND, trace Mica and fine to medium round Gravel, wet.	Native collapse from 25-79.5' bgs.
				0.0	0.0				
	15	70-75	5.0	0.0	0.0				
				0.0	0.0			Light grayish brown fine SAND, wet.	
-65				0.0	0.0				
75				0.0	0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-2**

Borehole Depth: 79.5' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70	16	75-80		0.0 0.0 0.0	0.0 0.0 0.0			Orange brown SILT and CLAY, very stiff, moist. Dark greenish gray CLAY and SILT.	Native collapse from 25-79.5' bgs.
80								End of boring at 79.5' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Date Start/Finish: 6/8 - 6/9/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080935.2180
Easting: 164765.1062
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-3**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0								Dark brown SILT and fine SAND, trace angular to round Gravel, medium to coarse Sand, and red Brick, moist. [FILL]	
				0.0	0.0				
				0.1	0.0				
	1	0-5	4.4	0.2	0.0				
				0.2	0.0				
5 / -5				0.1	0.0				
5								Grayish brown fine to coarse SAND, little fine to coarse round angular Gravel, trace Silt, moist. [FILL]	
				0.0	0.0			Gray fine to coarse angular GRAVEL, trace fine to coarse Sand, moist. [Fill/GROUT]	
				0.0	0.0				
	2	5-10	5.0	0.0	0.0			Green SILT, moist. [GROUT]	
				0.0	0.0				
0 / -10				0.0	0.0				
10								Green SILT, trace fine to coarse Sand and fine to medium round Gravel, wet. [GROUT]	Grouted from 32' bgs to grade.
				0.0	0.0				
				0.0	0.0				
	3	10-15	5.0	0.0	0.0				
				0.0	0.0				
-5 / -15				0.0	0.0				
15				0.0	0.0			Gray CLAY, sulfur-like odor. (15.4-15.5' bgs)	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
		4	15-20	5.0	0.0	0.0				Grouted from 32' bgs to grade.
					0.0	0.0				
	-10				0.0	0.0			Gray CLAY, sulfur-like odor, wet.	
20					0.0	0.0			Dark brown PEAT, little fine to medium SAND, trace fine round Gravel, sulfur-like odor, wet.	
					2.6	0.9			Brownish gray fine to medium SAND, trace fine round Gravel, sulfur-like odor, wet.	
		5	20-25	3.4	2.1	0.0				
					0.0	0.0				
	-15				0.0	0.0				
25					0.0	0.0			Gray fine to medium SAND, trace Mica, wet.	
					0.0	0.0				
		6	25-30	4.4	0.3	0.0			Brown fine to medium SAND, trace Mica, wet.	
					1.1	0.0				
	-20				4.6	0.7				
30					0.0	0.0			Gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	
					0.0	0.0				
		7	30-35	4.5	0.0	0.0				
					0.0	0.0				Native collapse from 32-80' bgs.
	-25				2.8	0.0			Gray fine to medium SAND, trace coarse Sand, and fine to medium round Gravel, wet.	
35					0.0	0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	3.2	0.0	0.0				
				0.0	0.0				
-30				0.0	2.3				
40									
				0.0	0.0				
				0.0	0.0			Gray CLAY layer, soft, wet.	
	9	40-45	4.0					Light gray fine to coarse SAND, little fine round Gravel, trace round medium to coarse Gravel, wet.	
				0.0	0.0				
-35				0.7	0.0				
45									
				0.0	0.0				
				0.0	0.0			Yellowish fine round GRAVEL, trace fine to coarse Sand, wet.	
	10	45-50	4.2	0.0	0.0			Gray SILT later.	
				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace round medium to coarse Gravel, wet.	
-40				0.0	0.0				
50									Native collapse from 32-80' bgs.
				0.0	0.0			Gray fine round GRAVEL, some fine to coarse Sand, trace medium round Gravel, wet.	
				0.0	0.0				
	11	50-55	4.4	0.0	0.0			Brownish gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	
				0.0	0.0				
-45				0.0	0.0				
55									
				0.0	0.0			Light brownish gray fine round GRAVEL, little fine to coarse Sand and medium round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	12	55-60	5.0	0.0	0.0			Light brownish gray fine SAND, trace fine to coarse round Gravel, wet.	
				0.0	0.0				
-50				0.0	0.0				
60									
				0.0	0.0			Light brownish gray fine to medium SAND, trace Mica and fine round Gravel.	
				0.0	0.0				
	13	60-65	5.0	0.0	0.0			Light grayish brown fine to coarse SAND, trace fine to medium round Gravel and Mica, wet.	
				0.0	0.0				
-55				0.0	0.0				
65									
				0.0	0.0			Light greenish gray fine to medium SAND, trace fine to medium round Gravel and Mica, wet.	
				0.0	0.0				
	14	65-70	4.5	0.0	0.0				
				0.0	0.0				
-60				0.0	0.0				
70									Native collapse from 32-80' bgs.
				0.0	0.0				
				0.0	0.0				
	15	70-75	4.8	0.0	0.0				
				0.0	0.0			Light greenish gray fine SAND, trace Mica, wet.	
-65				0.0	0.0				
75								Orange brown SILT, CLAY, and angular COBBLE.	
				0.0	0.0			Greenish gray CLAY and SILT, very stiff.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-3**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80	5.0	0.0	0.0				Grouted from 32' bgs to grade.
				0.0	0.0				
-70				0.0	0.0				
80								End of boring 80' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21.5' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs

Date Start/Finish: 6/6 - 6/7/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080927.0360
Easting: 164752.5337
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-4**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10									
0									
	1	0-5	3	0.0	0.0			Dark brown fine to medium SAND and SILT, little fine to coarse angular to round Gravel, trace coarse Sand, moist. [FILL]	
				0.0	0.0				
				0.0	0.0				
5				0.0	0.0				
5									
				0.3	0.0			Gray fine to coarse angular GRAVEL, trace fine to coarse SAND, moist. [GROUT]	
				0.4	0.0				
	2	5-10	5	0.3	0.0			Green SILT, moist. [GROUT]	
0				0.3	0.0				
				0.4	0.0				
10								Trace fine to coarse Sand and fine round Gravel, moist to wet.	Grouted from 32' bgs to grade.
				0.3	0.0				
				0.3	0.0				
	3	10-15	5	0.4	0.0				
				0.4	0.0				
-5				0.4	0.0				
15									
				0.3	0.0				

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.3	0.0				
		4	15-20	5	0.3	0.0				Grouted from 32' bgs to grade.
					0.4	0.0				
	-10				0.4	0.0				
20					0.4	0.0				
					0.5	0.0				
		5	20-25	4.7	0.7	0.0				
					0.6	0.0				
	-15				0.5	0.0			Brown fine to medium SAND, wet.	
25									Grayish brown fine SAND, trace Mica and fine round Gravel, wet.	
					0.3	0.0			Grayish brown fine SAND, trace Mica and fine to medium round Gravel, wet.	
					0.6	0.0				
		6	25-30	3.8	1.1	0.0				
					4.2	0.0				
	-20				20.9	0.0				
30					0.0	0.0			Gray to light gray fine to coarse SAND, little fine round Gravel, wet.	
					0.1	0.0				
					0.3	0.0				
		7	30-35	3.5	0.4	0.0				
					0.5	0.0				Native collapse from 32-80' bgs.
	-25				0.2	0.0				
35									Gray SILT lens, about 3-inch long by 0.5-inch thick.	
						0.0			Light gray fine to coarse SAND, trace fine to medium round Gravel, wet.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.2	0.0	0.0				
				0.0	0.0				
-30				0.0	0.0			Light gray fine to medium SAND, trace fine to medium round Gravel, wet.	
40				0.0	0.0				
				0.0	0.0				
	9	40-45	4.5	0.0	0.0			Light gray fine to coarse SAND, little to trace fine round Gravel, wet. 2-inch thick x 2-inch wide gray SILT lens at 42.5' and 43' bgs.	
				0.0	0.0				
-35				0.0	0.0				
45				0.0	0.0			Yellowish gray fine to coarse SAND, little to trace fine round Gravel, wet. Gray SILT lens at 45.6' bgs.	
				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium to coarse round Gravel, wet.	
	10	45-50	4.4	0.0	0.0				
				0.0	0.0				
-40				0.0	0.0				
50				0.0	0.0				Native collapse from 32-80' bgs.
				0.0	0.0				
	11	50-55	4.2	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0			Yellowish gray.	
55				0.0	0.0			Light gray fine to coarse SAND, little fine round Gravel, trace medium to coarse round Gravel, wet.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
				0.0	0.0			Light gray fine SAND, trace fine to medium round Gravel, wet.	
	12	55-60	5	0.0	0.0				
				0.0	0.0				
-50				0.0	0.0				
60									
				0.0	0.0			Light brownish gray, trace coarse Gravel.	
				0.0	0.0				
	13	60-65	5	0.0	0.0			Gray fine to medium SAND, trace coarse Sand, Mica, and fine to medium round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65									
				0.0	0.0			Light brownish gray fine to medium SAND, trace coarse Sand and fine to medium round Gravel, wet.	
				0.0	0.0				
	14	65-70	5	0.0	0.0			Light brownish gray fine SAND, trace fine to medium and Gravel, wet.	
				0.0	0.0			Little Silt.	
-60				0.0	0.0				
70									Native collapse from 32-80' bgs.
				0.0	0.0			Light greenish gray fine SAND, trace medium to coarse Sand, Mica, and fine to medium round Gravel, wet.	
				0.0	0.0				
	15	70-75	5	0.0	0.0				
				0.0	0.0				
-65				0.0	0.0				
75									
				0.0	0.0			No recovery.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-4**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80	NR	0.0	0.0				Native collapse from 32-80' bgs.
				0.0	0.0				
-70				0.0	0.0				
80								End of boring at 80' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 24-25' and 28-30' bgs.
Temporary well screen set at 27-32' bgs. Groundwater sample collected at 27' bgs.

Date Start/Finish: 6/2 - 6/3/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080916.1280
Easting: 164735.7703
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 80' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-5**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
0 / 10	1	0-5	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Brown fine to medium SAND and SILT, little fine to coarse angular to round Gravel and coarse Sand, trace red Brick, moist.	
5 / 5								Gray fine to medium angular GRAVEL, trace fine to coarse Sand, wet. [GROUT]	
0 / 10	2	5-10	5.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Green SILT, trace fine to coarse Sand and fine to coarse round Gravel, wet.	Grouted from 25' bgs to grade.
-5 / 15	3	10-15	5.0	0.0 0.0 0.9 0.0 0.3	0.0 0.0 0.0 0.0 0.0				
				0.0	0.0				

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				1.8	0.0				
	4	15-20	5.0	1.4	0.0				
				0.8	0.0				
-10 / 20				0.2	0.0			Brownish gray CLAY, trace Wood and Leaf.	
				1.37	64			Brown PEAT, little fine Sand, sulfur-like odor, wet.	
					0.0			Brown PEAT and fine to medium SAND, trace fine round white Gravel, sulfur-like odor, wet.	
	5	20-25	4.5	107	13			Grayish brown fine to medium SAND, trace Mica, wet.	
				85	50				
-15 / 25				37	29				
				0.6	0.0				
				1.1	0.0			Grayish brown fine SAND, trace fine round white Gravel and Mica, wet.	
	6	25-30	4.6	2.5	0.0				
				0.6	0.0				
-20 / 30				7.3	0.6				
				0.0	0.0			Light grayish brown fine to coarse SAND, little to trace round fine multi-colored Gravel, wet.	
				0.0	0.0				
	7	30-35	4.4	0.0	0.0				
				0.0	0.0			Light gray fine to coarse SAND, trace round fine Gravel, wet.	
-25 / 35				0.0	0.0				
				0.0	0.0			Light gray fine to medium SAND, trace coarse SAND and round white fine Gravel, wet. Gray SILT lens at 36' bgs.	

Grouted from 25' bgs to grade.

Native collapse from 25-80' bgs.

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	8	35-40	4.0	0.0	0.0				
				0.0	0.0				
-30				0.0	0.0				
40									
				0.0	0.0				
				0.0	0.0				
	9	40-45	4.0	0.6	1.2				
				0.0	0.3			Light grayish brown fine SAND, trace medium to coarse Sand and fine round Gravel, wet. Gray SILT seam (~2mm thick) at 43.2' bgs.	
-35				0.0	0.0				
45								Light gray fine to coarse SAND, trace round fine to medium Gravel, wet.	
				0.0	0.0				
				0.0	0.0				
	10	45-50	4.3	0.0	0.0			Trace yellow brown Silt at 47.5.	
				0.0	0.0				
-40				0.0	0.0				
50									Native collapse from 25-80' bgs.
				0.0	0.0			Light grayish brown multicolored fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet. Gray SILT lenses ~0.05' thick at 51', 52', 52.5', and 54' bgs.	
				0.0	0.0				
	11	50-55	4.1	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0			Light grayish brown fine to coarse SAND, trace fine to medium round Gravel, wet.	
55									
				0.0	0.0			Light grayish brown fine to coarse SAND, trace fine to medium and Gravel, wet.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0			Light gray fine SAND, trace fine to medium, wet. Grayish brown between 56.6-56.8' bgs.	
	12	55-60	4.0	0.0	0.0				
				0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0				
				0.0	0.0			Light gray brown fine to medium SAND, trace coarse Sand and fine to coarse round Gravel, wet.	
	13	60-65	4.3	0.0	0.0				
				0.0	0.0			Light gray fine SAND, trace medium to coarse and fine to medium round Gravel, wet.	
-55				0.0	0.0				
65				0.0	0.0			Light gray fine SAND, grading to fine to medium SAND, trace fine to medium round Gravel, ewt.	
				0.0	0.0				
	14	65-70	5.0	0.0	0.0			Gray SILT, some fine Sand, trace Mica, wet.	
				0.0	0.0			Light greenish gray fine SAND, trace fine to medium round Gravel, trace Clay sphere at 69.3' bgs ~4mm diameters, trace Mica, wet.	
-60				0.0	0.0				
70				0.0	0.0			Light greenish gray fine SAND, trace medium to coarse SAND and Mica. Light green Clay lenses at 70-70.1' bgs, wet.	Native collapse from 25-80' bgs.
				0.0	0.0				
	15	70-75	5.0	0.0	0.0				
				0.0	0.0				
-65				0.0	0.0				
75				0.0	0.0			Dark grayish green CLAY and SILT, trace Mica, very stiff, yellowish brown first 0.05' of sample, moist.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-5**

Borehole Depth: 80' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
	16	75-80		0.0	0.0				Native collapse from 25-80' bgs.
				0.0	0.0				
-70				0.0	0.0				
80								End of boring at 80' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Analytical soil samples collected at 20.5-21' and 28-30' bgs.
Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Date Start/Finish: 6/13 - 6/14/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080889.8500
Easting: 164709.4700
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 75' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-6**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10									
0									
	1	0-8	NA	0.0	0.0			Brown fine to medium SAND, little fine to coarse subangular to angular Gravel, trace Silt, moist.	
				0.0	0.0				
				0.0	0.0				
				0.0	0.0				
5				0.0	0.0				
5				0.0	0.0			Gray fine to coarse GRAVEL, little fine to coarse Sand, trace Silt, wet, hard.	
				0.0	0.0				
				0.0	0.0			Dark green SILT, firm, moist to wet.	
0				0.0	0.0				
10				0.0	0.0			Trace fine to coarse Sand.	Converted to monitoring well. See well construction for AMW-14-VD.
	2	8-15	4.0	0.0	0.0				
				0.0	0.0				
-5				0.0	0.0				
15				0.0	0.0				
				0.3	0.3				

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.5	0.5				
		3	15-20	4.7	0.3	0.3				
					0.7	0.7				
	-10				0.7	0.7				
20									Gray CLAY, soft, sulfur-like odor, wet.	
					0.0	0.0			Brown PEAT, soft, sulfur-like odor, wet.	
					0.0	0.0			Dark brown fine SAND, trace fine to medium round white Gravel, trace Mica, sulfur-like odor, wet.	
		4	20-25	4.0	0.7	0.7			Yellowish-brown medium SAND, trace fine to medium round Gravel and Mica, wet.	
					0.0	0.0			Light gray fine SAND, trace fine white Gravel and Mica, wet.	
	-15				0.0	0.0				
25									Light gray fine to medium SAND, trace Mica.	
					0.0	0.0				
					0.2	0.2			Brown fine to medium SAND, trace fine to medium white round Gravel and Mica, wet.	
									Brown fine SAND, trace Silt bands, wet.	
		5	25-30	4.0	0.0	0.0			Grayish brown fine SAND, trace Mica, wet.	
					0.7	0.7				
	-20				0.0	0.0			Grayish brown fine to medium SAND, trace white round fine Gravel and Mica, wet.	
30									Grayish brown fine to coarse SAND, little to trace fine round white Gravel, wet.	Converted to monitoring well. See well construction for AMW-14-VD.
					0.0	0.0				
					0.0	0.0				
		6	30-35	4.2						
					0.0	0.0				
	-25				0.0	0.0				
35										
					0.0	0.0			Light gray fine to coarse SAND, trace fine to coarse round white Gravel, wet. Lens of gray SILT ~2mm thick x 5 cm long at 36' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0			Light brown fine SAND, trace medium to coarse Sand, trace white fine round Gravel, wet. Gray SILT layer ~0.3' thick at 37.5 bgs.	
	7	35-40	4.5	0.0	0.0				
				0.1	0.1				
-30				0.0	0.0				
40				0.1	0.0			Light gray fine to coarse SAND, trace fine to coarse round multi-colored Gravel, wet. Gray SILT lens ~4 mm thick x 4mm wide at 42.5' bgs.	
				0.1	0.0				
	8	40-45	4.5	0.1	0.0				
				0.0	0.0				
-35				0.0	0.0				
45				0.1	0.2			Light gray fine to coarse SAND, trace fine to medium round multi-colored Gravel and Wood, wet. Gray SILT layer ~1 in. thick at 45.5' bgs.	
				0.1	0.2				
	9	45-50	4.4	0.1	0.2				
-40				0.1	0.4				
50				0.0	0.2			Light gray to multicolored fine to coarse SAND, trace fine to medium round Gravel, wet.	Converted to monitoring well. See well construction for AMW-14-VD.
				0.0	0.1				
	10	50-55	4.5	0.0	0.0				
				0.0	0.0				
-45				0.0	0.1				
55									

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
					0.0	0.0				
		11	55-60	4.8					Light gray fine to medium SAND, trace fine round Gravel, and coarse Sand, wet.	
					0.0	0.0				
	-50				0.0	0.2				
60										
					0.0	0.2				
					0.0	0.0				
		12	60-65	5.0	0.0	0.0				
					0.0	0.0				
	-55				0.0	0.0				
65										
					0.0	0.0				
					0.0	0.0				
		13	65-70	5.0	0.0	0.0				
					0.0	0.0			Light greenish gray fine SAND.	
									Gray SILT, trace fine to medium round Gravel, wet.	
	-60				0.0	0.0			Light gray fine SAND, trace round fine to medium Gravel, light green SILT lens around 69' bgs, 0.05' thick, wet.	
70										Converted to monitoring well. See well construction for AMW-14-VD.
					0.0	0.0			Light gray fine SAND, trace fine to medium round Gravel and Mica, wet.	
									Reddish brown CLAY and SILT, trace angular Cobble, moist.	
					0.0	0.0				
		14	70-75	5.0	0.0	0.0			Dark grayish green CLAY and SILT, trace Mica, very stiff, moist.	
					0.0	0.0				
	-65				0.0	0.0				
75										
									End of boring at 75' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-6**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70 80									

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 26-28' and 36-38' bgs.

Boring was converted to monitoring well AMW-14-VD.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/1 - 6/2/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080937.0820
Easting: 164722.1350
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 75' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-7**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
0 / 10	1	0-5	4.3	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0			Brown fine to medium SAND, little fine to coarse subangular to angular Gravel, trace Silt, moist.	
5 / 5	2	5-10	5.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0			Gray fine to coarse GRAVEL, little fine to coarse Sand, trace Silt, wet, hard. [GROUT/SLURRY] Dark green SILT, firm, moist to wet. [GROUT - SLURRY] Trace fine to coarse Sand.	Grouted from 25' bgs to grade.
0 / 10	3	10-15	5.0	0.0 0.0 0.0 0.0 0.8	0.0 0.0 0.0 0.0 0.0				
-5 / 15				0.0	0.0				

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				Grouted from 25' bgs to grade.
		4	15-20	5.0	0.0	0.0				
					0.0	0.0				
	-10									
20									Gray CLAY, soft, sulfur-like odor, wet.	
					20.7	0.0			Brown PEAT, soft, sulfur-like odor, wet.	
						0.0			Dark brown fine SAND, trace fine to medium round white Gravel, trace Mica, sulfur-like odor, wet.	
					6.7					
		5	20-25	5.0		0.0			Yellowish-brown medium SAND, trace fine to medium round Gravel and Mica, wet.	
					5.5	0.0			Light gray fine SAND, trace fine white Gravel and Mica, wet.	
	-15				5.6	0.0				
25									Light gray fine to medium SAND, trace Mica.	
					0.0	0.0				
					0.7	0.2			Brown fine to medium SAND, trace fine to medium white round Gravel and Mica, wet.	
									Brown fine SAND, trace Silt bands, wet.	
		6	25-30	5.0	0.1	0.3			Grayish brown fine SAND, trace Mica, wet.	
					1.7	0.3				
	-20				14.7	0.5			Grayish brown fine to medium SAND, trace white round fine Gravel and Mica, wet.	
30									Grayish brown fine to coarse SAND, little to trace fine round white Gravel, wet.	Native collapse from 25-75' bgs.
					0.0	0.0				
					0.0	0.0				
		7	30-35	4.5						
					0.0	0.0				
	-25				0.0	0.0				
35										
						0.0			Light gray fine to coarse SAND, trace fine to coarse round white Gravel, wet. Lens of gray SILT ~2mm thick x 5 cm long at 36' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.6	0.0			Light brown fine SAND, trace medium to coarse Sand, trace white fine round Gravel, wet. Gray SILT layer ~0.3' thick at 37.5 bgs.	
	8	35-40	4.0	0.1	0.0				
-30				12.7	0.0				
40				17.6	0.0				
				0.0	0.0			Light gray fine to coarse SAND, trace fine to coarse round multi-colored Gravel, wet. Gray SILT lens ~4 mm thick x 4mm wide at 42.5' bgs.	
	9	40-45	4.5	0.0	0.0				
-35				0.0	0.0				
45				0.0	0.0				
				0.1	0.0			Light gray fine to coarse SAND, trace fine to medium round multi-colored Gravel and Wood, wet. Gray SILT layer ~1 in. thick at 45.5' bgs.	
	10	45-50	3.0	0.5	0.0				
-40				0.4	0.0				
50				0.1	0.0				Native collapse from 25-75' bgs.
				0.0	0.0			Light gray to multicolored fine to coarse SAND, trace fine to medium round Gravel, wet.	
	11	50-55	4.5	0.0	0.0				
-45				0.0	0.0				
55				0.0	0.0				
				0.0					

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
					0.0	0.0				
					0.0	0.0				
		12	55-60	4.6	0.0	0.0			Light gray fine to medium SAND, trace fine round Gravel, and coarse Sand, wet.	
	-50				0.0	0.0				
60					0.0	0.0				
					0.0	0.0				
		13	60-65	5.0	0.0	0.0				
					0.0	0.0				
	-55				0.0	0.0				
65					0.0	0.0				
					0.0	0.0				
		14	65-70	5.0	0.0	0.0				
					0.0	0.0			Light greenish gray fine SAND.	
					0.0	0.0			Gray SILT, trace fine to medium round Gravel, wet.	
	-60				0.0	0.0			Light gray fine SAND, trace round fine to medium Gravel, light green SILT lens around 69' bgs, 0.05' thick, wet.	
70									Light gray fine SAND, trace fine to medium round Gravel and Mica, wet.	Native collapse from 25-75' bgs.
					0.0	0.0			Reddish brown CLAY and SILT, trace angular Cobble, moist.	
					0.0	0.0				
		15	70-75	5.0	0.0	0.0			Dark grayish green CLAY and SILT, trace Mica, very stiff, moist.	
					0.0	0.0				
	-65				0.0	0.0				
75									End of boring at 75' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-7**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70 80									

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Temporary well screen set at 20-25' bgs. Groundwater sample collected at 23' bgs.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/14 - 6/15/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1080863.9800
Easting: 164758.7100
Casing Elevation: NA
Surface Elevation: 9.40' AMSL
Borehole Depth: 75' bgs
Descriptions By: Levia Terrell

Well/Boring ID: **ASB-8**
Client: Chevron Environmental Management Company
Location: Former Gulf Oil Terminal Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0									
0 / 10	1	0-5	NA	NA	NA			Hand cleared to 5' bgs. No recovery.	
5 / 5				0.0	0.1			Brown fine to coarse SAND, some fine to coarse round to angular GRAVEL, trace Silt and red Brick, wet. [FILL]	
				0.0	0.1			Gray fine to coarse angular Gravel and fine to coarse SAND, moist. [CONCRETE].	
		5-10	5.0	0.0	0.1			Brown fine to medium SAND, little fine to coarse round to angular Gravel and Silt, wet.	
0 / 10				0.0	0.1				
				0.0	0.1				
10 / -5	2			0.6	0.0			Gray fine to coarse SAND, little fine round Gravel, trace medium round Gravel, wet.	Converted to monitoring well. See well construction for AMW-13-VD.
				2.4	0.0			Dark gray CLAY, little Grass, wet. [MEADOW MAT]	
		10-15	4.3	0.4	0.0				
				4.5	0.0				
-5 / 15				5.2	2.4				
				3.4	1.0			Black CLAY and SILT, trace Shell Fragments.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				12.5	1.1			Dark gray CLAY, little Grass, wet. [MEADOW MAT]	
	3	15-20	5.0	12.1	1.2				
				3.6	3.8				
-10				4.1	6.2				
20				11.2	2.5			Gray fine to coarse SAND, some to little CLAY, trace Organics and fine to medium round Gravel, wet.	
				11.4	12.2			Brown fine SAND, trace Mica and fine to medium round Gravel, color grading to grayish brown, wet.	
	4	20-25	5.0	1.5	1.2				
				1.9	1.4				
-15				6.5	0.6				
25				0.1	0.0			Grayish brown fine SAND, trace Mica and fine to medium round Gravel, wet.	
				0.1	0.0				
	5	25-30	4.5	0.1	0.0				
				0.4	0.0				
-20				0.7	0.0				
30				0.1	0.0				Converted to monitoring well. See well construction for AMW-13-VD.
				0.2				Light brownish gray fine to coarse SAND, little fine round Gravel, trace medium Gravel, wet.	
	6	30-35	4.0	0.1	0.0			Light gray.	
				0.3	0.0				
-25				0.4	0.0				
35				0.1	0.0			Light gray fine to coarse SAND, trace fine to medium round Gravel, wet.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.1	0.0				
	7	35-40	4.5	0.1	0.0				
				0.1	0.0				
-30				0.1	0.0				
40				0.1	0.0			Light gray fine to medium SAND, trace fine to medium round Gravel, wet.	
				0.1	0.0				
	8	40-45	4.5	0.1	0.0				
				0.0	0.0				
-35				0.0	0.0			Light gray fine to coarse SAND, little fine to medium round Gravel, wet.	
45				0.1	0.0				
				0.0	0.0				
	9	45-50	4.5	0.0	0.0				
				0.0	0.0				
-40				0.0	0.0				
50				0.0	0.0			SILT lens at 50.5' bgs and 54.5' bgs, trace fine to medium Gravel	Converted to monitoring well. See well construction for AMW-13-VD.
				0.0	0.0				
	10	50-55	3.8	0.0	0.0				
				0.0	0.0				
-45				0.0	0.0			Trace fine to medium Gravel.	
55								Light gray fine to medium SAND, trace fine to medium round Gravel, coarse Sand, and Mica, wet.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
				0.0	0.0				
				0.0	0.0				
	11	55-60	4.0	0.0	0.0				
-50				0.0	0.0				
60				0.0	0.0				
				0.0	0.0				
	12	60-65	4.0	0.0	0.0			Light gray fine SAND, trace Mica and fine round Gravel, wet.	
				0.0	0.0				
-55				0.0	0.0				
65				0.0	0.0			Light greenish gray fine SAND, thin layers of light green CLAY between 67-68' bgs, trace Mica, moist.	
				0.0	0.0				
	13	65-70	5.0	0.0	0.0				
				0.0	0.0			Light gray fine SAND, trace Mica, wet.	
-60				0.0	0.0				
70				0.0	0.0			Dark greenish gray CLAY AND SILT, moist.	Converted to monitoring well. See well construction for AMW-13-VD.
				0.0	0.0				
	14	70-75	5.0	0.0	0.0				
-65				0.0	0.0				
75								End of boring at 75' bgs.	

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

Client: Chevron Environmental Management Company

Well/Boring ID: **ASB-8**

Borehole Depth: 75' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	10.6 eV PID (ppm)	11.7 eV PID (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
-70 80									

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA =not available; PID = photoionization detector; ppm = parts per million.

Northern and easting coordinates and ground surface elevation data are approximate.

Soil samples collected at 20-21' and 26-28', and 36-38' bgs.

Boring was converted to monitoring well AMW-13-VD.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/16/16
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: NA
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1081039.648
Easting: 164417.8452
Casing Elevation: NA

Borehole Depth: 18' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **TW-1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0							
	1	0-6.5	NA	NA		Hand cleared with vac truck to 6.5' bgs.	
5							
5							
						Drilled to 18' bgs. No descriptions available.	
0							
10							
	2	6.5-18	NA	NA			
-5							
15							



Temporary well set with PVC screen 8-18' bgs. Well was pulled and boring hole backfilled with grout to grade.

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-1**

Borehole Depth: 18' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						End of boring at 18' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Date Start/Finish: 6/16/16
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: NA
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1081115.174
Easting: 164421.3814
Casing Elevation: NA

Borehole Depth: 18' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **TW-2**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Hand cleared with vac truck to 8' bgs.	
	1	0-5	NA	NA			
5							
0						Drilled to 18' bgs. No descriptions available.	
10	2	5-18	NA	NA			
-5							
15							

Temporary well set with PVC screen 8-18' bgs. Well was pulled and boring hole backfilled with grout to grade.

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-2**

Borehole Depth: 18' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						End of boring at 18' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 5.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Date Start/Finish: 6/16/16
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: NA
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 1081126.846
Easting: 164366.4666
Casing Elevation: NA

Borehole Depth: 18' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **TW-3**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0							
	1	0-8	NA	NA		Hand cleared with vac truck to 8' bgs.	
5							
5							
0						Drilled to 18' bgs. No descriptions available.	
10							
	2	8-18	NA	NA			Temporary well set with PVC screen 8-18' bgs. Well was pulled and boring hole backfilled with grout to grade.
-5							
15							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-3

Borehole Depth: 18' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						End of boring at 18' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 8.0-18.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: 1080821.9410
Easting: 164894.8451
Casing Elevation: NA

Borehole Depth: 25' bgs
Surface Elevation: 9.50' AMSL

Descriptions By: Jon LeMessurier

Well/Boring ID: **TW-4**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0							
	NA	0-8	NA	0.0		Recycled Concrete Aggregate, angular to subangular; little Cobble, pebble in size; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5						Airknifed using a VacTruck to 8' bgs.	
						Wet at 7.0' bgs.	
						SAND, medium to coarse; little Silty Sand. Wet, poorly sorted. Very Dark Gray.	
	1	8-10	NA	0.0			
0							
10						SAND, fine to coarse; some Gravel, fine to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Gray-Brown.	
						CLAY; some Organics (Peat-like material and Grass); trace Silt. Moist, soft, moderate organic-like odor, high plasticity. Dark Gray.	
	2	10-15	3.0	44.8			Borehole backfilled with grout to grade
-5							
15						CLAY; trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Gray.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Client: Chevron EMC

Well/Boring ID: **TW-4**

Borehole Depth: 25' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	3.0	10.7			
-10 / 20						SAND, fine to medium; trace Clay. Wet, loose, poorly sorted, slight organic-like odor. Gray.	
	4	20-25	5.0	15.3		SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Gray-Brown.	Borehole backfilled with grout to grade
-15 / 25						End of boring at 25' bgs.	
-20 / 30							
-25 / 35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-5

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 0	NA	0-8	NA	0.3			Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown. Airknifed using a VacTruck to 8' bgs.	
5 / -5							7.5' - 10.0' bgs, trace Silt. Wet at 6.0' bgs.	
	1	8-10	NA	0.4			SAND, medium to coarse; trace Silty Clay. Wet, poorly sorted. Very Dark Grey.	
10 / -10	2	10-15	1.0	0.0	⊠		SAND, fine to coarse; little Gravel, granular to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Dark Grey.	Borehole backfilled with grout to grade
15 / -15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-5

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	20.5			CLAY; trace Organics (Grass); trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
20 -20								Borehole backfilled with grout to grade
	4	20-25	5.0	10.7			SAND, fine to medium; trace Gravel, granular, subrounded. Wet, loose, poorly sorted, no odor. Grey-Brown.	
25 -25								
	5	25-30	5.0	28.3				
30 -30							End of boring at 30' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: 1080910.3950
Easting: 164829.3143
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: 9.50' AMSL

Descriptions By: Jon LeMessurier

Well/Boring ID: **TW-6**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	NA	0-8	NA	0.4		Airknifed using a VacTruck to 8' bgs.	
						Wet at 7.0' bgs.	
						Concrete obstruction/rubble	
						SAND, medium to coarse; little Gravel; trace Silty Clay. Wet, poorly sorted. Very Dark Gray.	
0	1	8-10	NA	0.7			
10						SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Light Gray.	Borehole backfilled with grout to grade
	2	10-15	4.0	9.8		SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, moderate organic-like odor, high plasticity. Dark Gray.	
-5							
15							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-6

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
-10 / 20	3	15-20	3.0	12.5			
						SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Gray.	Borehole backfilled with grout to grade
						SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, slight organic-like odor, high plasticity. Dark Gray.	
	4	20-25	5.0	18.9			
-15 / 25						SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Gray-Brown.	
	5	25-30	5.0	22.9			
-20 / 30						End of boring at 30' bgs.	
-25 / 35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: 1080978.0690
Easting: 164844.0730
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: 9.50' AMSL

Descriptions By: Jon LeMessurier

Well/Boring ID: **TW-7**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							
0						Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	NA	0-8	NA	0.0		Airknifed using a VacTruck to 8' bgs.	
5						Wet at 7.5' bgs.	
						Concrete obstruction/rubble.	
0	1	8-10	NA	0.0		SAND, medium to coarse; little Gravel; trace concrete rubble. Wet, poorly sorted. Dark Brown.	
10							Borehole backfilled with grout to grade
						SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Gray.	
-5	2	10-15	5.0	6.9		CLAYEY SILT; some Organics (Peat-like and Grass). Moist, soft, strong organic-like odor, medium plasticity. Gray-Brown.	
15							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-7

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	9.6		CLAY; little Organics (Shells). Moist, soft, strong organic-like odor, high plasticity. Dark Gray.	
-10 / 20						SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Gray.	Borehole backfilled with grout to grade
	4	20-25	5.0	9.9		SAND, fine to medium; some Silt; little Clay, trace Gravel, granular to small pebble, subrounded. Wet, loose, poorly sorted, slight organic-like odor. Dark Gray.	
-15 / 25						CLAY; little Organics (Broken shells). Moist, soft, slight organic-like odor, high plasticity. Dark Gray.	
	5	25-30	5.0	15.4		SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Gray-Brown.	
-20 / 30						End of boring at 30' bgs.	
-25 / 35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Northern and easting coordinates and ground surface elevation data are approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

APPENDIX C

Well Construction Logs

Date Start/Finish: 11/30/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164690.55
Easting: 1080941.49
Casing Elevation: 7.53

Borehole Depth: 10' bgs
Surface Elevation: 5.41

Descriptions By: MWE

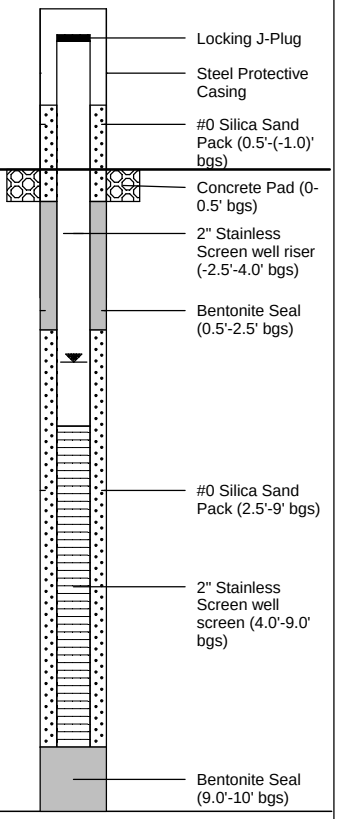
Well/Boring ID: **AMW-3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	273		Brown to grey fine to coarse SAND and fine to coarse GRAVEL, trace Silt, Organics (M,NP)
	2	2-4	Grab	384		moderate petroleum-like odor, increase with depth
5 / 0	3	4-6	Grab	339		heavy petroleum-like odor
	4	6-8	Grab	211		Grey fine to medium SAND, little fine to medium Gravel (S,NP)
	5	8-10	1.0	67.8		Grey SILT and CLAY, little Peat, trace Organics, fine Sand (S,P) moderate petroleum-like odor, decrease with depth
10 / -5						End of boring at 10' bgs
15 / -10						

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-3 (0-2'), (2-4'), (4-6') & Dup-2-113010 @ (2-4') / MS/MSD @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/18/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164369.13
Easting: 1081225.55
Casing Elevation: 6.36

Borehole Depth: 12' bgs
Surface Elevation: 6.60

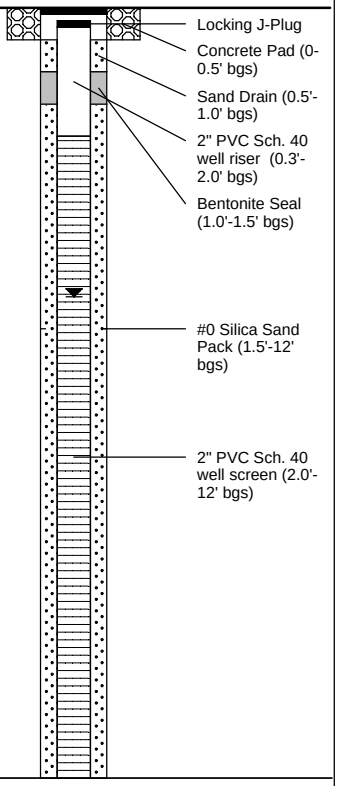
Descriptions By: MWE

Well/Boring ID: **AMW-4**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.2		Red to brown fine to medium SAND, little subangular Gravel, Silt, and trace Organics (M,NP)
5	2	2-4	Grab	0.0		
0	3	4-6	Grab	455		Grey to brown fine to coarse SAND, little Silt, Clay, and fine to medium Gravel (S,NP) moderate petroleum-like odor, decreses with depth
5	4	6-8	Grab	155		
10	5	8-10	0.3	27.8		
-5	6	10-12	2.0	11.7		increase Silt and Clay with depth Grey SILT and CLAY, trace fine Sand, Organics (S,MP)
15						End of boring at 12' bgs



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-4 (2-4'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/2910
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164319.6
Easting: 1081050.81
Casing Elevation: 6.43

Borehole Depth: 12' bgs
Surface Elevation: 6.74

Descriptions By: MWE

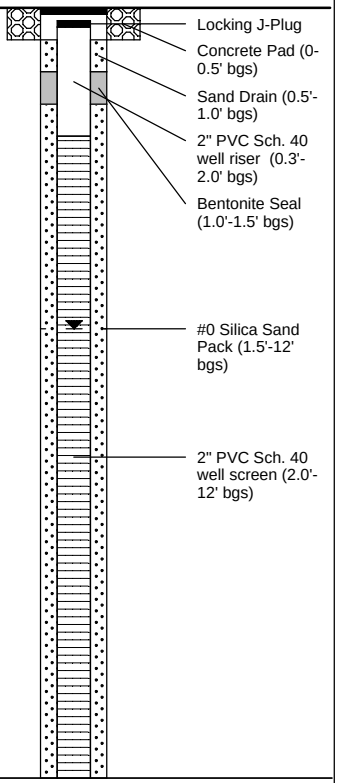
Well/Boring ID: **AMW-7**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt (M,NP)
5	2	2-4	Grab	0.0		
	3	4-6	Grab	0.0		
0	4	6-8	Grab	0.4		faint petroleum-like odor
	5	8-10	2.0	18.9		
10	6	10-12	2.0	1.7		Brown fine to medium SAND, little grey fine Sand, trace fine Gravel (S,NP) odor
-5						Grey to brown fine SAND, little to some Silt, trace Clay (layered between sand seams (1-2 mm))
15						End of boring at 12' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-7 (4-6'), (8-10'), (10-12') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11-30-10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164748.61
Easting: 1080920.06
Casing Elevation: 7.90

Borehole Depth: 16' bgs
Surface Elevation: 5.41

Descriptions By: MWE

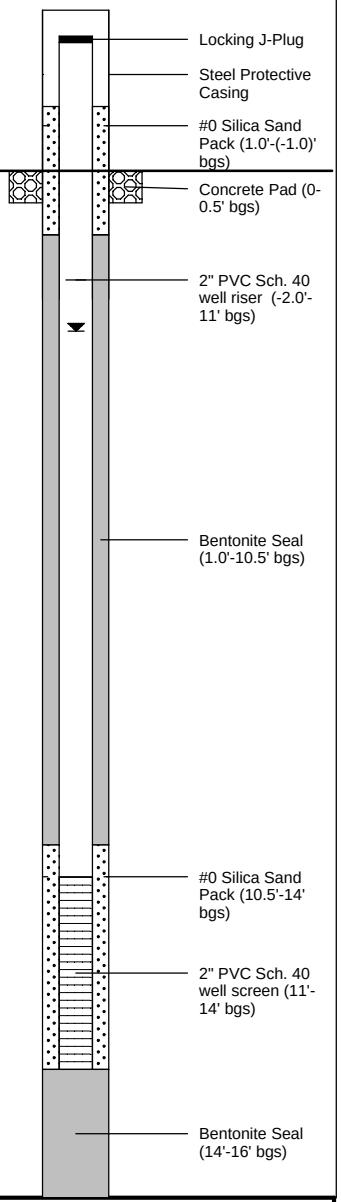
Well/Boring ID: **AMW-8**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	10.0		Brown fine to coarse SAND, some fine to medium subangular Gravel, trace Silt, Organics (M,NP) faint petroleum-like odor, increase with depth
		2	2-4	Grab	43.8		Grey to brown fine to coarse SAND, little fine to medium Gravel (S,NP) moderate petroleum-like odor, trace sheen in water at water table
5	0	3	4-6	Grab	6.9		
		4	6-8	Grab	3.9		
		5	8-10	0.2	18.9		No Recovery
10	-5	6	10-12	1.0	4.7		Grey SILT and CLAY, some Peat, little fine Sand (S,MP) moderate sulfur-like odor, trace petroleum-like odor
		7	12-14	2.0	18.7		
15	-10	8	14-16	2.0	8.6		Grey to brown fine to medium SAND, little Silt, Organics, Peat, Clay (S,NP) End of boring at 16' bgs

Well/Boring Construction

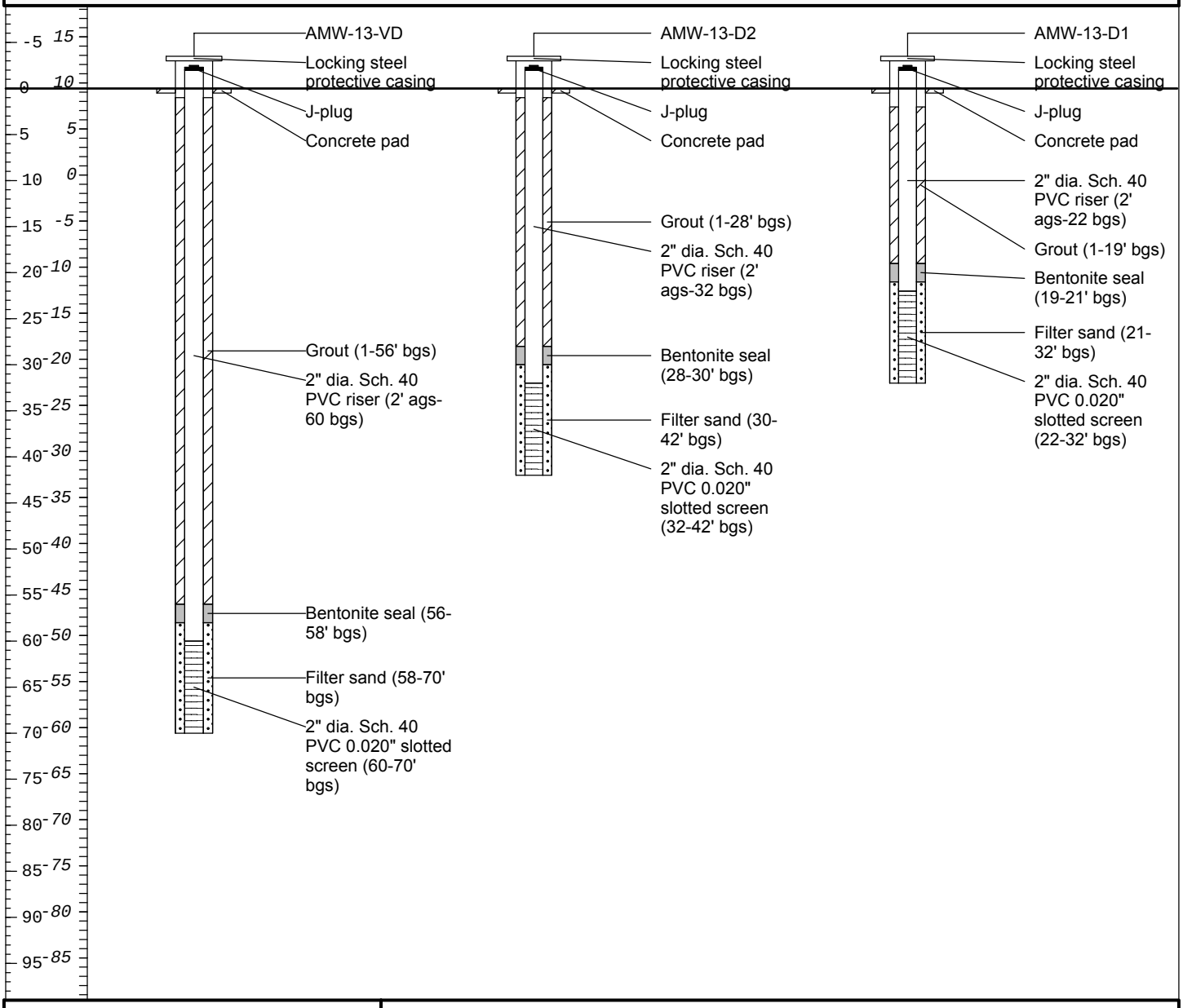


ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-8 (10-11'), (12-14'), (14-15') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 6/14 - 6/15/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 70' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-13 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



ARCADIS Design & Consultancy for natural and built assets

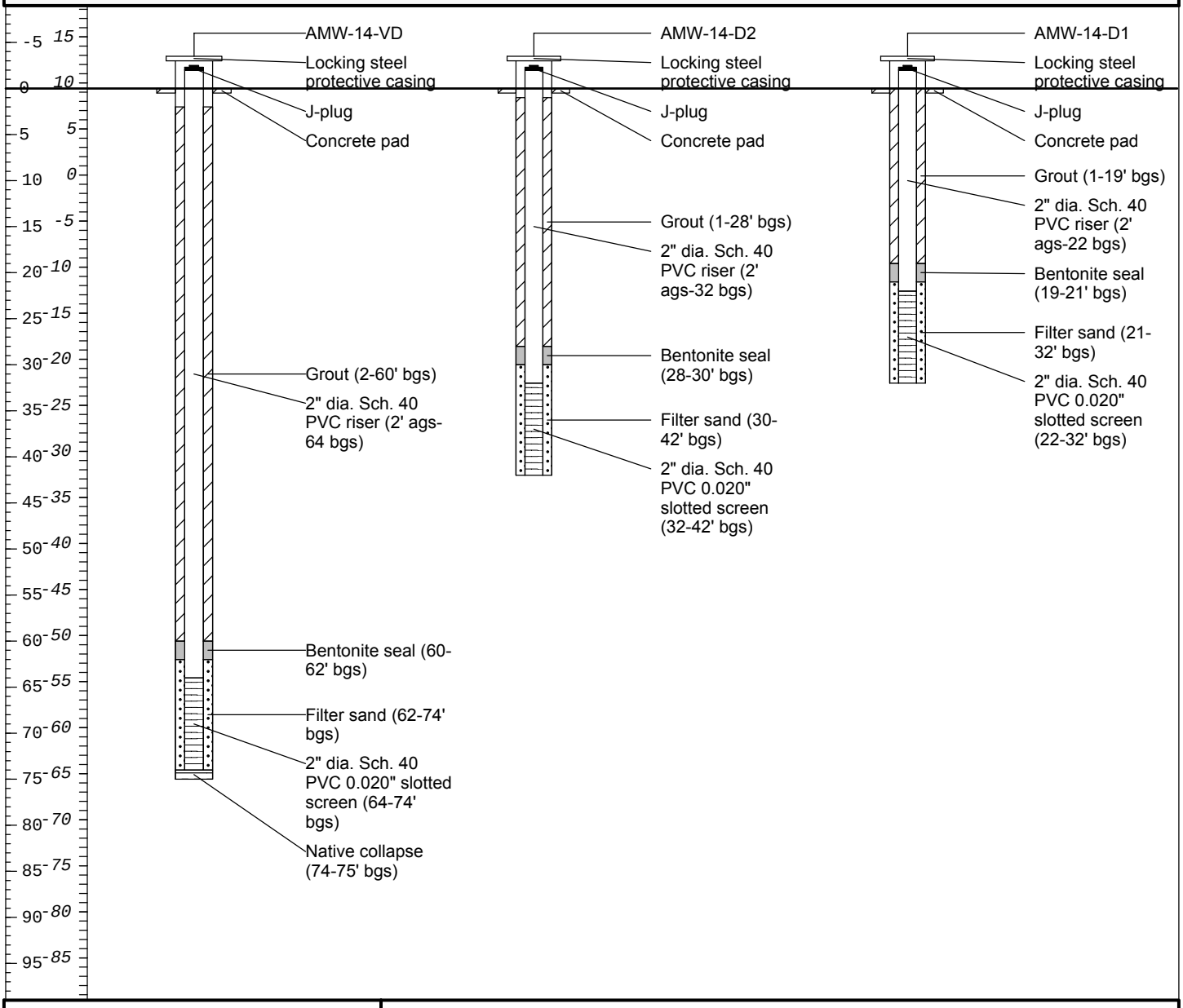
Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-13-VD, AMW-13-D1, and AMW-13-D2.
For soil descriptions and drilling notes, see boring log for ASB-8.

Date Start/Finish: 6/15 - 6/16/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 75' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-14 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



ARCADIS Design & Consultancy for natural and built assets

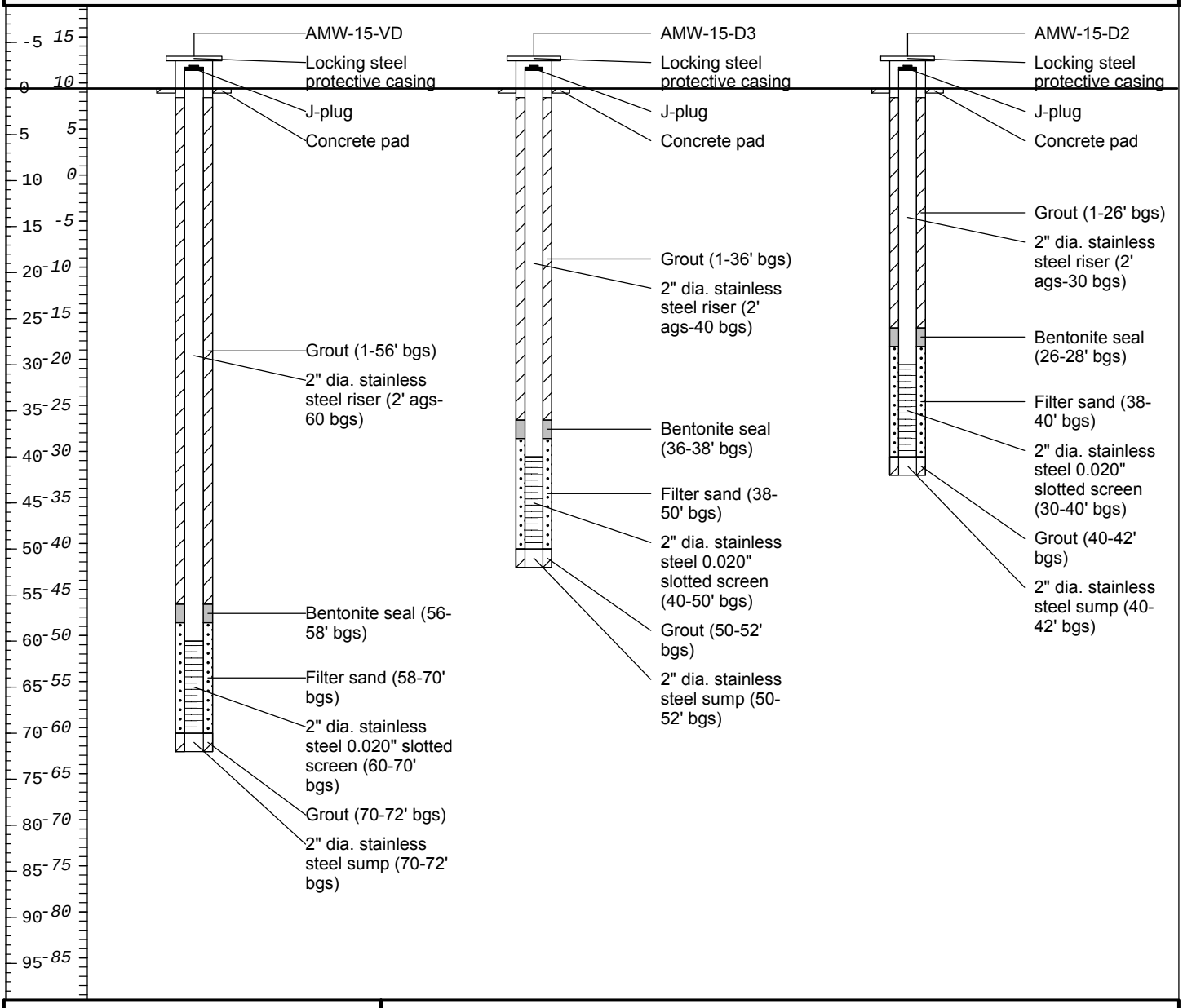
Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-14-VD, AMW-14-D1, and AMW-14-D2.
For soil descriptions and drilling notes, see boring log for ASB-6.

Date Start/Finish: 6/9 - 6/13/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 72' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-15 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-15-VD, AMW-15-D1, AMW-15-D2, and AMW-15-D3. For soil descriptions and drilling notes, see boring log for ASB-1.

Date Start/Finish: 1/29/2013-2/13/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 3" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164800.4100
Easting: 1080951.5500
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 7.88' AMSL

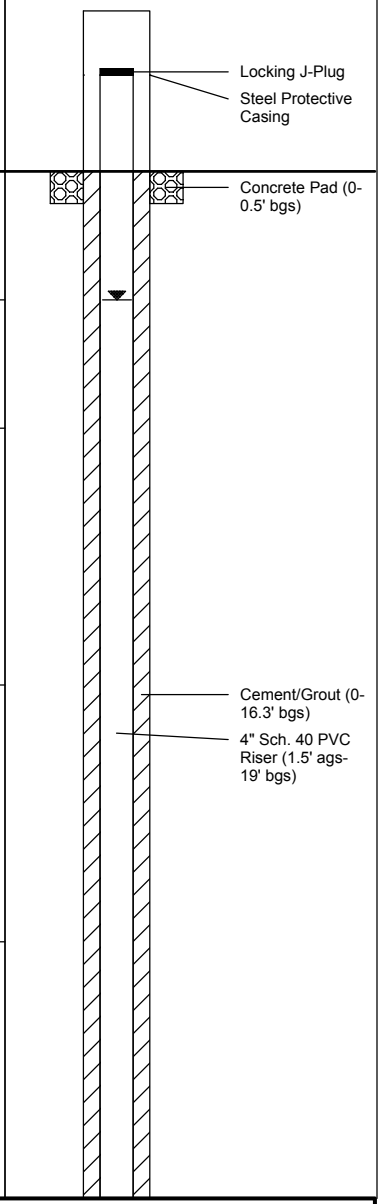
Descriptions By: J.Oliver

Well/Boring ID: **IW-02-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
10						
0	1	0-1	NA	0.0		Light brown fine to medium SAND, trace coarse Sand and fine Gravel, moist to wet.
	2	1-2	NA	0.4		
5	3	2-3	NA	0.4		Gray/brown fine to coarse SAND, trace fine Gravel, wet.
	4	3-4	NA	0.9		
5	NA	NA	NA	NA		Unable to collect samples due to borehole collapse.
0	5	8-10	1.0	23.9		Gray SILT and CLAY, trace Peat and fine Sand, plastic, wet, odor.
10	6	10-12	1.0	17.0		Little to trace fine Sand.
-5	7	12-14	2.0	5.1		Gray SILT and CLAY, trace to llittle fine Sand, plastic, trace.
15	8	14-16	1.3	32.7		Trace fine Sand, Shell fragments at 15' bgs, wet, odor.



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

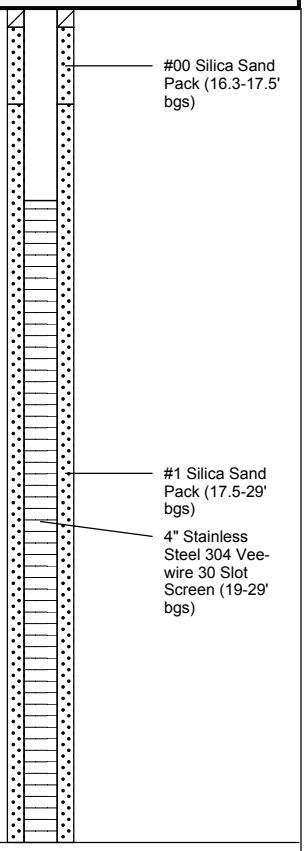
Client: Chevron EMC

Well/Boring ID: **IW-02-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				27.3		Trace Shell fragments, wet, odor.	
-10	9	16-18	1.6			Gray fine to medium SAND, moderately dense, odor, wet. [Trace coarse Sand and Gravel in tip of spoon.]	
				112 257		Trace coarse Sand.	
	10	18-20	1.3	110		Brown to light brown fine to medium SAND, trace coarse Sand, trace Organics at 18.9' bgs, odor, wet.	
20	11	20-22	1.4	130 125		Light brown fine to medium SAND, trace coarse Sand, odor, wet.	
-15	12	22-24	1.9	101 97.9		Light brown/very light gray fine to medium SAND, odor, wet.	
25	13	24-26	1.6	15.7 45.1		Light brown/light gray fine to medium SAND, little coarse Sand after 24.7' bgs, wet, odor.	
-20	14	26-28	0.9	10.1		Light gray fine to coarse SAND, fine Gravel lamination at 26.7' bgs, wet, dense from 26-26.5' bgs.	
	15	28-29	0.5	11.2		Very light gray fine to medium SAND, trace coarse Sand, wet, grain size decreasing with depth.	
30						End of boring at 29' bgs.	
-25							
35							



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Langan
Engineering and Environmental Services, Inc.

LOG OF BORING LB-6/TW-6 SHEET 1 OF 2

PROJECT: FMR GOLF FACILITY	PROJECT NO.: 1836704
LOCATION: OCEANSIDE, NY	ELEVATION AND DATUM:
DRILLING AGENCY: ZEBRA	DATE STARTED: 3/11/04 — DATE FINISHED: 3/11/04
DRILLING EQUIPMENT: GEOPROBE 6600 w/ HSA	COMPLETION DEPTH: 20-FT — ROCK DEPTH: —
SIZE AND TYPE OF BIT: —	NO. SAMPLES: — DIST. — UNDIST. 2 CORE —
CASING: 3-IN OD STEEL CASING	WATER LEVEL: FIRST 1.6' COMPL.— 24 HR. —
CASING HAMMER: WEIGHT — DROP —	FOREMAN: CHARLES GREGN
SAMPLER: 2-IN MACROCORE	INSPECTOR: MARSHALL KING
SAMPLER HAMMER: WEIGHT — DROP —	

UNIT	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES: NO./LOC.	TYPE	RECOV. FT.	PENETR. RESIST BLWS.	PID ppm	W/C	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
FILL	CONCRETE DEBRIS	0							START 13:15
	LIGHT BROWN M-F SAND	1							PID = OVM 19.8V
		2	S-1	MC	2.8	—	0	moist	MC'S COLLECTED USING DISCRETE SAMPLING METHOD
	Brown-Black f-SAND, to silt	3					0	wet	
SAND	Brown-Grey M-F SAND, tr F gravel	4							
	SAME	5							
		6	S-2	MC	1.5	—	0	wet	
		7					0		
		8							SAMPLE 0245 7.5'-8'
ORGANIC	Grey SILT, sm. to fibrous organics, tr clay	9					1.3		
		10	S-3	MC	1.9	—	1.2	wet	
		11					2.4		
	SAME	12					0.5		
		13	S-4	MC	2.4	—	3.2	wet	
		14	4/1						

Langan
Engineering and Environmental Services, Inc.

JOB NO. 1836704
DATE 3/11/04

LOG OF BORING NO. LB-6/TW-6.

SHEET 2 OF 2

UNIT	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES NO./LOC.	SAMPLES TYPE	SAMPLES RECOV. FT.	SAMPLES PENETR. RESIST BLW/FT.	PID ppm	W/C	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
ORGANIC	Grey SILT, sm tr fibrous organics, tr clay	15	S-4 (Comp)	MC	2'	1	32	wet	STEEL CASING POSITIED TO 16-FT
		16					2.1		
SAND	Brown MF SAND, tr silt	17					12.3		
		18	S-5	MC	3.3'	1	17.1	wet	SAMPLE #025 18-18.5
	Tan MF SAND	19					23		
		20							END BORING 20-FT @ 1430 BORING GROUTED TO SURFACE AS CASING WAS PULLED
		21							
		22							
		23							
		24							
		25							
		26							
		27							
		28							
		29							
		30							
		31							

086100

Date Start/Finish: 1/30/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: DT22 Geoprobe System

Northing: 164617.4000
Easting: 1081290.4300
Casing Elevation: NA

Borehole Depth: 7' bgs
Surface Elevation: 8.85' AMSL

Descriptions By: JRO

Well/Boring ID: **MW-18R**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0							Locking J-Plug; Steel Protective Casing; 2" Sch 40 PVC Riser (1.5' ags-2' bgs)
	1	0-1	NA	374.8		Dark gray fine to medium SAND, trace fine Gravel and Debris (Wood and Concrete), moist, strong odor.	Concrete Pad (0-0.5' bgs); Drainage Sand
	2	1-2	NA	448.1		Moist-wet.	Bentonite Seal (1-2' bgs)
5 / 5	3	2-5	NA	450.7		COBBLES and fine to medium GRAVEL, some to little fine to coarse Sand and debris, wet.	2" Sch 40 PVC 0.010" Slot Screen (2-7' bgs); #0 Silica Sand Pack (2-7' bgs)
	4	5-7	NA	NA			
0 / 10						Blind drilled to 7' bgs. End of boring at 7' bgs.	
-5 / 15							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 9/23/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 26.5 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-23D-1
Client: CEMC

MW-23D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0									Cap
									Cement Pad
		2.3 / 4			0		Dark to light brown coarse to fine SAND and GRAVEL, moist.		
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Bentonite (1 - 3 feet bgs)
5					0		Dark grey coarse to fine SAND and GRAVEL, moist.		
		3.0 / 4			0.6				Sand Pack (3 - 9 feet bgs)
		2.6 / 4	NA		1.1		Dark grey coarse to fine SAND and GRAVEL, some silt moist.		
					1.0		Dark grey SILT, some clay, trace organics, wet.		2 inch PVC Casing (0.5 - 16.5 feet bgs)
10					5.7				
					5.2				
		4.0 / 4			0		Dark grey SILT, some clay, trace organics, wet.		Bentonite (9 - 13 feet bgs)
					10.3				00 Sand Pack (13 - 14 feet bgs)
15					26.1		Dark grey SILT and coarse to fine SAND, little clay, wet.		
		2.0 / 4					Light grey to brown coarse to fine SAND and GRAVEL, wet.		
					25.9				#2 Filter Sand (14 - 26.5 feet bgs)
20							GRAVEL and SAND.		
									0.02 inch slotted PVC Screen (16.5 - 26.5 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/23/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morafis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 41 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW23D-2
Client: CEMC

MW-23D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.3/4	NA		0		Dark to light brown coarse to fine SAND and GRAVEL, moist.		Cap Cement Pad
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Bentonite (1 - 3 feet bgs)
5		3.0/4			0		Dark grey coarse to fine SAND and GRAVEL, moist.		Sand Pack (3 - 8.5 feet bgs)
					0.6		Dark grey coarse to fine SAND and GRAVEL, some silt moist.		
		2.6/4			1.1 1.0		Dark grey SILT, some clay, trace organics, wet.		2 inch PVC Casing (0.5 - 31 feet bgs)
10					5.7				
		4.0/4			5.2				
					0		Dark grey SILT, some clay, trace organics, wet.		Bentonite (8.5 - 28 feet bgs)
15					10.3				
					26.1		Dark grey SILT and coarse to fine SAND, little clay, wet.		
		2.0/4			25.9		Light grey to brown coarse to fine SAND and GRAVEL, wet.		
20							GRAVEL and SAND.		00 Sand Pack (28 - 29 feet bgs)
25									
30									#2 Filter Sand (29 - 41 feet bgs)
35									0.02 inch slotted PVC Screen (31 - 41 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morallis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-24D-1
Client: CEMC

MW-24D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
		2.5 / 4			28.3		Brown fine to coarse SAND, some fine gravel, trace concrete.		Cap Cement Pad
					27.7		Brown coarse SAND and coarse to fine GRAVEL, trace quartz pieces, wet.		Bentonite (1 - 3 feet bgs)
5		3.8 / 4			31.2		Dark green coarse to fine SAND, some gravel, wet.		Sand Pack (3 - 5 feet bgs)
					30.8		Dark grey fine SAND, some silt, trace gravel, wet.		
					22.2		Dark green coarse to fine SAND, some gravel, wet.		
		3.0 / 4	NA		20.7		Dark grey SILT, some clay, trace organices, sulfur odor, wet.		2 inch PVC Casing (0.5 - 17 feet bgs)
10					16.4				
					16.2				
					19.2				
		1.7 / 4			2.1		Dark grey SILT, some clay, trace organices, sulfur odor, wet.		Bentonite (8 - 14 feet bgs)
					10.7				00 Sand Pack (14 - 15 feet bgs)
15					13.8				
					2.0		Light grey fine to coarse SAND, some silt, trace fine gravel, wet.		
					16.1		Brown fine to coarse SAND and GRAVEL, wet.		#2 Filter Sand (15 - 27 feet bgs)
		1.5 / 4			2.1				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (17 - 27 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct-Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-24D-2
Client: CEMC

MW-24D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		28.3		Brown fine to coarse SAND, some fine gravel, trace concrete.		Cap Cement Pad
					27.7		Brown coarse SAND and coarse to fine GRAVEL, trace quartz pieces, wet.		
5		3.8 / 4			31.2		Dark green coarse to fine SAND, some gravel, wet.		Bentonite (1 - 3 feet bgs)
					30.8		Dark green coarse to fine SAND, some gravel, wet.		Sand Pack (3 - 8 feet bgs)
		3.0 / 4			22.2		Dark grey fine SAND, some silt, trace gravel, wet.		
					20.7		Dark green coarse to fine SAND, some gravel, wet.		2 inch PVC Casing (0.5 - 32 feet bgs)
10					16.4		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
					16.2				
					19.2				
		1.7 / 4			2.1		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (8 - 29 feet bgs)
15					10.7				
					13.8		Light grey fine to coarse SAND, some silt, trace fine gravel, wet.		
					2.0		Brown fine to coarse SAND and GRAVEL, wet.		
		1.5 / 4			16.1				
20					2.1		SAND and GRAVEL.		00 Sand Pack (29 - 30 feet bgs)
25									
30									#2 Filter Sand (30 - 42 feet bgs)
35									0.02 inch slotted PVC Screen (32 - 42 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/7/06 — Date Finished: 12/22/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 75 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 19 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 9'/63'	Water Level (ft.): First ▽ 4 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light Brown coarse to fine SAND, some coarse to fine gravel		0						1015 - Begin drilling from 0'-5' bgs using hollow-stem auger.
		Brown coarse to fine SAND, little coarse to fine gravel		1 2 3 4						
		Brown coarse SAND, some medium sand, little coarse to fine gravel (wet)		5						1023 - Drilling complete to 5' bgs. Begin split-spoon sampling.
		Grey coarse SAND little coarse to fine gravel (Wet)		6	1	SS	12	4 3 4	7	
		Grey coarse SAND, little medium to fine sand, trace coarse to fine gravel (Wet, Petroleum Odor)		7						Auger to 7ft bgs
		Dark Grey CLAY, some peat, trace of silt (Organic and Petroleum Odor)		8	2	SS	17	4 2 1 1	3	
		Dark Grey CLAY, some peat, trace of silt (Organic and Petroleum Odor)		9						Auger to 9 ft bgs 8" casing installed at 9 ft bgs
		Brown coarse to fine SAND, some coarse to fine gravel		10	3	SS	3	1 1/12" 1		
		Dark grey CLAY, some shells and silt, soft (Wet, Strong Petroleum Odor)		11	4	SS	24	1/12"	Refusal	1040 - Stop Drilling
			27.2	12				1/12"		Resume drilling at 1045 on 12/20/2006
		Dark grey CLAY, some silt, soft (Wet, Strong Sulfur Odor)		13					Refusal	
			25.5	14	5	SS	24	1 1 1	2	
				15				3		Auger to 15 ft bgs
			45.5	16	6	SS	20	1 1 1	2	
				17				1		
			34.9	18	7	SS	24	3 6 6	12	
				19				7		Auger to 19 ft bgs
		Grey fine to medium SAND, trace silt and clay (Wet, strong petroleum odor) Brown fine to medium SAND, trace coarse sand (Wet, strong petroleum odor)		20	8	SS	10	8 16	31	

G:\DATA\718\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W JGS.GPJ 5/23/2007 3:44:18 PM Report: Log - LANGAN Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 2 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				89.7 20	8	SS	10	15 20	31	
				21						
				22						
				23						Auger to 23 ft bgs Begin sampling at 5ft intervals
				55.9 24	9	SS	10	6 5 6 6	11	
				25						
				26						
				27						
				28						Auger to 28 ft bgs
		Fine rounded GRAVEL gray, white yellow and clear								
		White coarse to fine SAND, some fine rounded gravel (Wet, Petroleum Odor)		61.5 29	10	SS	10	10 15 17 15	32	
		White coarse to medium SAND		30						
				31						
				32						
				33						Auger to 33 ft bgs
				67.6 34	11	SS	10	6 8 10 12	18	
		White coarse to medium SAND, some fine sand (Wet, Petroleu Odor)		35						
				36						
				37						
				38						Auger to 38 ft bgs
				39	12	SS	8	5 10 14 14	24	
		White Coarse to Medium SAND, soem f gravel and fine sand (Wet, very slight odor)		40						
				41						
				42						
				43						Auger to 43 ft bgs
				44	13	SS	10	6 7 8 8	15	
				45						

G:\DATA7\182\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... Report: Log - LANGAN ...Template TEMPLATE.GDT 5/23/2007 3:44:18 PM ...GS.GPJ

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 3 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White Coarse to Medium SAND, some f gravel and fine sand (Wet)		45						
				46						
				47						
				48				5		Auger to 48 ft bgs Stop Drilling
				49	14	SS	8	10 12 12	22	
		White medium to fine SAND, trace f gravel (Wet, slight odor)		50						
				51						
				52						
				53				15		Resume Drilling at 0800 on 12/21/2006 Auger to 53 ft bgs
			0.8	54	15	SS	5	25 30 30	55	
		Light Brown medium-fine SAND, trace f gravel (Wet, very slight odor)		55						
				56						
				57						
				58				4		Auger to 58 ft bgs
				59	16	SS	10	20 38 37	58	
		Light Brown to white fine to medium SAND, trace fine gravel (Wet)		60						
				61						
				62						
				63				5		Auger to 63 ft bgs
				64	17	SS	10	16 18 30	34	
		Light Brown fine to medium SAND (Wet)		65						
				66						
				67						
				68				9		Auger to 68 ft bgs
				69	18	SS	10	9 16 16	25	
				70						

G:\DATA7\183\ GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... JS.GPJ ... 5/23/2007 3:44:19 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark grey-green silty CLAY, very stiff, moist (no odor)		70						
				71						
				72						
				73						Auger to 73 ft bgs
				74	19	SS	16	3 3 6 9	9	
				75						End of Boring at 75 ft bgs Remove temporary 4" steel casing Drill with 6" roller bit from 0 to 63 ft bgs 4" permanent steel casing installed from 0 to 63 ft bgs (grout in place) Monitoring well installed at 73 ft bgs
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

Report: Log - LANGAN ...Template TEMPLATE.GDT ... 5/23/2007 3:44:20 PM ... 3S.GPJ

G:\DATA7\183\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct-Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-25D-1
Client: CEMC

MW-25D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		CONCRETE and REBAR.		Cap; Cement Pad
					0		Lightbrown coarse to fine SAND and GRAVEL, wet.		
		2.0 / 4			0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Bentonite (1 - 3 feet bgs)
5					0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Sand Pack (3 - 9 feet bgs)
		3.8 / 4			0				
		1.5 / 4	NA		25.5		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		2 inch PVC Casing (0.5 - 16 feet bgs)
					24.7		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
10					228		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
					48.3				
		4.0 / 4			9.7		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (9 - 13 feet bgs)
					8.0				00 Sand Pack (13 - 14 feet bgs)
15					28.1		Dark brown coarse to fine SAND, some fine gravel, trace silt, wet.		
							GRAVEL and SAND.		#2 Filter Sand (14 - 26 feet bgs)
20									
25									0.02 inch slotted PVC Screen (16 - 26 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/25/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morris
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 41 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-25D-2
Client: CEMC

MW-25D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.0 / 4	NA		0		CONCRETE and REBAR.		Cap
					0		Lightbrown coarse to fine SAND and GRAVEL, wet.		Cement Pad
					0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Bentonite (1 - 3 feet bgs)
5		3.8 / 4			0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Sand Pack (3 - 9 feet bgs)
		1.5 / 4			0		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
					25.5				2 inch PVC Casing (0.5 - 31 feet bgs)
10					24.7		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
					228		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
		4.0 / 4			48.3				Bentonite (9 - 28 feet bgs)
					9.7		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
15					8				
					28.1		Dark brown coarse to fine SAND, some fine gravel, trace silt, wet.		
							GRAVEL and SAND.		
20									
25									00 Sand Pack (28 - 29 feet bgs)
30									
35									#2 Filter Sand (29 - 41 feet bgs)
									0.02 inch slotted PVC Screen (31 - 41 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

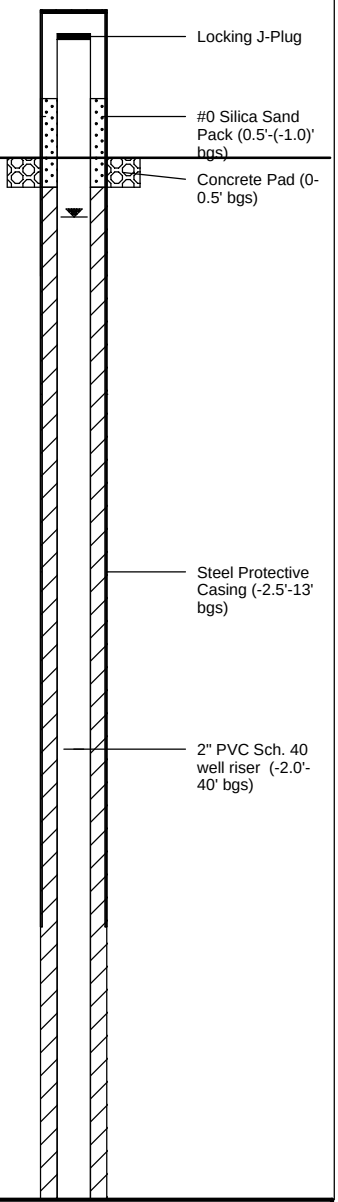
Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to medium Gravel, Organics (roots), Silt (M,NP)
		2	2-4	Grab	1,031		moderate to heavy petroleum-like odor
5	0	3	4-6	Grab	82.6		Grey to brown fine to medium SAND, some fine to medium Gravel, little Silt (S,NP)
		4	6-8	Grab	45.6		moderate petroleum-like odor
		5	8-10	2.0	27.8		Grey SILT and CLAY, little Organics (peat, roots), trace fine Sand (S,P)
10	-5	6	10-12	2.0	38.3		
		7	12-13	1.0	17.2		set 4" steel casing and switched to Mud-Rotary at 13' bgs
		8	13-15	2.0	23.2		
15	-10	9	15-17	2.0	17.8		
		9	15-17	2.0	17.8		Brown to grey fine to medium SAND, little Peat, Silt, trace Clay (S,NP) faint odor
							Brown fine to medium SAND, trace fine Gravel (S,NP)

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		10	17-19	2.0	17.9		faint petroleum-like odor (possibly drawdown)
20	-15	11	19-21	2.0	23.7		
		12	21-23	2.0	39.8		
		13	23-25	2.0	3.2		
25	-20	14	25-27	2.0	0.3		Brown fine to coarse SAND, trace fine Gravel (S,NP)
		15	27-29	2.0	0.3		
30	-25	16	29-31	2.0	0.0		
		17	31-33	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 38' bgs
35	-30						

Well/Boring Construction

Cement/Bentonite Grout (0.5'-35' bgs)

Bentonite Seal (35'-38' bgs)

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10 **Drilling Company:** Parratt Wolff **Driller's Name:** J. Price **Drilling Method:** 4.24" HSA **Sampling Method:** 2" x 2' Split Spoon **Rig Type:** Vac Unit/IR 466	**Northing:** 164759.23 **Easting:** 1080931.65 **Casing Elevation:** 5.66 **Borehole Depth:** 50' bgs **Surface Elevation:** 5.49 **Descriptions By:** MWE	**Well/Boring ID:** **MW-25-D3** **Client:** Chevron **Location:** Oceanside Former Gulf Terminal Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40	-35	18	38-40	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 43' bgs	#0 Silica Sand Pack (38'-50' bgs)
		19	43-45	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 48' bgs	2" PVC Sch. 40 well screen (40'-50' bgs)
45	-40	20	48-50	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP)	
50	-45						End of boring at 50' bgs	

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/6/06 — Date Finished: 12/19/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 75 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 21 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 14'/63'	Water Level (ft.): First ▽ 5 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light Brown medium to fine SAND, some coarse to fine gravel		0	1	SS	10	8 12 8	20	1330 - Begin drilling with a hollow-stem auger
		Black coarse SAND, some medium sand, little coarse to fine gravel (Petroleum Smell)	0.8	1				8		
				2	2	SS	10	6 5 8	13	
		Black coarse SAND, some medium sand, some coarse to fine gravel (Wet, Petroleum odor)	30	3				6		Auger to 4 ft bgs
		▽		4	3	SS	12	5 5 7	12	
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)	20.5	5				7		
				6	4	SS	22	7 4 3	7	
			34	7				4		Auger to 8 ft bgs
		(No Recovery)		8	5	SS	0	2 1/12"		
				9				1		
				10	6	SS	0	WH/2"	Refusal	
				11					Refusal	
		Dark gray CLAY, trace of peat, trace of silt (Wet,Petroleum and organic smell)		12	7	SS	24	1/12"		
			47.5	13				1/12"		
		Dark brown CLAY, some coarse to fine gravel, little peat (Petroleum and organic smell)		14	8	SS	3	WH/12"	Refusal	Auger to 14 ft bgs 8" Casing Placed at 14 ft bgs
			20	15				1		
								1	Refusal	Stop Drilling at 1430 on 12/06/2006
		Dark brown CLAY, some coarse to fine gravel, little peat (Petroleum and organic smell)		16						
		Brown fine to medium SAND, trace coarse sand and fine white quartz gravel (Wet, organic and chemical odor)	21.5	17	9	SS	14	3 5 12 20	17	Resume drilling at 0915 on 12/14/2007
		Brown to gray fine to medium SAND (Wet, strong chemical odor)		18						
			33	19	10	SS	15	10 15 20 22	35	
				20						

G:\DATA7\183\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... Report: Log - LANGAN ...Template TEMPLATE.GDT 5/23/2007 3:44:26 PM ...3S.GPJ

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 2 of 4

oject	Former Chevron/Gulf Petroleum Oil Terminal	Project No. 1836740
Location	Oceanside, NY	Elevation and Datum Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown fine to medium SAND, trace fine white quartz gravel (Wet, strong chemical odor)		20 21 22 23						
				24	11	SS	8	5 6 7 10	13	Auger to 23 ft bgs Start sampling at 5 ft intervals
		Gray to white medium to coarse SAND, trace fine sand (Wet, chemical odor)	16.7	25 26 27						
				28	12	SS	8	10 17 18 13	35	Auger to 28 ft bgs
		White fine to medium SAND (Wet, organic/chemical odor)	16.1	29 30 31 32						
				33	13	SS	10	13 19 22 22	41	Auger to 33 ft bgs Sand is caving need a larger bit of casing (break down for the day) Resume Drilling on 12/15/2006 at 1015 Install temporary 4" casing from 0-14 ft bgs Drill from 0 to 33 ft using 4" mud rodary Borehole filling in with Sand, installa additional temporary 4" steel casing to 29 ft bgs Drill to 38 ft bgs Too much sand in mud stop to change mud
		White medium to coarse SAND, some fine sand (Wet, slight organnc chemical odor)	3.4	34 35 36						
			0.0	37 38						
				39	14	SS	12	9 12 14 12	26	
		Fine gravel (gray, white and yellow)	0.0	40 41 42						
				43						Drill to 43 ft bgs
		Medium to coarse gray to yellow SAND, some fine sand and fine gravel (Wet)		44 45	15	SS	10	6 7 9 10	16	

G:\DATA7183.
GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\V.
3S.GPJ ... 5/23/2007 3:44:27 PM ... Report Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown and gray medium coarse SAND and fine rounded gravel, trace fine sand (Wet)	0.0	45						
				46						
				47						
				48						Drill to 48 ft bgs
			0.0	49	16	SS	16	7 3 7 20	10	
		White fine to medium SAND (Wet)		50						
				51						
				52						
				53						Drill to 53 ft bgs
			0.0	54	17	SS	14	19 20 30 35	50	
		White fine to medium SAND, some coarse sand, trace fine gravel (Wet)		55						Mud pad empty, mud is being quickly sucked up by the gravel layer. Stop to mix new mud
				56						
				57						
				58						Drill to 58 ft bgs
			0.0	59	18	SS	10	15 22 24 28	46	
		White to light brown fine to medium SAND, trace fine rounded gravel (Wet)		60						
				61						
				62						
				63						Drill to 63 ft bgs
			0.0	64	19	SS	10	12 20 22 25	42	
		Light brown fine to medium SAND, trace coarse sand (Wet)		65						
				66						
				67						
				68						Drill to 68 ft bgs
			0.0	69	20	SS	10	12 15 15 17	30	
				70						

G:\DATA\7183\...\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... 5/23/2007 3:44:28 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Darg gray-green silty CLAY, very dense moist		70						
				71						
				72						
				73						Dril to 73 ft bgs
				74	21	SS	24	10 10 17 20	27	
				75						End of boring at 75 ft bgs Install 4" steel inner casing from 0 to 63 ft bgs 2" PVC Monitoring well installed at 73 ft bgs
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

G:\DATA7\183 ...IGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... 3S.GPJ ... 5/23/2007 3:44:28 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

Date Started/Finish: 9/24/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2-inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 25 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-26D-1
Client: CEMC

MW-26D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		0		Dark grey coarse to medium SAND and coarse to fine GRAVEL, wet.		Cap; Cement Pad
					0				
					0		Dark brown coarse to fine SAND and coarse GRAVEL, trace silt, wet.		Bentonite (1 - 3 feet bgs)
5		0.9 / 4			0				Sand Pack (5 - 8.5 feet bgs)
		2.3 / 4			0				
					25.5		Dark grey SAND, some silt, moist to wet.		
					24.7		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		2 inch PVC Casing (0.5 - 15 feet bgs)
10					228				
					48.3				Bentonite (8.5 - 12 feet bgs)
		1.4 / 4			9.7		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		00 Sand Pack (12 - 13 feet bgs)
					8.0		Brown coarse to fine SAND, trace shells and gravel, wet.		
15					28.1				
							GRAVEL and SAND.		#2 Filter Sand (13 - 25 feet bgs)
20									
									0.02 inch slotted PVC Screen (15 - 25 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

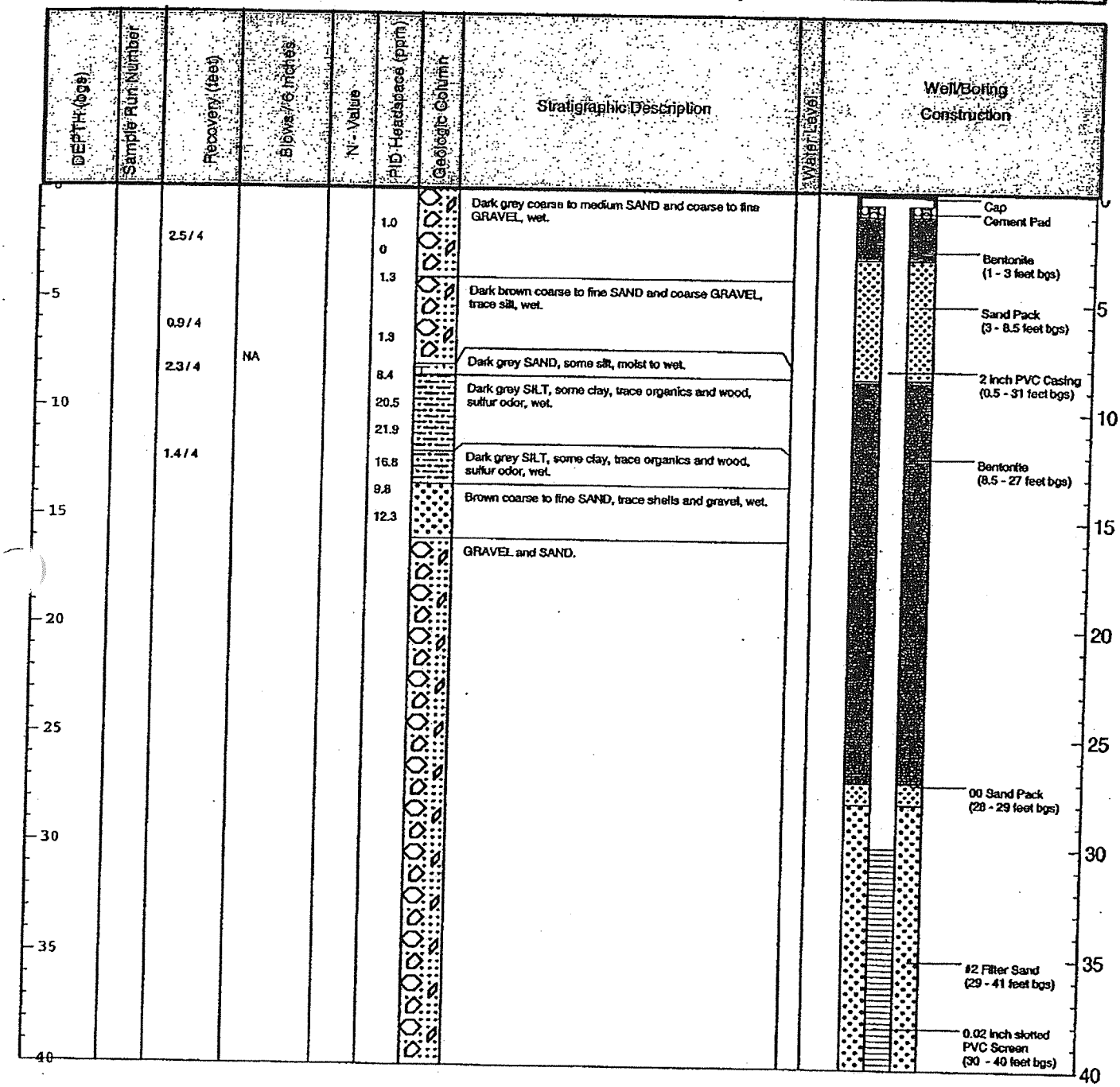
Date Start/Finish: 9/24/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morris
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 40 feet
Surface Elevation:
Geologist: Joe Lisj

Well/Boring ID: MW-26D-2
Client: CEMC

MW-26D-2

Location: Former Gulf Oil Terminal
Industrial Road and Rampton Road
Oceanside, NY



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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 1 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/5/06
Date Finished	12/28/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	70 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 18 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	16'/60'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▼
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Blac coarse to fine SAND, some coarse to fine gravel (Petroleum Odor)		0						1420 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel (Wet)		5	1	SS	1.5	1 1/12"		Auger to 5 ft bgs
			3.5	6						
		Black coarse to fine SAND, some coarse to fine gravel (Wet)		7	2	SS	0	1 WH/24"	Refusal Refusal	
				8						Auger to 9 ft bgs
				9	3	SS	1	WH/18"		
			0	10				1	Refusal	
		Black coarse SAND, some medium to fine sand, some fine gravel (Wet)		11	4	SS	0.5	WH/12"		
				12				1		
				13				1	Refusal	Auger to 13 ft bgs
		Black coarse SAND, little medium sand, little fine gravel (Wet)		14	5	SS	2	2 1 2 5	3	
		Dark brown CLAY, some peat some silt (organic and petroleum odor)		15	6	SS	14	2 4 4 5	8	
		Light brown medium SAND, some fine sand		16						
		Brown medium SAND, some fine sand, trace silt (Petroleum odor, wet)		17	7	SS	24	7 8 9 10	17	Auger to 17 ft bgs 8" Casing installed at 16 ft Stop Drilling at 1600 on 12/5/2006 Resume Drilling on 12/28/2006 Install temporary 4" steel casing from 0 to 15 ft bgs Drill to 19 ft bgs
			1.5	18						
		Brown medium to fine SAND, some fine rounded gravel, trace mica flakes (Wet, strong chemical odor)		19	8	SS	6	8 11	24	
				20						

G:\DATA\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W GS.GPJ... 5/23/2007 3:44:34 PM... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 2 of 4

oject	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown coarse to medium SAND, some fine rounded gravel (Wet, Strong chemical odor)	10.1	20	8	SS	6	13 17		
				21						
				22						
				23						Drill to 23 ft bgs
				24	9	SS	7	21 31 57 50/3"	88	
		Whte fine to medium SAND (Wet, faint chemical odor)	5.2	25						Gravel is clogging the hole, drive additional temporary 4 " steel casing to 25 ft bgs
				26						
				27						
				28						Drill to 28 ft bgs
			0	29	10	SS	6	21 47 38 42	85	
		Whte fine to medium SAND, some coarse sand (Wet, slight chemical odor)		30						
				31						
				32						
				33						Resume Drilling on 12/29/2006 Drill to 33 ft bgs
			2.4	34	11	SS	6	20 18 22 25	40	
		White coarse to fine SAND (Wet)		35						
				36						
				37						
				38						Drill to 38 ft bgs
			0	39	12	SS	6	22 27 23 40	50	
		Light Brown to white Coarse SAND and fine GRAVEL, some medium to fine sand (Wet)		40						
				41						
				42						
				43						Drill to 43 ft bgs
			0	44	13	SS	6	19 22 30 38	52	
				45						

G:\DATA7\1836\ ...3INEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\WE ...S.GPJ ... 5/23/2007 3:44:35 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White fine to medium SAND, trace coarse sand (Wet)		45						
				46						
				47						
				48						Drill to 48 ft bgs
				49	14	SS	6	27 26 33 38	59	
		Light brown medium to fine SAND, some coarse sand (Wet, very faint odor)		50						
				51						
				52						
				53						Drill to 53 ft bgs
			0.7	54	15	SS	6	28 33 40 50/3"	73	
		Light Brown to white medium to fine SAND, trace fine gravel (Wet)		55						
				56						
				57						
				58						Drill to 58 ft bgs
			0	59	16	SS	6	34 36 35 55	71	
		Darg grey medium to fine SAND, some silt and clay, some fine gravel (Wet)		60						
				61						
				62						
				63						Drill to 63 ft bgs
			0	64	17	SS	10	43 50 50 50	100	
		Dark grey SILT, some fine white shell fragments, moist		65						
				66						
				67						
				68	18	SS	6			
			0	69						
				70						

G:\DATA\1836 ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\WE S.GPJ ... 5/23/2007 3:44:36 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				70						End of Boring at 70 ft bgs
				71						
				72						
				73						
				74						
				75						
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

G:\DATA7\1 NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\ GS.GPJ ... 5/23/2007 3:44:36 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore - 4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 28 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-27D-1
Client: CEMC

MW-27D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.7 / 4			0 3.2		Brown fine to coarse SAND, trace organics. Grey coarse SAND, some coarse to fine gravel, odor, moist.		Cap Cement Pad
5		3.5 / 4			41.1 8.4		Grey coarse SAND, some coarse to fine gravel, odor, moist.		Bentonite (1 - 3 feet bgs) Sand Pack (3 - 12 feet bgs)
		0.0 / 4	NA		11.3 2.1		Brown coarse to fine SAND, some gravel, little silt, no odor. No recovery.		2 inch PVC Casing (0.5 - 16 feet bgs)
10		3.0 / 4			0 0 0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		Bentonite (12 - 15 feet bgs) 00 Sand Pack (15 - 16 feet bgs)
15					2.8		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		
		2.2 / 4			0 11.3		Brown fine to coarse SAND and GRAVEL, wet.		#2 Filter Sand (16 - 28 feet bgs)
20							SAND and GRAVEL		
25									0.02 inch slotted PVC Screen (18 - 28 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/29/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Meralis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 43 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-27D-2
Client: CEMC

MW-27D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.7 / 4	NA		0		Brown fine to coarse SAND, trace organics.		Cap Cement Pad
					3.2		Grey coarse SAND, some coarse to fine gravel, odor, moist.		
5		3.5 / 4			41.1				Bentonite (1 - 3 feet bgs)
					8.4		Grey coarse SAND, some coarse to fine gravel, odor, moist.		Sand Pack (3 - 12 feet bgs)
		0.0 / 4			11.3		Brown coarse to fine SAND, some gravel, little silt, no odor.		
					2.1		No recovery.		2 inch PVC Casing (0.5 - 33 feet bgs)
10					0				
					8.1				
		3.0 / 4			13.4				
					0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		
					0				
15					0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		Bentonite (12 - 30 feet bgs)
					2.8				
		2.2 / 4			0		Brown fine to coarse SAND and GRAVEL, wet.		
20					11.3				
							SAND and GRAVEL.		00 Sand Pack (30 - 31 feet bgs)
25									
30									#2 Filter Sand (31 - 43 feet bgs)
35									0.02 inch slotted PVC Screen (33 - 43 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 10/6/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-28D-1
Client: GEMC

MW-28D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap; Cement Pad
		1.8 / 4					Brown coarse to fine SAND, moist to wet.		
					7.5		Light grey coarse SAND and fine GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5							Light grey coarse SAND and fine GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			14.1				
		1.0 / 4	NA				Dark grey CLAY, some silt, trace organics and wood.		2 inch PVC Casing (0.5 - 17.5 feet bgs)
10					58.7				
		0.5 / 4					Dark grey CLAY, some silt, trace organics and wood.		Bentonite (8 - 15 feet bgs)
					3.5				
15							Dark grey CLAY, some silt, trace organics and wood.		00 Sand Pack (15 - 16 feet bgs)
					12.3		Brown to grey medium to fine SAND, trace coarse gravel, wet.		#2 Filter Sand (16 - 27.5 feet bgs)
		3.0 / 4			99.4				
20							SAND and GRAVEL.		
25									0.02 inch slotted PVC Screen (17.5 - 27.5 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 10/5/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-28D-2
Client: CEMC

MW-28D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap Cement Pad
		1.8/4			7.5		Brown coarse to fine SAND, moist to wet.		
5							Light grey coarse SAND and fine GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
		2.0/4			14.1		Light grey coarse SAND and fine GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		1.0/4	NA				Dark grey CLAY, some silt, trace organics and wood.		2 inch PVC Casing (0.5 - 32.5 feet bgs)
10					58.7				
		0.5/4					Dark grey CLAY, some silt, trace organics and wood.		Bentonite (8 - 30 feet bgs)
					3.5				
15							Dark grey CLAY, some silt, trace organics and wood.		
					12.3		Brown to grey medium to fine SAND, trace coarse gravel, wet.		
		3.0/4			99.4				
20							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 42.5 feet bgs)
									0.02 inch slotted PVC Screen (32.5 - 42.5 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 6/17/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 164618.6100
Easting: 1080862.1500
Casing Elevation: NA

Borehole Depth: 46' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **MW-28-D2R**

Client: Chevron Environmental Management Company

Location: Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							J-plug; Locking steel protective casing
0							
				0.0		Hand-cleared by AirVac Truck to 8.0' bgs.	Concrete pad
				0.0			
				0.0			
5	1	0-8	NA	0.0			
5				0.0			2" dia. Sch. 40 PVC riser (2' ags-37' bgs)
				0.0			
				0.0			
				0.0			
0				0.0		Dark Gray medium to fine SAND, some fine to coarse Gravel, rounded, wet. Water approximately at 9.0' bgs.	
10				0.0			Grout (1-33' bgs)
				0.0		Dark Gray CLAY, some Organics (grass), little Silt. [Meadow Mat]	
	2	8-15	5.5	0.0			
				0.3		Dark Gray CLAY, little Organics (grass and shells), moist. [Meadow Mat]	
-5				0.2			
15				1.3			
				0.3			

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

Client: Chevron Environmental Management Company

Well/Boring ID: **MW-28-D2R**

Borehole Depth: 46' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				8.8			Grout (1-33' bgs)
	3	15-20	5.5	7.5			2" dia. Sch. 40 PVC riser (2' ags-37' bgs)
-10				14.0		Dark Gray medium to fine SAND and SILT, trace medium to fine Gravel, rounded, moist.	
20				45.0			
				2.6		Brown fine to medium SAND, trace medium to fine Gravel, round, mica.	
	4	20-25	5.0	7.5			
				0.0			
-15				0.3			
				14.0			
25				0.0			
				0.0			
	5	25-30	4.0	0.0		Some medium to fine, rounded Gravel. Wet.	
				0.0		Brown to light brown coarse to medium SAND, some coarse to fine Gravel.	
-20				0.0			
30				0.0		Light Gray coarse to medium SAND and fine Gravel, rounded.	
				0.0			
	6	30-35	2.0	0.0			
				0.0			
-25				0.0			Bentonite seal (33-35' bgs)
35				0.0			

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **MW-28-D2R**

Borehole Depth: 46' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	7	35-40	4.5	0.0 0.0 0.0 0.0		Trace medium to coarse rounded Gravel. 1-inch color change to orange-brown. Light Gray medium to fine SAND, little medium to fine Gravel, rounded, mica present.	
-30 40	8	40-46	NR	0.0 0.0 0.0 0.0 0.0		No Recovery. Overdrilled to 46.0' bgs for well placement. End of boring 46' bgs.	Filter sand (35-47' bgs) 2" dia. Sch. 40 PVC 0.020" slotted screen (37-47' bgs)
-35 45							
-40 50							
-45 55							

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

Date Start/Finish: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-29D-1
Client: CEMC

MW-29D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows /6 inches	N Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							GRAVEL and ASPHALT		Cap
					0		Light brown coarse to fine GRAVEL, little sand, moist.		Cement Pad
		3.5 / 4			61.2		Grey coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
					186				
5					20.6		Grey coarse to fine SAND and GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		4.0 / 4			20.3				
			NA		0		Grey coarse to fine SAND and GRAVEL, some silt, wet.		
		3.4 / 4			0		Grey SILT, trace clay and organics, wood, and shells, wet.		2 inch PVC Casing (0.5 - 17 feet bgs)
10					0				
					0				
		2.7 / 4			0		Grey SILT, trace clay and organics, wet.		Bentonite (8 - 14 feet bgs)
					0				
15					0		Dark grey to black SILT and fine SAND, trace fine gravel, wet.		00 Sand Pack (14 - 15 feet bgs)
					0		Brown coarse to fine SAND, some fine gravel, wet.		
		3.5 / 4			0				#2 Filter Sand (15 - 27 feet bgs)
					0				
20							SAND and GRAVEL		
									0.02 inch slotted PVC Screen (17 - 27 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-29D-2
Client: CEMC

MW-29D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows /6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		GRAVEL and ASPHALT		Cap Cement Pad
		3.5 / 4			61.2		Light brown coarse to fine GRAVEL, little sand, moist.		
					186		Grey coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5					20.6		Grey coarse to fine SAND and GRAVEL, wet.		
		4.0 / 4			20.3				Sand Pack (3 - 8 feet bgs)
		3.4 / 4	NA		0		Grey coarse to fine SAND and GRAVEL, some silt, wet.		
					0		Grey SILT, trace clay and organics, wood chips, and shells, wet.		2 inch PVC Casing (0.5 - 32 feet bgs)
10					0				
					0				
		2.7 / 4			0		Grey SILT, trace clay and organics, wet.		Bentonite (8 - 29 feet bgs)
					0				
15					0		Dark grey to black SILT and fine SAND, trace fine gravel, wet.		
					0		Brown coarse to fine SAND, some fine gravel, wet.		
		3.5 / 4			0				
					0				
20							SAND and GRAVEL.		
25									
30									00 Sand Pack (29 - 30 feet bgs)
35									#2 Filter Sand (30 - 42 feet bgs)
									0.02 inch slotted PVC Screen (32 - 42 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-29VD** Sheet 1 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/4/06
Date Finished	12/26/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	65 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 17 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	15'/54'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▼
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse to fine SAND, some coarse to fine gravel, tarce silt		0						0950 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Black coarse to fine SAND, some coarse to fine gravel (Wet, Petroleum odor)		5	1	SS	3	2 2 4 5	6	Auger to 5 ft bgs
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)		6						Auger to 7 ft bgs
				7	2	SS	2	WH 1 1	2	
			0.5	8						
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)		9	3	SS	0.25	WH/24"		Auger to 9 ft bgs
			0	10					Refusal	
		CLAY, some silt, trace fine sand		11	4	SS	3	1 WH/18"		Auger to 11 ft bgs
			0	12					Refusal	
				13	5	SS	0	2 WR/12"		Auger to 13 ft bgs
				14				WH/12"	Refusal	
		Black coarse to medium SAND, trace fine sand, trace gravel		15	6	SS	1.5	WH/18"		Auger to 15 ft bgs 8" Casing installed at 15 ft Stop Drilling at 1110 on 12/4/2006 Resume Drilling on 12/26/2006 at 0900 Install temporary 4" steel casing from 0 to 13 ft bgs Drill to 15 ft
			4.2	16					Refusal	
		Black to brown medium SAND, some fine sand, trace fine gravel (Petroleum Odor, wet)		17				2		
				18	7	SS	8	7 14 14	28	
			0.7	19				15		Drill to 19 ft bgs Install 4" temporary casing to 19 ft bgs
		Brown medium to fine SAND (Petroleum odor, wet)		20	8	SS	14	12 29	45	

G:\DATA\7\18.NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\'GS.GPJ ... 5/23/2007 3:44:42 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-29VD** Sheet 2 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown medium to fine SAND, trace medium to fine subangular beach gravel (wet)	0.4	20	8	SS	14	16 16		
				21						
				22						
				23						Drill to 23 ft bgs
		Brown coarse to fine SAND, trace medium to fine subangular gravel (strong petroleum odor, wet)	0.2	24	9	SS	10	8 14 17 18	31	
				25						
				26						
				27						
				28						
		Brown to white medium to fine SAND, trace medium to fine sub angular beach gravel (strong petroleum odor, wet)	6.9	29	10	SS	4	3 2 5 5	7	
				30						
				31						
				32						
				33						
		Brown to light gray medium to fine SAND, trace fine to medium sub angular beach gravel (slight petroleum odor, wet)	3.8	34	11	SS	10	3 2 2 3	4	
				35						
				36						
				37						
				38						
		Brown to gray coarse to medium SAND, trace fine to medium sub angular beach gravel (slight petroleum odor, wet)	0	39	12	SS	8	2 3 3 2	6	
				40						
				41						
				42						
				43						
			0	44	13	SS	12	3 3 5 5	8	
				45						

N-Value (Blows/ft) scale: 10 20 30 40 45

G:\DATA\7183\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\MW-29VD.GPJ ... 5/23/2007 3:44:43 PM ... Report Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-29VD** Sheet 3 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown to light gray coarse to medium SAND, trace fine to medium sub angular beach gravel		45						
				46						
				47						
				48						
				49	14	SS	6	2 3 2 3	5	
		Light gray mediu to fine SAND, trace medium to fine beach gravel (Wet)		50						
				51						
				52						
				53						
				54	15	SS	16	19 24 26 23	50	
		Light gray fine SAND, trace rock fragments, trace mediu to fine beach gravel (wet)		55						
				56						
				57						
				58						
				59	16	SS	12	13 21 28 40	49	
		Light Gray fine SAND, trace medium to fine beach gravel (wet)		60						
				61						
				62						
				63						
				64	17	SS	12	11 14 11 12	25	
		Gray silty CLAY		65						
				66						Drill to 54 ft bgs using a 6" bit Install Permanent 4" steel casing from 0 to 54 ft bgs Install 2" PVC Monitoring Well from at 63 ft bgs
				67						
				68						
				69						
				70						

G:\DATA7\18-IGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...3S.GPJ ... 5/23/2007 3:44:43 PM ... Report Log - LANGAN ...Template TEMPLATE.GDT

Date Start/Finish: 10/1/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 28 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-30D-1
Client: CEMC

MW-30D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							Coarse SAND and GRAVEL (fill).		Cap
		2.5 / 4			0		Brown coarse to fine SAND and GRAVEL, wet.		Cement Pad
					30.8				
					64.1		Grey brown coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5		2.5 / 4			33		Grey coarse to fine SAND, some gravel, trace silt, wet.		
			NA		35.1				Sand Pack (3 - 8 feet bgs)
		3.0 / 4			8.8				
					0		Grey SILT, some clay, trace fine sand and organics, wet.		2 inch PVC Casing (0.5 - 18 feet bgs)
10					8.1				
					13.4				
		1.5 / 4			0		Grey SILT, some clay, trace fine sand and organics, wet.		Bentonite (8 - 15 feet bgs)
					0				
15					0				00 Sand Pack (15 - 16 feet bgs)
					0		No recovery.		
		0.0 / 4			0				#2 Filter Sand (16 - 28 feet bgs)
					0				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (18 - 28 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Started/Finished: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morallis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 43 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-30D-2
Client: CEMC

MW-30D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

Depth (Feet bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		0		Coarse SAND and GRAVEL (fill).		Cap Cement Pad
					30.8		Brown coarse to fine SAND and GRAVEL, wet.		
5		2.5 / 4			64.1		Grey brown coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
					33		Grey coarse to fine SAND, some gravel, trace silt, wet.		Sand Pack (3 - 8 feet bgs)
		3.0 / 4			35.1				
10					8.8		Grey SILT, some clay, trace fine sand and organics, wet.		2 inch PVC Casing (0.5 - 33 feet bgs)
					0				
		1.5 / 4			8.1				
					13.4		Grey SILT, some clay, trace fine sand and organics, wet.		Bentonite (8 - 30 feet bgs)
15					0				
					0				
					0		No recovery.		
		0.0 / 4							
20							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 43 feet bgs)
									0.02 inch slotted PVC Screen (33 - 43 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 1 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/5/06
Date Finished	12/27/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	86 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 21 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	10'/73'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▽
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse to fine SAND, some coarse to fine gravel (Petroleum Odor)		0						1005 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Black coarse SAND and coarse to fine GRAVEL, little fine sand (Wet, Petroleum odor)		5	1	SS	3	5 4 6 4	10	
			10.2	6						Auger to 7 ft bgs
		Black coarse to fine SAND, some coarse to fine gravel		7	2	SS	18	WH/24"	Refusal	
		Dark brown CLAY, some silt, some peat (Strong petroleum and organic odor)	0.8	8						Auger to 9 ft bgs
		Dark brown CLAY, little peat, little coarse to fine gravel, little silt (organic smell)		9	3	SS	12	1 1 1 1	2	
			1.0	10						Auger to 10 ft bgs Place 8" casing at 10 ft bgs Stop drilling at 1145 Resume drilling on 12/27/2006 Install temporary 4" casing from 0 to 15 ft bgs. Drill to 13 ft bgs
		Soft gray CLAY, some silt, trace organic matter, moist strong sulfur odor		11						
				12						
				13						
			3.9	14	5	SS	24	5 5 6 4	11	
		Soft gray CLAY, some silt amd organic matter, wet, sulfur odor		15						
			3.2	16	6	SS	18	3 5 5 10	10	
		Brown medium to fine SAND, chemical odor (wet)		17						
			0	18	7	SS	8	17 21 30 40	51	
		Coarse to medium SAND, and fine rounded GRAVEL some fine sand, (strong petroleum odor, wet)		19						
				20						

G:\DATA7\183...\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...3S.GPJ ... 5/23/2007 3:44:50 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 2 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20						
				21						
				22						
				23						Drill to 23 ft bgs
				24	9	SS	5	18 23 29 35	52	
		Brown Coarse to fine SAND, some fine GRAVEL, trace silt wet strong chemical odor		25						
				26						
				27						
				28						Drill to 28 ft bgs
			7.3	29	10	SS	8	9 16 18 21	34	
		Brown to white coarse to fine SAND, wet Strong Chemical odor		30						
				31						
				32						
				33						Drill to 33 ft bgs
				34	11	SS	6	10 14 23 20	37	
		White coarse to medium SAND, some fine sand wet Strong Chemical odor		35						
				36						
				37						
				38						Drill to 38 ft bgs
				39	12	SS	7	4 26 19 24	45	
		Light Brown medium SAND, some coarse sand, trace fine sand (wet, slight odor)		40						
				41						
				42						
				43						Drill to 43 ft bgs
				44	13	SS	6	25 27 18 10	45	
				45						

G:\DATA\7185\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\MW-30VD.GPJ ... 5/23/2007 3:44:51 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown to white medium SAND, some coarse to fine sand (wet, very slight odor)		45						
				46						
				47						
				48						Drill to 48 ft bgs
				49	14	SS	6	20 22 30 29	52	
		Light brown to white coarse to fine SAND, some fine rounded gravel (wet)		50						
				51						
				52						
				53						Drill to 53 ft bgs
				54	15	SS	8	30 58 65 74	123	
		White fine to medium SAND, wet		55						
				56						
				57						
				58						Drill to 58 ft bgs
				59	16	SS	4	50 50 50 50	100	
		White fine to medium SAND, some coarse sand, wet		60						
				61						
				62						
				63						Drill to 63 ft bgs
				64	17	SS	10	50 50 50 50	100	
		White fine to medium SAND, some coarse sand, wet		65						
				66						
				67						
				68						Drill to 68 ft bgs
				69	18	SS	12	16 29 41 58	70	
				70						

G:\DATA7\18; ...\GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... 3B.GPJ ... 5/23/2007 3:44:52 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 4 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown to white medium to fine SAND, some medium to fine rounded gravel, wet		70						
				71						
				72						Drill to 72 ft bgs
				73	19	SS	14	22 48 54 54	102	
		White fine SAND very dense, wet, trace mica flakes		74						Resume drilling on 12/28/2006
				75	20	SS	10	22 48 54 54	102	Drill to 74 ft bgs
				76						
				77						
				78						Drill to 78 ft bgs
		White fine SAND very dense, wet, trace mica flakes		79	21	SS	10	38 52 35 50	87	
				80						
				81						
				82						
				83						Drill to 83 ft bgs
		Brown coarse to medium SAND, some fine sand, trace of silt Brown clayey SAND, some medium to fine rounded gravel White fine to medium SAND, some silt and fine gravel Gray sandy CLAY, some fine to medium rounded gravel		84	22	SS	16	26 22 26 32	48	
				85				8		
		Medium to coarse SAND, some silt and clay (greenish), some fine to medium rounded gravel. Lense f grey silty clay		86	23	SS	20	12 38 40	50	End of boring at 85 ft on ~~12/27/2006~~ Drill from 0 to 73 ft bgs with 6" bit Install 4" steel casingfrom 0 to 73 ft bgs Well installed at 83 ft bgs
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

G:\DATA7\16 ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W GS.GPJ ... 5/23/2007 3:44:52 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

Date Start/Finish: 10/7/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore; 4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-31D-1
Client: CEMC

MW-31D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap
		1.2 / 4			4.0		Brown coarse to fine SAND, some fine gravel, moist.		Cement Pad
5							Brown coarse to fine SAND, some fine gravel, wet.		Bentonite (1 - 3 feet bgs)
		2.0 / 4			47.4		Brown coarse to fine SAND, some fine gravel, moist.		Sand Pack (3 - 8 feet bgs)
		3.1 / 4	NA		34.6		Dark grey CLAY, some silt, trace organics, wet.		2 inch PVC Casing (0.5 - 17.5 feet bgs)
10					58.7				
					64.9				
		0.0 / 4					No recovery		Bentonite (8 - 15 feet bgs)
					3.5				
15									00 Sand Pack (15 - 16 feet bgs)
					440		Dark grey CLAY, some silt, trace organics, wet.		
		2.4 / 4					Dark brown coarse to fine SAND, little fine gravel, trace organics, wet.		#2 Filter Sand (16 - 27.5 feet bgs)
					460				
20							SAND and GRAVEL.		
25									0.02 inch slotted PVC Screen (17.5 - 27.5 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 11/16/10 - 12/6/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164601.03
Easting: 1080906.14
Casing Elevation: 6.62

Borehole Depth: 27' bgs
Surface Elevation: 5.21

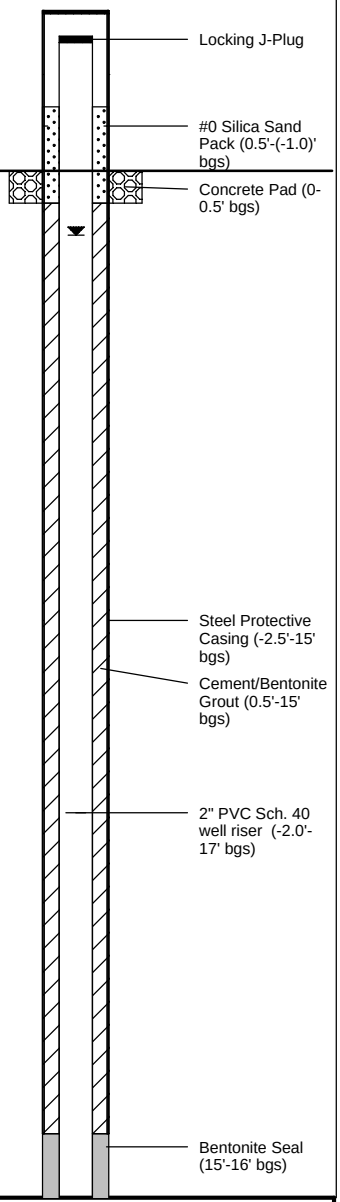
Descriptions By: MWE

Well/Boring ID: **MW-31D-1R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.6		Brown fine to coarse SAND and GRAVEL (S,NP)
		2	2-4	Grab	21.8		moderate petroleum-like odor
5	0	3	4-6	Grab	0.8		Brown fine to coarse SAND, little fine to medium Gravel (S,NP)
		4	6-8	Grab	0.5		
		5	8-10	2.0	2.6		
10	-5	6	10-12	2.0	1.7		Grey SILT and CLAY, little Wood (fibrous), Organics, trace fine Sand (S,MP)
		7	12-14	2.0	0.8		faint sulfur and petroleum-like odor (9.5'-23' bgs)
							Drilled to 15' bgs to set 4" steel casing
15	-10	8	15-17	NR	NA		No Recovery



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-1R**

Borehole Depth: 27' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		8	15-17	NR	NA			
		9	17-19	1.2	2.5		Brown to grey fine to medium SAND, trace fine to medium Gravel (S,NP)	
20	-15	10	19-21	1.0	8.6		faint sulfur and petroleum-like odor (9.5'-23' bgs)	#0 Silica Sand Pack (16'-27' bgs)
		11	21-23	2.0	0.0			2" PVC Sch. 40 well screen (17'-27' bgs)
		12	23-25	1.3	0.0			
25	-20	13	25-27	1.0	0.0			
							End of boring at 27' bgs	
30	-25							
35								

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 10/7/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 42.5 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-31D-2
Client: CEMC

MW-31D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap Cement Pad
		1.2 / 4			4.0		Brown coarse to fine SAND, some fine gravel, moist.		Bentonite (1 - 3 feet bgs)
5							Brown coarse to fine SAND, some fine gravel, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			47.4		Brown coarse to fine SAND, some fine gravel, moist.		
		3.1 / 4	NA		34.6		Dark grey CLAY, some silt, trace organics, wet.		2 inch PVC Casing (0.5 - 32.5 feet bgs)
10					64.9				
		0.0 / 4					No recovery		Bentonite (8 - 30 feet bgs)
15									
					440		Dark grey CLAY, some silt, trace organics, wet.		
		2.4 / 4					Dark brown coarse to fine SAND, little fine gravel, trace organics, wet.		
20					460				
							SAND and GRAVEL.		00 Sand Pack (30 - 31 feet bgs)
25									
30									#2 Filter Sand (31 - 42.5 feet bgs)
35									0.02 inch slotted PVC Screen (32.5 - 42.5 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 11/17/10 - 12/7/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164603.76
Easting: 1080912.75
Casing Elevation: 6.11

Borehole Depth: 42' bgs
Surface Elevation: 5.41

Descriptions By: MWE

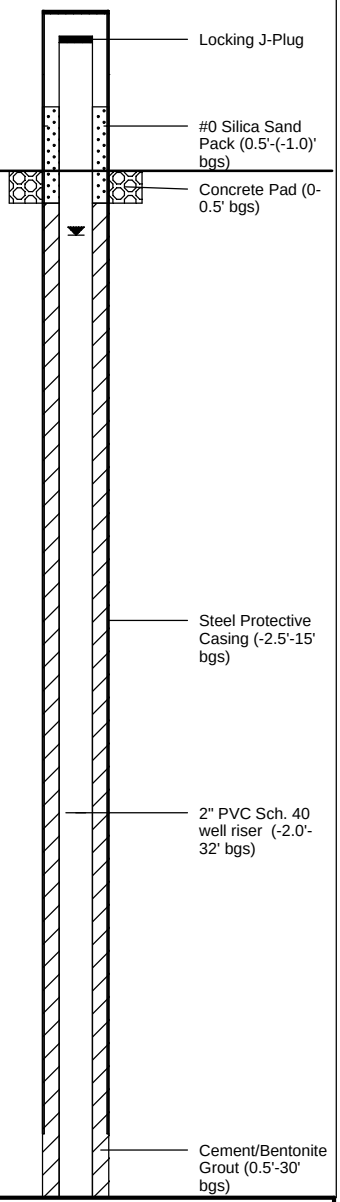
Well/Boring ID: **MW-31D-2R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.2		Brown fine to coarse SAND and fine to medium subangular Gravel (S,NP)
		2	2-4	Grab	2.3		
5	0	3	4-6	Grab	78.4		Brown to grey fine to medium SAND, little to trace fine to medium Gravel (S,NP)
		4	6-8	Grab	11.7		heavy petroleum-like odor at water table
		5	8-10	2.0	6.8		
10	-5	6	10-12	2.0	3.4		Grey CLAY and SILT, little to trace fine Sand, Organics, trace fine to medium Gravel (S,MP) meadowmat material
		7	12-14	2.0	2.3		heavy sulfur-like odor
							Drilled from 14' to 15' before beginning mud rotary
15	-10	8	15-17	1.0	52.4		Grey to brown fine to medium SAND, trace fine to medium Gravel (S,NP)

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

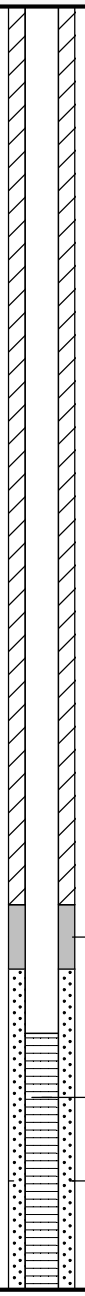
Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		8	15-17	1.0	52.4		
		9	17-19	1.6	20.0		
20	-15	10	19-21	2.0	6.8		
		11	21-23	2.0	2.8		
		12	23-25	2.0	1.7		Brown fine to coarse SAND
25	-20	13	25-27	2.0	0.6		
		14	27-29	2.0	0.0		Brown medium to coarse SAND, little fine Sand (S,NP)
30	-25	15	29-31	2.0	0.0		
		16	31-33	2.0	0.0		
		17	33-35	2.0	0.0		Brown coarse SAND, trace fine to medium Sand (S,NP)
35	-30						Drilled to 42' bgs, unable to keep hole open for representative sample collection

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

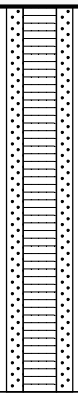
Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40	-35							
45	-40						End of boring at 42' bgs	
50	-45							

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-32D** Sheet 1 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/7/06
Date Finished	12/13/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	35 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 15 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"
Casing Depth (ft)	17'
Water Level (ft.)	First ▽ 9 / Completion ▼ / 24 HR. ▼
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark gray coarse SAND, some medium to fine sand, some coarse to fine gravel		0						1315 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Light gray coarse SAND, some medium sand, trace coarse to fine grael	0.2	5	1	SS	10	2 4 4	8	Auger to 5 ft bgs
		Light gray coarse SAND, soe medium sand, moist	5.0	6				5		Auger to 7 ft bgs
				7	2	SS	24	3 2 2 2		
		Dark gray CLAY, some peat (organis smell, moist) ▽		8						Auger to 9 ft bgs
		Light gray coarse SAND, some medium to fine sand, trace of brick (wet)	0.0	9	3	SS	4	1/12" 1/12"		
				10						Auger to 11 ft bgs
		Light gray coarse SAND, some medium to fine sand, trace of brick (wet)	0.0	11	4	SS	0.5	WH/24"	Refusal Refusal	
				12						Auger to 13 ft bgs
				13	5	SS	0	WH/24"	Refusal	
				14						Auger to 15 ft bgs
		Light gray coarse SAND, some medium to fine sand, wet	12	15	6	SS	24	1/12" 1 1		
		Dark gray CLAY, some silt, little peat (organic smell)		16						Auger to 17 ft bgs
		Dark gray CLAY, trace peat, some silt (organic smell)	22	17	7	SS	1	WH/18"	Refusal	8" casing installed at 17 ft bsg
				18				1	Refusal	Stop drilling at 1600 on 12/7/2006
		Dark gray CLAY, trace peat, some silt (organic smell)	0.0	19	8	SS	13	WOR/12"		Resume drilling at 1015 on 12/13/2006 Drill to 19 ft bgs
				20					Refusal	

G:\DATA\16:\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W GS.GPJ ... 5/23/2007 3:44:58 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-32D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		PEAT and organic matter some clay, sulfur odor		20				WH/12	10 20 30 40 Refusal	
		gray CLAY, some silt, wet, sulfr odor	0.0	21	9	SS	24	WH 2 2 5	4	
		CLAY and PEAT, brown some silt, sulfur odor		22						Drill to 23 ft bgs
		White medium to coarse SAND, trace fine sand, sulfur odor	7.8	23	10	SS	12	7 8 22 21	30	
			6.6	25						
				26	11	SS	12	12 22 19 19	41	
		Yellow coarse to medium SAND, trace fine sand								Drill to 27 ft bgs
		White medium to coarse SAND, trace fine sand	10.3	27						
				28	12	SS	8	11 16 16 18	32	
		White medium to coarse SAND, trace fine sand	0.0	29						
				30	13	SS	18	17 18 19 18	37	
		Yellow to white coarse to fine SAND, trace fine sand and fine gravel, slight odor	0.0	31						
				32	14	SS	12	5 6 9 13	15	
			0.0	33						
				34	15	SS	12	11 19 17 22	36	
				35						Stop drilling at 1200 on ~~12/13/2006~~
				36						2" PVC Monitoring well installed at 34'
				37						
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						

G:\DATA\718.NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...GS.GPJ ... 5/23/2007 3:44:58 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-33D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/7/06 — Date Finished: 12/12/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 29 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 12 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 13'	Water Level (ft.): First ▽ 7 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse SAND, some medium sand, some coarse to fine gravel		0						1520 - Start drilling using a 10" hollow-stem auger on 12/7/2006
				1						
				2						
			209	3						
				4						
		Black coarse SAND, some medium sand, some coarse to fine gravel (petroleum smell)	22	5	1	SS	1	2 1 1	2	Auger to 5 ft bgs
		Black coarse SAND, some medium sand, some coarse to fine gravel (Petroleum smell) ▽		6						Auger to 7 ft bgs
				7	2	SS	1	1 WH/18"		
				8						Refusal
		Dark brown coarse SAND, some medium to fine sand, some coarse to fine garvel Petroleum odor)	35	9	3	SS	3	WH/24"		Auger to 9 ft bgs
				10						Refusal
		Meadow Mat (No Recovery)		11						Auger to 11 ft bgs
			25		4	SS	0	WH/24"		
				12						Refusal
				13						Cuttings consists of clay and peat
					5	SS	0	WH/12"		Auger to 13 ft bgs 8" casing installed at 13 ft bgs
				14				4		
				15				4		Refusal
				16	6	SS	0	3 2 3 4	5	
		Light brown medium SAND, some fine sand, trace of silt (Wet, organic smell)	4	17						Auger to 17 ft bgs Stop drilling at 1630 on 12/7/2006 Resume drilling at 1430 on 12/13/2006
				18	7	SS	18	3 3 8 12	11	
		Yellowish brown medium to fine SAND, some coarse sand (Wet, organic smell)	21	19						Drill to 19 ft bgs
					8	SS	11	4 6	14	
				20						

G:\DATA\718\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W-GS.GPJ ... 5/23/2007 3:45:03 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-33D** Sheet 2 of 2

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown medium to fine SAND, some coarse sand, little fine gravel (Wet, organic odor)	8	20–21	8	SS	11	8, 6	14	
				21–22	9	SS	18	5, 10, 17, 12	27	
		Coarse to medium SAND (Wet , organic odor)	2.7	22–23						
				23–24	10	SS	12	6, 8, 10, 10	18	
		Light brown coarse to medium SAND, trace of fine sand (Wet, organic odor)	6	24–25						Drill to 25 ft bgs
				25–26	11	SS	15	10, 11, 10, 12	21	
		White medium SAND, little coarse sand (Wet, organic smell)	14	26–27						Drill to 27 ft bgs
				27–28	12	SS	12	10, 12, 11, 7	23	
				28–29						Stop drilling at 1525 on 12/13/2006 End of boring at 29 ft bgs 2" PVC Monitoring well installed at 28 ft bgs
				29–45						

G:\DATA\718\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\MW-33D.GPJ ... 5/23/2007 3:45:03 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-34D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/8/06 — Date Finished: 12/12/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 35 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 15 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 11'	Water Level (ft.): First ▽ 7 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel (moist, petroleum odor)		0						1045 - Start drilling using a 10" hollow-stem auger on 12/8/2006
			70	1						
				2						
				3						
				4						Auger to 5 ft bgs
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel, trace of roots (moist, petroleum smell)	200	5	1	SS	15	3 4 5 4	9	
		Dark brown coarse SAND, some medium to fine sand, trace brick (wet, Petroleum smell) ▽		6						Auger to 7 ft bgs
			42	7	2	SS	15	5 4 2 2	6	
				8						Auger to 9 ft bgs
		Dark gray CLAY, some peat, trace fine gravel, some silt (organic and petroleum odor)	40	9	3	SS	20	4 1/12" 2		
				10						Auger to 11 ft bgs
		Dark gray CLAY, some silt, trace peat (organic and petroleum odor)	53	11	4	SS	10	1 1 1 1	Refusal	8" Casing installed at 11 ft bgs
				12					2	Stop drilling at 1130 on 12/8/2006
			33	13	5	SS	23	WH/24"	Refusal	Resume Drilling on 12/12/2006 at 0920 Drill to 13 ft bgs
				14						
			48	15	6	SS	24	WH 1 2 1	3	
				16						Drill to 17 ft bgs
			54	17	7	SS	20	WH/24"	Refusal	
				18						
			34	19	8	SS	20	WH 1	3	
				20						

G:\DATA7\16-...GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...38.GPJ ... 5/23/2007 3:45:09 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-34D** Sheet 2 of 2

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown PEAT, some clay, little silt (organic odor)		20	8	SS	20	2 2		Drill to 21 ft bgs
	82			21						
		Light brown coarse to medium SAND, little fine sand, trace peat (Wet)		22	9	SS	18	WH 1 4 9	5	
		Light gray medium SAND, some coarse sand, little fine sand, trace silt (Wet)	6	23						
				24	10	SS	18	13 17 14 15	31	
		White Coarse to medium SAND, trace fine sand (Wet)		25						Drill to 25 ft bgs
			20		11	SS	18	6 11 12 12	23	
				26						
			5.2	27						
				28	12	SS	16	11 16 18 18	34	
		White Coarse to medium SAND, little coarse to fine gravel, trace fine sand (Wet)		29						Drill to 29 ft bgs
			15.4							
				30	13	SS	10	2 5 6 7	11	
		White Coarse to medium SAND, little coarse to fine gravel (Wet)	4.2	31						
				32	14	SS	18	10 12 14 12	26	
		Coarse to Medium SAND, some fine sand (Wet)	0.0	33						Drill to 33 ft bgs
				34	15	SS	15	2 2 2 1	4	
		Dark grey CLAY, some silt		35						Stop drilling at1230 on 12/12/2006 End of boring at 35 ft bgs 2" PVC Monitoring well installed at 33 ft bgs
				36						
				37						
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						

N-Value (Blows/ft) scale: 10 20 30 40

G:\DATA7\18:\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... GS.GPJ ... 5/23/2007 3:45:09 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-35D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/8/06 — Date Finished: 12/11/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 27 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 11 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 11'	Water Level (ft.): First ▽ 6.8 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Reddish brown coarse to fine SAND, some coarse to fine gravel, trace balck coarse sand (moist)		0						1400 - Start drilling using a 10" hollow-stem auger on 12/8/2006
		Dark brown coarse to fine SAND, some coarse to fine gravel (moist)		5.0	1	SS	8	3 2 1	3	Auger to 5 ft bgs
		Grey coarse SAND, some medium to fine sand, trace fine gravel (wet, light petroleum odor)		7.0	2	SS	24	3 2 2	4	Auger to 7 ft bgs
		Dark brown coarse SAND, some medium to fine sand, little fine gravel (Wet)		9.0	3	SS	24	WH/24"	Refusal	Auger to 9 ft bgs
		Grey CLAY, trace peat, some silt		10						
		Grey CLAY, some silt, trace peat (Organic Odor)		11.0	4	SS	13	1 1 1	2	Auger to 11 ft bgs 8" Casing installed at 11 ft bgs Stop drilling at 1440 on 12/8/2006
		Grey CLAY, some peat, some silt (organic odor)		13.0	5	SS	20	WH/18"	Refusal	Auger to 13 ft bgs
		Dark brown coarse to medium SAND, some fine sand (Wet, petroleum odor)		15.0	6	SS	20	4 7 8	11	
				17.0	7	SS	20	9 15 21 20	36	
				19.0	8	SS	11	5 1	9	
				20						

G:\DATA\7185\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\MW-35.GPJ ... 5/23/2007 3:45:14 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-35D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark brown coarse to medium SAND, some fine sand, trace coarse to fine fravel (Wet, petroleum odor)		20	8	SS	11	8 12	9	
				21 (5.0)	9	SS	18	10 15 18 14	33	Drill to 23 ft bgs
		Brown coarse to medium SAND, trace coarse to fine gravel (Wet, Petroleum Odor)		22 23 (3.8)	10	SS	10	4 5 9 12	14	
		Brown Coarse to medium SAND, trace coarse to fine gravel (Petroleum odor, Wet)		24 25 (4.4)	11	SS	18	16 16 16 12	32	Drill to 26 ft bgs
				26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45					Stop drilling at 1400 on 12/11/2006 End of boring at 27 ft bgs 2" PVC Monitoring well installed at 26 ft bgs

G:\DATA\18.
NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W
GS.GPJ ... 5/23/2007 3:45:14 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-36D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/14/06 — Date Finished: 12/20/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 33 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 14 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 13'	Water Level (ft.): First ▽ 5 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Coarse angular gravel, concrete and brick fragments; some medium sand, some plant material, wet		0						1330 - Start drilling using a 10" hollow-stem auger on 12/14/2006
				1						
				2						
				3						
				4						
		▽		5						Auger to 5 ft bgs
			0.0		1	SS	18	6 6 3	12	
		coarse to fine SAND, wet petroleum odor		6						Auger to 7 ft bgs
		Coarse to fine SAND, wet slight odor	1.8	7	2	SS	24	5 4 2 2	6	
				8						Auger to 9 ft bgs
		Dark gray CLAY, soft, wet, spme peat and plat material, trace silt, strong sulfur odor	6.4	9	3	SS	2	1 2 1/18"		
				10						
		Meadow Mat (No Recovery)		11	4	SS	0.0	WH/2"	Refusal	
				12						
				13	5	SS	0.0	WH/2"	Refusal	8" Steel casing installed at 13 ft bgs
				14						
				15	6	SS	0.0	WH/2"	Refusal	Auger to 15 ft bgs Stop drilling 1410 on 12/14/2006 Resume drilling on 12/19/2006 at 1400
				16						
				17	7	SS	0.0	WH/2"	Refusal	
				18						
		Dark gray CLAY and PEAT, soft, wet, organic sulfur odor		19	8	SS	16	WH/12"		Drill to 19 ft bgs
				20						

G:\DATA\7\18\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... Report: Log - LANGAN ... Template TEMPLATE.GDT 5/23/2007 3:45:19 PM ... GS.GPJ ...

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-36D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20				2 WH/6"	Refusal	Drill to 21 ft bgs
		Brown PEAT, roots, decaying plant matter, some silt and clay		21						
				22	9	SS	20	25 30 35 40	65	
		Gray to white medium to fine SAND, trace fine gravel, wet, organic/chemical odor White coarse to fine SAND, some fine gravel, wet, organic/chemical odor	0.0	23						
				24	10	SS	18	6 5 10 13	15	
		gray to white coarse SAND and fine GRAVEL, some medium sand, trace fine sand, wet faint odor	0.0	25						
				26	11	SS	10	15 20 33 35	53	
		White medium to fine SAND, trace coarse sand, wet, faint odor	0.0	27						
				28	12	SS	12	15 20 33 35	53	Drill to 29 ft bgs
			0.0	29						
				30	13	SS	8	10 12 14 16	26	
		White coarse to fine SAND, wet very faint odor	0.0	31						
				32	14	SS	16	15 15 16 22	31	
				33						End of boring at 34 ft bgs 2" PVC Monitoring well installed at 34 ft bgs
				34						
				35						
				36						
				37						
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						

N-Value scale: 10 20 30 40

G:\DATA7183\GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\WL_S.GPJ ... 5/23/2007 3:45:20 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

Date Start/Finish: 1/29/2013-2/14/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164794.2800
Easting: 1080954.7400
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 6.70' AMSL

Descriptions By: J.Oliver

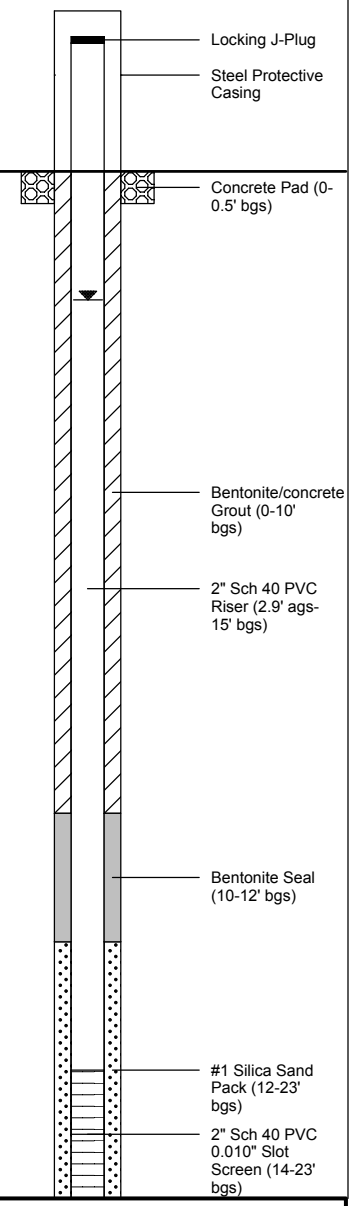
Well/Boring ID: **OW-01-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-1	NA	NA		CONCRETE pieces and fine to medium SAND, trace fine Gravel, Silt, Organics, odor, moist.
5	2	1-2	NA	15.1		Brown fine to medium SAND, little to trace Silt, trace fine Gravel, odor, moist to wet.
	3	2-3	NA	2.3		
0	NA	NA	NA	NA		Unable to collect samples due to borehole collapse.
5						Gray fine to medium SAND, trace Clay, odor, wet.
	4	8-10	0.9	11.9		Gray SILT and CLAY, little Peat, plastic, odor, wet.
10	5	10-12	0.9	11.3		
-5	6	12-14	1.0	6.0		Gray SILT and CLAY, trace fine to medium Sand, Organics, odor, wet.
15	7	14-16	1.2	6.1 23		Gray SILT and fine SAND, some to little Clay, odor, wet.

Well/Boring Construction



Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

ARCADIS Design & Consultancy for natural and built assets

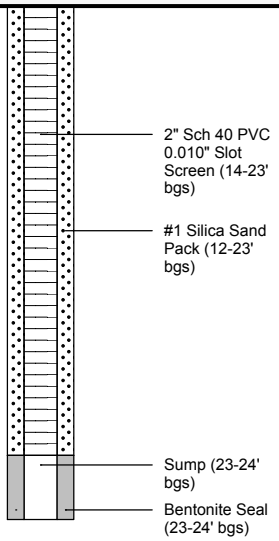
Client: Chevron EMC

Well/Boring ID: **OW-01-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
-10				10.4			
	8	16-18	1.4	29.1		Brown fine SAND, trace Silt, Organics, odor, wet.	
						Color becomes lighter with depth. Material coarsening with depth to [medium to fine Sand].	
	9	18-20	1.0	35 56		Light gray/light brown fine SAND, trace medium Sand, odor, wet.	
20							
	10	20-22	1.2	20 26		Brown/ light brown fine to medium SAND, trace coarse Sand, odor, wet.	
-15							
	11	22-24	1.4	19.3 43.7			
	12	24-26	0.8	11.4 4.6		Light brown/ light gray medium to fine SAND, trace coarse Sand, wet. Fine subrounded Gravel lamination at 24.5' bgs	
25							
-20				5.1			
	13	26-28	1.6	40.1		Light to very light gray medium to coarse SAND, little fine Sand (increasing with depth), wet.	
	14	28-29	0.4	18.4		Light fine SAND, little medium Sand, odor, wet.	
30						End of boring at 29' bgs.	
-25							
35							



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 1/29/2013-2/14/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/J. Cavelier
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164796.4600
Easting: 1080931.8600
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 7.00' AMSL

Descriptions By: J.Oliver

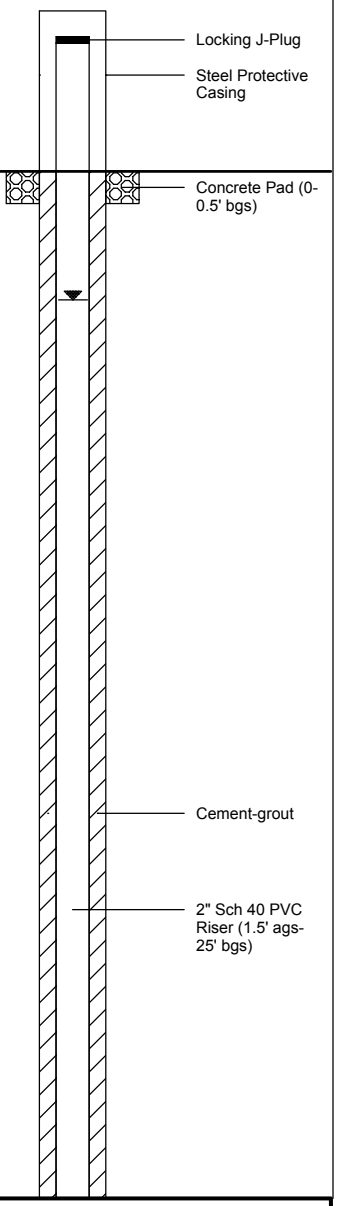
Well/Boring ID: **OW-02-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
	10						
0							
		1	0-1	NA	0.0		Light brown medium to coarse SAND, some fine Sand, fine subrounded to subangular Gravel, trace Organics, moist.
							Gray-brown, wet.
	5	2	1-3	NA	0.9		
		3	3-5	NA	90.3		Gray fine to medium SAND, trace fine Gravel, coarse Sand, wet, odor.
5							
		NA	5-8	NA	NA		Unable to collect samples due to borehole collapse.
	0						
		4	8-10	0.7	16.9		Gray CLAY and SILT, trace fine Sand and Peat, moderate plasticity, odor, wet.
10		5	10-12	0.9	10.8		Trace Shells.
	-5	6	12-14	0.7	17.3		Gray SILT and CLAY, trace fine Sand seam at 12.2' bgs, plastic, wet, odor.
15		7	14-16	2.0	12.1 18.4		

Well/Boring Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Client: Chevron EMC

Well/Boring ID: **OW-02-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						Gray to dark brown fine SAND and SILT, some CLAY, wet, odor.	
-10	8	16-18	0.8	20.2 85		Brown to light brown fine to medium SAND, trace Organics, odor, wet.	Cement-grout
	9	18-20	1.4	22.1 35.7		Brown to light brownish gray fine to medium SAND, odor, wet.	2" Sch 40 PVC Riser (1.5' ags-25' bgs)
20	10	20-22	0.8	15.3 13.1		Faint odor.	
-15	11	22-24	1.6	18.7 13.3		Trace coarse Sand, faint odor.	Bentonite Seal (23-24' bgs)
25	12	24-26	1.0	14.1 15.3			
-20	13	26-28	2.0	5.7 17.1		Some laminations between 26.8-27.2' bgs. Light gray medium to coarse SAND, some fine subrounded Gravel, grain size increasing with depth, wet.	#1 Silica Sand Pack (24-29' bgs) 2" Sch 40 PVC 0.010" Slot Screen (25-29' bgs)
	14	28-29	0.5	4.3		Light gray fine SAND, some to little medium Sand.	
30						End of boring at 29' bgs.	
-25							
35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 1/29/2013-2/7/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/J. Cavelier
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164822.2500
Easting: 1080963.7000
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 6.83' AMSL

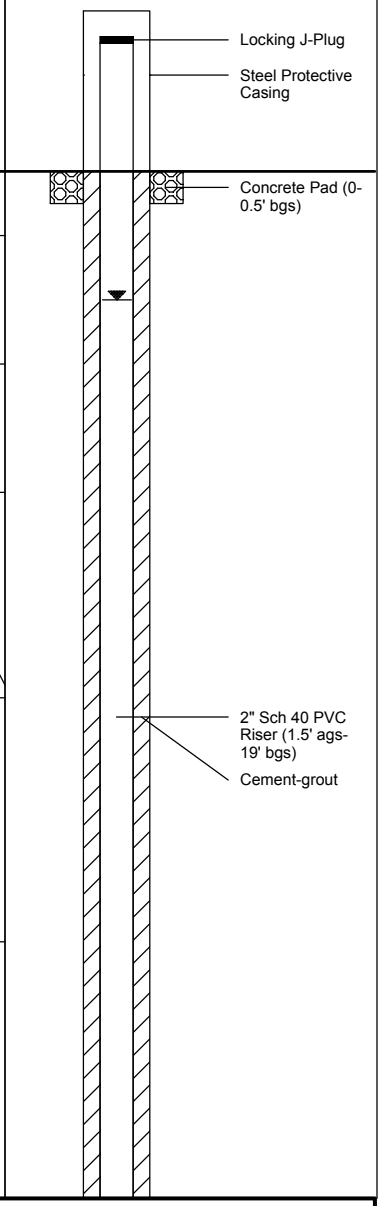
Descriptions By: J.Oliver

Well/Boring ID: **OW-03-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-1	NA	0.0		Light brown fine to medium SAND, trace coarse Sand, fine Gravel, and Organics, moist.
5	2	1-3	NA	NA		COBBLES, trace fine to medium Gravel and fine Sand, wet.
	3	3-5	NA	20.5		Gray fine to medium SAND, trace Silt and fine Gravel, odor, wet.
0	NA	5-8	NA	NA		Unable to collect samples due to borehole collapse.
						Fine SAND.
	4	8-10	0.7	32 14.1		Gray SILT and CLAY, little to trace Peat, trace fine Sand, moist, plastic, odor, wet. [MEADOW MAT]
10	5	10-12	0.9	11.5		Trace Shell fragments.
-5	6	12-14	0.7	5.8		Gray SILT and CLAY, trace fine Sand, odor, wet.
15	7	14-16	2.0	10.9		Fine Sand at the end of sampler (last 0.1').



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Client: Chevron EMC

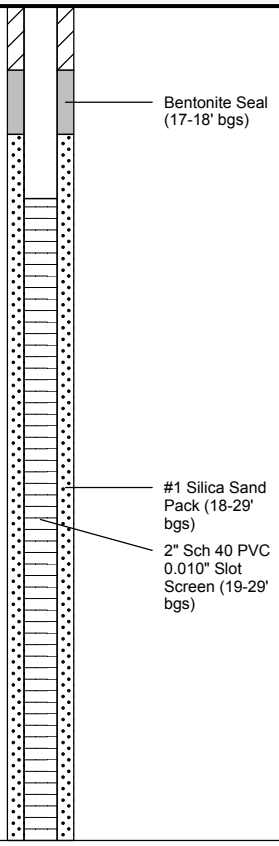
Well/Boring ID: **OW-03-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
						Light gray fine to medium SAND, wet, odor.
-10	8	16-18	0.8	14.9		Brown fine SAND, some to little Organics, trace Silt, odor, wet.
	9	18-20	1.4	8.7		Brown to light brown fine to medium SAND, trace Organics and fine Gravel, coarsening with depth, odor, wet.
20	10	20-22	0.8	22.0		Light brown fine to medium SAND, laminations of fine to medium Sand and Silt at 20.5' bgs, odor, wet.
-15	11	22-24	1.6	7.9		Light brown to light gray fine to medium SAND, trace coarse Sand after 22.7' bgs, odor, wet.
25	12	24-26	1.0	1.1		Light gray coarse SAND, little to trace fine Sand, trace fine subrounded Gravel, wet.
-20	13	26-28	2.0	2.4		Light gray coarse SAND, little fine subrounded Gravel, trace fine to medium Sand, wet. Some laminations between 26.8-27.2' bgs.
	14	28-29	0.5	5.1		Light gray fine to medium SAND (fining with depth), trace coarse Sand, wet.
30						
-25						
35						

Well/Boring Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 12/2/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164635.52
Easting: 1080863.65
Casing Elevation: 4.64

Borehole Depth: 10' bgs
Surface Elevation: 5.07

Descriptions By: MWE

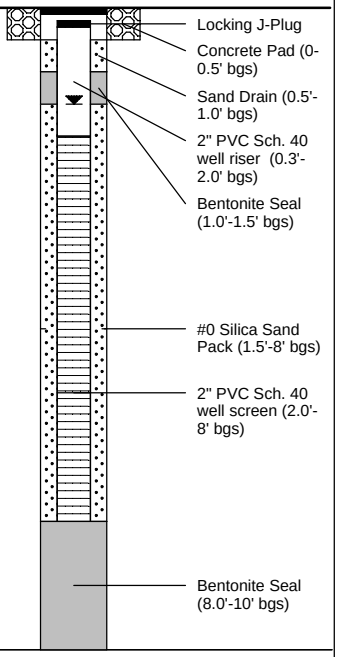
Well/Boring ID: **P-18R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt, Organics (M,NP)
		2	2-4	Grab	0.0		Brown fine to coarse SAND, some fine to medium Gravel, little Silt (S,NP)
5	0	3	4-6	Grab	1.9		Grey and brown fine to medium SAND, little fine Gravel, trace Silt (S,NP) moderate petroleum-like odor, decreses with depth
		4	6-8	Grab	0.8		
		5	8-10	Grab	27.2		Grey SILT and CLAY, little to trace Peat, fine Sand (S,P) moderate to heavy sulfur and petroleum-like odor
10	-5						End of boring at 10' bgs
15	-10						

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ P-18R (0-2'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

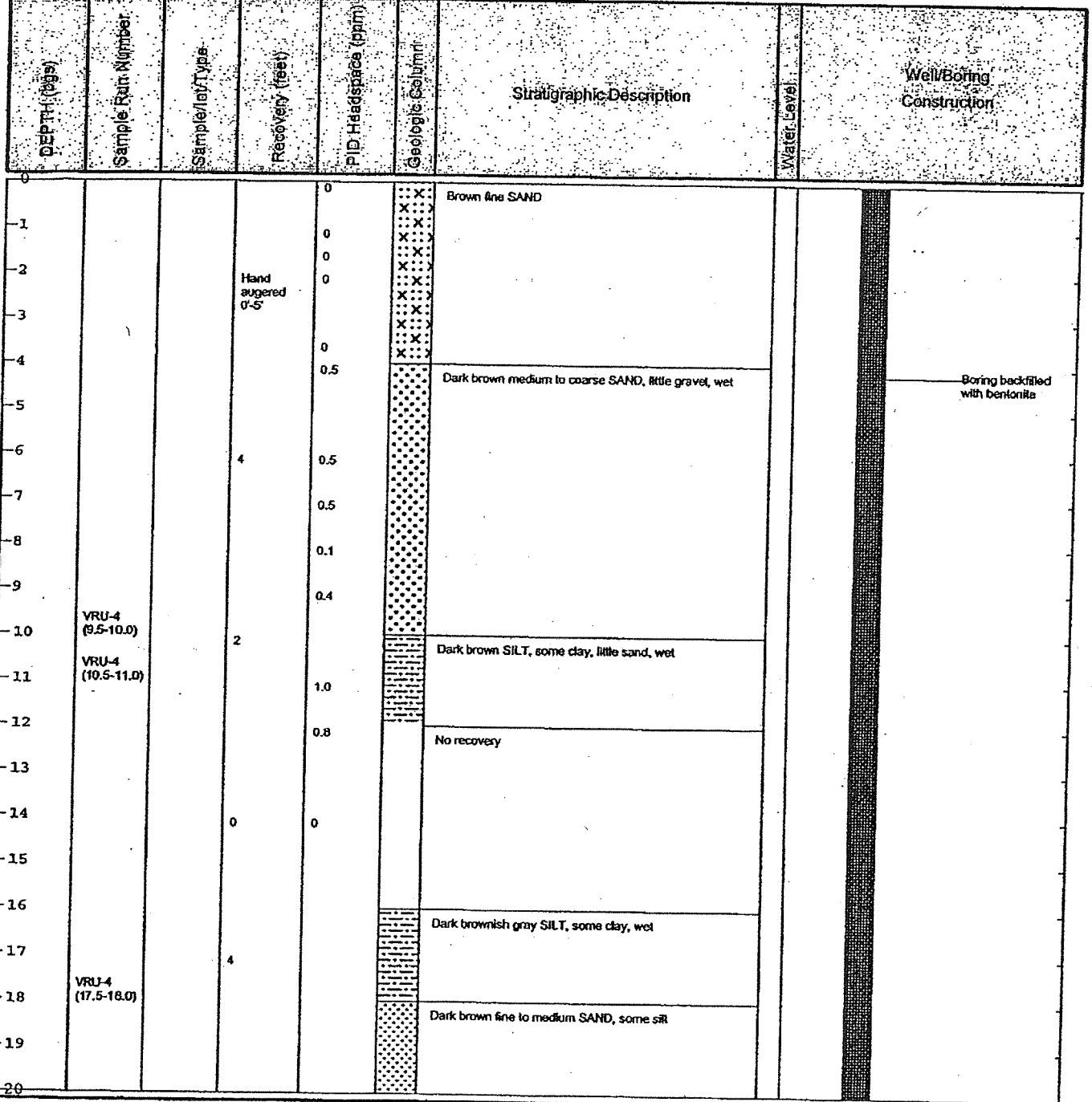
Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moraitis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:
Borehole Depth: 20
Surface Elevation:
Geologist: JDC

Well/Boring ID: VRU-4
Client: CEMC

VRU-4

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York



BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:

Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moraitis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:

Borehole Depth: 16
Surface Elevation:

Geologist: JDC

Well/Boring ID: VRU-8

VRU-8

Client: CEMC

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York

DEPTH (bgs)	Sample Run Number	Sample Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0				0		Brown fine SAND		
1				0				
2			Hand augered 0'-5'	0				
3								
4				0				
5				6.9		Dark Gray fine to coarse SAND, some gravel and clay, wet		Boring backfilled with bentonite
6			3			Dark Gray and brown medium coarse SAND and GRAVEL, wet		
7				9.8				
8	VRU-8 (8.0-8.5)			12.2				
9				6.4		Dark Gray CLAY and SILT, trace organics and wood, moist		
10	VRU-8 (10.0-10.5)		2.4	4.5				
11								
12				6.8				
13			2.4	8.6				
14	VRU-8 (14.0-14.5)			7.7				
15								
16								

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

Remarks:

Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:

Borehole Depth: 16
Surface Elevation:

Geologist: JDC

Well/Boring ID: VRU-9
Client: CEMC

VRU-9

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York

DEPTH (bgs)	Sample Run Number	Sampler/Int Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0				0		Brown fine SAND		Boring backfilled with bentonite
1				0				
2			Hand augered 0'-5'	0				
3								
4				0				
5				1.2		Light brown fine to coarse SAND and GRAVEL, wet		
6			2.9	2.0				
7				1.5				
8	VRU-9 (7.5-8.0)			16.6		Dark gray CLAY and SILT, trace organics, wet		
9								
10	VRU-9 (9.5-10.0)		3.8	44.9				
11								
12				51.8		Dark gray CLAY and SILT, trace organics and wood pieces		
13	VRU-9 (12.5-13.0)			13.5				
14				36.7		Dark brown fine to coarse SAND, some gravel and silt, moist		
15								
16								

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:

APPENDIX D

MTBE Investigation Results

MEMO

ARCADIS Design & Consultancy for natural and built assets

To:
Pete Cagnetta, Chevron EMC

Copies:
Bill McCune, Arcadis

From:
Jo Ann Robertson, Arcadis

Date:
January 18, 2017

Arcadis Project No.:
B0047517.0023

Subject:
MTBE Investigation in the Lower Sand Unit

Arcadis of New York, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315 446 9120
Fax 315 449 0017

To further characterize current subsurface conditions along the site boundary upgradient of MTBE impacts detected in the groundwater in the Lower Sand Unit, a series four soil borings were advanced and temporary monitoring wells were installed along the northern property boundary. Grab groundwater samples were collected from the temporary well screened in the upper 7 feet of the Lower Sand Unit.

During the week of October 24th, 2016, an experienced Arcadis field geologist observed as the subcontracted crew from Cascade Drilling advanced each of the four soil borings and installation of temporary monitoring wells along the northern property boundary (Figure 1).

Prior to advancing the soil borings, the locations were cleared for utilities in accordance with both Chevron and Arcadis Utility Clearance requirements which included the following lines of evidence: GPR, reviewing the site utility plans, and the borings were cleared to 8 feet bgs by hand.

The soil borings were advanced using a Geoprobe unit and continuous soil samples were collected for screening using a PID and for lithological descriptions. The total depths of the soil borings were between 25 and 30 feet deep, depending on the terminal depth of the meadow mat unit. Grab groundwater samples were collected from a 1-inch temporary monitoring well installed approximately seven feet below the base of the meadow mat unit. The temporary monitoring wells was purged for 30 minutes using a parasitic pump prior to sample collection. Groundwater samples were collected from the upper 7-feet of the Lower Sand Unit and submitted for analysis of VOCs by Test America of Amherst, New York.

The analytical results of the groundwater samples collected for this assessment are summarized in the attached table. MTBE was detected in all four of the groundwater samples collected from the temporary wells. Concentrations ranged from 76 ug/L in TW-4 at the western most sampling point (closest to Hampton Road) to 670 ug/L in TW-7 (eastern most sampling point). The data from the temporary monitoring wells was consist with the existing data from adjacent monitoring wells. The highest concentrations of MTBE are closest to the former VRU Area and concentrations decrease to the west of the former VRU area.

Boring logs and analytical results are attached.

Enclosures:

Tables
Table 1 – Summary of Groundwater Analytical Data

Figures
Figure 1 – MTBE Lower Sand Unit Sample Locations

Attachments
Attachment 1 – Boring Logs
Attachment 2 – Analytical Results

Table

Table 1
Summary of Groundwater Analytical Data

MTBE Study
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TW-04 20-25 10/27/16	TW-05 25-30 10/27/16	TW-06 25-30 10/27/16	TW-07 25-30 10/27/16
Volatile Organics						
Benzene	1	ug/L	**0.58 J**	2.0 U	5.0 U	10 U
Toluene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Ethylbenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Xylenes (total)	5	ug/L	2.0 U	4.0 U	10 U	20 U
Methyl tert-butyl ether	10	ug/L	**76**	**83**	**260**	**670**
Isopropylbenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,1-Trichloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,2-trichloro-1,2,2-trifluoroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1,2-Trichloroethane	1	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1-Dichloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,1-Dichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dibromoethane	0.0006	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dichloroethane	0.6	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,2-Dichloropropane	1	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,3-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	5.0 U	10 U
1,4-Dichlorobenzene	3	ug/L	1.0 U	2.0 U	5.0 U	10 U
2-Butanone	50	ug/L	10 U	20 U	50 U	100 U
2-Hexanone	50	ug/L	5.0 U	10 U	25 U	50 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	10 U	25 U	50 U
Acetone	50	ug/L	10 U	20 U	50 U	100 U
Bromodichloromethane	50	ug/L	1.0 U	2.0 U	5.0 U	10 U
Bromoform	50	ug/L	1.0 U	2.0 U	5.0 U	10 U
Bromomethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Carbon Disulfide	60	ug/L	**0.75 J**	2.0 U	5.0 U	10 U
Carbon Tetrachloride	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chlorobenzene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chloroethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chloroform	7	ug/L	1.0 U	2.0 U	5.0 U	10 U
Chloromethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
cis-1,2-Dichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	2.0 U	5.0 U	10 U
Cyclohexane	- -	ug/L	1.0 U	2.0 U	5.0 U	10 U
Dibromochloromethane	50	ug/L	1.0 U	2.0 U	5.0 U	10 U
Dichlorodifluoromethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Methyl acetate	- -	ug/L	2.5 U	5.0 U	13 U	25 U
Methylcyclohexane	- -	ug/L	1.0 U	2.0 U	5.0 U	10 U
Methylene Chloride	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Styrene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Tetrachloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Total VOCs	- -	ug/L	**77 J**	**83**	**260**	**670**
trans-1,2-Dichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	2.0 U	5.0 U	10 U
Trichloroethene	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Trichlorofluoromethane	5	ug/L	1.0 U	2.0 U	5.0 U	10 U
Vinyl Chloride	2	ug/L	1.0 U	2.0 U	5.0 U	10 U

See Notes on Page 2.

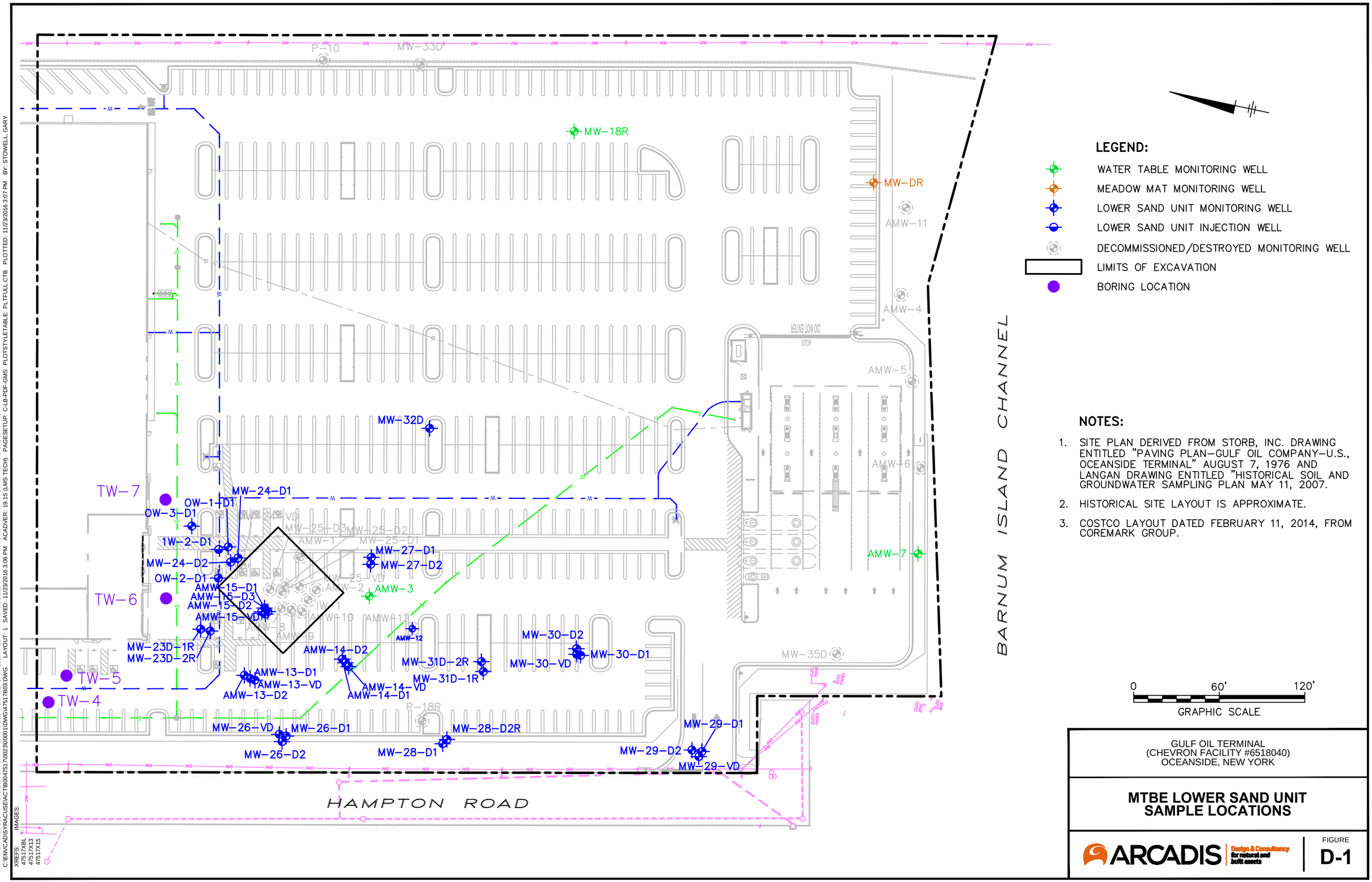
Table 1
Summary of Groundwater Analytical Data

MTBE Study
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Results compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values.
   Gray font = not detected. Bold font = detected. Bold font with Gray shading = Result detected above NYSDEC TOGS 1.1.1.
2. Abbreviations:
   - - = NYSDEC TOGS 1.1.1 not available.
   ug/L = micrograms per Liter.
   ND = Not detected.
   NYSDEC = New York State Department of Environmental Conservation.
   VOC = Volatile Organic Compounds.
3. Qualifier Definitions:
   J = Estimated value. Result is greater than the RL but less than the MDL.

Figure



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- BORING LOCATION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT IS APPROXIMATE.
3. COSTCO LAYOUT DATED FEBRUARY 11, 2014, FROM COREMARK GROUP.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE LOWER SAND UNIT SAMPLE LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE
D-1

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\00230001\DWG\47517B03.DWG LAYOUT: 1 SAVED: 11/23/2016 3:07 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/23/2016 3:07 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X13
47517X15

Attachment 1 – Boring Logs

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 25' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-4

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 0							Recycled Concrete Aggregate, angular to subangular; little Cobble, pebble in size; little Sand, medium. Moist, poorly sorted. Dark Brown.	
	NA	0-8	NA	0.0			Airknifed using a VacTruck to 8' bgs.	
5 / -5							Wet at 7.0' bgs.	
							SAND, medium to coarse; little Silty Sand. Wet, poorly sorted. Very Dark Grey.	
	1	8-10	NA	0.0				
10 / -10							SAND, fine to coarse; some Gravel, fine to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Grey-Brown.	
							CLAY; some Organics (Peat-like material and Grass); trace Silt. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
	2	10-15	3.0	44.8				Borehole backfilled with grout to grade
15 / -15							CLAY; trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-4

Borehole Depth: 25' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	3.0	10.7			SAND, fine to medium; trace Clay. Wet, loose, poorly sorted, slight organic-like odor. Grey.	
20 -20							SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Grey-Brown.	Borehole backfilled with grout to grade
	4	20-25	5.0	15.3				
25 -25							End of boring at 25' bgs.	
30 -30								
35 -35								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-5

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 0	NA	0-8	NA	0.3			Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown. Airknifed using a VacTruck to 8' bgs.	
5 / -5							7.5' - 10.0' bgs, trace Silt. Wet at 6.0' bgs.	
	1	8-10	NA	0.4			SAND, medium to coarse; trace Silty Clay. Wet, poorly sorted. Very Dark Grey.	
10 / -10	2	10-15	1.0	0.0	⊠		SAND, fine to coarse; little Gravel, granular to small pebble, subangular; trace Silt. Wet, poorly sorted, loose, no odor. Dark Grey.	Borehole backfilled with grout to grade
15 / -15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-5

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	20.5			CLAY; trace Organics (Grass); trace Sand, very fine. Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
20 -20								Borehole backfilled with grout to grade
	4	20-25	5.0	10.7			SAND, fine to medium; trace Gravel, granular, subrounded. Wet, loose, poorly sorted, no odor. Grey-Brown.	
25 -25								
	5	25-30	5.0	28.3				
30 -30							End of boring at 30' bgs.	

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-6

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs)	ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0							Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
		NA	0-8	NA	0.4			Airknifed using a VacTruck to 8' bgs.	
5	-5							Wet at 7.0' bgs.	
								Concrete obstruction/rubble	
								SAND, medium to coarse; little Gravel; trace Silty Clay. Wet, poorly sorted. Very Dark Grey.	
		1	8-10	NA	0.7				
10	-10								Borehole backfilled with grout to grade
								SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Light Grey.	
		2	10-15	4.0	9.8			SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, moderate organic-like odor, high plasticity. Dark Grey.	
15	-15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-6

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	3.0	12.5				
20 -20							SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Grey.	Borehole backfilled with grout to grade
							SILTY CLAY; some Organics (Peat-like and Grass). Moist, soft, slight organic-like odor, high plasticity. Dark Grey.	
	4	20-25	5.0	18.9				
25 -25							SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Grey-Brown.	
	5	25-30	5.0	22.9				
30 -30							End of boring at 30' bgs.	
35 -35								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Date Start/Finish: 10/27/16
Drilling Company: Cascade Drilling, L.P.
Driller's Name: Carlos Hernandez and John Carey
Drilling Method: Geoprobe Direct Push
Sampling Method: 1.25" x 5' Liner
Rig Type: DT22 Geoprobe System

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 30' bgs
Surface Elevation: NA

Descriptions By: Jon LeMessurier

Well/Boring ID: TW-7

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs)	ELEVATION (feet AMSL)	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	0								
		NA	0-8	NA	0.0			Recycled Concrete Aggregate, angular to subangular, pebble to cobble; little Sand, medium. Moist, poorly sorted. Dark Brown.	
5	-5							Airknifed using a VacTruck to 8' bgs.	
								Wet at 7.5' bgs.	
								Concrete obstruction/rubble.	
		1	8-10	NA	0.0			SAND, medium to coarse; little Gravel; trace concrete rubble. Wet, poorly sorted. Dark Brown.	
10	-10								Borehole backfilled with grout to grade
								SAND, fine to coarse; little Silt; trace Gravel, granular to small pebble, subangular. Wet, poorly sorted, loose, slight organic-like odor. Grey.	
		2	10-15	5.0	6.9			CLAYEY SILT; some Organics (Peat-like and Grass). Moist, soft, strong organic-like odor, medium plasticity. Grey-Brown.	
15	-15								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Client: Chevron EMC

Well/Boring ID: TW-7

Borehole Depth: 30' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DRAFT

DEPTH (feet bgs) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Analytical Sample	Geologic Column	Stratigraphic Description	Well/Boring Construction
	3	15-20	5.0	9.6			CLAY; little Organics (Shells). Moist, soft, strong organic-like odor, high plasticity. Dark Grey.	
20 -20							SAND, fine to coarse; little Gravel, granular, subrounded; trace Silt. Wet, loose, poorly sorted, no odor. Grey.	Borehole backfilled with grout to grade
	4	20-25	5.0	9.9			SAND, fine to medium; some Silt; little Clay, trace Gravel, granular to small pebble, subrounded. Wet, loose, poorly sorted, slight organic-like odor. Dark Grey.	
							CLAY; little Organics (Broken shells). Moist, soft, slight organic-like odor, high plasticity. Dark Grey.	
25 -25							SAND, fine to medium. Wet, loose, poorly sorted, slight organic-like odor. Grey-Brown.	
	5	25-30	5.0	15.4				
30 -30							End of boring at 30' bgs.	
35 -35								

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 25.0' - 30.0' bgs.

Attachment 2 – Analytical Results

APPENDIX E

Community Air Monitoring Plan Data

MEMO

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017

To:
Note to File

From:
Jo Ann Robertson

Date:
December 13, 2016

Arcadis Project No.:
B0047517

Subject:
Chevron Oceanside CAMP data

During the MIPs program in February 2016, the CAMP PID measurements were inconstant with breathing zone monitoring. An example of the inconsistently was at 10:10 AM on 2/22/16:

- The following note was recorded in the field notes: Slight petroleum-like odor is noticeable in the air. Not totally sure where source is coming from; breathing zone MultiRae shows reading of PID 0.1-1.6 ppm.
- At 10:10 the upwind CAMP, the average PID measurements at 10:10 was 125 ppm, 1,091 ppm at 10:25, and 211 ppm at 10:40.
- PID measurements for the downwind CAMP were 19 ppm at 9:52, 398 ppm at 10:07, and 375 ppm at 10:22.

Elevated PID measurements continued throughout the day. Heavy equipment was operating on the site as part of the redevelopment. Based on this information, it has been determined that the elevated PID measurements from the CAMP did not relate from the MIPs investigation.

During the June 2016 drilling, monitoring stations were located upwind and downwind of the work area for monitoring of VOCs and particulates. No alarms indicating an exceedance of VOC and particulate criteria occurred during the drilling. However, due to equipment vendor issues, the data was not downloaded from the instrument.

Instrument Name	DustTrak II
Model Number	8530
Serial Number	8530132429
Firmware Version	3
Calibration Date	6/13/2013
Test Name	MANUAL_001
Test Start Time	9:16:48 AM
Test Start Date	2/16/2016
Test Length [D:H:M]	0:03:00
Test Interval [M:S]	15:00
Mass Average [mg/m3]	0.024
Mass Minimum [mg/m3]	0.021
Mass Maximum [mg/m3]	0.028
Mass TWA [mg/m3]	0.009
Photometric User Cal	0.85
Flow User Cal	0
Errors	
Number of Samples	12

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.021		
1800	0.022		
2700	0.023		
3600	0.022		
4500	0.023		
5400	0.024		
6300	0.024		
7200	0.026		
8100	0.024		
9000	0.023		
9900	0.025		
10800	0.028		

=========Event #64 information (begin)=========

==========

[Event #64 name:]--[Event #64]2016-02-16 09:24<-->2016-02-16 12:24

[Event start time:]--2016-02-16 09:24:03[Event end time:]--2016-02-16 12:24:03

===========Event #64 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 12 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000005 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #64 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/16/2016 9:39	0	0	0	downwind
2	2/16/2016 9:54	0	0	0	
3	2/16/2016 10:09	0	0	0	
4	2/16/2016 10:24	0	0	0	
5	2/16/2016 10:39	0	0	0	
6	2/16/2016 10:54	0	0	0	
7	2/16/2016 11:09	0	0	0	
8	2/16/2016 11:24	0	0	0	
9	2/16/2016 11:39	0	0	0	
10	2/16/2016 11:54	0	0	0	
11	2/16/2016 12:09	0	0	0	
12	2/16/2016 12:24	0	0	0	

==========Event #64 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_001	
Test Start Time	9:13:50 AM	Upwind
Test Start Date	2/16/2016	
Test Length [D:H:M]	0:03:17	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.083	
Mass Minimum [mg/m3]	0.076	
Mass Maximum [mg/m3]	0.1	
Mass TWA [mg/m3]	0.034	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	197	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.098		
120	0.088		
180	0.087		
240	0.1		
300	0.088		
360	0.089		
420	0.09		
480	0.091		
540	0.09		
600	0.089		
660	0.087		
720	0.087		
780	0.085		
840	0.084		
900	0.085		
960	0.085		
1020	0.086		
1080	0.083		
1140	0.082		
1200	0.083		
1260	0.085		
1320	0.086		
1380	0.087		
1440	0.088		
1500	0.086		
1560	0.087		
1620	0.089		

1680	0.087
1740	0.089
1800	0.089
1860	0.09
1920	0.089
1980	0.086
2040	0.089
2100	0.089
2160	0.088
2220	0.089
2280	0.088
2340	0.088
2400	0.086
2460	0.088
2520	0.087
2580	0.087
2640	0.086
2700	0.087
2760	0.087
2820	0.09
2880	0.087
2940	0.087
3000	0.085
3060	0.085
3120	0.083
3180	0.084
3240	0.082
3300	0.081
3360	0.081
3420	0.081
3480	0.082
3540	0.08
3600	0.081
3660	0.081
3720	0.081
3780	0.084
3840	0.086
3900	0.087
3960	0.087
4020	0.087
4080	0.089
4140	0.087
4200	0.086
4260	0.088
4320	0.088
4380	0.086
4440	0.086

4500	0.084
4560	0.084
4620	0.081
4680	0.083
4740	0.085
4800	0.086
4860	0.085
4920	0.085
4980	0.086
5040	0.084
5100	0.085
5160	0.084
5220	0.085
5280	0.085
5340	0.086
5400	0.086
5460	0.089
5520	0.088
5580	0.087
5640	0.087
5700	0.086
5760	0.086
5820	0.085
5880	0.086
5940	0.087
6000	0.086
6060	0.085
6120	0.084
6180	0.083
6240	0.083
6300	0.081
6360	0.084
6420	0.082
6480	0.081
6540	0.081
6600	0.081
6660	0.08
6720	0.081
6780	0.081
6840	0.081
6900	0.08
6960	0.081
7020	0.081
7080	0.081
7140	0.081
7200	0.081
7260	0.079

7320	0.08
7380	0.08
7440	0.08
7500	0.079
7560	0.08
7620	0.079
7680	0.08
7740	0.081
7800	0.08
7860	0.08
7920	0.08
7980	0.079
8040	0.079
8100	0.08
8160	0.08
8220	0.079
8280	0.08
8340	0.079
8400	0.078
8460	0.078
8520	0.076
8580	0.078
8640	0.078
8700	0.077
8760	0.077
8820	0.077
8880	0.078
8940	0.078
9000	0.078
9060	0.077
9120	0.078
9180	0.079
9240	0.078
9300	0.079
9360	0.078
9420	0.078
9480	0.078
9540	0.078
9600	0.078
9660	0.077
9720	0.077
9780	0.079
9840	0.079
9900	0.079
9960	0.08
10020	0.081
10080	0.079

10140	0.081
10200	0.081
10260	0.08
10320	0.081
10380	0.079
10440	0.079
10500	0.081
10560	0.081
10620	0.082
10680	0.08
10740	0.079
10800	0.08
10860	0.082
10920	0.08
10980	0.082
11040	0.083
11100	0.085
11160	0.083
11220	0.082
11280	0.082
11340	0.081
11400	0.082
11460	0.082
11520	0.079
11580	0.076
11640	0.078
11700	0.079
11760	0.078
11820	0.08

=========Event #73 information (begin)=========

==========

[Event #73 name:]--[Event #73]2016-02-16 09:21<-->2016-02-16 12:36

[Event start time:]--2016-02-16 09:21:20[Event end time:]--2016-02-16 12:36:20

===========Event #73 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 13 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00022 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #73 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/16/2016 9:36	0	2	61	upwind
2	2/16/2016 9:51	0	0	0	
3	2/16/2016 10:06	0	0	0	
4	2/16/2016 10:21	0	0	0	
5	2/16/2016 10:36	0	0	0	
6	2/16/2016 10:51	0	0	0	
7	2/16/2016 11:06	0	0	0	
8	2/16/2016 11:21	0	0	0	
9	2/16/2016 11:36	0	0	1	
10	2/16/2016 11:51	0	0	2	
11	2/16/2016 12:06	0	3	6	
12	2/16/2016 12:21	2	5	10	
13	2/16/2016 12:36	5	11	21	

==========Event #73 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_002	
Test Start Time	7:45:23 AM	
Test Start Date	2/17/2016	downwind
Test Length [D:H:M]	0:06:15	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.02	
Mass Minimum [mg/m3]	0.016	
Mass Maximum [mg/m3]	0.025	
Mass TWA [mg/m3]	0.016	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	25	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.025		
1800	0.025		
2700	0.023		
3600	0.023		
4500	0.025		
5400	0.023		
6300	0.023		
7200	0.022		
8100	0.021		
9000	0.017		
9900	0.016		
10800	0.018		
11700	0.018		
12600	0.018		
13500	0.022		
14400	0.021		
15300	0.019		
16200	0.02		
17100	0.021		
18000	0.02		
18900	0.019		
19800	0.019		
20700	0.018		
21600	0.017		
22500	0.018		

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_002	
Test Start Time	7:37:52 AM	
Test Start Date	2/17/2016	upwind
Test Length [D:H:M]	0:09:33	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.044	
Mass Minimum [mg/m3]	0	
Mass Maximum [mg/m3]	0.095	
Mass TWA [mg/m3]	0.049	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	504	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.076		
120	0.054		
180	0.059		
240	0.057		
300	0.058		
360	0.055		
420	0.054		
480	0.055		
540	0.055		
600	0.056		
660	0.056		
720	0.055		
780	0.056		
840	0.055		
900	0.055		
960	0.055		
1020	0.058		
1080	0.058		
1140	0.056		
1200	0.055		
1260	0.055		
1320	0.055		
1380	0.055		
1440	0.055		
1500	0.059		
1560	0.06		
1620	0.056		

1680	0.056
1740	0.056
1800	0.056
1860	0.057
1920	0.058
1980	0.056
2040	0.054
2100	0.056
2160	0.054
2220	0.054
2280	0.054
2340	0.053
2400	0.054
2460	0.054
2520	0.06
2580	0.056
2640	0.053
2700	0.054
2760	0.062
2820	0.068
2880	0.077
2940	0.054
3000	0.059
3060	0.063
3120	0.053
3180	0.053
3240	0.053
3300	0.054
3360	0.056
3420	0.059
3480	0.056
3540	0.088
3600	0.078
3660	0.063
3720	0.058
3780	0.061
3840	0.095
3900	0.065
3960	0.063
4020	0.052
4080	0.052
4140	0.059
4200	0.052
4260	0.065
4320	0.061
4380	0.051
4440	0.064

4500	0.057
4560	0.058
4620	0.052
4680	0.053
4740	0.052
4800	0.053
4860	0.052
4920	0.051
4980	0.053
5040	0.052
5100	0.052
5160	0.058
5220	0.054
5280	0.054
5340	0.054
5400	0.06
5460	0.058
5520	0.055
5580	0.06
5640	0.062
5700	0.075
5760	0.055
5820	0.053
5880	0.053
5940	0.053
6000	0.053
6060	0.053
6120	0.052
6180	0.052
6240	0.052
6300	0.052
6360	0.052
6420	0.052
6480	0.052
6540	0.052
6600	0.051
6660	0.051
6720	0.051
6780	0.051
6840	0.049
6900	0.05
6960	0.051
7020	0.049
7080	0.049
7140	0.051
7200	0.05
7260	0.049

7320	0.049
7380	0.049
7440	0.048
7500	0.049
7560	0.048
7620	0.048
7680	0.05
7740	0.05
7800	0.052
7860	0.05
7920	0.052
7980	0.05
8040	0.049
8100	0.052
8160	0.052
8220	0.054
8280	0.049
8340	0.047
8400	0.047
8460	0.046
8520	0.045
8580	0.043
8640	0.042
8700	0.042
8760	0.042
8820	0.042
8880	0.043
8940	0.043
9000	0.043
9060	0.052
9120	0.063
9180	0.067
9240	0.058
9300	0.058
9360	0.063
9420	0.047
9480	0.044
9540	0.051
9600	0.048
9660	0.04
9720	0.04
9780	0.047
9840	0.049
9900	0.07
9960	0.072
10020	0.071
10080	0.064

10140	0.046
10200	0.044
10260	0.043
10320	0.043
10380	0.043
10440	0.042
10500	0.044
10560	0.046
10620	0.045
10680	0.043
10740	0.043
10800	0.065
10860	0.055
10920	0.045
10980	0.045
11040	0.044
11100	0.044
11160	0.045
11220	0.044
11280	0.044
11340	0.044
11400	0.044
11460	0.044
11520	0.044
11580	0.044
11640	0.043
11700	0.043
11760	0.044
11820	0.044
11880	0.044
11940	0.044
12000	0.044
12060	0.045
12120	0.044
12180	0.044
12240	0.044
12300	0.045
12360	0.045
12420	0.043
12480	0.044
12540	0.045
12600	0.044
12660	0.044
12720	0.044
12780	0.043
12840	0.043
12900	0.043

12960	0.046
13020	0.045
13080	0.044
13140	0.045
13200	0.057
13260	0.047
13320	0.046
13380	0.045
13440	0.046
13500	0.045
13560	0.045
13620	0.044
13680	0.044
13740	0.045
13800	0.045
13860	0.045
13920	0.046
13980	0.045
14040	0.044
14100	0.048
14160	0.046
14220	0.044
14280	0.046
14340	0.048
14400	0.047
14460	0.046
14520	0.048
14580	0.046
14640	0.046
14700	0.047
14760	0.05
14820	0.047
14880	0.047
14940	0.047
15000	0.047
15060	0.046
15120	0.046
15180	0.047
15240	0.046
15300	0.045
15360	0.044
15420	0.044
15480	0.045
15540	0.045
15600	0.044
15660	0.044
15720	0.045

15780	0.046
15840	0.047
15900	0.046
15960	0.046
16020	0.046
16080	0.046
16140	0.046
16200	0.046
16260	0.049
16320	0.046
16380	0.046
16440	0.046
16500	0.046
16560	0.046
16620	0.046
16680	0.047
16740	0.046
16800	0.047
16860	0.047
16920	0.047
16980	0.047
17040	0.047
17100	0.047
17160	0.047
17220	0.047
17280	0.053
17340	0.049
17400	0.049
17460	0.048
17520	0.047
17580	0.047
17640	0.047
17700	0.047
17760	0.048
17820	0.047
17880	0.047
17940	0.047
18000	0.047
18060	0.048
18120	0.045
18180	0.046
18240	0.045
18300	0.044
18360	0.047
18420	0.045
18480	0.045
18540	0.045

18600	0.046
18660	0.047
18720	0.046
18780	0.046
18840	0.047
18900	0.046
18960	0.045
19020	0.046
19080	0.046
19140	0.045
19200	0.045
19260	0.044
19320	0.044
19380	0.045
19440	0.045
19500	0.045
19560	0.045
19620	0.045
19680	0.044
19740	0.044
19800	0.044
19860	0.044
19920	0.046
19980	0.046
20040	0.045
20100	0.044
20160	0.044
20220	0.044
20280	0.044
20340	0.045
20400	0.044
20460	0.044
20520	0.044
20580	0.043
20640	0.044
20700	0.046
20760	0.047
20820	0.045
20880	0.044
20940	0.042
21000	0.042
21060	0.042
21120	0.041
21180	0.041
21240	0.042
21300	0.042
21360	0.043

21420	0.042
21480	0.042
21540	0.042
21600	0.042
21660	0.043
21720	0.042
21780	0.043
21840	0.042
21900	0.043
21960	0.047
22020	0.045
22080	0.044
22140	0.045
22200	0.051
22260	0.044
22320	0.044
22380	0.045
22440	0.045
22500	0.043
22560	0.044
22620	0.044
22680	0.044
22740	0.046
22800	0.045
22860	0.044
22920	0.044
22980	0.047
23040	0.047
23100	0.043
23160	0.043
23220	0.044
27434	0
27480	0.06
27540	0.051
27600	0.046
27660	0.043
27720	0.041
27780	0.037
27840	0.037
27900	0.036
27960	0.036
28020	0.036
28080	0.035
28140	0.033
28200	0.033
28260	0.032
28320	0.032

28380	0.032
28440	0.031
28500	0.032
28560	0.031
28620	0.031
28680	0.03
28740	0.03
28800	0.03
28860	0.03
28920	0.029
28980	0.029
29040	0.029
29100	0.03
29160	0.029
29220	0.028
29280	0.028
29340	0.029
29400	0.03
29460	0.029
29520	0.029
29580	0.029
29640	0.028
29700	0.028
29760	0.027
29820	0.027
29880	0.027
29940	0.026
30000	0.026
30060	0.025
30120	0.026
30180	0.027
30240	0.026
30300	0.024
30360	0.024
30420	0.024
30480	0.024
30540	0.023
30600	0.024
30660	0.023
30720	0.023
30780	0.023
30840	0.023
30900	0.022
30960	0.022
31020	0.025
31080	0.022
31140	0.023

31200	0.023
31260	0.021
31320	0.021
31380	0.021
31440	0.021
31500	0.021
31560	0.021
31620	0.02
31680	0.02
31740	0.021
31800	0.02
31860	0.02
31920	0.021
31980	0.023
32040	0.023
32100	0.021
32160	0.021
32220	0.021
32280	0.021
32340	0.019
32400	0.021
32460	0.019
32520	0.019
32580	0.019
32640	0.019
32700	0.019
32760	0.018
32820	0.018
32880	0.019
32940	0.019
33000	0.019
33060	0.019
33120	0.019
33180	0.019
33240	0.018
33300	0.018
33360	0.018
33420	0.022
33480	0.019
33540	0.018
33600	0.018
33660	0.018
33720	0.019
33780	0.02
33840	0.019
33900	0.019
33960	0.019

34020	0.018
34080	0.018
34140	0.018
34200	0.018
34260	0.018
34320	0.018
34380	0.018

=========Event #74 information (begin)=========

[Event #74 name:]--[Event #74]2016-02-17 07:45<-->2016-02-17 14:00

[Event start time:]--2016-02-17 07:45:56[Event end time:]--2016-02-17 14:00:56

==========Event #74 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 25 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00023 USER ID: 00000001 Op Mode: Search Mode

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

Measurement Gas : Isobutylene

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #74 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/17/2016 8:00	0	0	76	upwind
2	2/17/2016 8:15	0	1	39	
3	2/17/2016 8:30	0	10	194	
4	2/17/2016 8:45	10	24	76	
5	2/17/2016 9:00	21	32	82	
6	2/17/2016 9:15	26	42	62	
7	2/17/2016 9:30	36	49	121	
8	2/17/2016 9:45	41	62	477	
9	2/17/2016 10:00	46	81	287	
10	2/17/2016 10:15	43	55	97	
11	2/17/2016 10:30	44	52	64	
12	2/17/2016 10:45	47	53	79	
13	2/17/2016 11:00	46	53	73	
14	2/17/2016 11:15	46	50	62	
15	2/17/2016 11:30	47	52	72	
16	2/17/2016 11:45	48	55	95	
17	2/17/2016 12:00	50	55	70	
18	2/17/2016 12:15	49	58	113	
19	2/17/2016 12:30	53	63	117	
20	2/17/2016 12:45	59	71	119	
21	2/17/2016 13:00	57	61	76	
22	2/17/2016 13:15	58	66	124	
23	2/17/2016 13:30	58	65	82	
24	2/17/2016 13:45	61	66	90	
25	2/17/2016 14:00	60	68	89	

==========Event #74 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_003	
Test Start Time	7:22:35 AM	
Test Start Date	2/18/2016	downwind
Test Length [D:H:M]	0:07:45	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.007	
Mass Minimum [mg/m3]	0.003	
Mass Maximum [mg/m3]	0.023	
Mass TWA [mg/m3]	0.007	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	31	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.009		
1800	0.011		
2700	0.012		
3600	0.023		
4500	0.016		
5400	0.005		
6300	0.005		
7200	0.005		
8100	0.005		
9000	0.005		
9900	0.005		
10800	0.005		
11700	0.006		
12600	0.005		
13500	0.006		
14400	0.008		
15300	0.006		
16200	0.006		
17100	0.005		
18000	0.003		
18900	0.003		
19800	0.01		
20700	0.005		
21600	0.004		
22500	0.005		
23400	0.006		
24300	0.004		
25200	0.009		
26100	0.006		
27000	0.006		
27900	0.004		

=========Event #66 information (begin)=========

==========

[Event #66 name:]--[Event #66]2016-02-18 07:30<-->2016-02-18 15:15

[Event start time:]--2016-02-18 07:30:38[Event end time:]--2016-02-18 15:15:38

==========Event #66 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 31 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000007 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #66 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/18/2016 7:45	0	0	0	downwind
2	2/18/2016 8:00	0	0	0	
3	2/18/2016 8:15	0	0	0	
4	2/18/2016 8:30	0	0	0	
5	2/18/2016 8:45	0	0	0	
6	2/18/2016 9:00	0	0	0	
7	2/18/2016 9:15	0	0	0	
8	2/18/2016 9:30	0	0	0	
9	2/18/2016 9:45	0	0	0	
10	2/18/2016 10:00	0	0	0	
11	2/18/2016 10:15	0	0	0	
12	2/18/2016 10:30	0	0	0	
13	2/18/2016 10:45	0	0	0	
14	2/18/2016 11:00	0	0	0	
15	2/18/2016 11:15	0	0	0	
16	2/18/2016 11:30	0	0	0	
17	2/18/2016 11:45	0	0	0	
18	2/18/2016 12:00	0	0	0	
19	2/18/2016 12:15	0	0	0	
20	2/18/2016 12:30	0	0	0	
21	2/18/2016 12:45	0	0	0	
22	2/18/2016 13:00	0	0	0	
23	2/18/2016 13:15	0	0	0	
24	2/18/2016 13:30	0	0	0	
25	2/18/2016 13:45	0	0	0	
26	2/18/2016 14:00	0	0	0	
27	2/18/2016 14:15	0	0	0	
28	2/18/2016 14:30	0	0	0	
29	2/18/2016 14:45	0	0	0	
30	2/18/2016 15:00	0	0	0	
31	2/18/2016 15:15	0	0	0	

==========Event #66 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_003	
Test Start Time	7:18:26 AM	
Test Start Date	2/18/2016	upwind
Test Length [D:H:M]	0:07:52	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.038	
Mass Minimum [mg/m3]	0.025	
Mass Maximum [mg/m3]	0.244	
Mass TWA [mg/m3]	0.038	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	472	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.1		
120	0.04		
180	0.034		
240	0.033		
300	0.051		
360	0.032		
420	0.04		
480	0.037		
540	0.036		
600	0.042		
660	0.03		
720	0.033		
780	0.058		
840	0.042		
900	0.039		
960	0.038		
1020	0.039		
1080	0.045		
1140	0.044		
1200	0.04		
1260	0.044		
1320	0.038		
1380	0.039		
1440	0.041		
1500	0.037		
1560	0.03		
1620	0.056		

1680	0.11	
1740	0.046	
1800	0.069	
1860	0.096	
1920	0.04	
1980	0.244	1
2040	0.043	
2100	0.225	1
2160	0.218	1
2220	0.079	
2280	0.064	
2340	0.056	
2400	0.042	
2460	0.046	
2520	0.091	
2580	0.039	
2640	0.051	
2700	0.035	
2760	0.095	
2820	0.038	
2880	0.07	
2940	0.068	
3000	0.047	
3060	0.037	
3120	0.056	
3180	0.088	
3240	0.124	
3300	0.174	1
3360	0.052	
3420	0.041	
3480	0.074	
3540	0.069	
3600	0.074	
3660	0.056	
3720	0.057	
3780	0.113	
3840	0.24	1
3900	0.075	
3960	0.091	
4020	0.101	
4080	0.043	
4140	0.071	
4200	0.149	
4260	0.039	
4320	0.044	
4380	0.045	
4440	0.03	

4500	0.033
4560	0.03
4620	0.071
4680	0.029
4740	0.03
4800	0.044
4860	0.039
4920	0.032
4980	0.038
5040	0.034
5100	0.036
5160	0.029
5220	0.049
5280	0.036
5340	0.03
5400	0.033
5460	0.032
5520	0.037
5580	0.036
5640	0.047
5700	0.033
5760	0.04
5820	0.036
5880	0.029
5940	0.037
6000	0.029
6060	0.031
6120	0.03
6180	0.03
6240	0.03
6300	0.029
6360	0.029
6420	0.028
6480	0.034
6540	0.037
6600	0.028
6660	0.03
6720	0.028
6780	0.027
6840	0.027
6900	0.028
6960	0.031
7020	0.04
7080	0.038
7140	0.041
7200	0.041
7260	0.032

7320	0.034
7380	0.03
7440	0.029
7500	0.029
7560	0.028
7620	0.031
7680	0.029
7740	0.03
7800	0.033
7860	0.035
7920	0.032
7980	0.032
8040	0.032
8100	0.031
8160	0.03
8220	0.04
8280	0.029
8340	0.029
8400	0.032
8460	0.031
8520	0.031
8580	0.028
8640	0.032
8700	0.034
8760	0.037
8820	0.035
8880	0.03
8940	0.029
9000	0.028
9060	0.028
9120	0.028
9180	0.029
9240	0.03
9300	0.031
9360	0.036
9420	0.03
9480	0.029
9540	0.03
9600	0.041
9660	0.034
9720	0.042
9780	0.031
9840	0.031
9900	0.03
9960	0.03
10020	0.03
10080	0.029

10140	0.03
10200	0.03
10260	0.031
10320	0.029
10380	0.029
10440	0.028
10500	0.028
10560	0.029
10620	0.029
10680	0.029
10740	0.03
10800	0.03
10860	0.029
10920	0.029
10980	0.03
11040	0.033
11100	0.03
11160	0.04
11220	0.044
11280	0.031
11340	0.028
11400	0.028
11460	0.03
11520	0.03
11580	0.03
11640	0.028
11700	0.029
11760	0.03
11820	0.033
11880	0.035
11940	0.035
12000	0.03
12060	0.039
12120	0.031
12180	0.031
12240	0.031
12300	0.032
12360	0.03
12420	0.037
12480	0.03
12540	0.035
12600	0.039
12660	0.03
12720	0.027
12780	0.033
12840	0.034
12900	0.032

12960	0.03
13020	0.031
13080	0.042
13140	0.032
13200	0.03
13260	0.029
13320	0.03
13380	0.031
13440	0.029
13500	0.038
13560	0.04
13620	0.032
13680	0.04
13740	0.038
13800	0.03
13860	0.042
13920	0.044
13980	0.045
14040	0.032
14100	0.036
14160	0.031
14220	0.036
14280	0.048
14340	0.041
14400	0.036
14460	0.051
14520	0.03
14580	0.029
14640	0.033
14700	0.045
14760	0.034
14820	0.037
14880	0.034
14940	0.028
15000	0.029
15060	0.038
15120	0.042
15180	0.036
15240	0.028
15300	0.029
15360	0.04
15420	0.033
15480	0.037
15540	0.034
15600	0.03
15660	0.033
15720	0.033

15780	0.032
15840	0.03
15900	0.03
15960	0.031
16020	0.034
16080	0.042
16140	0.03
16200	0.033
16260	0.032
16320	0.039
16380	0.033
16440	0.035
16500	0.03
16560	0.035
16620	0.034
16680	0.035
16740	0.034
16800	0.03
16860	0.046
16920	0.031
16980	0.026
17040	0.039
17100	0.032
17160	0.027
17220	0.03
17280	0.029
17340	0.028
17400	0.028
17460	0.029
17520	0.027
17580	0.032
17640	0.028
17700	0.031
17760	0.029
17820	0.027
17880	0.026
17940	0.027
18000	0.026
18060	0.026
18120	0.027
18180	0.025
18240	0.028
18300	0.035
18360	0.028
18420	0.027
18480	0.033
18540	0.025

18600	0.026
18660	0.027
18720	0.029
18780	0.028
18840	0.033
18900	0.033
18960	0.028
19020	0.027
19080	0.027
19140	0.03
19200	0.033
19260	0.033
19320	0.027
19380	0.031
19440	0.027
19500	0.025
19560	0.025
19620	0.027
19680	0.027
19740	0.029
19800	0.03
19860	0.026
19920	0.04
19980	0.041
20040	0.048
20100	0.029
20160	0.028
20220	0.028
20280	0.026
20340	0.027
20400	0.03
20460	0.029
20520	0.031
20580	0.033
20640	0.038
20700	0.038
20760	0.028
20820	0.027
20880	0.028
20940	0.028
21000	0.026
21060	0.041
21120	0.03
21180	0.033
21240	0.037
21300	0.033
21360	0.035

21420	0.027
21480	0.028
21540	0.029
21600	0.028
21660	0.027
21720	0.03
21780	0.026
21840	0.031
21900	0.029
21960	0.034
22020	0.032
22080	0.032
22140	0.029
22200	0.029
22260	0.042
22320	0.046
22380	0.032
22440	0.029
22500	0.027
22560	0.03
22620	0.03
22680	0.034
22740	0.029
22800	0.039
22860	0.036
22920	0.026
22980	0.032
23040	0.029
23100	0.031
23160	0.031
23220	0.037
23280	0.031
23340	0.032
23400	0.029
23460	0.031
23520	0.037
23580	0.038
23640	0.034
23700	0.029
23760	0.027
23820	0.036
23880	0.029
23940	0.029
24000	0.028
24060	0.042
24120	0.032
24180	0.033

24240	0.031
24300	0.038
24360	0.032
24420	0.03
24480	0.034
24540	0.031
24600	0.03
24660	0.043
24720	0.04
24780	0.033
24840	0.034
24900	0.035
24960	0.039
25020	0.032
25080	0.037
25140	0.032
25200	0.028
25260	0.035
25320	0.03
25380	0.031
25440	0.03
25500	0.037
25560	0.044
25620	0.034
25680	0.034
25740	0.041
25800	0.036
25860	0.036
25920	0.03
25980	0.038
26040	0.036
26100	0.032
26160	0.032
26220	0.029
26280	0.042
26340	0.047
26400	0.031
26460	0.026
26520	0.032
26580	0.033
26640	0.07
26700	0.117
26760	0.032
26820	0.028
26880	0.031
26940	0.03
27000	0.031

27060	0.03
27120	0.046
27180	0.047
27240	0.029
27300	0.029
27360	0.039
27420	0.029
27480	0.028
27540	0.033
27600	0.036
27660	0.027
27720	0.027
27780	0.032
27840	0.029
27900	0.027
27960	0.038
28020	0.03
28080	0.03
28140	0.03
28200	0.027
28260	0.032
28320	0.03

=========Event #75 information (begin)=========

==========

[Event #75 name:]--[Event #75]2016-02-18 07:26<-->2016-02-18 15:11

[Event start time:]--2016-02-18 07:26:49[Event end time:]--2016-02-18 15:11:49

==========Event #75 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 31 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00024 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #75 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/18/2016 7:41	0	0	30	upwind
2	2/18/2016 7:56	0	5	152	
3	2/18/2016 8:11	12	21	67	
4	2/18/2016 8:26	26	36	73	
5	2/18/2016 8:41	38	50	153	
6	2/18/2016 8:56	48	60	134	
7	2/18/2016 9:11	56	64	76	
8	2/18/2016 9:26	57	64	76	
9	2/18/2016 9:41	63	82	137	
10	2/18/2016 9:56	61	80	118	
11	2/18/2016 10:11	63	71	98	
12	2/18/2016 10:26	64	71	87	
13	2/18/2016 10:41	66	77	124	
14	2/18/2016 10:56	65	72	104	
15	2/18/2016 11:11	65	72	106	
16	2/18/2016 11:26	67	81	196	
17	2/18/2016 11:41	69	80	110	
18	2/18/2016 11:56	69	74	125	
19	2/18/2016 12:11	65	74	90	
20	2/18/2016 12:26	67	71	87	
21	2/18/2016 12:41	64	68	76	
22	2/18/2016 12:56	64	71	82	
23	2/18/2016 13:11	63	73	127	
24	2/18/2016 13:26	64	72	89	
25	2/18/2016 13:41	66	75	98	
26	2/18/2016 13:56	67	73	88	
27	2/18/2016 14:11	67	76	139	
28	2/18/2016 14:26	67	77	96	
29	2/18/2016 14:41	67	83	114	
30	2/18/2016 14:56	69	80	140	
31	2/18/2016 15:11	65	73	101	

==========Event #75 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_005	
Test Start Time	7:13:58 AM	
Test Start Date	2/22/2016	downwind
Test Length [D:H:M]	0:06:45	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.009	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.014	
Mass TWA [mg/m3]	0.008	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	27	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.014		
1800	0.009		
2700	0.01		
3600	0.011		
4500	0.008		
5400	0.007		
6300	0.009		
7200	0.007		
8100	0.006		
9000	0.006		
9900	0.006		
10800	0.006		
11700	0.006		
12600	0.005		
13500	0.006		
14400	0.006		
15300	0.007		
16200	0.01		
17100	0.01		
18000	0.01		
18900	0.011		
19800	0.011		
20700	0.012		
21600	0.011		
22500	0.013		
23400	0.013		
24300	0.014		

=========Event #67 information (begin)=========

==========

[Event #67 name:]--[Event #67]2016-02-19 07:37<-->2016-02-19 13:07

[Event start time:]--2016-02-19 07:37:57[Event end time:]--2016-02-19 13:07:57

===========Event #67 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 22 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000008 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #67 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/19/2016 7:52	0	0	0	downwind
2	2/19/2016 8:07	0	0	0	
3	2/19/2016 8:22	0	0	0	
4	2/19/2016 8:37	0	0	0	
5	2/19/2016 8:52	0	0	0	
6	2/19/2016 9:07	0	0	0	
7	2/19/2016 9:22	0	0	0	
8	2/19/2016 9:37	0	0	0	
9	2/19/2016 9:52	0	0	0	
10	2/19/2016 10:07	0	0	0	
11	2/19/2016 10:22	0	279	770	
12	2/19/2016 10:37	677	1009	1435	
13	2/19/2016 10:52	983	1125	1278	
14	2/19/2016 11:07	1057	1225	1341	
15	2/19/2016 11:22	903	1007	1105	
16	2/19/2016 11:37	1015	1263	1407	
17	2/19/2016 11:52	0	880	1220	
18	2/19/2016 12:07	0	42	605	
19	2/19/2016 12:22	0	1	56	
20	2/19/2016 12:37	0	0	0	
21	2/19/2016 12:52	0	0	0	
22	2/19/2016 13:07	0	280	984	

==========Event #67 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_004	
Test Start Time	7:23:57 AM	
Test Start Date	2/19/2016	upwind
Test Length [D:H:M]	0:05:42	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.034	
Mass Minimum [mg/m3]	0.026	
Mass Maximum [mg/m3]	0.298	
Mass TWA [mg/m3]	0.024	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	342	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.079		
120	0.033		
180	0.031		
240	0.032		
300	0.034		
360	0.031		
420	0.032		
480	0.031		
540	0.056		
600	0.035		
660	0.032		
720	0.032		
780	0.033		
840	0.037		
900	0.041		
960	0.037		
1020	0.036		
1080	0.038		
1140	0.04		
1200	0.037		
1260	0.036		
1320	0.036		
1380	0.045		
1440	0.037		
1500	0.031		
1560	0.035		
1620	0.041		

1680	0.03
1740	0.03
1800	0.034
1860	0.033
1920	0.035
1980	0.03
2040	0.03
2100	0.031
2160	0.03
2220	0.03
2280	0.03
2340	0.032
2400	0.032
2460	0.033
2520	0.032
2580	0.038
2640	0.031
2700	0.057
2760	0.03
2820	0.045
2880	0.043
2940	0.03
3000	0.03
3060	0.034
3120	0.034
3180	0.034
3240	0.033
3300	0.035
3360	0.032
3420	0.044
3480	0.048
3540	0.043
3600	0.046
3660	0.05
3720	0.055
3780	0.072
3840	0.06
3900	0.042
3960	0.041
4020	0.057
4080	0.033
4140	0.039
4200	0.033
4260	0.033
4320	0.046
4380	0.032
4440	0.031

4500	0.031	
4560	0.11	
4620	0.298	1
4680	0.065	
4740	0.064	
4800	0.055	
4860	0.043	
4920	0.035	
4980	0.031	
5040	0.038	
5100	0.037	
5160	0.038	
5220	0.037	
5280	0.038	
5340	0.034	
5400	0.041	
5460	0.044	
5520	0.047	
5580	0.033	
5640	0.038	
5700	0.041	
5760	0.035	
5820	0.034	
5880	0.037	
5940	0.042	
6000	0.035	
6060	0.035	
6120	0.119	
6180	0.1	
6240	0.048	
6300	0.038	
6360	0.032	
6420	0.032	
6480	0.043	
6540	0.032	
6600	0.031	
6660	0.032	
6720	0.03	
6780	0.03	
6840	0.031	
6900	0.031	
6960	0.03	
7020	0.03	
7080	0.032	
7140	0.031	
7200	0.031	
7260	0.03	

7320	0.033
7380	0.032
7440	0.033
7500	0.032
7560	0.033
7620	0.034
7680	0.043
7740	0.033
7800	0.034
7860	0.042
7920	0.033
7980	0.033
8040	0.033
8100	0.032
8160	0.033
8220	0.031
8280	0.029
8340	0.028
8400	0.028
8460	0.03
8520	0.031
8580	0.034
8640	0.03
8700	0.03
8760	0.03
8820	0.029
8880	0.029
8940	0.029
9000	0.03
9060	0.029
9120	0.027
9180	0.027
9240	0.027
9300	0.028
9360	0.028
9420	0.027
9480	0.028
9540	0.027
9600	0.027
9660	0.026
9720	0.026
9780	0.027
9840	0.026
9900	0.026
9960	0.026
10020	0.026
10080	0.026

10140	0.026
10200	0.027
10260	0.028
10320	0.027
10380	0.027
10440	0.027
10500	0.027
10560	0.028
10620	0.027
10680	0.027
10740	0.027
10800	0.027
10860	0.027
10920	0.027
10980	0.026
11040	0.026
11100	0.027
11160	0.027
11220	0.027
11280	0.027
11340	0.027
11400	0.027
11460	0.026
11520	0.026
11580	0.027
11640	0.027
11700	0.026
11760	0.027
11820	0.026
11880	0.027
11940	0.026
12000	0.026
12060	0.027
12120	0.027
12180	0.027
12240	0.027
12300	0.027
12360	0.027
12420	0.027
12480	0.027
12540	0.028
12600	0.028
12660	0.027
12720	0.032
12780	0.031
12840	0.027
12900	0.027

12960	0.027
13020	0.027
13080	0.028
13140	0.027
13200	0.029
13260	0.029
13320	0.028
13380	0.028
13440	0.027
13500	0.028
13560	0.027
13620	0.028
13680	0.027
13740	0.027
13800	0.028
13860	0.027
13920	0.027
13980	0.028
14040	0.028
14100	0.032
14160	0.027
14220	0.027
14280	0.029
14340	0.029
14400	0.027
14460	0.028
14520	0.028
14580	0.028
14640	0.027
14700	0.028
14760	0.028
14820	0.028
14880	0.029
14940	0.028
15000	0.028
15060	0.028
15120	0.028
15180	0.029
15240	0.029
15300	0.028
15360	0.028
15420	0.028
15480	0.029
15540	0.028
15600	0.028
15660	0.028
15720	0.028

15780	0.029
15840	0.03
15900	0.028
15960	0.028
16020	0.028
16080	0.029
16140	0.028
16200	0.029
16260	0.029
16320	0.029
16380	0.028
16440	0.029
16500	0.029
16560	0.03
16620	0.033
16680	0.031
16740	0.03
16800	0.029
16860	0.03
16920	0.029
16980	0.03
17040	0.029
17100	0.03
17160	0.03
17220	0.029
17280	0.03
17340	0.03
17400	0.03
17460	0.03
17520	0.03
17580	0.03
17640	0.031
17700	0.031
17760	0.042
17820	0.044
17880	0.03
17940	0.03
18000	0.029
18060	0.03
18120	0.029
18180	0.036
18240	0.033
18300	0.032
18360	0.03
18420	0.03
18480	0.03
18540	0.03

18600	0.032
18660	0.032
18720	0.031
18780	0.032
18840	0.03
18900	0.032
18960	0.031
19020	0.032
19080	0.032
19140	0.031
19200	0.032
19260	0.035
19320	0.031
19380	0.03
19440	0.031
19500	0.031
19560	0.031
19620	0.033
19680	0.03
19740	0.03
19800	0.03
19860	0.03
19920	0.03
19980	0.03
20040	0.032
20100	0.03
20160	0.032
20220	0.032
20280	0.032
20340	0.031
20400	0.03
20460	0.031
20520	0.031

=========Event #76 information (begin)=========

==========

[Event #76 name:]--[Event #76]2016-02-19 07:32<-->2016-02-19 13:02

[Event start time:]--2016-02-19 07:32:18[Event end time:]--2016-02-19 13:02:18

===========Event #76 head information===========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 22 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00025 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #76 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/19/2016 7:47	0	0	40	upwind
2	2/19/2016 8:02	2	18	50	
3	2/19/2016 8:17	25	35	102	
4	2/19/2016 8:32	39	53	100	
5	2/19/2016 8:47	57	66	103	
6	2/19/2016 9:02	60	79	161	
7	2/19/2016 9:17	67	78	120	
8	2/19/2016 9:32	60	66	82	
9	2/19/2016 9:47	63	74	108	
10	2/19/2016 10:02	58	68	119	
11	2/19/2016 10:17	52	65	120	
12	2/19/2016 10:32	56	72	124	
13	2/19/2016 10:47	55	62	103	
14	2/19/2016 11:02	60	68	104	
15	2/19/2016 11:17	58	66	88	
16	2/19/2016 11:32	57	64	86	
17	2/19/2016 11:47	57	64	93	
18	2/19/2016 12:02	58	65	118	
19	2/19/2016 12:17	59	69	238	
20	2/19/2016 12:32	64	84	246	
21	2/19/2016 12:47	61	73	151	
22	2/19/2016 13:02	67	80	110	

==========Event #76 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530132429	
Firmware Version	3	
Calibration Date	6/13/2013	
Test Name	MANUAL_005	
Test Start Time	7:13:58 AM	
Test Start Date	2/22/2016	downwind
Test Length [D:H:M]	0:06:45	
Test Interval [M:S]	15:00	
Mass Average [mg/m3]	0.009	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.014	
Mass TWA [mg/m3]	0.008	
Photometric User Cal	0.85	
Flow User Cal	0	
Errors		
Number of Samples	27	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
900	0.014		
1800	0.009		
2700	0.01		
3600	0.011		
4500	0.008		
5400	0.007		
6300	0.009		
7200	0.007		
8100	0.006		
9000	0.006		
9900	0.006		
10800	0.006		
11700	0.006		
12600	0.005		
13500	0.006		
14400	0.006		
15300	0.007		
16200	0.01		
17100	0.01		
18000	0.01		
18900	0.011		
19800	0.011		
20700	0.012		
21600	0.011		
22500	0.013		
23400	0.013		
24300	0.014		

=========Event #68 information (begin)=========

==========

[Event #68 name:]--[Event #68]2016-02-22 07:22<-->2016-02-22 13:52

[Event start time:]--2016-02-22 07:22:44[Event end time:]--2016-02-22 13:52:44

==========Event #68 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-901139

Data Points: 26 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: 00000009 USER ID: PES00000 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppm)PID-Avg(ppm)PID-Max(ppm)

Measurement Gas : Isobutene

Calibration Time : 2016-02-02 13:44:002016-02-02 13:44:002016-02-02 13:44:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #68 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppm)	
1	2/22/2016 7:37	0	0	0	downwind
2	2/22/2016 7:52	0	0	0	
3	2/22/2016 8:07	0	0	0	
4	2/22/2016 8:22	0	0	0	
5	2/22/2016 8:37	0	0	0	
6	2/22/2016 8:52	0	0	0	
7	2/22/2016 9:07	0	0	0	
8	2/22/2016 9:22	0	0	0	
9	2/22/2016 9:37	0	0	0	
10	2/22/2016 9:52	0	19	257	
11	2/22/2016 10:07	180	398	653	
12	2/22/2016 10:22	0	375	1089	
13	2/22/2016 10:37	0	5	365	
14	2/22/2016 10:52	0	0	0	
15	2/22/2016 11:07	0	0	0	
16	2/22/2016 11:22	0	0	0	
17	2/22/2016 11:37	0	0	0	
18	2/22/2016 11:52	0	0	0	
19	2/22/2016 12:07	0	0	0	
20	2/22/2016 12:22	0	0	0	
21	2/22/2016 12:37	0	0	0	
22	2/22/2016 12:52	0	0	0	
23	2/22/2016 13:07	0	0	0	
24	2/22/2016 13:22	0	0	0	
25	2/22/2016 13:37	0	0	0	
26	2/22/2016 13:52	0	0	0	

==========Event #68 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530122906	
Firmware Version	3.4	
Calibration Date	9/25/2015	
Test Name	MANUAL_005	
Test Start Time	7:16:34 AM	
Test Start Date	2/22/2016	upwind
Test Length [D:H:M]	0:06:54	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.026	
Mass Minimum [mg/m3]	0.016	
Mass Maximum [mg/m3]	0.058	
Mass TWA [mg/m3]	0.022	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	414	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.056		
120	0.058		
180	0.043		
240	0.054		
300	0.042		
360	0.045		
420	0.054		
480	0.043		
540	0.04		
600	0.038		
660	0.037		
720	0.037		
780	0.039		
840	0.037		
900	0.036		
960	0.037		
1020	0.037		
1080	0.038		
1140	0.037		
1200	0.038		
1260	0.038		
1320	0.04		
1380	0.041		
1440	0.039		
1500	0.041		
1560	0.043		
1620	0.042		

1680	0.039
1740	0.04
1800	0.039
1860	0.037
1920	0.038
1980	0.041
2040	0.042
2100	0.042
2160	0.04
2220	0.037
2280	0.035
2340	0.037
2400	0.036
2460	0.033
2520	0.033
2580	0.034
2640	0.033
2700	0.035
2760	0.036
2820	0.039
2880	0.035
2940	0.034
3000	0.035
3060	0.046
3120	0.035
3180	0.034
3240	0.034
3300	0.033
3360	0.032
3420	0.031
3480	0.033
3540	0.032
3600	0.033
3660	0.035
3720	0.034
3780	0.032
3840	0.031
3900	0.03
3960	0.033
4020	0.034
4080	0.032
4140	0.035
4200	0.032
4260	0.031
4320	0.027
4380	0.027
4440	0.028

4500	0.028
4560	0.029
4620	0.027
4680	0.027
4740	0.027
4800	0.027
4860	0.029
4920	0.026
4980	0.027
5040	0.026
5100	0.027
5160	0.028
5220	0.027
5280	0.034
5340	0.033
5400	0.028
5460	0.032
5520	0.027
5580	0.026
5640	0.032
5700	0.028
5760	0.03
5820	0.03
5880	0.028
5940	0.03
6000	0.034
6060	0.027
6120	0.026
6180	0.033
6240	0.032
6300	0.029
6360	0.029
6420	0.025
6480	0.027
6540	0.029
6600	0.024
6660	0.028
6720	0.027
6780	0.027
6840	0.024
6900	0.028
6960	0.032
7020	0.029
7080	0.028
7140	0.028
7200	0.027
7260	0.031

7320	0.028
7380	0.032
7440	0.026
7500	0.023
7560	0.024
7620	0.025
7680	0.027
7740	0.025
7800	0.029
7860	0.028
7920	0.025
7980	0.023
8040	0.024
8100	0.025
8160	0.026
8220	0.023
8280	0.024
8340	0.023
8400	0.033
8460	0.033
8520	0.027
8580	0.028
8640	0.026
8700	0.024
8760	0.026
8820	0.029
8880	0.029
8940	0.026
9000	0.035
9060	0.04
9120	0.037
9180	0.027
9240	0.025
9300	0.023
9360	0.021
9420	0.021
9480	0.025
9540	0.026
9600	0.022
9660	0.023
9720	0.029
9780	0.021
9840	0.023
9900	0.024
9960	0.027
10020	0.02
10080	0.021

10140	0.02
10200	0.02
10260	0.033
10320	0.024
10380	0.035
10440	0.026
10500	0.024
10560	0.02
10620	0.052
10680	0.028
10740	0.019
10800	0.02
10860	0.022
10920	0.019
10980	0.019
11040	0.02
11100	0.022
11160	0.026
11220	0.04
11280	0.035
11340	0.031
11400	0.027
11460	0.03
11520	0.036
11580	0.032
11640	0.035
11700	0.029
11760	0.021
11820	0.038
11880	0.038
11940	0.023
12000	0.021
12060	0.037
12120	0.024
12180	0.022
12240	0.026
12300	0.019
12360	0.02
12420	0.02
12480	0.02
12540	0.021
12600	0.036
12660	0.02
12720	0.02
12780	0.018
12840	0.035
12900	0.029

12960	0.029
13020	0.031
13080	0.02
13140	0.018
13200	0.018
13260	0.018
13320	0.017
13380	0.022
13440	0.018
13500	0.017
13560	0.017
13620	0.023
13680	0.022
13740	0.018
13800	0.02
13860	0.016
13920	0.016
13980	0.018
14040	0.018
14100	0.023
14160	0.026
14220	0.019
14280	0.022
14340	0.018
14400	0.022
14460	0.02
14520	0.019
14580	0.031
14640	0.02
14700	0.016
14760	0.016
14820	0.016
14880	0.016
14940	0.016
15000	0.017
15060	0.022
15120	0.019
15180	0.02
15240	0.02
15300	0.033
15360	0.023
15420	0.021
15480	0.021
15540	0.019
15600	0.017
15660	0.018
15720	0.021

15780	0.019
15840	0.021
15900	0.019
15960	0.019
16020	0.019
16080	0.018
16140	0.018
16200	0.018
16260	0.019
16320	0.018
16380	0.019
16440	0.018
16500	0.02
16560	0.022
16620	0.019
16680	0.019
16740	0.02
16800	0.019
16860	0.019
16920	0.017
16980	0.017
17040	0.018
17100	0.019
17160	0.02
17220	0.02
17280	0.02
17340	0.019
17400	0.021
17460	0.02
17520	0.019
17580	0.018
17640	0.018
17700	0.019
17760	0.019
17820	0.021
17880	0.019
17940	0.019
18000	0.019
18060	0.018
18120	0.019
18180	0.019
18240	0.02
18300	0.018
18360	0.019
18420	0.019
18480	0.02
18540	0.019

18600	0.019
18660	0.019
18720	0.019
18780	0.02
18840	0.019
18900	0.02
18960	0.019
19020	0.022
19080	0.027
19140	0.023
19200	0.021
19260	0.021
19320	0.021
19380	0.02
19440	0.019
19500	0.019
19560	0.019
19620	0.019
19680	0.018
19740	0.018
19800	0.018
19860	0.029
19920	0.027
19980	0.024
20040	0.026
20100	0.02
20160	0.019
20220	0.02
20280	0.017
20340	0.018
20400	0.02
20460	0.021
20520	0.021
20580	0.019
20640	0.019
20700	0.022
20760	0.022
20820	0.024
20880	0.021
20940	0.023
21000	0.018
21060	0.018
21120	0.021
21180	0.019
21240	0.018
21300	0.019
21360	0.019

21420	0.02
21480	0.02
21540	0.02
21600	0.019
21660	0.019
21720	0.019
21780	0.019
21840	0.019
21900	0.019
21960	0.021
22020	0.022
22080	0.02
22140	0.021
22200	0.022
22260	0.021
22320	0.02
22380	0.019
22440	0.02
22500	0.02
22560	0.02
22620	0.02
22680	0.021
22740	0.021
22800	0.022
22860	0.021
22920	0.021
22980	0.021
23040	0.025
23100	0.022
23160	0.024
23220	0.022
23280	0.022
23340	0.022
23400	0.022
23460	0.023
23520	0.023
23580	0.023
23640	0.026
23700	0.024
23760	0.025
23820	0.027
23880	0.025
23940	0.025
24000	0.026
24060	0.026
24120	0.026
24180	0.026

24240	0.027
24300	0.027
24360	0.026
24420	0.026
24480	0.026
24540	0.026
24600	0.026
24660	0.027
24720	0.027
24780	0.028
24840	0.031

==========Event #77 information (begin)==========

==========

[Event #77 name:]--[Event #77]2016-02-22 07:25<-->2016-02-22 14:10

[Event start time:]--2016-02-22 07:25:25[Event end time:]--2016-02-22 14:10:25

==========Event #77 head information==========

Product Name: MiniRAE 3000 Model Number: PGM-7320 Serial Number: 592-903918

Data Points: 27 Sample Period: 900 s Datalog Mode: Automatic

SITE ID: RAE00026 USER ID: 00000001 Op Mode: Search Mode

==========

Sensor Information : PID-Min(ppb)PID-Avg(ppb)PID-Max(ppb)

Measurement Gas : Isobutylene

Calibration Time : 2016-02-04 08:12:002016-02-04 08:12:002016-02-04 08:12:00

Drift Value : --- --- ---

Low Alarm Levels : 50000 50000 50000

High Alarm Levels : 100000 100000 100000

Span Value : 100000 100000 100000

Correction Factor : 0.10 0.10 0.10

Over Alarm Levels : 2000000 2000000 2000000

==========Event #77 data informations==========

LINE#	Date/Time	PID-Min(pp	PID-Avg(pp	PID-Max(ppb)	
1	2/22/2016 7:40	0	0	55	upwind
2	2/22/2016 7:55	0	44	360	
3	2/22/2016 8:10	19	113	1426	
4	2/22/2016 8:25	48	72	200	
5	2/22/2016 8:40	50	57	72	
6	2/22/2016 8:55	50	60	73	
7	2/22/2016 9:10	54	63	87	
8	2/22/2016 9:25	52	62	76	
9	2/22/2016 9:40	51	65	88	
10	2/22/2016 9:55	60	74	182	
11	2/22/2016 10:10	72	125	10379	
12	2/22/2016 10:25	75	1091	50831	
13	2/22/2016 10:40	88	211	2642	
14	2/22/2016 10:55	103	141	556	
15	2/22/2016 11:10	87	136	826	
16	2/22/2016 11:25	63	102	684	
17	2/22/2016 11:40	58	119	1491	
18	2/22/2016 11:55	58	70	206	
19	2/22/2016 12:10	54	61	158	
20	2/22/2016 12:25	59	116	651	
21	2/22/2016 12:40	54	68	203	
22	2/22/2016 12:55	51	61	99	
23	2/22/2016 13:10	54	64	94	
24	2/22/2016 13:25	55	71	102	
25	2/22/2016 13:40	44	60	86	
26	2/22/2016 13:55	39	56	184	
27	2/22/2016 14:10	37	52	140	

==========Event #77 information (end)==========

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530133403	
Firmware Version	3.4	
Calibration Date	1/20/2016	
Test Name	MANUAL_001	
Test Start Time	9:06:35 AM	
Test Start Date	10/25/2016	downwind
Test Length [D:H:M]	0:05:35	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.021	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.604	
Mass TWA [mg/m3]	0.015	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	335	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.012		
120	0.006		
180	0.006		
240	0.006		
300	0.088		
360	0.012		
420	0.007		
480	0.035		
540	0.006		
600	0.007		
660	0.008		
720	0.006		
780	0.012		
840	0.007		
900	0.007		
960	0.006		
1020	0.007		
1080	0.007		
1140	0.02		
1200	0.007		
1260	0.006		
1320	0.006		
1380	0.007		
1440	0.006		
1500	0.007		
1560	0.006		
1620	0.007		

1680	0.01
1740	0.01
1800	0.007
1860	0.009
1920	0.01
1980	0.009
2040	0.007
2100	0.007
2160	0.007
2220	0.008
2280	0.008
2340	0.01
2400	0.009
2460	0.008
2520	0.006
2580	0.006
2640	0.009
2700	0.008
2760	0.007
2820	0.008
2880	0.008
2940	0.01
3000	0.011
3060	0.007
3120	0.007
3180	0.007
3240	0.007
3300	0.006
3360	0.006
3420	0.006
3480	0.006
3540	0.006
3600	0.007
3660	0.006
3720	0.007
3780	0.009
3840	0.008
3900	0.008
3960	0.007
4020	0.007
4080	0.007
4140	0.006
4200	0.008
4260	0.007
4320	0.006
4380	0.005
4440	0.006

4500	0.013
4560	0.009
4620	0.008
4680	0.006
4740	0.007
4800	0.006
4860	0.008
4920	0.009
4980	0.009
5040	0.007
5100	0.008
5160	0.008
5220	0.008
5280	0.008
5340	0.011
5400	0.012
5460	0.012
5520	0.009
5580	0.014
5640	0.01
5700	0.012
5760	0.011
5820	0.009
5880	0.012
5940	0.012
6000	0.018
6060	0.012
6120	0.007
6180	0.008
6240	0.01
6300	0.014
6360	0.013
6420	0.036
6480	0.016
6540	0.016
6600	0.017
6660	0.013
6720	0.011
6780	0.009
6840	0.009
6900	0.01
6960	0.012
7020	0.013
7080	0.009
7140	0.01
7200	0.011
7260	0.011

7320	0.009
7380	0.007
7440	0.009
7500	0.015
7560	0.009
7620	0.008
7680	0.01
7740	0.012
7800	0.008
7860	0.014
7920	0.019
7980	0.008
8040	0.006
8100	0.006
8160	0.017
8220	0.023
8280	0.012
8340	0.011
8400	0.014
8460	0.021
8520	0.023
8580	0.014
8640	0.012
8700	0.008
8760	0.015
8820	0.008
8880	0.008
8940	0.008
9000	0.006
9060	0.006
9120	0.008
9180	0.006
9240	0.006
9300	0.006
9360	0.007
9420	0.009
9480	0.028
9540	0.012
9600	0.013
9660	0.02
9720	0.066
9780	0.017
9840	0.017
9900	0.01
9960	0.009
10020	0.013
10080	0.007

10140	0.015
10200	0.013
10260	0.008
10320	0.008
10380	0.007
10440	0.007
10500	0.008
10560	0.009
10620	0.006
10680	0.008
10740	0.016
10800	0.007
10860	0.021
10920	0.012
10980	0.031
11040	0.015
11100	0.015
11160	0.014
11220	0.012
11280	0.009
11340	0.006
11400	0.018
11460	0.02
11520	0.014
11580	0.007
11640	0.007
11700	0.008
11760	0.005
11820	0.006
11880	0.006
11940	0.016
12000	0.008
12060	0.011
12120	0.006
12180	0.007
12240	0.008
12300	0.008
12360	0.014
12420	0.036
12480	0.02
12540	0.02
12600	0.017
12660	0.01
12720	0.009
12780	0.017
12840	0.023
12900	0.008

12960	0.008
13020	0.01
13080	0.012
13140	0.012
13200	0.016
13260	0.035
13320	0.024
13380	0.04
13440	0.024
13500	0.013
13560	0.022
13620	0.016
13680	0.012
13740	0.017
13800	0.015
13860	0.013
13920	0.016
13980	0.008
14040	0.009
14100	0.016
14160	0.014
14220	0.01
14280	0.015
14340	0.006
14400	0.006
14460	0.01
14520	0.01
14580	0.011
14640	0.014
14700	0.011
14760	0.008
14820	0.007
14880	0.013
14940	0.008
15000	0.013
15060	0.011
15120	0.014
15180	0.01
15240	0.021
15300	0.011
15360	0.017
15420	0.008
15480	0.021
15540	0.015
15600	0.01
15660	0.018
15720	0.012

15780	0.009
15840	0.02
15900	0.01
15960	0.01
16020	0.006
16080	0.01
16140	0.009
16200	0.007
16260	0.014
16320	0.014
16380	0.097
16440	0.018
16500	0.024
16560	0.131
16620	0.031
16680	0.23
16740	0.452
16800	0.055
16860	0.125
16920	0.044
16980	0.042
17040	0.012
17100	0.036
17160	0.039
17220	0.028
17280	0.023
17340	0.035
17400	0.08
17460	0.015
17520	0.01
17580	0.017
17640	0.047
17700	0.008
17760	0.044
17820	0.058
17880	0.017
17940	0.208
18000	0.097
18060	0.066
18120	0.604
18180	0.031
18240	0.021
18300	0.177
18360	0.042
18420	0.073
18480	0.085
18540	0.048

18600	0.025
18660	0.034
18720	0.028
18780	0.014
18840	0.012
18900	0.016
18960	0.011
19020	0.008
19080	0.011
19140	0.027
19200	0.016
19260	0.022
19320	0.01
19380	0.032
19440	0.013
19500	0.015
19560	0.01
19620	0.015
19680	0.007
19740	0.025
19800	0.157
19860	0.098
19920	0.027
19980	0.028
20040	0.02
20100	0.038

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530153512	
Firmware Version	3.4	
Calibration Date	6/1/2016	
Test Name	MANUAL_001	
Test Start Time	9:18:51 AM	
Test Start Date	10/25/2016	upwind
Test Length [D:H:M]	0:05:28	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.011	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.053	
Mass TWA [mg/m3]	0.008	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	328	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.05		
120	0.011		
180	0.01		
240	0.01		
300	0.012		
360	0.01		
420	0.01		
480	0.01		
540	0.011		
600	0.011		
660	0.01		
720	0.012		
780	0.012		
840	0.01		
900	0.01		
960	0.012		
1020	0.011		
1080	0.01		
1140	0.011		
1200	0.01		
1260	0.011		
1320	0.01		
1380	0.01		
1440	0.01		
1500	0.01		
1560	0.009		
1620	0.009		

1680	0.009
1740	0.015
1800	0.01
1860	0.008
1920	0.01
1980	0.01
2040	0.009
2100	0.008
2160	0.008
2220	0.009
2280	0.008
2340	0.008
2400	0.008
2460	0.008
2520	0.009
2580	0.008
2640	0.011
2700	0.008
2760	0.008
2820	0.01
2880	0.009
2940	0.008
3000	0.008
3060	0.008
3120	0.007
3180	0.008
3240	0.008
3300	0.007
3360	0.008
3420	0.01
3480	0.009
3540	0.012
3600	0.007
3660	0.008
3720	0.007
3780	0.008
3840	0.008
3900	0.007
3960	0.007
4020	0.008
4080	0.007
4140	0.007
4200	0.007
4260	0.014
4320	0.008
4380	0.009
4440	0.007

4500	0.007
4560	0.007
4620	0.01
4680	0.008
4740	0.007
4800	0.009
4860	0.007
4920	0.008
4980	0.008
5040	0.008
5100	0.008
5160	0.011
5220	0.026
5280	0.016
5340	0.019
5400	0.013
5460	0.018
5520	0.01
5580	0.016
5640	0.017
5700	0.018
5760	0.025
5820	0.016
5880	0.009
5940	0.009
6000	0.015
6060	0.023
6120	0.015
6180	0.022
6240	0.039
6300	0.025
6360	0.02
6420	0.018
6480	0.016
6540	0.013
6600	0.014
6660	0.015
6720	0.014
6780	0.015
6840	0.015
6900	0.015
6960	0.019
7020	0.018
7080	0.013
7140	0.01
7200	0.013
7260	0.02

7320	0.013
7380	0.012
7440	0.011
7500	0.017
7560	0.01
7620	0.019
7680	0.017
7740	0.01
7800	0.007
7860	0.006
7920	0.007
7980	0.021
8040	0.013
8100	0.016
8160	0.019
8220	0.021
8280	0.031
8340	0.028
8400	0.019
8460	0.012
8520	0.021
8580	0.011
8640	0.01
8700	0.01
8760	0.007
8820	0.007
8880	0.007
8940	0.008
9000	0.007
9060	0.008
9120	0.01
9180	0.015
9240	0.008
9300	0.007
9360	0.012
9420	0.014
9480	0.047
9540	0.03
9600	0.014
9660	0.011
9720	0.008
9780	0.014
9840	0.008
9900	0.008
9960	0.014
10020	0.007
10080	0.01

10140	0.009
10200	0.007
10260	0.008
10320	0.01
10380	0.007
10440	0.007
10500	0.01
10560	0.009
10620	0.006
10680	0.007
10740	0.007
10800	0.009
10860	0.014
10920	0.008
10980	0.008
11040	0.006
11100	0.007
11160	0.01
11220	0.015
11280	0.007
11340	0.006
11400	0.007
11460	0.006
11520	0.007
11580	0.007
11640	0.007
11700	0.018
11760	0.008
11820	0.008
11880	0.008
11940	0.007
12000	0.007
12060	0.009
12120	0.014
12180	0.053
12240	0.026
12300	0.013
12360	0.013
12420	0.012
12480	0.007
12540	0.008
12600	0.019
12660	0.008
12720	0.008
12780	0.01
12840	0.015
12900	0.011

12960	0.016
13020	0.038
13080	0.019
13140	0.042
13200	0.022
13260	0.01
13320	0.017
13380	0.011
13440	0.009
13500	0.011
13560	0.011
13620	0.011
13680	0.011
13740	0.009
13800	0.008
13860	0.008
13920	0.009
13980	0.008
14040	0.008
14100	0.007
14160	0.007
14220	0.007
14280	0.008
14340	0.009
14400	0.008
14460	0.008
14520	0.01
14580	0.009
14640	0.008
14700	0.009
14760	0.009
14820	0.009
14880	0.012
14940	0.009
15000	0.023
15060	0.009
15120	0.012
15180	0.01
15240	0.01
15300	0.009
15360	0.009
15420	0.024
15480	0.019
15540	0.007
15600	0.007
15660	0.008
15720	0.009

15780	0.006
15840	0.01
15900	0.008
15960	0.007
16020	0.006
16080	0.008
16140	0.007
16200	0.006
16260	0.006
16320	0.008
16380	0.007
16440	0.008
16500	0.022
16560	0.025
16620	0.009
16680	0.009
16740	0.007
16800	0.008
16860	0.006
16920	0.008
16980	0.007
17040	0.007
17100	0.006
17160	0.007
17220	0.01
17280	0.008
17340	0.008
17400	0.007
17460	0.007
17520	0.01
17580	0.014
17640	0.007
17700	0.01
17760	0.021
17820	0.008
17880	0.01
17940	0.006
18000	0.007
18060	0.014
18120	0.006
18180	0.006
18240	0.006
18300	0.01
18360	0.009
18420	0.006
18480	0.006
18540	0.009

18600	0.008
18660	0.005
18720	0.005
18780	0.005
18840	0.006
18900	0.005
18960	0.006
19020	0.01
19080	0.006
19140	0.012
19200	0.007
19260	0.006
19320	0.011
19380	0.008
19440	0.005
19500	0.005
19560	0.005
19620	0.005
19680	0.005

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530133403	
Firmware Version	3.4	
Calibration Date	1/20/2016	
Test Name	MANUAL_002	
Test Start Time	7:28:27 AM	
Test Start Date	10/26/2016	downwind
Test Length [D:H:M]	0:05:30	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.013	
Mass Minimum [mg/m3]	0.003	
Mass Maximum [mg/m3]	0.159	
Mass TWA [mg/m3]	0.009	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	330	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.08		
120	0.019		
180	0.016		
240	0.013		
300	0.019		
360	0.012		
420	0.024		
480	0.026		
540	0.008		
600	0.018		
660	0.01		
720	0.01		
780	0.009		
840	0.011		
900	0.011		
960	0.009		
1020	0.013		
1080	0.012		
1140	0.011		
1200	0.022		
1260	0.008		
1320	0.011		
1380	0.01		
1440	0.013		
1500	0.012		
1560	0.013		
1620	0.011		

1680	0.009
1740	0.009
1800	0.067
1860	0.01
1920	0.009
1980	0.011
2040	0.009
2100	0.009
2160	0.009
2220	0.009
2280	0.009
2340	0.009
2400	0.01
2460	0.012
2520	0.015
2580	0.01
2640	0.011
2700	0.013
2760	0.016
2820	0.01
2880	0.009
2940	0.009
3000	0.009
3060	0.011
3120	0.01
3180	0.009
3240	0.01
3300	0.009
3360	0.01
3420	0.009
3480	0.009
3540	0.008
3600	0.009
3660	0.008
3720	0.008
3780	0.009
3840	0.008
3900	0.008
3960	0.008
4020	0.01
4080	0.011
4140	0.01
4200	0.009
4260	0.012
4320	0.011
4380	0.01
4440	0.009

4500	0.01
4560	0.01
4620	0.01
4680	0.01
4740	0.01
4800	0.009
4860	0.011
4920	0.01
4980	0.013
5040	0.011
5100	0.012
5160	0.01
5220	0.013
5280	0.011
5340	0.01
5400	0.009
5460	0.01
5520	0.011
5580	0.01
5640	0.009
5700	0.011
5760	0.007
5820	0.01
5880	0.009
5940	0.01
6000	0.023
6060	0.02
6120	0.013
6180	0.012
6240	0.009
6300	0.01
6360	0.01
6420	0.013
6480	0.022
6540	0.022
6600	0.01
6660	0.01
6720	0.012
6780	0.007
6840	0.008
6900	0.012
6960	0.012
7020	0.013
7080	0.017
7140	0.018
7200	0.018
7260	0.011

7320	0.019
7380	0.011
7440	0.009
7500	0.008
7560	0.014
7620	0.009
7680	0.011
7740	0.013
7800	0.009
7860	0.012
7920	0.019
7980	0.014
8040	0.009
8100	0.009
8160	0.006
8220	0.005
8280	0.011
8340	0.015
8400	0.011
8460	0.007
8520	0.006
8580	0.007
8640	0.01
8700	0.013
8760	0.007
8820	0.006
8880	0.006
8940	0.018
9000	0.01
9060	0.007
9120	0.008
9180	0.031
9240	0.012
9300	0.012
9360	0.006
9420	0.01
9480	0.074
9540	0.008
9600	0.008
9660	0.007
9720	0.007
9780	0.008
9840	0.007
9900	0.007
9960	0.006
10020	0.011
10080	0.008

10140	0.007
10200	0.006
10260	0.005
10320	0.006
10380	0.035
10440	0.008
10500	0.006
10560	0.007
10620	0.007
10680	0.007
10740	0.006
10800	0.007
10860	0.006
10920	0.005
10980	0.006
11040	0.01
11100	0.007
11160	0.006
11220	0.007
11280	0.005
11340	0.005
11400	0.006
11460	0.035
11520	0.005
11580	0.004
11640	0.004
11700	0.007
11760	0.008
11820	0.008
11880	0.007
11940	0.009
12000	0.006
12060	0.004
12120	0.006
12180	0.003
12240	0.011
12300	0.062
12360	0.009
12420	0.005
12480	0.013
12540	0.012
12600	0.012
12660	0.011
12720	0.005
12780	0.004
12840	0.003
12900	0.003

12960	0.004
13020	0.007
13080	0.006
13140	0.036
13200	0.007
13260	0.004
13320	0.006
13380	0.043
13440	0.01
13500	0.012
13560	0.008
13620	0.008
13680	0.019
13740	0.014
13800	0.015
13860	0.004
13920	0.003
13980	0.02
14040	0.049
14100	0.022
14160	0.012
14220	0.009
14280	0.016
14340	0.006
14400	0.006
14460	0.04
14520	0.052
14580	0.049
14640	0.017
14700	0.046
14760	0.022
14820	0.014
14880	0.022
14940	0.086
15000	0.033
15060	0.019
15120	0.02
15180	0.027
15240	0.019
15300	0.023
15360	0.02
15420	0.016
15480	0.025
15540	0.017
15600	0.013
15660	0.008
15720	0.011

15780	0.007
15840	0.01
15900	0.008
15960	0.006
16020	0.007
16080	0.004
16140	0.005
16200	0.005
16260	0.005
16320	0.009
16380	0.024
16440	0.015
16500	0.009
16560	0.009
16620	0.007
16680	0.007
16740	0.007
16800	0.022
16860	0.016
16920	0.009
16980	0.02
17040	0.008
17100	0.01
17160	0.01
17220	0.01
17280	0.007
17340	0.006
17400	0.007
17460	0.014
17520	0.025
17580	0.011
17640	0.159
17700	0.011
17760	0.005
17820	0.005
17880	0.005
17940	0.016
18000	0.033
18060	0.006
18120	0.004
18180	0.005
18240	0.005
18300	0.005
18360	0.006
18420	0.005
18480	0.011
18540	0.005

18600	0.004
18660	0.005
18720	0.026
18780	0.007
18840	0.009
18900	0.015
18960	0.012
19020	0.008
19080	0.008
19140	0.007
19200	0.006
19260	0.005
19320	0.005
19380	0.004
19440	0.004
19500	0.016
19560	0.006
19620	0.006
19680	0.008
19740	0.062
19800	0.033

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530153512	
Firmware Version	3.4	
Calibration Date	6/1/2016	
Test Name	MANUAL_002	
Test Start Time	7:41:35 AM	
Test Start Date	10/26/2016	upwind
Test Length [D:H:M]	0:05:29	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.011	
Mass Minimum [mg/m3]	0.003	
Mass Maximum [mg/m3]	0.038	
Mass TWA [mg/m3]	0.007	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	329	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.014		
120	0.009		
180	0.009		
240	0.009		
300	0.009		
360	0.019		
420	0.013		
480	0.01		
540	0.01		
600	0.01		
660	0.009		
720	0.011		
780	0.012		
840	0.011		
900	0.012		
960	0.012		
1020	0.01		
1080	0.01		
1140	0.01		
1200	0.01		
1260	0.01		
1320	0.011		
1380	0.01		
1440	0.011		
1500	0.01		
1560	0.01		
1620	0.01		

1680	0.01
1740	0.009
1800	0.01
1860	0.011
1920	0.01
1980	0.01
2040	0.011
2100	0.01
2160	0.01
2220	0.011
2280	0.014
2340	0.012
2400	0.013
2460	0.011
2520	0.01
2580	0.01
2640	0.011
2700	0.012
2760	0.013
2820	0.011
2880	0.01
2940	0.01
3000	0.01
3060	0.01
3120	0.01
3180	0.01
3240	0.01
3300	0.011
3360	0.009
3420	0.01
3480	0.009
3540	0.01
3600	0.01
3660	0.012
3720	0.01
3780	0.013
3840	0.012
3900	0.012
3960	0.014
4020	0.014
4080	0.013
4140	0.013
4200	0.013
4260	0.013
4320	0.013
4380	0.013
4440	0.012

4500	0.013
4560	0.013
4620	0.012
4680	0.015
4740	0.015
4800	0.012
4860	0.012
4920	0.012
4980	0.013
5040	0.011
5100	0.012
5160	0.012
5220	0.015
5280	0.012
5340	0.013
5400	0.012
5460	0.008
5520	0.008
5580	0.01
5640	0.012
5700	0.014
5760	0.022
5820	0.017
5880	0.015
5940	0.012
6000	0.012
6060	0.012
6120	0.013
6180	0.023
6240	0.019
6300	0.012
6360	0.011
6420	0.009
6480	0.008
6540	0.012
6600	0.019
6660	0.012
6720	0.012
6780	0.024
6840	0.038
6900	0.014
6960	0.026
7020	0.02
7080	0.01
7140	0.009
7200	0.01
7260	0.016

7320	0.011
7380	0.009
7440	0.009
7500	0.007
7560	0.009
7620	0.01
7680	0.009
7740	0.009
7800	0.009
7860	0.01
7920	0.006
7980	0.013
8040	0.013
8100	0.007
8160	0.006
8220	0.006
8280	0.007
8340	0.007
8400	0.02
8460	0.013
8520	0.007
8580	0.008
8640	0.009
8700	0.014
8760	0.013
8820	0.009
8880	0.008
8940	0.008
9000	0.009
9060	0.007
9120	0.007
9180	0.013
9240	0.009
9300	0.01
9360	0.008
9420	0.009
9480	0.009
9540	0.008
9600	0.009
9660	0.007
9720	0.017
9780	0.014
9840	0.008
9900	0.007
9960	0.006
10020	0.008
10080	0.01

10140	0.006
10200	0.007
10260	0.009
10320	0.011
10380	0.012
10440	0.008
10500	0.009
10560	0.009
10620	0.006
10680	0.006
10740	0.009
10800	0.008
10860	0.007
10920	0.006
10980	0.007
11040	0.009
11100	0.011
11160	0.006
11220	0.006
11280	0.006
11340	0.006
11400	0.008
11460	0.012
11520	0.01
11580	0.006
11640	0.01
11700	0.006
11760	0.007
11820	0.005
11880	0.005
11940	0.006
12000	0.014
12060	0.008
12120	0.006
12180	0.014
12240	0.01
12300	0.006
12360	0.011
12420	0.006
12480	0.004
12540	0.008
12600	0.004
12660	0.004
12720	0.005
12780	0.007
12840	0.004
12900	0.006

12960	0.004
13020	0.005
13080	0.019
13140	0.017
13200	0.012
13260	0.011
13320	0.012
13380	0.029
13440	0.007
13500	0.012
13560	0.004
13620	0.003
13680	0.013
13740	0.022
13800	0.022
13860	0.01
13920	0.008
13980	0.009
14040	0.007
14100	0.006
14160	0.008
14220	0.024
14280	0.025
14340	0.013
14400	0.022
14460	0.02
14520	0.012
14580	0.019
14640	0.018
14700	0.028
14760	0.022
14820	0.014
14880	0.014
14940	0.025
15000	0.012
15060	0.019
15120	0.027
15180	0.015
15240	0.019
15300	0.008
15360	0.012
15420	0.005
15480	0.006
15540	0.006
15600	0.009
15660	0.007
15720	0.006

15780	0.004
15840	0.008
15900	0.004
15960	0.005
16020	0.004
16080	0.021
16140	0.011
16200	0.006
16260	0.004
16320	0.006
16380	0.004
16440	0.005
16500	0.021
16560	0.01
16620	0.013
16680	0.01
16740	0.01
16800	0.008
16860	0.013
16920	0.012
16980	0.007
17040	0.006
17100	0.009
17160	0.009
17220	0.011
17280	0.01
17340	0.029
17400	0.016
17460	0.004
17520	0.003
17580	0.005
17640	0.023
17700	0.018
17760	0.007
17820	0.003
17880	0.004
17940	0.005
18000	0.004
18060	0.004
18120	0.004
18180	0.003
18240	0.003
18300	0.003
18360	0.004
18420	0.01
18480	0.011
18540	0.005

18600	0.01
18660	0.016
18720	0.008
18780	0.008
18840	0.007
18900	0.006
18960	0.004
19020	0.003
19080	0.003
19140	0.004
19200	0.005
19260	0.004
19320	0.004
19380	0.01
19440	0.012
19500	0.014
19560	0.005
19620	0.004
19680	0.007
19740	0.005

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530133403	
Firmware Version	3.4	
Calibration Date	1/20/2016	
Test Name	MANUAL_003	
Test Start Time	7:38:26 AM	
Test Start Date	10/27/2016	downwind
Test Length [D:H:M]	0:07:22	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.012	
Mass Minimum [mg/m3]	0.004	
Mass Maximum [mg/m3]	0.082	
Mass TWA [mg/m3]	0.011	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	442	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.033		
120	0.021		
180	0.006		
240	0.005		
300	0.005		
360	0.006		
420	0.006		
480	0.005		
540	0.005		
600	0.008		
660	0.026		
720	0.005		
780	0.005		
840	0.006		
900	0.005		
960	0.011		
1020	0.006		
1080	0.006		
1140	0.006		
1200	0.006		
1260	0.006		
1320	0.007		
1380	0.014		
1440	0.007		
1500	0.006		
1560	0.007		
1620	0.008		

1680	0.007
1740	0.01
1800	0.012
1860	0.008
1920	0.021
1980	0.008
2040	0.008
2100	0.007
2160	0.016
2220	0.027
2280	0.013
2340	0.012
2400	0.01
2460	0.015
2520	0.011
2580	0.008
2640	0.018
2700	0.028
2760	0.015
2820	0.034
2880	0.055
2940	0.026
3000	0.019
3060	0.017
3120	0.009
3180	0.043
3240	0.046
3300	0.018
3360	0.026
3420	0.055
3480	0.039
3540	0.034
3600	0.01
3660	0.051
3720	0.017
3780	0.024
3840	0.017
3900	0.018
3960	0.035
4020	0.023
4080	0.015
4140	0.025
4200	0.021
4260	0.014
4320	0.02
4380	0.02
4440	0.022

4500	0.02
4560	0.015
4620	0.019
4680	0.016
4740	0.013
4800	0.012
4860	0.019
4920	0.012
4980	0.014
5040	0.01
5100	0.013
5160	0.014
5220	0.018
5280	0.009
5340	0.016
5400	0.012
5460	0.017
5520	0.015
5580	0.017
5640	0.022
5700	0.027
5760	0.027
5820	0.025
5880	0.021
5940	0.016
6000	0.021
6060	0.015
6120	0.016
6180	0.019
6240	0.016
6300	0.022
6360	0.022
6420	0.017
6480	0.028
6540	0.019
6600	0.022
6660	0.021
6720	0.031
6780	0.036
6840	0.013
6900	0.021
6960	0.015
7020	0.014
7080	0.017
7140	0.014
7200	0.017
7260	0.015

7320	0.015
7380	0.013
7440	0.015
7500	0.01
7560	0.009
7620	0.01
7680	0.009
7740	0.009
7800	0.009
7860	0.009
7920	0.011
7980	0.011
8040	0.01
8100	0.01
8160	0.009
8220	0.01
8280	0.011
8340	0.011
8400	0.01
8460	0.011
8520	0.011
8580	0.012
8640	0.009
8700	0.01
8760	0.009
8820	0.009
8880	0.008
8940	0.009
9000	0.009
9060	0.009
9120	0.009
9180	0.009
9240	0.011
9300	0.009
9360	0.009
9420	0.009
9480	0.014
9540	0.013
9600	0.01
9660	0.013
9720	0.012
9780	0.014
9840	0.014
9900	0.01
9960	0.015
10020	0.011
10080	0.012

10140	0.014
10200	0.013
10260	0.01
10320	0.01
10380	0.016
10440	0.014
10500	0.011
10560	0.017
10620	0.03
10680	0.016
10740	0.016
10800	0.015
10860	0.018
10920	0.016
10980	0.016
11040	0.015
11100	0.017
11160	0.014
11220	0.013
11280	0.018
11340	0.015
11400	0.013
11460	0.012
11520	0.015
11580	0.017
11640	0.018
11700	0.024
11760	0.021
11820	0.019
11880	0.012
11940	0.01
12000	0.013
12060	0.013
12120	0.014
12180	0.015
12240	0.014
12300	0.01
12360	0.012
12420	0.015
12480	0.017
12540	0.01
12600	0.019
12660	0.016
12720	0.013
12780	0.017
12840	0.015
12900	0.016

12960	0.022
13020	0.022
13080	0.018
13140	0.012
13200	0.017
13260	0.013
13320	0.019
13380	0.013
13440	0.012
13500	0.01
13560	0.009
13620	0.016
13680	0.011
13740	0.017
13800	0.018
13860	0.013
13920	0.013
13980	0.01
14040	0.008
14100	0.009
14160	0.009
14220	0.011
14280	0.008
14340	0.009
14400	0.008
14460	0.009
14520	0.009
14580	0.01
14640	0.009
14700	0.011
14760	0.01
14820	0.01
14880	0.009
14940	0.009
15000	0.011
15060	0.011
15120	0.012
15180	0.016
15240	0.012
15300	0.009
15360	0.009
15420	0.01
15480	0.01
15540	0.009
15600	0.008
15660	0.008
15720	0.009

15780	0.008
15840	0.009
15900	0.009
15960	0.008
16020	0.008
16080	0.008
16140	0.009
16200	0.01
16260	0.008
16320	0.008
16380	0.008
16440	0.008
16500	0.008
16560	0.008
16620	0.008
16680	0.008
16740	0.008
16800	0.008
16860	0.008
16920	0.008
16980	0.008
17040	0.008
17100	0.008
17160	0.082
17220	0.011
17280	0.008
17340	0.008
17400	0.008
17460	0.008
17520	0.008
17580	0.008
17640	0.008
17700	0.008
17760	0.009
17820	0.009
17880	0.008
17940	0.008
18000	0.008
18060	0.011
18120	0.01
18180	0.009
18240	0.009
18300	0.009
18360	0.008
18420	0.008
18480	0.009
18540	0.008

18600	0.008
18660	0.008
18720	0.008
18780	0.008
18840	0.01
18900	0.008
18960	0.008
19020	0.008
19080	0.009
19140	0.008
19200	0.008
19260	0.008
19320	0.009
19380	0.008
19440	0.009
19500	0.008
19560	0.008
19620	0.009
19680	0.008
19740	0.008
19800	0.008
19860	0.008
19920	0.008
19980	0.008
20040	0.008
20100	0.008
20160	0.007
20220	0.01
20280	0.008
20340	0.009
20400	0.008
20460	0.008
20520	0.008
20580	0.008
20640	0.008
20700	0.008
20760	0.008
20820	0.008
20880	0.009
20940	0.008
21000	0.009
21060	0.01
21120	0.009
21180	0.009
21240	0.01
21300	0.013
21360	0.01

21420	0.011
21480	0.012
21540	0.009
21600	0.01
21660	0.011
21720	0.009
21780	0.009
21840	0.009
21900	0.01
21960	0.011
22020	0.013
22080	0.009
22140	0.01
22200	0.011
22260	0.012
22320	0.011
22380	0.011
22440	0.009
22500	0.009
22560	0.009
22620	0.009
22680	0.009
22740	0.009
22800	0.01
22860	0.011
22920	0.012
22980	0.013
23040	0.013
23100	0.015
23160	0.015
23220	0.016
23280	0.013
23340	0.011
23400	0.01
23460	0.01
23520	0.01
23580	0.015
23640	0.015
23700	0.01
23760	0.01
23820	0.01
23880	0.01
23940	0.009
24000	0.009
24060	0.009
24120	0.009
24180	0.01

24240	0.009
24300	0.013
24360	0.006
24420	0.005
24480	0.006
24540	0.005
24600	0.005
24660	0.006
24720	0.006
24780	0.006
24840	0.006
24900	0.006
24960	0.006
25020	0.005
25080	0.006
25140	0.006
25200	0.005
25260	0.006
25320	0.005
25380	0.007
25440	0.005
25500	0.006
25560	0.006
25620	0.006
25680	0.007
25740	0.006
25800	0.005
25860	0.004
25920	0.005
25980	0.005
26040	0.005
26100	0.005
26160	0.005
26220	0.006
26280	0.005
26340	0.005
26400	0.005
26460	0.006
26520	0.006

Instrument Name	DustTrak II	
Model Number	8530	
Serial Number	8530153512	
Firmware Version	3.4	
Calibration Date	6/1/2016	
Test Name	MANUAL_003	
Test Start Time	7:43:45 AM	
Test Start Date	10/27/2016	upwind
Test Length [D:H:M]	0:07:23	
Test Interval [M:S]	1:00	
Mass Average [mg/m3]	0.014	
Mass Minimum [mg/m3]	0.005	
Mass Maximum [mg/m3]	0.085	
Mass TWA [mg/m3]	0.013	
Photometric User Cal	1	
Flow User Cal	0	
Errors		
Number of Samples	443	

Elapsed Time [s]	Mass [mg/m3]	Alarms	Errors
60	0.008		
120	0.017		
180	0.01		
240	0.035		
300	0.024		
360	0.008		
420	0.012		
480	0.013		
540	0.008		
600	0.006		
660	0.006		
720	0.008		
780	0.006		
840	0.007		
900	0.01		
960	0.005		
1020	0.007		
1080	0.034		
1140	0.008		
1200	0.013		
1260	0.01		
1320	0.006		
1380	0.016		
1440	0.006		
1500	0.006		
1560	0.008		
1620	0.007		

1680	0.046
1740	0.012
1800	0.007
1860	0.021
1920	0.016
1980	0.007
2040	0.034
2100	0.02
2160	0.01
2220	0.011
2280	0.014
2340	0.021
2400	0.015
2460	0.009
2520	0.011
2580	0.007
2640	0.018
2700	0.013
2760	0.008
2820	0.009
2880	0.009
2940	0.031
3000	0.085
3060	0.079
3120	0.041
3180	0.019
3240	0.019
3300	0.022
3360	0.025
3420	0.018
3480	0.019
3540	0.01
3600	0.009
3660	0.012
3720	0.009
3780	0.011
3840	0.012
3900	0.016
3960	0.014
4020	0.011
4080	0.016
4140	0.016
4200	0.012
4260	0.009
4320	0.008
4380	0.009
4440	0.011

4500	0.009
4560	0.01
4620	0.01
4680	0.009
4740	0.009
4800	0.01
4860	0.009
4920	0.009
4980	0.01
5040	0.008
5100	0.011
5160	0.013
5220	0.013
5280	0.012
5340	0.014
5400	0.009
5460	0.009
5520	0.009
5580	0.008
5640	0.008
5700	0.007
5760	0.007
5820	0.009
5880	0.007
5940	0.009
6000	0.013
6060	0.016
6120	0.016
6180	0.015
6240	0.02
6300	0.01
6360	0.011
6420	0.01
6480	0.012
6540	0.014
6600	0.014
6660	0.011
6720	0.012
6780	0.012
6840	0.012
6900	0.011
6960	0.014
7020	0.016
7080	0.016
7140	0.015
7200	0.017
7260	0.012

7320	0.011
7380	0.016
7440	0.011
7500	0.011
7560	0.02
7620	0.011
7680	0.011
7740	0.01
7800	0.012
7860	0.011
7920	0.011
7980	0.011
8040	0.011
8100	0.011
8160	0.011
8220	0.009
8280	0.01
8340	0.011
8400	0.011
8460	0.017
8520	0.01
8580	0.012
8640	0.012
8700	0.012
8760	0.01
8820	0.011
8880	0.01
8940	0.01
9000	0.011
9060	0.01
9120	0.009
9180	0.01
9240	0.01
9300	0.01
9360	0.011
9420	0.01
9480	0.009
9540	0.01
9600	0.015
9660	0.023
9720	0.019
9780	0.016
9840	0.011
9900	0.015
9960	0.012
10020	0.011
10080	0.011

10140	0.01
10200	0.011
10260	0.012
10320	0.011
10380	0.014
10440	0.013
10500	0.013
10560	0.012
10620	0.014
10680	0.017
10740	0.013
10800	0.01
10860	0.01
10920	0.011
10980	0.01
11040	0.01
11100	0.01
11160	0.011
11220	0.011
11280	0.011
11340	0.01
11400	0.011
11460	0.011
11520	0.01
11580	0.01
11640	0.011
11700	0.011
11760	0.016
11820	0.013
11880	0.014
11940	0.014
12000	0.012
12060	0.012
12120	0.016
12180	0.015
12240	0.011
12300	0.011
12360	0.013
12420	0.014
12480	0.021
12540	0.014
12600	0.015
12660	0.015
12720	0.012
12780	0.012
12840	0.012
12900	0.011

12960	0.012
13020	0.011
13080	0.013
13140	0.013
13200	0.013
13260	0.011
13320	0.012
13380	0.018
13440	0.015
13500	0.015
13560	0.012
13620	0.015
13680	0.015
13740	0.026
13800	0.026
13860	0.027
13920	0.017
13980	0.015
14040	0.011
14100	0.014
14160	0.021
14220	0.02
14280	0.02
14340	0.028
14400	0.021
14460	0.018
14520	0.018
14580	0.014
14640	0.015
14700	0.012
14760	0.015
14820	0.017
14880	0.018
14940	0.017
15000	0.016
15060	0.015
15120	0.019
15180	0.021
15240	0.02
15300	0.016
15360	0.016
15420	0.016
15480	0.019
15540	0.023
15600	0.028
15660	0.021
15720	0.023

15780	0.017
15840	0.019
15900	0.022
15960	0.015
16020	0.013
16080	0.012
16140	0.01
16200	0.011
16260	0.009
16320	0.012
16380	0.01
16440	0.009
16500	0.01
16560	0.009
16620	0.009
16680	0.011
16740	0.01
16800	0.009
16860	0.009
16920	0.009
16980	0.009
17040	0.009
17100	0.01
17160	0.012
17220	0.01
17280	0.009
17340	0.027
17400	0.015
17460	0.009
17520	0.009
17580	0.009
17640	0.009
17700	0.009
17760	0.009
17820	0.009
17880	0.009
17940	0.009
18000	0.009
18060	0.01
18120	0.009
18180	0.01
18240	0.009
18300	0.009
18360	0.009
18420	0.009
18480	0.009
18540	0.009

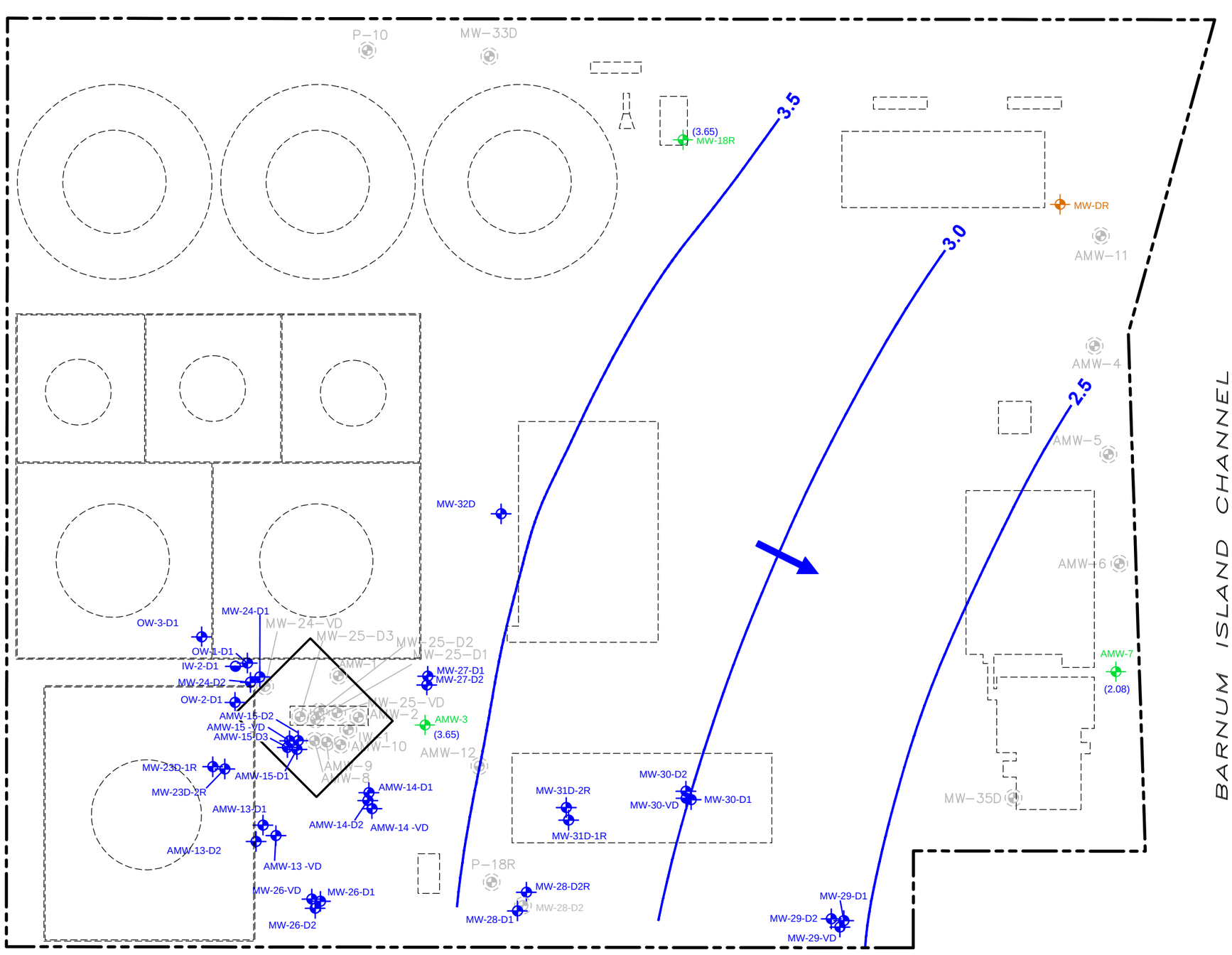
18600	0.009
18660	0.01
18720	0.022
18780	0.012
18840	0.014
18900	0.013
18960	0.016
19020	0.021
19080	0.018
19140	0.016
19200	0.018
19260	0.015
19320	0.017
19380	0.021
19440	0.024
19500	0.015
19560	0.014
19620	0.017
19680	0.018
19740	0.015
19800	0.023
19860	0.018
19920	0.02
19980	0.018
20040	0.016
20100	0.022
20160	0.021
20220	0.021
20280	0.018
20340	0.024
20400	0.021
20460	0.029
20520	0.025
20580	0.023
20640	0.021
20700	0.022
20760	0.019
20820	0.021
20880	0.019
20940	0.027
21000	0.018
21060	0.019
21120	0.019
21180	0.018
21240	0.016
21300	0.018
21360	0.022

21420	0.017
21480	0.016
21540	0.014
21600	0.017
21660	0.019
21720	0.014
21780	0.017
21840	0.017
21900	0.014
21960	0.017
22020	0.021
22080	0.019
22140	0.016
22200	0.018
22260	0.021
22320	0.024
22380	0.02
22440	0.013
22500	0.017
22560	0.02
22620	0.019
22680	0.022
22740	0.025
22800	0.022
22860	0.027
22920	0.027
22980	0.023
23040	0.02
23100	0.023
23160	0.022
23220	0.023
23280	0.019
23340	0.016
23400	0.015
23460	0.02
23520	0.017
23580	0.017
23640	0.023
23700	0.026
23760	0.018
23820	0.019
23880	0.026
23940	0.018
24000	0.014
24060	0.012
24120	0.012
24180	0.016

24240	0.013
24300	0.012
24360	0.013
24420	0.014
24480	0.022
24540	0.019
24600	0.017
24660	0.025
24720	0.012
24780	0.007
24840	0.008
24900	0.009
24960	0.009
25020	0.017
25080	0.008
25140	0.007
25200	0.008
25260	0.012
25320	0.01
25380	0.01
25440	0.009
25500	0.007
25560	0.007
25620	0.009
25680	0.009
25740	0.011
25800	0.007
25860	0.008
25920	0.008
25980	0.007
26040	0.006
26100	0.006
26160	0.006
26220	0.007
26280	0.007
26340	0.007
26400	0.007
26460	0.008
26520	0.007
26580	0.007

APPENDIX F

Groundwater Elevation Contour Maps



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

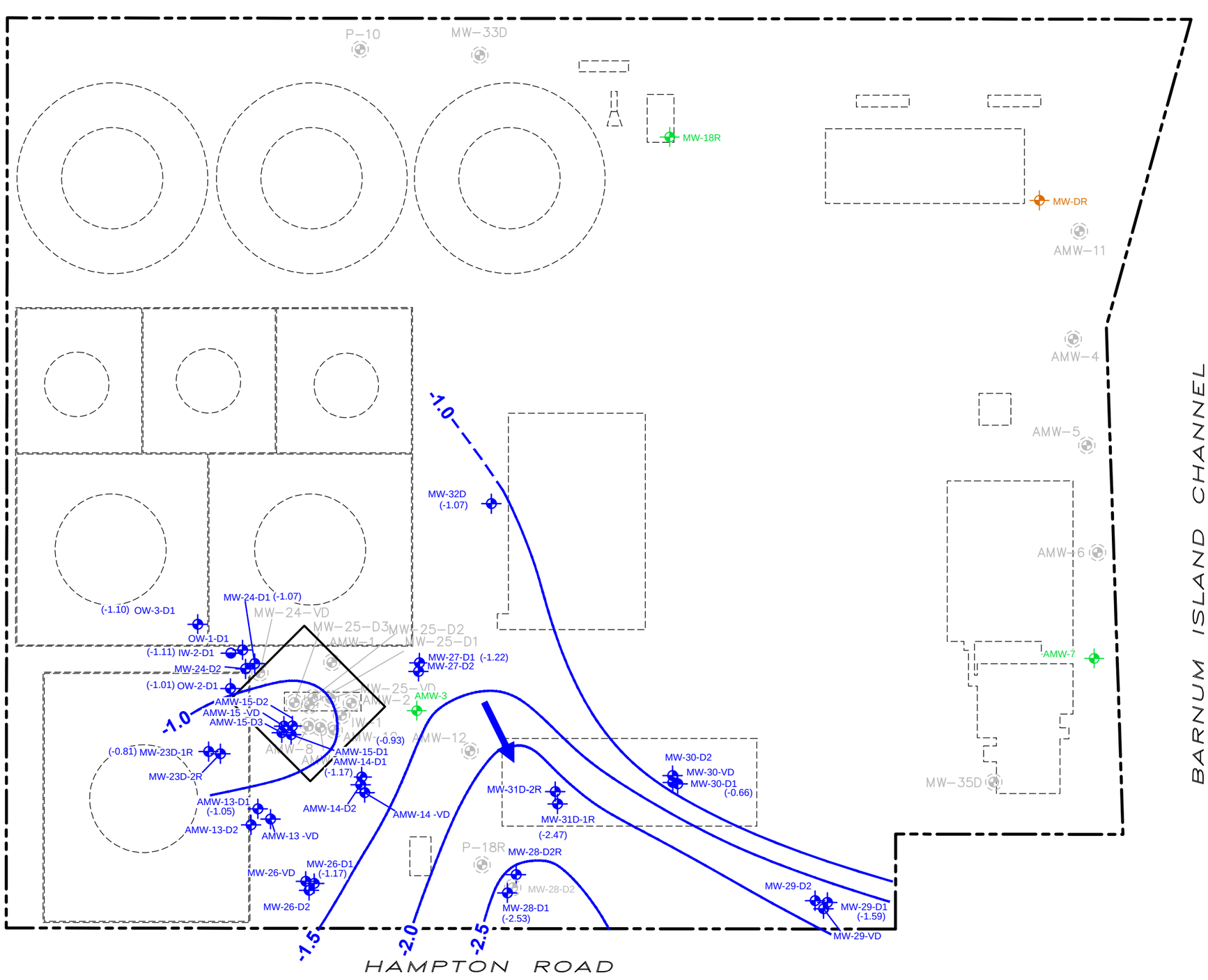
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

WATER TABLE GROUNDWATER ELEVATION CONTOUR - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE F-1

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\047517\0023000\01\DWG\047517W01.DWG LAYOUT: F-1 SAVED: 12/1/22016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

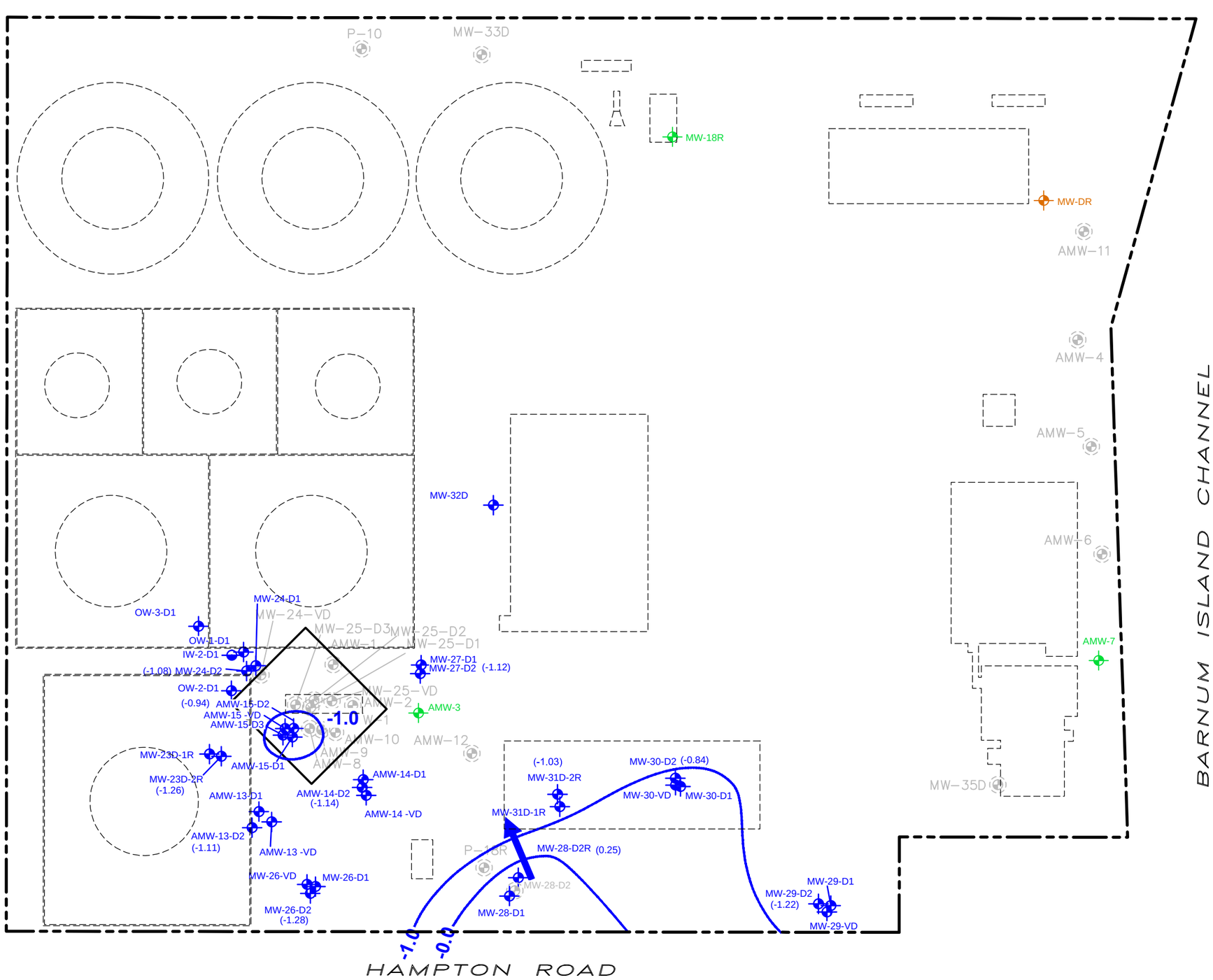
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D1 HORIZON - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-2

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W.McCUNE TM: W.McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\047517\00230000\1DWG\47517W02.DWG LAYOUT: F-2 SAVED: 12/1/22016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

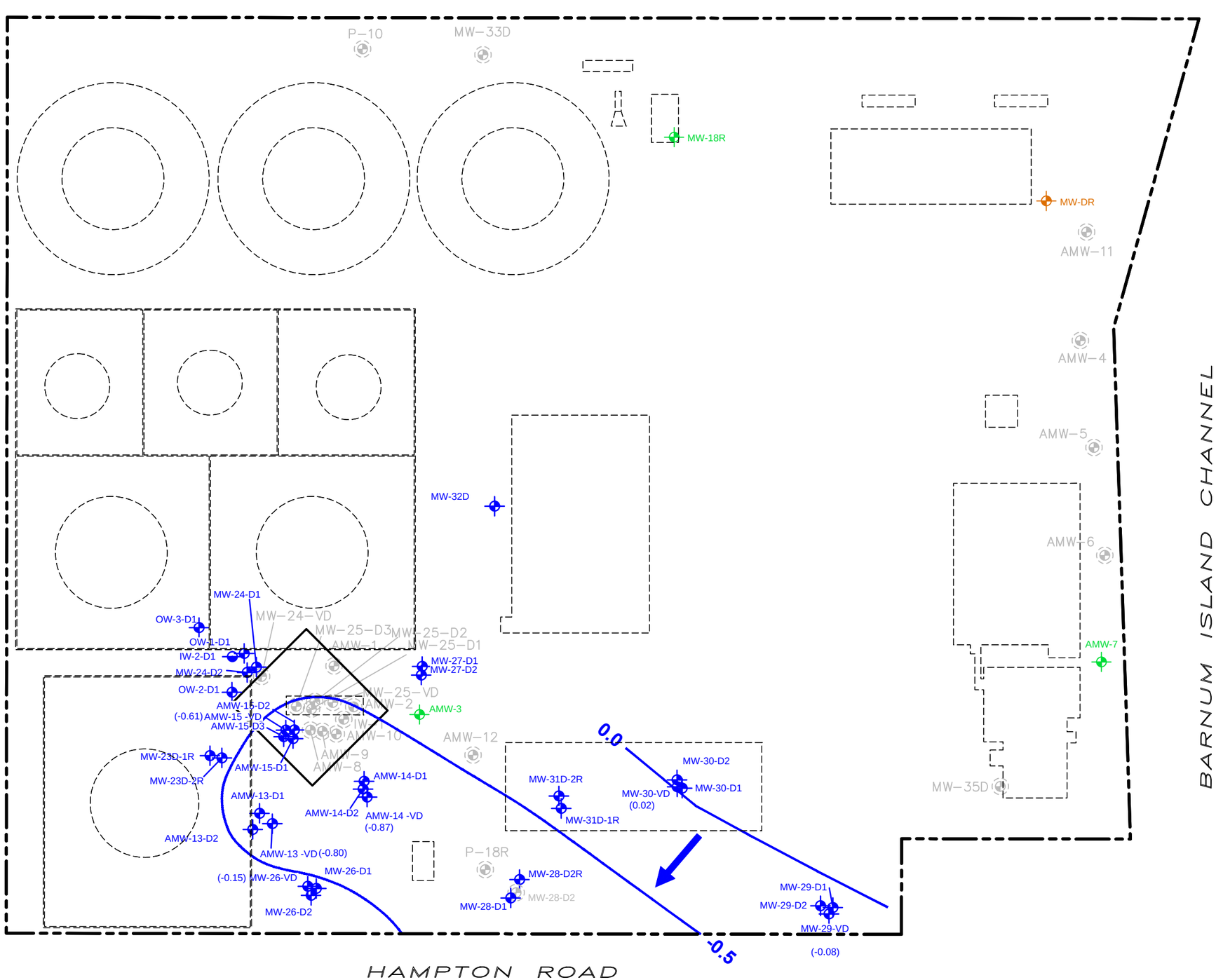
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D2 HORIZON - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-3

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W03.DWG LAYOUT: F-3 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01
IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

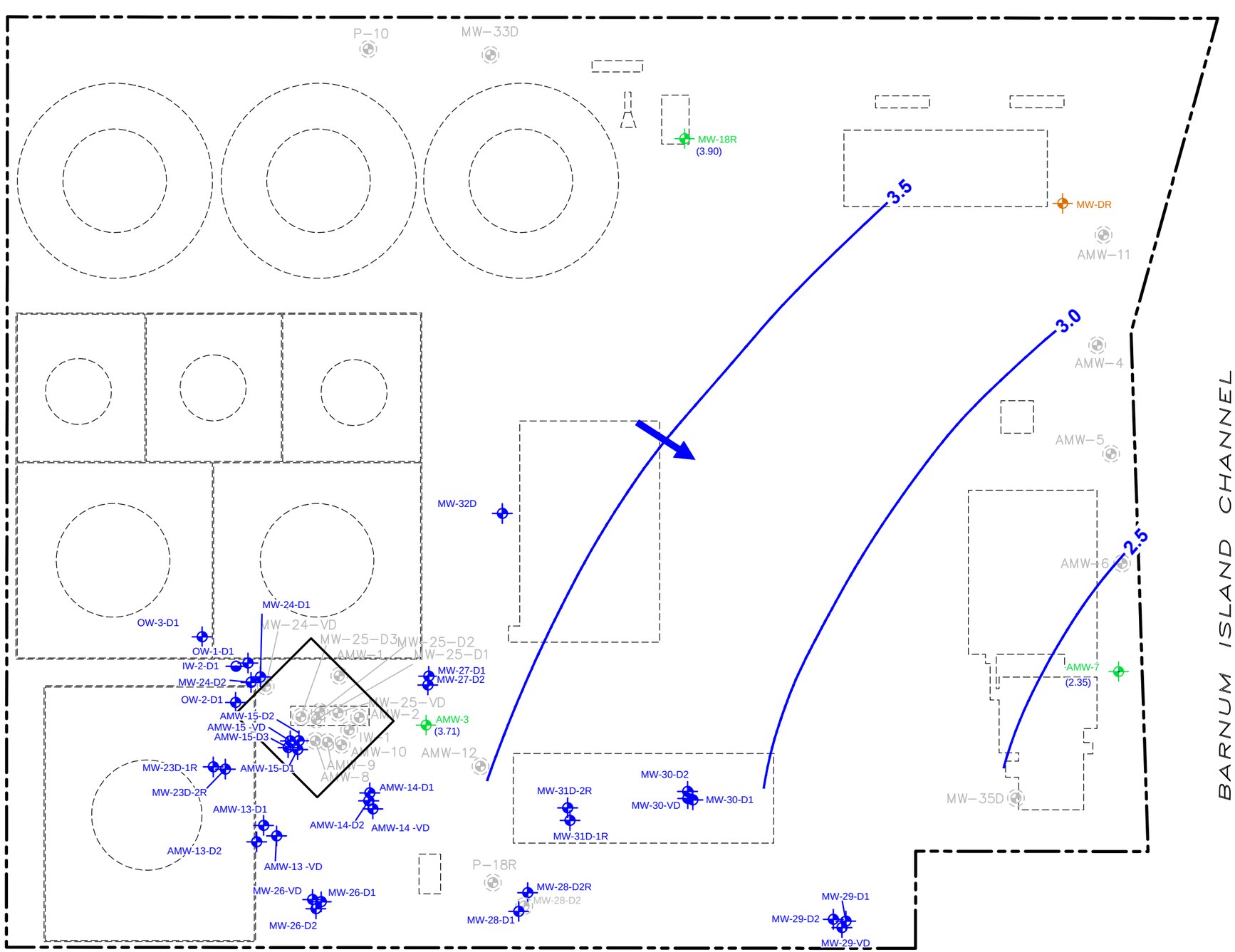
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND VD HORIZON - LOW TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-4

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\00230001\DWG\47517W04.DWG LAYOUT: F-4 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

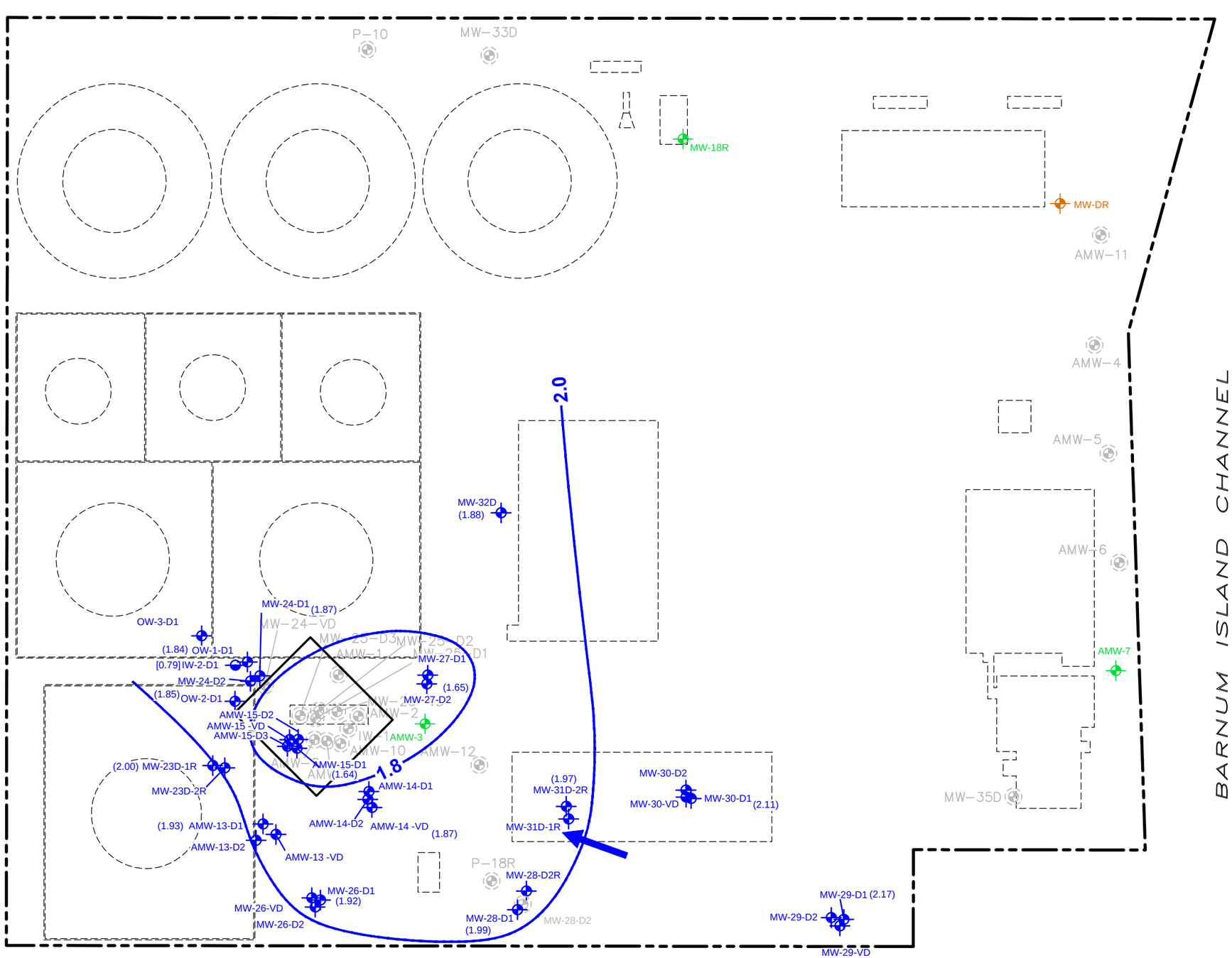
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

WATER TABLE ELEVATION CONTOUR MAP - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-5

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENV\CAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W05.DWG LAYOUT: F-5 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

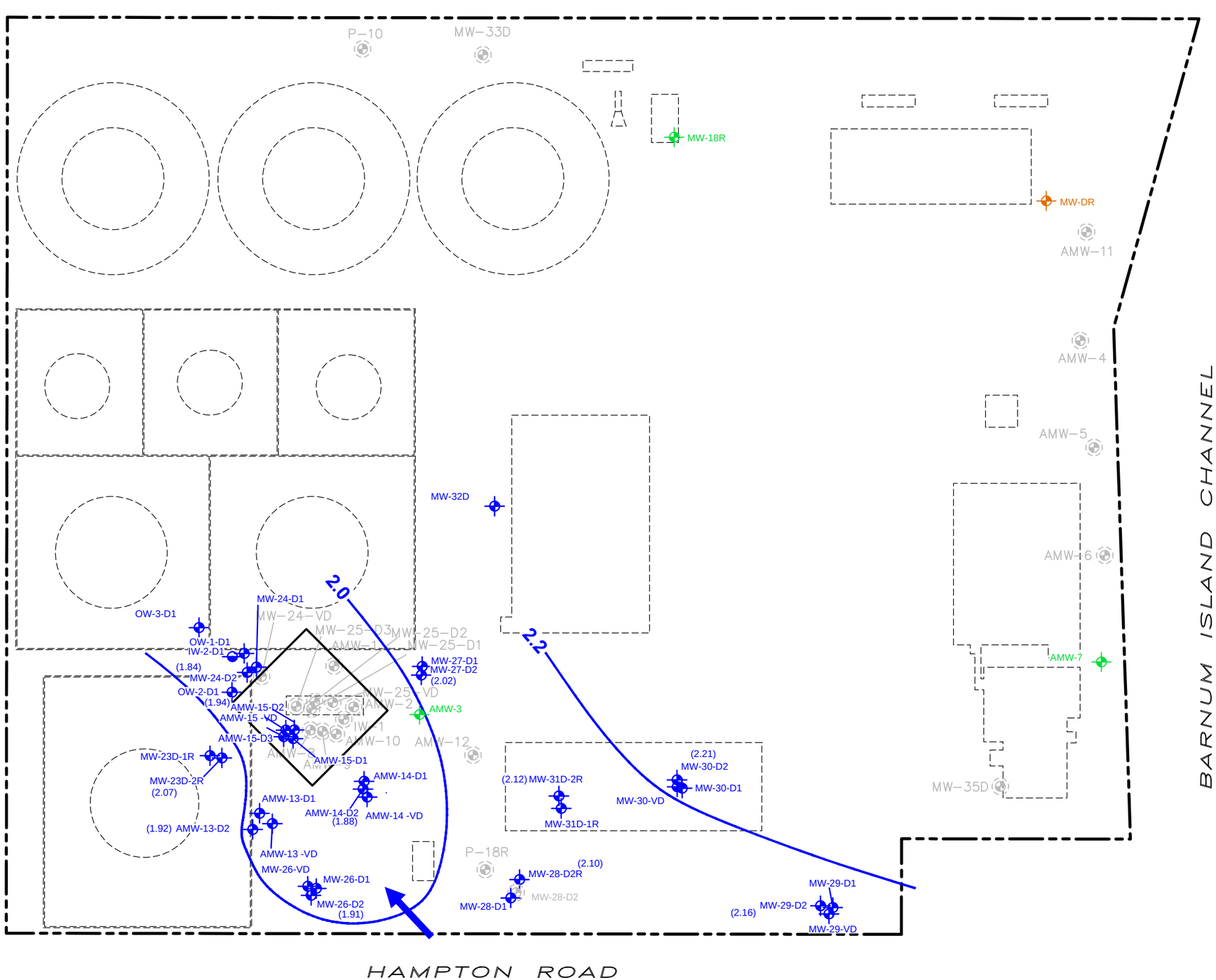
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D1 HORIZON - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-6

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\047517\0023000\01\DWG\47517W06.DWG LAYOUT: F-6 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

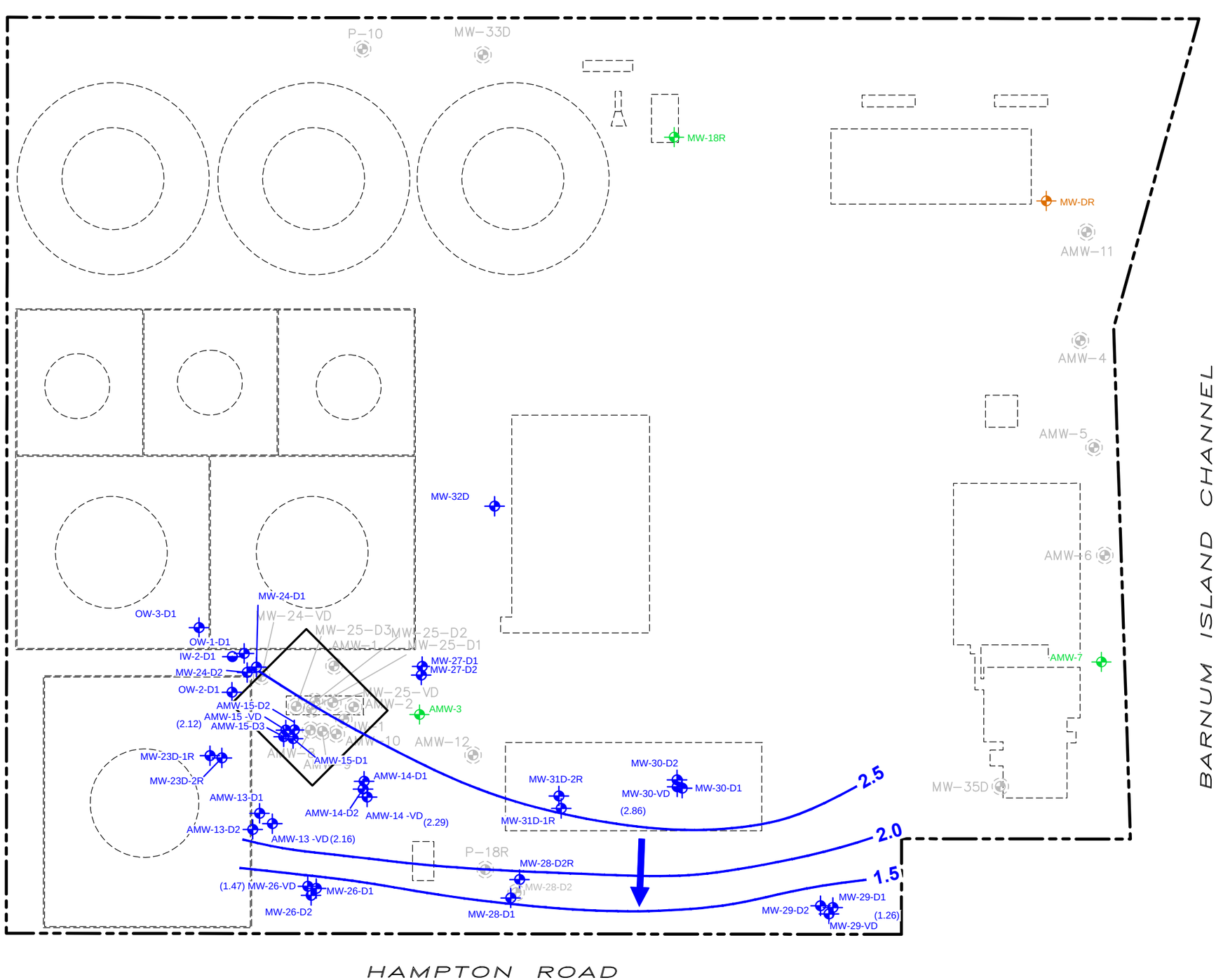
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND D2 HORIZON - HIGH TIME 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-7

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W07.DWG LAYOUT: F-7 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01
IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (3.65) GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- [0.33] GROUNDWATER ELEVATION (FAMSL) NOT USED TO GENERATE GROUNDWATER CONTOURS
- 1.0 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

POTENTIOMETRIC SURFACE MAP FOR LOWER SAND VD HORIZON - HIGH TIDE 7/26/2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
F-8

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L. FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W08.DWG LAYOUT: F-8 SAVED: 12/12/2016 10:55 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:59 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01
IMAGES:

APPENDIX G

Analytical Reports

(provided under separate cover)

APPENDIX H

Historical Groundwater Results

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GP-1(2002) - - 05/02/02	GP-2(2002) - - 05/02/02	GP-3(2002) - - 05/02/02	GP-4(2002) - - 05/02/02	GP-5(2002) - - 05/02/02	GP-6(1995) - - 12/15/95	GP-6(2002) - - 05/02/02	GP-7(2002) - - 05/02/02	GP-8(2002) - - 05/02/02	GP-9(2002) - - 05/02/02	GP-10(2002) - - 05/02/02	GW-01 - - 04/15/97	GW-02 - - 04/15/97
Volatile Organics															
Benzene	1	ug/L	ND	ND	**17**	ND	ND	**430**	**14,000**	**2,800**	ND	**200**	ND	**540**	**29**
Toluene	5	ug/L	ND	ND	ND	ND	ND	**8,000**	ND	ND	ND	**180**	**120**	**16**	**5.3**
Ethylbenzene	5	ug/L	**52**	**8,800**	ND	ND	ND	**19,000**	**160,000**	**76,000**	**2.0**	**180**	**7,200**	**570**	**9.0**
Xylenes (total)	5	ug/L	ND	**11,000**	**8.2**	ND	ND	**230,000**	ND	ND	**4.4**	**530**	**640**	ND	**43**
Methyl tert-butyl ether	10	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	**2,400**	**52**
Naphthalene	10	ug/L	**440**	**6,200**	ND	ND	ND	**23,000**	ND	ND	ND	ND	NA	**430**	**27**
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	**4,400**	NA	NA	NA	NA	NA	**64**	**13**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**52,000**	NA	NA	NA	NA	NA	ND	**7.8**
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	NA	NA	ND	ND	**160,000**	ND	ND	ND	NA	NA	ND	**31**
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**56,000**	NA	NA	NA	NA	NA	**27**	ND
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**9,500**	NA	NA	NA	NA	NA	**130**	**21**
o-Xylene	- -	ug/L	ND	NA	NA	ND	ND	**73,000**	ND	ND	ND	NA	NA	ND	**12**
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	**2,400**	NA	NA	NA	NA	NA	ND	**6.5**
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**3,900**	NA	NA	NA	NA	NA	**20**	**15**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: Sample Depth(Feet): Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GP-1(2002) - - 05/02/02	GP-2(2002) - - 05/02/02	GP-3(2002) - - 05/02/02	GP-4(2002) - - 05/02/02	GP-5(2002) - - 05/02/02	GP-6(1995) - - 12/15/95	GP-6(2002) - - 05/02/02	GP-7(2002) - - 05/02/02	GP-8(2002) - - 05/02/02	GP-9(2002) - - 05/02/02	GP-10(2002) - - 05/02/02	GW-01 - - 04/15/97	GW-02 - - 04/15/97
Volatile Organics (Cont.)															
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**2,300**	NA	NA	NA	NA	NA	ND	**15**
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**490**	**26,000**	**25**	**100**	**7.6**	**650,000**	**180,000**	**79,000**	**6.4**	**1,100**	**8,000**	**4,200**	**290**
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	ND	ND	ND	**100**	**7.6**	NA	ND	ND	ND	ND	ND	NA	NA
Semivolatile Organics															
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry															
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GW-03 - - 04/15/97	GW-04 - - 04/15/97	GW-05 - - 04/15/97	GW-06 - - 04/15/97	GW-07 - - 04/15/97	GW-08 - - 04/15/97	GW-09 - - 04/15/97	GW-10 - - 04/15/97	GW-12 - - 04/15/97	HA-01 - - 12/15/95	HA-01 - - 02/29/96	HA-02 - - 12/15/95	HA-02 - - 02/29/96	MW-01 10.28 12/19/95	MW-01 10.28 02/29/96	MW-01 10.28 01/27/98	MW-01 10.28 04/08/98
Volatile Organics																			
Benzene	1	ug/L	**2,700**	**110**	ND	**100**	ND	**1.8**	ND	**170**	ND	**24**	ND	ND	ND	NA	**1.8**	NA	**2.0**
Toluene	5	ug/L	**44**	**12**	ND	ND	ND	**6.1**	ND	ND	ND	**61**	ND	ND	ND	NA	ND	NA	**0.30 J**
Ethylbenzene	5	ug/L	**510**	**5.2**	ND	ND	ND	**1.0**	ND	**30**	ND	ND	ND	ND	ND	NA	ND	NA	**0.90 J**
Xylenes (total)	5	ug/L	**120**	**16**	ND	**110**	ND	**4.0**	ND	ND	**240**	ND	ND	ND	ND	NA	ND	NA	**1.9**
Methyl tert-butyl ether	10	ug/L	**450**	**130**	ND	**1,600**	ND	**19**	**13**	**84**	**300**	ND	**1.1**	ND	**2.6**	NA	**80**	NA	**54**
Naphthalene	10	ug/L	**900**	**4.1**	ND	**470**	**16**	**3.0**	ND	**120**	**170**	ND	ND	ND	ND	NA	**4.4**	NA	**12**
Isopropylbenzene	5	ug/L	**180**	ND	ND	ND	**1.4**	**2.4**	ND	**94**	ND	ND	ND	ND	ND	NA	**4.1**	NA	**7.9**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	**5.4**	ND	**120**	ND	ND	ND	ND	**400**	ND	ND	ND	ND	NA	ND	NA	**0.50 J**
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**120**	**10**	ND	**110**	ND	**4.0**	ND	ND	**240**	ND	ND	ND	ND	NA	ND	NA	**1.5 J**
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	**87**	**4.4**	ND	**230**	**1.1**	ND	ND	**34**	**210**	ND	ND	ND	ND	NA	**3.8**	NA	**3.8**
n-Propylbenzene	- -	ug/L	**380**	**1.1**	ND	**80**	**2.3**	**3.5**	ND	**180**	ND	ND	ND	ND	ND	NA	**2.1**	NA	**3.1**
o-Xylene	- -	ug/L	ND	**6.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	**0.40 J**
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	**2.1**
sec-Butylbenzene	- -	ug/L	**50**	**2.1**	ND	ND	**1.8**	**1.6**	ND	**19**	ND	ND	ND	ND	ND	NA	ND	NA	**4.0**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	GW-03 - - 04/15/97	GW-04 - - 04/15/97	GW-05 - - 04/15/97	GW-06 - - 04/15/97	GW-07 - - 04/15/97	GW-08 - - 04/15/97	GW-09 - - 04/15/97	GW-10 - - 04/15/97	GW-12 - - 04/15/97	HA-01 - - 12/15/95	HA-01 - - 02/29/96	HA-02 - - 12/15/95	HA-02 - - 02/29/96	MW-01 10.28 12/19/95	MW-01 10.28 02/29/96	MW-01 10.28 01/27/98	MW-01 10.28 04/08/98
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	**4.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA	**2.3**
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**5,500**	**310**	0	**2,800**	**23**	**42**	**13**	**730**	**1,600**	**85**	**1.1**	ND	**2.6**	NA	**96**	NA	**97**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**7.0 J**	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**2.0 J**	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Anthracene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**1.0 J**	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**2.0 J**	NA
Fluorene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**4.0 J**	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	ND	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**4.0 J**	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**2.0 J**	NA
Total SVOCs	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	**22**	NA
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	**3,000**	NA	**5,300**	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-01 10.28 11/02/01	MW-01 10.28 04/03/02	MW-01 10.28 08/20/02	MW-03 10.26 12/19/95	MW-03 10.26 02/29/96	MW-03 10.26 08/20/02	MW-03A 9.3 01/27/98	MW-03A 9.3 04/08/98	MW-03A 9.3 11/02/01	MW-03A 9.3 04/30/02	MW-03A 9.3 08/20/02	MW-04A 9.41 08/20/02	MW-05 10.24 12/19/95	MW-05 10.24 02/29/96	MW-05 10.24 08/20/02	MW-07 9.21 08/20/02	MW-07A 10 08/20/02
Volatile Organics																			
Benzene	1	ug/L	2.7	3.8	1.0	NA	1,300	200	NA	ND	ND	ND	ND	ND	NA	NA	ND	150	4.1
Toluene	5	ug/L	ND	ND	ND	NA	33	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	11	0.60
Ethylbenzene	5	ug/L	ND	ND	ND	NA	96	2.4	NA	ND	ND	ND	ND	ND	NA	ND	ND	220	0.50
Xylenes (total)	5	ug/L	ND	ND	ND	NA	640	2.1	NA	0.50	ND	ND	ND	ND	NA	ND	ND	48	0.40
Methyl tert-butyl ether	10	ug/L	20	NA	15	NA	13	3.0	NA	9.8	8.5	NA	8.3	31	NA	1.7	ND	7.4	0.90
Naphthalene	10	ug/L	9.3	NA	NA	NA	42	NA	NA	1.2	ND	ND	NA	NA	NA	ND	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	5.9	NA	NA	0.90 J	NA	NA	NA	NA	NA	2.8	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1-Dichloroethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,1-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,2-Dichloropropane	1	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	33	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6	NA	1.4	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Dibromochloromethane	50	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	NA	480	ND	NA	0.50 J	ND	ND	ND	ND	NA	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	20	NA	NA	0.80 J	NA	NA	NA	NA	NA	1.0	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	7.0	NA	NA	0.80 J	NA	NA	NA	NA	NA	3.9	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	ND	NA	160	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	0.50 J	NA	NA	NA	NA	NA	ND	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-01 10.28 11/02/01	MW-01 10.28 04/03/02	MW-01 10.28 08/20/02	MW-03 10.26 12/19/95	MW-03 10.26 02/29/96	MW-03 10.26 08/20/02	MW-03A 9.3 01/27/98	MW-03A 9.3 04/08/98	MW-03A 9.3 11/02/01	MW-03A 9.3 04/30/02	MW-03A 9.3 08/20/02	MW-04A 9.41 08/20/02	MW-05 10.24 12/19/95	MW-05 10.24 02/29/96	MW-05 10.24 08/20/02	MW-07 9.21 08/20/02	MW-07A 10 08/20/02
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	NA	ND	NA	NA	ND	NA	NA	ND	NA	**11**	ND	NA	NA	ND	ND	ND
Tetrachloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND
Total VOCs	- -	ug/L	**32**	**3.8**	**16**	NA	**2,800**	**200**	NA	**15**	**8.5**	ND	**20**	**35**	NA	**11**	ND	**430**	**6.5**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Trichloroethene	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Vinyl Chloride	2	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	NA	ND	**54**	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**580**	ND
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Acenaphthene	20	ug/L	NA	NA	**1.2**	ND	NA	**8.2**	ND	NA	NA	NA	ND	**1.2**	ND	NA	**5.5**	**150**	ND
Acenaphthylene	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	NA
Anthracene	50	ug/L	NA	NA	**0.66**	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**36**	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**25**	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**8.7**	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**11**	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**1.1**	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**8.5**	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	**2.1**	NA	NA	ND	**30**	**23**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**17**	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**0.53**	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	**0.68**	ND	NA	ND	ND	NA	NA	NA	ND	**0.77**	ND	NA	ND	**150**	ND
Fluorene	50	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	**0.59**	ND	NA	ND	**140**	**4.8**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	**1.4**	NA
Nitrobenzene	0.4	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA
PheNAnthrene	50	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	**3.7**	**250**	ND
Phenol	1	ug/L	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND
Pyrene	50	ug/L	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	**0.63**	ND	NA	**0.67**	**95**	NA
Total SVOCs	- -	ug/L	NA	NA	**2.5**	**54**	NA	**8.2**	ND	NA	NA	NA	ND	**5.3**	ND	NA	**10**	**1,500**	**28**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	**5,400**	NA	NA	**720**	NA	NA	NA	NA	NA	**2,700**	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-08 10.15 12/19/95	MW-08 10.15 02/29/96	MW-08 10.15 01/27/98	MW-08 10.15 04/08/98	MW-08 10.15 11/02/01	MW-08 10.15 04/30/02	MW-08 10.15 08/20/02	MW-08 10.15 06/03/03	MW-08 10.15 02/11/04	MW-08 10.15 05/20/04	MW-08 10.15 10/26/04	MW-08 10.15 03/10/05	MW-08 10.15 08/11/05	MW-09 13.8 06/05/95	MW-09 13.8 12/18/95	MW-09 13.8 04/08/96	MW-09 13.8 06/05/96
Volatile Organics																			
Benzene	1	ug/L	NA	**160**	NA	**51**	**500**	**68**	**400**	**0.60**	**20**	**47**	**44**	**30**	**36**	**110**	NA	**57**	NA
Toluene	5	ug/L	NA	**18**	NA	**12**	ND	**1.9**	**7.9**	ND	**13**	**13**	**16**	**19**	**13**	**180**	NA	**48**	NA
Ethylbenzene	5	ug/L	NA	**100**	NA	**130**	**150**	**32**	**48**	**24**	**260**	**290**	**92**	**190**	**58**	**520**	NA	**260**	NA
Xylenes (total)	5	ug/L	NA	**350**	NA	**900**	**77**	**17**	**38**	**41**	**91**	**110**	**48**	**60**	**33**	**3,000**	NA	**1,400**	NA
Methyl tert-butyl ether	10	ug/L	NA	**4.6**	NA	ND	**35**	NA	**33**	ND	**2.7**	**2.1**	**3.5**	**1.6**	**2.5**	**33**	NA	ND	NA
Naphthalene	10	ug/L	NA	**18**	NA	**33**	**89**	**21**	NA	NA	NA	NA	NA	ND	ND	**200**	NA	**95**	NA
Isopropylbenzene	5	ug/L	NA	**6.1**	NA	**15**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**30**	NA	**21**	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	**1.6**	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	**26**	NA	**140**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**220**	NA	**120**	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.5**	**2.5**	ND	NA	ND	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1.3**	**1.3**	ND	NA	ND	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	**250**	NA	**660**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2,500**	NA	**1,300**	NA
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	**22**	NA	**74**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**91**	NA	**46**	NA
n-Propylbenzene	- -	ug/L	NA	**11**	NA	**23**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**65**	NA	**41**	NA
o-Xylene	- -	ug/L	NA	**100**	NA	**240**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**490**	NA	**120**	NA
p-Isopropyltoluene	- -	ug/L	NA	ND	NA	**4.8 J**	NA	NA	NA	NA	NA	NA	NA	ND	ND	**80**	NA	**4.7 J**	NA
sec-Butylbenzene	- -	ug/L	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-08 10.15 12/19/95	MW-08 10.15 02/29/96	MW-08 10.15 01/27/98	MW-08 10.15 04/08/98	MW-08 10.15 11/02/01	MW-08 10.15 04/30/02	MW-08 10.15 08/20/02	MW-08 10.15 06/03/03	MW-08 10.15 02/11/04	MW-08 10.15 05/20/04	MW-08 10.15 10/26/04	MW-08 10.15 03/10/05	MW-08 10.15 08/11/05	MW-09 13.8 06/05/95	MW-09 13.8 12/18/95	MW-09 13.8 04/08/96	MW-09 13.8 06/05/96
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	**3.5 J**	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	**87**	**7.6**	ND	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Total VOCs	- -	ug/L	NA	**1,100**	NA	**2,300**	**840**	**140**	**530**	**65**	**390**	**460**	**290**	**310**	**150**	**7,500**	NA	**3,500**	NA
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	**23**	NA	**6.0 J**	NA	NA	NA	**100**	**0.57**	**94**	**1.6**	**110**	**100**	**39**	NA	**190**	NA	**93**
2,4-Dimethylphenol	50	ug/L	NA	NA	ND	NA	NA	NA	ND	ND	NA	**3.7**	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	**1.0 J**	NA	NA	NA	ND	ND	**0.70**	**1.3**	**1.2 J**	**1.4**	**1.2**	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	**4.9**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	ND	NA	ND	NA	NA	NA	**0.79**	ND	NA	**1.2**	NA	NA	**0.64**	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	NA	ND	NA	NA	NA	**0.71**	ND	NA	**1.3**	NA	NA	**0.63**	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	**23**	NA	**7.0**	NA	NA	NA	**110**	**0.57**	**94**	**9.1**	**110**	**100**	**42**	NA	**190**	NA	**93**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	**3,800**	NA	**2,100**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**1,100**	NA	**3,500**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-09 13.8 09/13/96	MW-09 13.8 04/15/97	MW-09 13.8 07/15/97	MW-09 13.8 01/27/98	MW-09 13.8 11/02/01	MW-09 13.8 04/30/02	MW-09 13.8 08/20/02	MW-10 14.2 12/15/95	MW-10 14.2 08/20/02	MW-10 14.2 07/10/03	MW-10D 14.2 08/20/02	MW-11 13.6 12/18/95	MW-11 13.6 12/19/95	MW-11 13.6 01/27/98	MW-11 13.6 04/08/98	MW-11 13.6 11/02/01	MW-11 13.6 04/30/02
Volatile Organics																			
Benzene	1	ug/L	**270**	**170**	**200**	NA	**860**	**620**	**520**	NA	**120**	NA	NA	NA	NA	NA	**620**	**75**	**83**
Toluene	5	ug/L	**89**	**26**	**15**	NA	ND	**3.4**	ND	NA	**11**	NA	NA	NA	NA	NA	**27**	**13**	**17**
Ethylbenzene	5	ug/L	**620**	**300**	**210**	NA	**34**	**120**	**79**	NA	**410**	NA	NA	NA	NA	NA	**1,100**	**410**	**1,000**
Xylenes (total)	5	ug/L	**2,500**	**1,000**	**320**	NA	**37**	**150**	**33**	NA	**45**	NA	NA	NA	NA	NA	**2,500**	**180**	**320**
Methyl tert-butyl ether	10	ug/L	**340**	**50**	**28**	NA	**47**	NA	**33**	NA	**16**	NA	NA	NA	NA	NA	ND	ND	NA
Naphthalene	10	ug/L	**190**	**95**	**59**	NA	**640**	**160**	NA	NA	NA	NA	NA	NA	NA	NA	**220**	**160**	**190**
Isopropylbenzene	5	ug/L	**29**	**20**	**13**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**40**	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	**180**	**99**	**41**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**100**	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	NA	NA	NA	NA	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**2,300**	**1,000**	**300**	NA	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	**2,500**	ND	ND
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	**80**	**50**	**35**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**46**	NA	NA
n-Propylbenzene	- -	ug/L	**65**	**40**	**23**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**61**	NA	NA
o-Xylene	- -	ug/L	**230**	**5.0**	**21**	NA	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	**16 J**	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**4.7 J**	NA	NA
sec-Butylbenzene	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-09 13.8 09/13/96	MW-09 13.8 04/15/97	MW-09 13.8 07/15/97	MW-09 13.8 01/27/98	MW-09 13.8 11/02/01	MW-09 13.8 04/30/02	MW-09 13.8 08/20/02	MW-10 14.2 12/15/95	MW-10 14.2 08/20/02	MW-10 14.2 07/10/03	MW-10D 14.2 08/20/02	MW-11 13.6 12/18/95	MW-11 13.6 12/19/95	MW-11 13.6 01/27/98	MW-11 13.6 04/08/98	MW-11 13.6 11/02/01	MW-11 13.6 04/30/02
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	ND	NA	**45**	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**6,900**	**2,900**	**1,300**	NA	**1,600**	**1,100**	**710**	NA	**590**	ND	NA	NA	NA	NA	**7,300**	**840**	**1,600**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	**150**	NA	NA	**5.0 J**	NA	NA	NA	**300**	**230**	NA	**150**	**320**	**380**	**220**	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	**3.5**	NA	ND	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	NA	**1.0 J**	NA	NA	NA	ND	**6.8**	NA	**2.1**	ND	ND	**1.0 J**	NA	NA	NA
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	ND	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	**1.9**	NA	ND	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	N	NA	ND	ND	ND	ND	NA	NA	NA
Fluorene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	**3.9**	NA	**1.7**	ND	ND	**1.0 J**	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND	ND	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	**1.5**	NA	ND	ND	**11**	ND	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	**44**	NA	ND	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	NA	NA	NA
Total SVOCs	- -	ug/L	**150**	NA	NA	**6.0**	NA	NA	NA	**300**	**290**	NA	**150**	**320**	**390**	**220**	NA	NA	NA
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	**3,300**	NA	NA	**2,400**	NA	NA	NA	**3,900**	NA	NA	NA	**3,700**	**16,000**	**3,000**	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11 13.6 08/20/02	MW-11 13.6 06/03/03	MW-11 13.6 02/11/04	MW-11 13.6 05/20/04	MW-11 13.6 10/24/04	MW-11 13.6 10/26/04	MW-11 13.6 03/10/05	MW-11 13.6 08/11/05	MW-11AR - - 08/20/02	MW-11AR - - 03/19/03	MW-11AR - - 06/03/03	MW-11AR - - 02/11/04	MW-11AR - - 05/20/04	MW-11AR - - 10/26/04	MW-11AR - - 03/09/05
Volatile Organics																	
Benzene	1	ug/L	**56**	**8.1**	**12**	**3.3**	**13**	NA	**5.7**	**9.3**	**910**	**90**	**44**	**11**	**74**	**86**	**18**
Toluene	5	ug/L	**15**	**5.8**	**6.4**	**1.9**	**5.9**	NA	**3.8**	**4.0**	**250**	**11**	**3.8**	**0.60**	**30**	**15**	**4.2**
Ethylbenzene	5	ug/L	**650**	**560**	**480**	**180**	**260**	NA	**240**	**140**	**930**	**120**	**5.6**	ND	**9.2**	**6.8**	**20**
Xylenes (total)	5	ug/L	**400**	**390**	**190**	**84**	**57**	NA	**45**	**15**	**2,700**	**300**	**40**	**7.5**	**110**	**23**	**22**
Methyl tert-butyl ether	10	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	**300**	**17**	**9.2**	**1.8**	**11**	**20**	**1.9**
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
1,1,1-Trichloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1,2-Trichloroethane	1	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1-Dichloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,1-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,2-Dichloropropane	1	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**29,000**	**80**	**56**	**1.8**	**860**	**410**	**49**
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Dibromochloromethane	50	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11 13.6 08/20/02	MW-11 13.6 06/03/03	MW-11 13.6 02/11/04	MW-11 13.6 05/20/04	MW-11 13.6 10/24/04	MW-11 13.6 10/26/04	MW-11 13.6 03/10/05	MW-11 13.6 08/11/05	MW-11AR - - 08/20/02	MW-11AR - - 03/19/03	MW-11AR - - 06/03/03	MW-11AR - - 02/11/04	MW-11AR - - 05/20/04	MW-11AR - - 10/26/04	MW-11AR - - 03/09/05
Volatile Organics (Cont.)																	
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Total VOCs	- -	ug/L	**1,100**	**960**	**690**	**270**	**330**	NA	**290**	**170**	**44,000**	**860**	**210**	**50**	**1,400**	**810**	**180**
trans-1,2-Dichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**99**	NA	NA	NA	**5.0**	**3.2**	**0.50**
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND
Trichloroethene	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**2,100**	**14**	**15**	**0.40**	ND	**13**	**0.80**
Trichlorofluoromethane	5	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	ND	**210**	**27**	**27**	ND	NA	**27**
Vinyl Chloride	2	ug/L	ND	NA	NA	ND	NA	NA	ND	ND	**7,800**	**13**	**12**	NA	**270**	**240**	**36**
Semivolatile Organics																	
Naphthalene	10	ug/L	**160**	**72**	**130**	**95**	NA	**89**	**78**	**56**	**500**	**16**	**24**	**0.79**	**32**	ND	NA
2,4-Dimethylphenol	50	ug/L	**6.6**	ND	ND	ND	NA	ND	ND	ND	**15**	ND	ND	ND	ND	ND	NA
Acenaphthene	20	ug/L	**1.7**	**0.77**	**2.8**	**1.1**	NA	**2.4**	**1.8**	**2.4**	**4.7**	ND	**0.50**	ND	ND	ND	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	ND	NA	NA	ND	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	NA	**4.5**	NA	NA	ND	**1.2**	ND	**7.2**	ND	NA	ND	NA	ND	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	**1.1**	NA	ND	ND	ND	NA	ND	NA	NA	ND	ND	NA
Fluoranthene	50	ug/L	ND	NA	ND	NA	NA	ND	ND	ND	**1.7**	ND	NA	ND	NA	ND	NA
Fluorene	50	ug/L	**1.7**	**0.85**	**2.5**	**1.2**	NA	**2.3**	**1.5**	**2.1**	**5.5**	ND	**0.85**	ND	ND	ND	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	**0.59**	**0.53**	**1.1**	ND	NA	**0.88 J**	**0.55**	**0.95**	ND	ND	ND	ND	ND	ND	NA
Phenol	1	ug/L	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	**2.4 J**	NA
Pyrene	50	ug/L	NA	NA	ND	NA	NA	ND	ND	ND	NA	ND	NA	ND	NA	ND	NA
Total SVOCs	- -	ug/L	**170**	**74**	**140**	**99**	NA	**95**	**84**	**62**	**530**	**16**	**25**	**0.79**	**32**	**2.4**	NA
General Chemistry																	
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11AR - - 03/10/05	MW-12 13.9 02/11/04	MW-12 13.9 10/26/04	MW-12 13.9 03/10/05	MW-12A 11.7 12/19/95	MW-12A 11.7 04/08/96	MW-12A 11.7 12/27/98	MW-12A 11.7 11/02/01	MW-12A 11.7 04/30/02	MW-12A 11.7 08/20/02	MW-13 12.15 12/18/95	MW-13 12.15 08/20/02	MW-14R 11.57 03/05/03	MW-14R 11.57 06/03/03	MW-14R 11.57 02/11/04	MW-14R 11.57 05/20/04
Volatile Organics																		
Benzene	1	ug/L	NA	**1,500**	**990**	**890**	NA	**34**	NA	**26**	**3.4**	**12**	NA	**5.4**	**42**	**12**	**1.4**	**7.1**
Toluene	5	ug/L	NA	**25**	**14**	**13**	NA	**2.9 J**	NA	**1.2**	ND	**2.5**	NA	**1.5**	**1.3**	ND	ND	ND
Ethylbenzene	5	ug/L	NA	**920**	**450**	**400**	NA	**85**	NA	**2.9**	**9.9**	**26**	NA	**0.60**	**22**	**11**	**0.40**	**1.9**
Xylenes (total)	5	ug/L	NA	**1,800**	**350**	**280**	NA	**24**	NA	**4.5**	**5.7**	**9.1**	NA	**2.8**	**12**	**4.3**	ND	**0.20**
Methyl tert-butyl ether	10	ug/L	NA	ND	ND	ND	NA	**41**	NA	**25**	NA	**4.1**	NA	**2.5**	**8.4**	**1.3**	ND	**0.80**
Naphthalene	10	ug/L	NA	NA	NA	ND	NA	**27**	NA	ND	**22**	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	ND	NA	**33**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	**3.7**	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	**32**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	ND	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
m&p-Xylene	- -	ug/L	NA	ND	ND	ND	NA	**20**	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**27**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**58**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	ND	ND	ND	NA	**3.9 J**	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	ND	NA	**1.7 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	**9.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-11AR - - 03/10/05	MW-12 13.9 02/11/04	MW-12 13.9 10/26/04	MW-12 13.9 03/10/05	MW-12A 11.7 12/19/95	MW-12A 11.7 04/08/96	MW-12A 11.7 12/27/98	MW-12A 11.7 11/02/01	MW-12A 11.7 04/30/02	MW-12A 11.7 08/20/02	MW-13 12.15 12/18/95	MW-13 12.15 08/20/02	MW-14R 11.57 03/05/03	MW-14R 11.57 06/03/03	MW-14R 11.57 02/11/04	MW-14R 11.57 05/20/04
Volatile Organics (Cont.)																		
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	3.4 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	ND	ND	NA	NA	NA	ND	NA	ND	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Total VOCs	- -	ug/L	NA	4,200	1,800	1,600	NA	400	NA	59	41	53	NA	13	85	28	1.8	10
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND
Semivolatile Organics																		
Naphthalene	10	ug/L	5.8	160	310	230	130	NA	58	NA	NA	31	ND	ND	12	6.0	ND	ND
2,4-Dimethylphenol	50	ug/L	ND	9.4	ND	ND	NA	NA	NA	NA	NA	1.2	NA	ND	ND	ND	ND	ND
Acenaphthene	20	ug/L	ND	4.2	14	20	23	NA	6.0 J	NA	NA	25	ND	3.3	1.1	0.58	ND	ND
Acenaphthylene	- -	ug/L	ND	NA	NA	ND	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	0.74	4.3	9.9	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Benzo(a)anthracene	0.002	ug/L	ND	ND	1.9 J	2.7	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	0.91 J	0.83 J	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	1.2 J	4.2	ND	NA	ND	NA	NA	0.76	ND	ND	NA	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	0.78 J	0.69 J	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	6.0	70	88	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	1.5	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	1.5 J	0.84 J	ND	NA	ND	NA	NA	0.74	ND	ND	ND	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	NA	8.1	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND
Fluoranthene	50	ug/L	ND	1.2	33	16	ND	NA	1.0 J	NA	NA	ND	ND	1.0	ND	NA	ND	NA
Fluorene	50	ug/L	ND	6.3	ND	49	ND	NA	6.0 J	NA	NA	ND	ND	2.5	1.8	0.98	ND	ND
Hexachlorocyclopentadiene	5	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA
Hexachloroethane	5	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	ND	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	NA	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	6.7	57	77	ND	NA	2.0 J	NA	NA	6.1	ND	1.0	0.97	ND	ND	ND
Phenol	1	ug/L	2.4 J	3.5	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.89	ND	ND
Pyrene	50	ug/L	ND	1.1	14	ND	ND	NA	ND	NA	NA	ND	ND	0.99	ND	NA	ND	NA
Total SVOCs	- -	ug/L	8.2	200	510	500	150	NA	73	NA	NA	65	ND	8.8	16	8.5	1.5	ND
General Chemistry																		
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	1,000	NA	1,100	NA	NA	NA	1,100	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-14R 11.57 10/26/04	MW-14R 11.57 03/10/05	MW-15 8.87 08/20/02	MW-16 13.85 12/15/95	MW-16 13.85 06/05/96	MW-16 13.85 09/13/96	MW-16 13.85 04/15/97	MW-16 13.85 07/15/97	MW-16 13.85 01/27/98	MW-16 13.85 04/08/98	MW-16 13.85 11/02/01	MW-16 13.85 04/30/02	MW-16 13.85 08/20/02	MW-17 14.55 12/12/95	MW-17 14.55 12/18/95
Volatile Organics																	
Benzene	1	ug/L	**1.3**	ND	ND	**20**	**23**	**22**	**83**	**64**	NA	**150 [120]**	**13**	**31**	**55**	ND	**120**
Toluene	5	ug/L	ND	ND	ND	ND	ND	ND	**1.4**	ND	NA	ND [ND]	ND	ND	ND	ND	**3.5**
Ethylbenzene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	**21 J [11 J]**	ND	ND	ND	ND	ND
Xylenes (total)	5	ug/L	ND	ND	ND	ND	**2.8**	**2.2**	**98**	ND	NA	ND [ND]	ND	**3.1**	**2.1**	ND	**7.5**
Methyl tert-butyl ether	10	ug/L	**1.6**	ND	**4.7**	**3,000**	**1,500**	**1,200**	**8,000**	**5,900**	NA	**6,100 [5,400]**	**660**	NA	**1,500**	ND	**240**
Naphthalene	10	ug/L	NA	ND	NA	ND	**2.4**	**4.6**	ND	ND	NA	**72 J [40 J]**	ND	**5.1**	NA	ND	**45**
Isopropylbenzene	5	ug/L	NA	ND	NA	**1.3**	**1.9**	**1.4**	**2.2**	ND	NA	ND [ND]	NA	NA	NA	ND	**13**
1,1,1-Trichloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,2-Dichloropropane	1	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	**0.60 J**	NA	ND	ND	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND [ND]	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND [ND]	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
m&p-Xylene	- -	ug/L	ND	ND	ND	**2.0**	**2.8**	**2.2**	**2.8**	ND	NA	ND [ND]	ND	ND	ND	ND	**7.5**
Methylene Chloride	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
n-Butylbenzene	- -	ug/L	NA	ND	NA	**1.4**	ND	ND	ND	ND	NA	**ND [13 J]**	NA	NA	NA	ND	NA
n-Propylbenzene	- -	ug/L	NA	ND	NA	**2.3**	**3.4**	**2.3**	**3.6**	ND	NA	ND [ND]	NA	NA	NA	ND	**18**
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	**95**	ND	NA	ND [ND]	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	NA	**1.4**	**1.3**	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	**6.6**
sec-Butylbenzene	- -	ug/L	NA	ND	NA	ND	ND	ND	ND	ND	NA	ND [ND]	NA	NA	NA	ND	**3.2**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-14R 11.57 10/26/04	MW-14R 11.57 03/10/05	MW-15 8.87 08/20/02	MW-16 13.85 12/15/95	MW-16 13.85 06/05/96	MW-16 13.85 09/13/96	MW-16 13.85 04/15/97	MW-16 13.85 07/15/97	MW-16 13.85 01/27/98	MW-16 13.85 04/08/98	MW-16 13.85 11/02/01	MW-16 13.85 04/30/02	MW-16 13.85 08/20/02	MW-17 14.55 12/12/95	MW-17 14.55 12/18/95
Volatile Organics (Cont.)																	
Styrene	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	NA	ND	**1.3**	ND	ND	**12**	NA	ND [ND]	NA	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	**1,900**	NA	**5,200**	NA	NA
Tetrachloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Total VOCs	- -	ug/L	**2.9**	**0.60**	**4.7**	**3,000**	**1,500**	**1,200**	**8,200**	**6,000**	NA	**6,300 [5,600]**	**2,600**	**39**	**57**	ND	**460**
trans-1,2-Dichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Trichloroethene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Vinyl Chloride	2	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Semivolatile Organics																	
Naphthalene	10	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	**28 [26]**	NA	NA	NA	**1.1**	NA	**37**
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Acenaphthene	20	ug/L	**0.34**	ND	**3.2**	ND	ND	ND	NA	NA	**3.0 J [3.0 J]**	NA	NA	NA	**5.4**	NA	**16**
Acenaphthylene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND
Anthracene	50	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(a)anthracene	0.002	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	**480**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Fluorene	50	ug/L	ND	ND	**1.4**	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	**0.88**	NA	ND
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
Hexachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	NA	NA	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Pentachlorophenol	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Phenol	1	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	ND	ND	ND	ND	ND	NA	NA	ND [ND]	NA	NA	NA	ND	NA	ND
Total SVOCs	- -	ug/L	**0.34**	ND	**4.6**	ND	ND	ND	NA	NA	**31 [29]**	NA	NA	NA	**7.4**	NA	**53**
General Chemistry																	
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	**1.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	ND	ND	ND	NA	NA	**480 J [490 J]**	NA	NA	NA	NA	NA	**1,200**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-17 14.55 06/05/96	MW-17 14.55 09/13/96	MW-17 14.55 04/15/97	MW-17 14.55 07/15/97	MW-17 14.55 01/27/98	MW-17 14.55 04/09/98	MW-17 14.55 11/02/01	MW-17 14.55 04/30/02	MW-17 14.55 08/20/02	MW-18 12.2 12/12/95	MW-18 12.2 04/30/02	MW-18 12.2 08/20/02	MW-19 - - 12/12/95	MW-19 - - 12/18/95	MW-19 - - 06/05/96	MW-19 - - 04/15/97
Volatile Organics																		
Benzene	1	ug/L	**68**	**80**	**120**	**84 [90]**	NA	**72**	**16**	**6.3**	**3.0**	**1,700**	**350**	**370**	**27**	**23**	**72**	**14**
Toluene	5	ug/L	**2.5**	**2.4**	ND	ND [ND]	NA	**2.3 J**	**1.4**	ND	ND	**1,400**	**12**	**7.2**	ND	ND	ND	ND
Ethylbenzene	5	ug/L	**2.8**	ND	ND	ND [ND]	NA	**3.4 J**	**1.3**	ND	ND	**39,000**	**380**	**69**	ND	ND	ND	ND
Xylenes (total)	5	ug/L	**8.0**	**5.9**	ND	ND [ND]	NA	**8.2**	**4.5**	**3.2**	**0.40**	**66,000**	**33**	**17**	ND	ND	ND	ND
Methyl tert-butyl ether	10	ug/L	**120**	**190**	**230**	**180 [180]**	NA	**190**	**71**	NA	**60**	ND	NA	**490**	ND	**240**	**120**	**65**
Naphthalene	10	ug/L	**100**	**25**	**88**	**28 [28]**	NA	**160**	**2.7**	**17**	NA	**33,000**	**78**	NA	ND	ND	**100**	ND
Isopropylbenzene	5	ug/L	**10**	**12**	**14**	ND [ND]	NA	**12**	NA	NA	NA	**7,600**	NA	NA	ND	ND	**18**	**1.2**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	ND	ND [ND]	NA	**1.3 J**	NA	NA	NA	**25,000**	NA	NA	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**5.6**	**5.9**	ND	ND [ND]	NA	**5.7 J**	ND	ND	ND	**62,000**	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA
n-Butylbenzene	- -	ug/L	**4.7**	**6.4**	ND	ND [ND]	NA	**8.1**	NA	NA	NA	**56,000**	NA	NA	**94**	**1.9**	ND	ND
n-Propylbenzene	- -	ug/L	**14**	**17**	**18**	ND [ND]	NA	**14**	NA	NA	NA	**21,000**	NA	NA	ND	**3.0**	**2.2**	ND
o-Xylene	- -	ug/L	**2.4**	ND	ND	ND [ND]	NA	**2.5 J**	ND	ND	ND	**3,900**	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	ND	ND	ND [ND]	NA	ND	NA	NA	NA	**6,200**	NA	NA	ND	ND	ND	ND
sec-Butylbenzene	- -	ug/L	**2.5**	**3.2**	ND	ND [ND]	NA	**5.1**	NA	NA	NA	**8,200**	NA	NA	ND	ND	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-17 14.55 06/05/96	MW-17 14.55 09/13/96	MW-17 14.55 04/15/97	MW-17 14.55 07/15/97	MW-17 14.55 01/27/98	MW-17 14.55 04/09/98	MW-17 14.55 11/02/01	MW-17 14.55 04/30/02	MW-17 14.55 08/20/02	MW-18 12.2 12/12/95	MW-18 12.2 04/30/02	MW-18 12.2 08/20/02	MW-19 - - 12/12/95	MW-19 - - 12/18/95	MW-19 - - 06/05/96	MW-19 - - 04/15/97
Volatile Organics (Cont.)																		
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	**1.1**	ND	ND	ND [ND]	NA	**2.4 J**	NA	NA	NA	**4,600**	NA	NA	ND	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	**32**	NA	NA	**410**	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA
Total VOCs	- -	ug/L	**340**	**350**	**470**	**290 [300]**	NA	**490**	**96**	**26**	**95**	**340,000**	**860**	**1,400**	**120**	**270**	**310**	**80**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA
Semivolatile Organics																		
Naphthalene	10	ug/L	**64 [59]**	**20 [17]**	NA	NA	**66**	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**2.7**	NA	NA	NA	NA
Acenaphthene	20	ug/L	**16 [17]**	**17 [15]**	NA	NA	**19**	NA	NA	NA	**17**	NA	NA	**1.9**	NA	ND	ND	NA
Acenaphthylene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Anthracene	50	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(a)anthracene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(a)pyrene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	**10 [10]**	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**4.1**	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**17**	NA
Chrysene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND [ND]	ND [ND]	NA	NA	**2.0 J**	NA	NA	NA	**0.81**	NA	NA	ND	NA	ND	ND	NA
Fluorene	50	ug/L	ND [ND]	**7.9 [7.3]**	NA	NA	**9.0 J**	NA	NA	NA	**5.3**	NA	NA	**2.8**	NA	ND	ND	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	**12**	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Nitrobenzene	0.4	ug/L	ND [ND]	ND [ND]	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND [ND]	**5.9 [ND]**	NA	NA	**6.0 J**	NA	NA	NA	ND	NA	NA	**2.9**	NA	ND	ND	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND [ND]	ND [ND]	NA	NA	**1.0 J**	NA	NA	NA	ND	NA	NA	ND	NA	ND	ND	NA
Total SVOCs	- -	ug/L	**90 [86]**	**51 [39]**	NA	NA	**100**	NA	NA	NA	**23**	NA	NA	**26**	NA	ND	ND	NA
General Chemistry																		
Chloride	250	mg/L	**0.66**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	**0.61**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.34**	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	**1,100 [2,400]**	ND [ND]	NA	NA	**720**	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-19 - - 07/15/97	MW-19 - - 01/27/98	MW-19 - - 04/09/98	MW-19 - - 11/02/01	MW-19 - - 04/30/02	MW-19 - - 08/20/02	MW-20 11.1 12/12/95	MW-20 11.1 12/13/95	MW-20 11.1 12/18/95	MW-20 11.1 06/05/96	MW-20 11.1 09/13/96	MW-20 11.1 04/15/97	MW-20 11.1 07/15/97	MW-20 11.1 01/27/98	MW-20 11.1 04/09/98	MW-20 11.1 11/02/01
Volatile Organics																		
Benzene	1	ug/L	**11**	NA	ND	ND	**5.1**	**0.90**	**19**	ND	NA	**1.5**	**170**	**25 [26]**	**70**	NA	**76 J**	**130**
Toluene	5	ug/L	ND	NA	ND	ND	ND	**0.60**	**2.1**	ND	NA	ND	**40**	ND [ND]	ND	NA	ND	**2.8**
Ethylbenzene	5	ug/L	ND	NA	ND	ND	ND	ND	**30**	ND	NA	ND	**16**	**1.4 [1.9]**	ND	NA	ND	ND
Xylenes (total)	5	ug/L	ND	NA	ND	ND	ND	ND	**6.7**	ND	NA	ND	**9.2**	ND [ND]	ND	NA	ND	**6.5**
Methyl tert-butyl ether	10	ug/L	**57**	NA	**5.7**	ND	NA	ND	**9,100**	ND	NA	**1,700**	**54,000**	**9,300 [9,900]**	**19,000**	NA	**2,200**	**120**
Naphthalene	10	ug/L	ND	NA	ND	ND	**7.5**	NA	**20**	**140**	NA	ND	**14**	ND [ND]	ND	NA	**110**	ND
Isopropylbenzene	5	ug/L	ND	NA	**0.40 J**	NA	NA	NA	**16**	ND	NA	ND	**18**	**1.2 [ND]**	ND	NA	ND	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	NA	NA	NA	**6.2**	ND	NA	ND	ND	ND [ND]	ND	NA	**26 J**	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	ND
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	**6.7**	ND	NA	ND	**9.2**	ND [ND]	ND	NA	ND	ND
Methylene Chloride	5	ug/L	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	ND	NA	**0.30 J**	NA	NA	NA	**2.3**	ND	NA	ND	**4.9**	ND [ND]	ND	NA	**36 J**	NA
n-Propylbenzene	- -	ug/L	ND	NA	**0.40 J**	NA	NA	NA	**39**	ND	NA	ND	**40**	ND [ND]	ND	NA	ND	NA
o-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	ND	NA	NA	NA	ND	ND	NA	ND	ND	ND [ND]	ND	NA	ND	NA
sec-Butylbenzene	- -	ug/L	ND	NA	**0.20 J**	NA	NA	NA	**2.4**	ND	NA	ND	**3.9**	ND [ND]	ND	NA	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-19 - - 07/15/97	MW-19 - - 01/27/98	MW-19 - - 04/09/98	MW-19 - - 11/02/01	MW-19 - - 04/30/02	MW-19 - - 08/20/02	MW-20 11.1 12/12/95	MW-20 11.1 12/13/95	MW-20 11.1 12/18/95	MW-20 11.1 06/05/96	MW-20 11.1 09/13/96	MW-20 11.1 04/15/97	MW-20 11.1 07/15/97	MW-20 11.1 01/27/98	MW-20 11.1 04/09/98	MW-20 11.1 11/02/01
Volatile Organics (Cont.)																		
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND [ND]	ND	NA	ND	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
Tetrachloroethene	5	ug/L	ND	NA	ND	NA	NA	ND	NA	ND	NA	NA	NA	NA	ND	NA	ND	NA
Total VOCs	- -	ug/L	**68**	NA	**7.0**	ND	**13**	**1.4**	**9,300**	**140**	NA	**1,700**	**54,000**	**9,300 [9,900]**	**19,000**	NA	**2,400**	**260**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																		
Naphthalene	10	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**7.0 J**	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	**1.6**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Fluorene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Nitrobenzene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	ND	NA	NA
Total SVOCs	- -	ug/L	NA	ND	NA	NA	NA	**1.6**	NA	NA	ND	ND	ND	NA	NA	**7.0**	NA	NA
General Chemistry																		
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.18**	NA	NA	NA	NA	NA	NA
TPH																		
Total Petroleum Hydrocarbons	- -	ug/L	NA	ND	NA	NA	NA	NA	NA	NA	**550**	ND	**820**	NA	NA	**360 J**	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-20 11.1 04/30/02	MW-20 11.1 08/20/02	MW-21 10.1 01/27/98	MW-21 10.1 04/09/98	MW-21 10.1 11/02/01	MW-21 10.1 04/30/02	MW-21 10.1 08/20/02	MW-21 10.1 03/05/03	MW-21 10.1 06/03/03	MW-21 10.1 02/11/04	MW-21 10.1 05/20/04	MW-21 10.1 10/26/04	MW-21 10.1 03/10/05	MW-22 12 08/20/02	MW-22 12 03/05/03	MW-22 12 06/03/03	MW-22 12 02/11/04
Volatile Organics																			
Benzene	1	ug/L	**10**	**140**	NA	**800**	**340**	ND	**73**	**410**	**640**	**230**	**100**	**87**	**190**	**200**	**150**	**200**	**26**
Toluene	5	ug/L	ND	**28**	NA	**16**	ND	ND	ND	**6.2**	**6.1**	**2.7**	**1.3**	**1.1**	**3.0**	ND	**3.5**	**2.9**	**0.50**
Ethylbenzene	5	ug/L	NA	**3.0**	NA	**650**	**51**	ND	ND	**92**	**74**	**34**	**12**	**5.8**	**77**	**14**	**90**	**170**	**0.50**
Xylenes (total)	5	ug/L	ND	**19**	NA	**340**	ND	ND	**4.5**	**14**	**17**	**7.7**	**8.1**	**4.6**	**37**	**2.8**	ND	**61**	**5.2**
Methyl tert-butyl ether	10	ug/L	NA	**680**	NA	**2,200**	**730**	NA	**440**	**660**	**970**	**280**	**160**	**140**	**97**	**530**	**34**	**44**	**4.0**
Naphthalene	10	ug/L	ND	NA	NA	**330**	**37**	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	**42**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	**1.9**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	**26 J**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	**770**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	ND	NA	**320**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	**54**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	**65**	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	NA	**16 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-20 11.1 04/30/02	MW-20 11.1 08/20/02	MW-21 10.1 01/27/98	MW-21 10.1 04/09/98	MW-21 10.1 11/02/01	MW-21 10.1 04/30/02	MW-21 10.1 08/20/02	MW-21 10.1 03/05/03	MW-21 10.1 06/03/03	MW-21 10.1 02/11/04	MW-21 10.1 05/20/04	MW-21 10.1 10/26/04	MW-21 10.1 03/10/05	MW-22 12 08/20/02	MW-22 12 03/05/03	MW-22 12 06/03/03	MW-22 12 02/11/04
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	**490**	NA	NA	ND	NA	**490**	ND	ND	**41**	**23**	**7.9**	**15**	**80**	**35**	ND	ND
Tetrachloroethene	5	ug/L	ND	ND	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Total VOCs	- -	ug/L	**10**	**2,100**	NA	**4,900**	**1,200**	ND	**1,000**	**1,200**	**1,700**	**600**	**310**	**240**	**420**	**830**	**310**	**470**	**37**
trans-1,2-Dichloroethene	5	ug/L	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Trichloroethene	5	ug/L	ND	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Vinyl Chloride	2	ug/L	ND	**1,400**	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	ND	**150**	NA	NA	NA	**1.9**	**3.5**	**8.5**	**13**	**2.0**	**1.3**	**18**	NA	**76**	**69**	**4.5**
2,4-Dimethylphenol	50	ug/L	NA	ND	NA	NA	NA	NA	**29**	**9.3**	**15**	**17**	**1.4**	**1.7 J**	**4.9**	NA	ND	ND	ND
Acenaphthene	20	ug/L	NA	ND	**3.0 J**	NA	NA	NA	**6.7**	**4.2**	**3.7**	**4.6**	**6.0**	**7.4**	**3.5**	NA	**2.3**	**2.2**	**0.71**
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.89**	NA	ND	ND	NA	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.90**	NA	ND	ND	NA	NA	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	**0.62**	NA	ND	ND	NA	NA	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	ND	NA	NA	NA	NA	**4.1**	**2.0**	NA	**7.7**	NA	ND	ND	NA	ND	NA	**1.1**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	**0.57**	NA	ND	ND	NA	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	ND	NA	NA	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	NA
Fluoranthene	50	ug/L	NA	ND	ND	NA	NA	NA	**2.8**	**1.2**	NA	ND	NA	ND	ND	NA	ND	NA	ND
Fluorene	50	ug/L	NA	ND	**3.0 J**	NA	NA	NA	**4.9**	**1.9**	**1.7**	**2.4**	**1.6**	**2.1**	**1.6**	NA	**3.3**	**2.8**	**1.2**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	ND	**3.0 J**	NA	NA	NA	**1.6**	**0.74**	**0.76**	ND	ND	**0.47**	ND	NA	**2.9**	**1.7**	**0.75**
Phenol	1	ug/L	NA	ND	NA	NA	NA	NA	**14**	**2.3**	**1.9**	**3.6**	ND	ND	ND	NA	ND	**3.6**	ND
Pyrene	50	ug/L	NA	ND	ND	NA	NA	NA	**2.7**	**2.1**	NA	**4.3**	NA	ND	**1.5**	NA	ND	NA	ND
Total SVOCs	- -	ug/L	NA	ND	**160**	NA	NA	NA	**67**	**27**	**31**	**56**	**11**	**13**	ND	NA	**85**	**80**	**8.3**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	**4,900**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-22 12 05/20/04	MW-22 12 10/26/04	MW-22 12 03/10/05	MW-23-D1 16.5 - 26.5 10/27/04	MW-23-D1 16.5 - 26.5 03/09/05	MW-23-D1 16.5 - 26.5 08/10/05	MW-23-D1 16.5 - 26.5 03/15/06	MW-23-D2 31 - 41 10/27/04	MW-23-D2 31 - 41 03/09/05	MW-23-D2 31 - 41 08/10/05	MW-23-D2 31 - 41 03/15/06	MW-24-D1 17 - 27 10/27/04	MW-24-D1 17 - 27 03/09/05	MW-24-D1 17 - 27 08/10/05
Volatile Organics																
Benzene	1	ug/L	**190**	**240**	**8.1**	**1.4**	**2.3**	**12**	**13**	**1.2**	**0.73 J**	**0.69**	ND	**4.7**	**3.7 J**	**1.7**
Toluene	5	ug/L	**1.9**	**4.8**	ND	**0.40**	ND	**9.6**	**9.0 J**	**0.30 J**	ND	**0.20**	ND	**2.3**	ND	**0.90**
Ethylbenzene	5	ug/L	**53**	**2.6**	**2.4**	**0.32 J**	**1.2**	**4.0**	**4.3 J**	ND	ND	ND	ND	ND	ND	ND
Xylenes (total)	5	ug/L	**17**	**7.2**	**0.50**	**0.90 J**	**0.20**	**12**	**11 J**	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10	ug/L	**21**	**41**	**1.7**	**180**	**620**	**470**	**680**	**65**	**200**	**220**	**470**	**1,100 J**	**820**	**590**
Naphthalene	10	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Isopropylbenzene	5	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	ND	**1.5**	**2.8**	**160**	**55**	ND	ND	ND	ND	**280**	**240**	**240**
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	NA	ND	**4.1**	ND	ND	ND	ND	ND	ND	ND	**6.6**	ND	ND
n-Butylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
n-Propylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
sec-Butylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-22 12 05/20/04	MW-22 12 10/26/04	MW-22 12 03/10/05	MW-23-D1 16.5 - 26.5 10/27/04	MW-23-D1 16.5 - 26.5 03/09/05	MW-23-D1 16.5 - 26.5 08/10/05	MW-23-D1 16.5 - 26.5 03/15/06	MW-23-D2 31 - 41 10/27/04	MW-23-D2 31 - 41 03/09/05	MW-23-D2 31 - 41 08/10/05	MW-23-D2 31 - 41 03/15/06	MW-24-D1 17 - 27 10/27/04	MW-24-D1 17 - 27 03/09/05	MW-24-D1 17 - 27 08/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	1,800	820	1,100	1,500	2,100	2,400	2,000	ND	3,000	1,600	980
Tetrachloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	0.32	ND	ND	ND	ND
Total VOCs	- -	ug/L	280	290	13	190	1,500	1,900	2,500	67	2,600	2,200	470	5,200	4,100	2,300
trans-1,2-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	3.3	3.8 J	ND	ND	ND	ND	ND	5.8 J	5.8
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	ND	NA	ND	ND	ND	0.31	ND	ND	ND	ND	ND	860	1,400	530
Trichlorofluoromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	NA	ND	ND	1.2	140	250	ND	ND	ND	ND	18	21	6.5
Semivolatile Organics																
Naphthalene	10	ug/L	30	5.6	1.5	1.7 J	ND	17	73	1.8 J	ND	0.57	ND	1.1 J	1.8 J	ND
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20	ug/L	1.1	0.84	ND	1.9 J	ND	1.9	8.4 J	0.41 J	ND	ND	ND	4.0	6.9	3.0
Acenaphthylene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Anthracene	50	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	ND	3.2	5.2	1.4 J	1.2	1.4 J	3.4	2.3	ND	ND	2.1	ND	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Di-n-Butylphthalate	50	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Fluoranthene	50	ug/L	NA	ND	ND	NA	ND	ND	0.90 J	NA	ND	ND	ND	NA	ND	ND
Fluorene	50	ug/L	1.6	1.1	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Hexachloroethane	5	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
PheNAnthrene	50	ug/L	0.79	ND	ND	0.36 J	ND	ND	0.40 J	ND	ND	ND	ND	0.54 J	1.2 J	ND
Phenol	1	ug/L	9.7	5.7	ND	ND	ND	ND	ND	ND	ND	2.4	ND	ND	ND	ND
Pyrene	50	ug/L	NA	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	8.0	ND
Total SVOCs	- -	ug/L	43	13	5.8	9.2	1.4	20	84	5.6	2.3	3.0	ND	7.7	18	3.0
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-24-D1 17 - 27 03/15/06	MW-24-D2 32 - 42 10/27/04	MW-24-D2 32 - 42 03/09/05	MW-24-D2 32 - 42 08/10/05	MW-24-D2 32 - 42 03/15/06	MW-24-VD 63 - 73 01/09/07	MW-25-D1 16 - 26 10/27/04	MW-25-D1 16 - 26 03/09/05	MW-25-D1 16 - 26 03/15/05	MW-25-D1 16 - 26 08/10/05	MW-25-D1 16 - 26 03/15/06	MW-25-D2 31 - 41 10/27/04	MW-25-D2 31 - 41 03/09/05	MW-25-D2 31 - 41 08/10/05
Volatile Organics																
Benzene	1	ug/L	**4.8**	ND	**0.50 J**	ND	ND	ND	ND	ND	**15**	**8.6**	NA	**7.5**	ND	**220**
Toluene	5	ug/L	**2.5 J**	**0.30 J**	**0.30 J**	**0.20**	ND	**1.3 J**	**120**	**16 J**	**23 J**	**12**	NA	**19**	ND	**290**
Ethylbenzene	5	ug/L	**1.8 J**	ND	ND	ND	ND	ND	ND	ND	**9.5 J**	ND	NA	**10**	ND	ND
Xylenes (total)	5	ug/L	**3.8 J**	**0.90 J**	**0.30 J**	ND	ND	ND	ND	**21**	**28 J**	**21**	NA	**30**	ND	ND
Methyl tert-butyl ether	10	ug/L	**1,200**	**120**	**270**	**220**	**290**	**5.6**	**1,100**	**1,100**	**1,300**	**1,100**	NA	**280**	**2,600**	**3,500**
Naphthalene	10	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
Isopropylbenzene	5	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,1-Dichloroethene	5	ug/L	**2.3 J**	ND	ND	ND	ND	ND	ND	ND	**34**	**9.1**	NA	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	**32**	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	**110**	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
Acrylonitrile	- -	ug/L	NA	ND	ND	**0.40**	NA	NA	ND	ND	NA	ND	NA	ND	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	**6.8 J**	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Chloroform	7	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	NA	ND	ND	ND
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	ND	NA	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**670**	**5.9**	**33**	ND	**62**	**7.8**	**6,500**	**5,500**	**10,000**	**5,000**	NA	**820**	**21,000**	**26,000**
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
m&p-Xylene	- -	ug/L	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND
Methylene Chloride	5	ug/L	ND	**1.2 J**	**3.0**	ND	ND	ND	**25,000**	**1,100**	**1,000**	**1,200**	NA	**6,500**	**140,000**	**230,000**
n-Butylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
n-Propylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
o-Xylene	- -	ug/L	NA	ND	ND	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
sec-Butylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-24-D1 17 - 27 03/15/06	MW-24-D2 32 - 42 10/27/04	MW-24-D2 32 - 42 03/09/05	MW-24-D2 32 - 42 08/10/05	MW-24-D2 32 - 42 03/15/06	MW-24-VD 63 - 73 01/09/07	MW-25-D1 16 - 26 10/27/04	MW-25-D1 16 - 26 03/09/05	MW-25-D1 16 - 26 03/15/05	MW-25-D1 16 - 26 08/10/05	MW-25-D1 16 - 26 03/15/06	MW-25-D2 31 - 41 10/27/04	MW-25-D2 31 - 41 03/09/05	MW-25-D2 31 - 41 08/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	NA	NA	ND	ND
Tertiary butyl alcohol	- -	ug/L	**1,900**	**640**	**1,300**	**710**	**860**	ND	ND	**1,900**	**1,900**	**2,000**	NA	ND	ND	ND
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Total VOCs	- -	ug/L	**5,200**	**790**	**1,800**	**380**	**1,200**	**160**	**110,000**	**13,000**	**17,000**	**10,000**	NA	**19,000**	**660,000**	**760,000**
trans-1,2-Dichloroethene	5	ug/L	**8.3 J**	ND	**0.70 J**	**0.50**	NA	ND	ND	**51**	**64**	**30**	NA	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Trichloroethene	5	ug/L	**1,400**	**20**	**160**	**130**	**20**	**18**	**72,000**	**1,500**	**900**	**410**	NA	**11,000**	**500,000**	**500,000**
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND
Vinyl Chloride	2	ug/L	**26**	ND	**5.2**	ND	ND	ND	ND	**2,300**	**3,100**	**620**	NA	ND	ND	ND
Semivolatile Organics																
Naphthalene	10	ug/L	**2.0 J**	ND	ND	ND	ND	NA	**3.9**	**57**	NA	**33**	**63**	ND	ND	**10**
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	ND	NA	**1.6 J**	ND	NA	**2.3**	**2.8 J**	ND	**4.9 J**	**3.6**
Acenaphthene	20	ug/L	ND	ND	**1.6 J**	**0.98**	**0.50 J**	NA	**5.3**	**37**	NA	**31**	**42**	**4.5**	**2.1**	**2.1**
Acenaphthylene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Anthracene	50	ug/L	ND	ND	ND	ND	ND	NA	ND	**1.1 J**	NA	**1.1**	**1.2 J**	**0.38 J**	ND	ND
Benzo(a)anthracene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	**2.8**	ND	**1.1**	ND	NA	ND	ND	NA	**1.8**	ND	**4.7**	**1.4 J**	**1.2**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Di-n-Butylphthalate	50	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Fluoranthene	50	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	**5.2 J**	NA	ND	ND
Fluorene	50	ug/L	**0.40 J**	ND	ND	ND	ND	NA	**1.5 J**	**9.6**	NA	**7.4**	ND	**1.9 J**	**0.97 J**	ND
Hexachlorocyclopentadiene	5	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Hexachloroethane	5	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
PheNAnthrene	50	ug/L	**1.7 J**	ND	ND	ND	ND	NA	**1.7 J**	**13**	NA	**12**	**12**	**2.3**	**0.85 J**	ND
Phenol	1	ug/L	ND	ND	ND	ND	ND	NA	**2.8**	ND	NA	ND	ND	ND	**7.4**	**5.8**
Pyrene	50	ug/L	ND	NA	ND	ND	ND	NA	NA	ND	NA	ND	ND	NA	ND	ND
Total SVOCs	- -	ug/L	**4.0**	**2.8**	**1.6**	**2.1**	**0.50 J**	NA	**17**	**120**	NA	**88**	**130**	**14**	**18**	**23**
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-25-D2 31 - 41 03/15/06	MW-25-VD 63 - 73 01/09/07	MW-26-D1 15 - 25 10/26/04	MW-26-D1 15 - 25 03/09/05	MW-26-D1 15 - 25 08/10/05	MW-26-D2 30 - 40 10/26/04	MW-26-D2 30 - 40 03/09/05	MW-26-D2 30 - 40 08/10/05	MW-26-VD 58 - 68 01/09/07	MW-27-D1 18 - 28 10/27/04	MW-27-D1 18 - 28 03/09/05	MW-27-D1 18 - 28 08/10/05	MW-27-D1 18 - 28 03/15/06
Volatile Organics															
Benzene	1	ug/L	ND	ND [ND]	**2.9**	**7.8**	**7.5**	ND	ND	ND	**0.60 J**	**5.2**	**6.2 J**	**5.2**	**5.4**
Toluene	5	ug/L	ND	**0.29 J [0.22 J]**	**0.50**	**0.50 J**	**0.60**	ND	ND	ND	**2.1**	ND	ND	ND	ND
Ethylbenzene	5	ug/L	ND	ND [ND]	**0.90**	**4.5**	**2.8**	ND	ND	ND	**0.52 J**	ND	ND	ND	ND
Xylenes (total)	5	ug/L	ND	**0.35** [ND]	**0.80**	**1.1**	**1.1**	**0.40**	ND	ND	**1.5**	**3.7**	ND	ND	ND
Methyl tert-butyl ether	10	ug/L	**3,200 J**	**0.43 J** [ND]	**110**	**520**	**640**	**130**	**140**	**120**	ND	**150**	**280**	**240**	**340**
Naphthalene	10	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Isopropylbenzene	5	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	**1.7**	**1.9**	**2.1**	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
1,2-Dichloroethane	0.6	ug/L	ND	**1.3 [0.88 J]**	ND	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
1,3-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
2-Butanone	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acetone	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
Acrylonitrile	- -	ug/L	NA	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	NA
Bromodichloromethane	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Bromoform	50	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	**1.8 J [1.3 J]**	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	ND	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND
Chloromethane	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**26,000**	**5.1 [4.4]**	**6.2**	ND	**12**	**2.7**	**0.60 J**	ND	ND	**520**	**1,700**	**1,100**	**1,200**
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	**320,000**	**12 [11]**	**8.4**	ND	ND	**3.5**	**0.70 J**	ND	ND	ND	ND	**9.0**	ND
n-Butylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
n-Propylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
o-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
sec-Butylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-25-D2 31 - 41 03/15/06	MW-25-VD 63 - 73 01/09/07	MW-26-D1 15 - 25 10/26/04	MW-26-D1 15 - 25 03/09/05	MW-26-D1 15 - 25 08/10/05	MW-26-D2 30 - 40 10/26/04	MW-26-D2 30 - 40 03/09/05	MW-26-D2 30 - 40 08/10/05	MW-26-VD 58 - 68 01/09/07	MW-27-D1 18 - 28 10/27/04	MW-27-D1 18 - 28 03/09/05	MW-27-D1 18 - 28 08/10/05	MW-27-D1 18 - 28 03/15/06
Volatile Organics (Cont.)															
Styrene	5	ug/L	NA	ND [ND]	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	**9,600 J**	ND [ND]	**980**	**1,500**	**2,100**	**660**	**790**	**680**	ND	**1,800**	**4,600**	**3,100**	**2,900**
Tetrachloroethene	5	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**1,200,000**	**45 [38]**	**220**	**2,100**	**2,800**	**880**	**940**	**800**	**5.3**	**2,500**	**6,600**	**4,600**	**4,500**
trans-1,2-Dichloroethene	5	ug/L	ND	ND [ND]	ND	ND	**1.2**	ND	ND	ND	ND	ND	**8.3 J**	**7.3**	**8.1 J**
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	**880,000**	**24 [20]**	**88**	**0.50 J**	**2.8**	**80**	**15**	**6.1**	**0.59 J**	**9.4**	**77**	**60**	**8.6 J**
Trichlorofluoromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	ND [ND]	ND	**23**	**75**	ND	ND	ND	ND	ND	ND	**15**	**18**
Semivolatile Organics															
Naphthalene	10	ug/L	**49**	NA	**1.5 J**	**3.0**	ND	ND	ND	ND	NA	**7.4**	ND	ND	ND
2,4-Dimethylphenol	50	ug/L	**4.0 J**	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Acenaphthene	20	ug/L	**2.3 J**	NA	ND	**37**	**0.62**	ND	ND	ND	NA	ND	**1.8**	ND	ND
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Anthracene	50	ug/L	**0.30 J**	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	NA	**1.8 J**	**1.7 J**	ND	**3.0**	**3.2**	**3.2**	NA	**2.2**	ND	ND	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Di-n-Butylphthalate	50	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Fluoranthene	50	ug/L	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Fluorene	50	ug/L	**0.80 J**	NA	NA	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND
Hexachlorocyclopentadiene	5	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Hexachloroethane	5	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Nitrobenzene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
PheNAnthrene	50	ug/L	**0.60 J**	NA	NA	ND	**1.7**	NA	ND	ND	NA	NA	ND	ND	ND
Phenol	1	ug/L	ND	NA	NA	**6.2**	ND	NA	ND	ND	NA	NA	ND	ND	ND
Pyrene	50	ug/L	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	NA	ND	ND
Total SVOCs	- -	ug/L	**57**	NA	**3.3**	**48**	**2.3**	**3.0**	**3.2**	**3.2**	NA	**9.6**	**1.8**	ND	ND
General Chemistry															
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH															
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D2 33 - 43 10/27/04	MW-27-D2 33 - 43 03/09/05	MW-27-D2 33 - 43 08/10/05	MW-27-D2 33 - 43 03/15/06	MW-28-D1 17.5 - 27.5 10/27/04	MW-28-D1 17.5 - 27.5 03/10/05	MW-28-D1 17.5 - 27.5 08/10/05	MW-28-D1 17.5 - 27.5 03/15/06	MW-28-D2 32.4 - 42.5 10/27/04	MW-28-D2 32.4 - 42.5 03/10/05	MW-28-D2 32.4 - 42.5 08/10/05	MW-28-D2 32.4 - 42.5 03/15/06	MW-29-D1 17 - 27 10/27/04	MW-29-D1 17 - 27 03/10/05
Volatile Organics																
Benzene	1	ug/L	**1.0**	**1.9**	**1.7**	ND	**11**	**8.5**	**15**	NA	**0.60 J**	**0.60 J**	**0.40**	ND	**85**	**42**
Toluene	5	ug/L	**2.8**	**1.7**	**2.0**	ND	**4.8**	**8.2**	**1.4**	NA	**0.50 J**	**0.30 J**	**0.20**	ND	**1.1 J**	**0.50**
Ethylbenzene	5	ug/L	ND	**13**	**9.3**	**6.6 J**	**2.6**	**4.0**	**3.2**	NA	ND	ND	ND	ND	ND	ND
Xylenes (total)	5	ug/L	**270**	**41**	**43**	**6.6 J**	**5.5**	**8.9**	**6.9**	NA	**0.70 J**	**0.30 J**	ND	ND	**2.2**	**1.6**
Methyl tert-butyl ether	10	ug/L	**64**	**85**	**100**	**110**	**150**	**380**	**360**	NA	**15**	**9.7**	**6.2**	**6.5**	**650**	**550**
Naphthalene	10	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
Isopropylbenzene	5	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	**1.9**	**1.6**	**1.1**	ND	**0.40 J**	**0.50 J**	**0.50**	NA	**1.6**	**3.0**	**2.3**	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Acrylonitrile	- -	ug/L	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.40 J**	**2.2**	ND	NA	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	**12**	**30**	**45**	**43**	**12**	**0.90 J**	**2.6**	NA	**1.3**	**0.90 J**	**0.30**	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	ND	**2.5**	**16**	**0.60 J**	ND	ND	NA	ND	ND	ND	ND	ND	ND
n-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
n-Propylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
sec-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-27-D2 33 - 43 10/27/04	MW-27-D2 33 - 43 03/09/05	MW-27-D2 33 - 43 08/10/05	MW-27-D2 33 - 43 03/15/06	MW-28-D1 17.5 - 27.5 10/27/04	MW-28-D1 17.5 - 27.5 03/10/05	MW-28-D1 17.5 - 27.5 08/10/05	MW-28-D1 17.5 - 27.5 03/15/06	MW-28-D2 32.4 - 42.5 10/27/04	MW-28-D2 32.4 - 42.5 03/10/05	MW-28-D2 32.4 - 42.5 08/10/05	MW-28-D2 32.4 - 42.5 03/15/06	MW-29-D1 17 - 27 10/27/04	MW-29-D1 17 - 27 03/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	ND	ND	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND
Tertiary butyl alcohol	- -	ug/L	**310**	**500**	**630**	**1,000**	**490**	**1,400**	**1,100**	NA	**96**	**80**	**61**	ND	**400**	**210**
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**660**	**690**	**860**	**1,200**	**700**	**1,800**	**1,500**	NA	**120**	**95**	**72**	**6.5**	**490**	**810**
trans-1,2-Dichloroethene	5	ug/L	ND	**2.3**	**1.7**	ND	ND	**12**	**8.3**	NA	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	**4.0**	**2.5**	**18**	**8.6**	**14**	**2.0**	**0.60**	NA	**2.0**	**0.80 J**	ND	ND	**1.8**	ND
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	**2.3**	ND	**18**	ND	**6.7**	**7.5**	NA	ND	ND	ND	ND	ND	ND
Semivolatile Organics																
Naphthalene	10	ug/L	**14**	**1.7 J**	ND	ND	ND	**15**	**4.8**	**1.0 J**	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	50	ug/L	ND	ND	ND	ND	**2.8**	**2.5 J**	**2.0**	**1.6 J**	ND	ND	ND	ND	NA	ND
Acenaphthene	20	ug/L	ND	ND	ND	ND	**1.7 J**	**43**	**40**	**3.9 J**	**0.37 J**	ND	ND	ND	**0.69 J**	ND
Acenaphthylene	- -	ug/L	NA	NA	ND	ND	NA	NA	**0.73**	ND	NA	NA	ND	ND	ND	ND
Anthracene	50	ug/L	NA	ND	ND	ND	NA	**0.87 J**	**0.79**	**0.30 J**	NA	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	**1.6**	ND	**1.3**	ND	**23**	**3.9**	**1.7**	ND	**4.6**	**2.7**	**3.0**	ND	**23**	**1.7 J**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Fluoranthene	50	ug/L	NA	ND	ND	ND	NA	**0.93 J**	**1.1**	**1.0 J**	NA	ND	ND	ND	NA	ND
Fluorene	50	ug/L	NA	ND	ND	ND	NA	**4.7**	**2.6**	**0.20 J**	NA	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Hexachloroethane	5	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
PheNAnthrene	50	ug/L	NA	ND	ND	ND	NA	**11**	**7.1**	**0.40 J**	NA	ND	ND	ND	**0.31 J**	ND
Phenol	1	ug/L	NA	**9.9**	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND
Pyrene	50	ug/L	NA	NA	ND	ND	NA	NA	ND	ND	NA	NA	ND	ND	NA	ND
Total SVOCs	- -	ug/L	**16**	**12**	**1.3**	ND	**28**	**82**	**60**	**8.4**	**4.6**	**2.7**	**3.0**	ND	**24**	**1.7**
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1 17 - 27 08/10/05	MW-29-D1 17 - 27 08/11/05	MW-29-D1 17 - 27 03/15/06	MW-29-D2 32 - 42 10/27/04	MW-29-D2 32 - 42 03/10/05	MW-29-D2 32 - 42 08/11/05	MW-29-D2 32 - 42 03/15/06	MW-29-VD 54 - 63 01/09/07	MW-30-D1 18 - 28 10/27/04	MW-30-D1 18 - 28 03/10/05	MW-30-D1 18 - 28 08/11/05	MW-30-D1 18 - 28 03/15/06	MW-30-D2 33 - 43 10/27/04	MW-30-D2 33 - 43 03/10/05
Volatile Organics																
Benzene	1	ug/L	**74**	NA	**39**	**5.6**	**0.50 J**	**1.2**	ND	ND	**1,600**	**2,100**	**1,500**	**1,800**	**18**	**3.0**
Toluene	5	ug/L	**1.0**	NA	ND	ND	ND	**0.40**	ND	**0.43 J**	**7.9**	**10 J**	**9.6**	ND	**0.80**	**0.20 J**
Ethylbenzene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	**12**	**16 J**	**13**	**13 J**	**0.70 J**	ND
Xylenes (total)	5	ug/L	**2.0**	NA	ND	ND	ND	ND	ND	ND	**16**	**30**	**21**	ND	**3.3**	**0.30 J**
Methyl tert-butyl ether	10	ug/L	**560**	NA	**390**	**770**	**530**	**480**	**1,500**	**1.3**	**9,100**	**11,000**	**11,000**	**13,000**	**150**	**69**
Naphthalene	10	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
Isopropylbenzene	5	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,1,1-Trichloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	NA	ND	ND	**0.60 J**	**0.70**	**2.2 J**	ND	ND	ND	ND	ND	**1.5**	**1.4**
1,1-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	NA	ND	ND	ND	NA	ND	ND
1,2-Dichloroethane	0.6	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	**14**	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Chloromethane	5	ug/L	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	**2.2 J**	ND	ND	ND	ND	ND	**0.30 J**	ND
cis-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ug/L	ND	NA	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ug/L	ND	NA	ND	**6.0**	ND	ND	**2.5 J**	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
n-Propylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
o-Xylene	- -	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
sec-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-29-D1 17 - 27 08/10/05	MW-29-D1 17 - 27 08/11/05	MW-29-D1 17 - 27 03/15/06	MW-29-D2 32 - 42 10/27/04	MW-29-D2 32 - 42 03/10/05	MW-29-D2 32 - 42 08/11/05	MW-29-D2 32 - 42 03/15/06	MW-29-VD 54 - 63 01/09/07	MW-30-D1 18 - 28 10/27/04	MW-30-D1 18 - 28 03/10/05	MW-30-D1 18 - 28 08/11/05	MW-30-D1 18 - 28 03/15/06	MW-30-D2 33 - 43 10/27/04	MW-30-D2 33 - 43 03/10/05
Volatile Organics (Cont.)																
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	NA	NA	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND
Tertiary butyl alcohol	- -	ug/L	**170**	NA	**120 J**	**420**	**620**	**610**	**720**	ND	ND	**190 J**	ND	**470 J**	**210**	**330**
Tetrachloroethene	5	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**800**	NA	**550**	**1,200**	**1,100**	**1,100**	**2,300**	**16**	**11,000**	**14,000**	**13,000**	**15,000**	**390**	**410**
trans-1,2-Dichloroethene	5	ug/L	ND	NA	**3.8 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ug/L	**1.1**	NA	ND	**1.5 J**	**1.1**	**0.70**	**49**	ND	ND	ND	ND	ND	**7.0**	**0.80 J**
Trichlorofluoromethane	5	ug/L	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ug/L	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organics																
Naphthalene	10	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**650**	**890**	**900**	ND	**12**	ND
2,4-Dimethylphenol	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	**2.6 J**	ND	ND	NA	ND
Acenaphthene	20	ug/L	NA	ND	ND	**0.44 J**	ND	ND	NA	NA	**44**	**86**	**80**	**77**	**1.1 J**	ND
Acenaphthylene	- -	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND
Anthracene	50	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	**1.1**	ND	**4.1**	**2.4**	**4.1**	NA	NA	**2.4**	**1.5 J**	**3.6**	ND	**2.7**	**1.9 J**
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Fluoranthene	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Fluorene	50	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**6.5**	**15**	**16**	**19 J**	ND	ND
Hexachlorocyclopentadiene	5	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Hexachloroethane	5	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	ND	**5.3**	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	ND	ND	ND	**5.2**	ND	ND
Pentachlorophenol	- -	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
PheNAnthrene	50	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**3.3**	**6.4**	**4.8**	**880**	**0.46 J**	ND
Phenol	1	ug/L	NA	ND	ND	ND	ND	ND	NA	NA	**6.1**	ND	**1.3**	ND	ND	ND
Pyrene	50	ug/L	NA	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND
Total SVOCs	- -	ug/L	NA	**1.1**	ND	**4.1**	**2.4**	**4.1**	NA	NA	**720**	**1,000**	**1,000**	**980**	**21**	**1.9**
General Chemistry																
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 33 - 43 08/11/05	MW-30-D2 33 - 43 03/15/06	MW-30-VD 73 - 83 01/08/07	MW-31-D1 17.5 - 27.5 10/27/04	MW-31-D1 17.5 - 27.5 03/10/05	MW-31-D1 17.5 - 27.5 08/10/05	MW-31-D2 32.5 - 42.5 10/27/04	MW-31-D2 32.5 - 42.5 03/10/05	MW-31-D2 32.5 - 42.5 08/10/05	MW-32D 24 - 34 01/08/07	MW-33D 18 - 28 01/09/07	MW-34D 23 - 33 01/08/07	MW-35D 16 - 26 01/08/07	MW-36D 24 - 34 01/09/07	MW-DR 15.05 08/20/02
Volatile Organics																	
Benzene	1	ug/L	**1.1**	**1.1**	**0.52 J**	**75**	**130**	**130**	**8.4**	ND	ND	**11**	ND	**70**	**2.7**	ND	NA
Toluene	5	ug/L	**0.20**	ND	**1.0**	**11**	**24**	**24**	**0.40**	ND	ND	**0.43 J**	**0.44 J**	**2.2**	**0.60 J**	**0.36 J**	NA
Ethylbenzene	5	ug/L	ND	ND	**0.58 J**	**15**	**33**	**33**	**0.60**	ND	ND	**0.28 J**	**0.41 J**	**0.87 J**	**0.31 J**	ND	NA
Xylenes (total)	5	ug/L	ND	ND	**1.3**	**20**	**49**	**49**	**1.0**	ND	ND	**0.90 J**	**0.39**	**3.6**	**0.48 J**	ND	NA
Methyl tert-butyl ether	10	ug/L	**37**	**42**	**9.1**	**160**	**180**	**180**	**18**	**0.30 J**	**0.32 J**	**80**	**3.6**	**9.8**	**3.6**	**180**	NA
Naphthalene	10	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1-Dichloroethane	5	ug/L	**1.3**	ND	**0.93 J**	**3.0**	**3.5**	ND	**1.3**	ND	ND	ND	**0.25 J**	ND	ND	ND	NA
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.1**	ND	ND	ND	ND	NA
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	**2.7 J**	ND	ND	ND	NA
2-Hexanone	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Acetone	50	ug/L	NA	NA	**14**	NA	NA	NA	NA	NA	NA	ND	**3.0 J**	**3.9 J**	**3.7 J**	**40**	NA
Acrolein	- -	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	ND	NA	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Bromoform	50	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Bromomethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Carbon Disulfide	60	ug/L	NA	NA	**9.3**	NA	NA	NA	NA	NA	NA	**9.9**	**0.69 J**	**0.46 J**	**2.3**	**15**	NA
Carbon Tetrachloride	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Chlorobenzene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
Chloroethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Chloroform	7	ug/L	NA	NA	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA
Chloromethane	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	**6.4**	**14 J**	**14**	**0.40**	ND	ND	ND	ND	ND	ND	ND	NA
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
m&p-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.0**	**0.48 J**	ND	NA
Methylene Chloride	5	ug/L	ND	**2.5 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
n-Butylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.64 J**	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	MW-30-D2 33 - 43 08/11/05	MW-30-D2 33 - 43 03/15/06	MW-30-VD 73 - 83 01/08/07	MW-31-D1 17.5 - 27.5 10/27/04	MW-31-D1 17.5 - 27.5 03/10/05	MW-31-D1 17.5 - 27.5 08/10/05	MW-31-D2 32.5 - 42.5 10/27/04	MW-31-D2 32.5 - 42.5 03/10/05	MW-31-D2 32.5 - 42.5 08/10/05	MW-32D 24 - 34 01/08/07	MW-33D 18 - 28 01/09/07	MW-34D 23 - 33 01/08/07	MW-35D 16 - 26 01/08/07	MW-36D 24 - 34 01/09/07	MW-DR 15.05 08/20/02
Volatile Organics (Cont.)																	
Styrene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	**450**	**120**	**420**	**470**	**470**	**73**	ND	ND	ND	**160**	ND	ND	**250**	NA
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Total VOCs	- -	ug/L	**40**	**550**	**23**	**710**	**900**	**900**	**100**	**1.1**	ND	**110**	**170**	**91**	**14**	**490**	NA
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	**0.60**	**0.56 J**	ND	ND	ND	ND	ND	ND	ND	ND	NA
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Trichloroethene	5	ug/L	ND	**54**	ND	**0.50**	ND	ND	**0.90**	**0.80 J**	ND	ND	ND	ND	ND	**1.6**	NA
Trichlorofluoromethane	5	ug/L	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	ND	ND	ND	ND	**6.3**	**6.3**	ND	ND	ND	ND	ND	ND	ND	ND	NA
Semivolatile Organics																	
Naphthalene	10	ug/L	ND	ND	NA	**290**	**97**	NA	**5.2**	ND	NA	NA	NA	NA	NA	NA	**0.56**
2,4-Dimethylphenol	50	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Acenaphthene	20	ug/L	ND	ND	NA	**160**	**410 a**	NA	**1.1**	ND	NA	NA	NA	NA	NA	NA	**2.1**
Acenaphthylene	- -	ug/L	ND	ND	NA	**1.0**	**4.6**	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	ND	NA	**2.0**	**2.5**	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	**1.7**	ND	NA	**2.3**	ND	NA	**10**	**5.4**	NA	NA	NA	NA	NA	NA	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	**6.2**	NA	NA	ND	NA	NA	NA	NA	NA	NA	**1.1**
Fluoranthene	50	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Fluorene	50	ug/L	ND	ND	NA	**31**	**100**	NA	ND	ND	NA	NA	NA	NA	NA	NA	**1.5**
Hexachlorocyclopentadiene	5	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	ND	ND	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	NA	ND	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Pentachlorophenol	- -	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	ND	NA	**17**	ND	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Phenol	1	ug/L	ND	ND	NA	**1.8**	**51**	NA	ND	ND	NA	NA	NA	NA	NA	NA	ND
Pyrene	50	ug/L	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND
Total SVOCs	- -	ug/L	**1.7**	ND	NA	**500**	**670**	NA	**17**	**5.4**	NA	NA	NA	NA	NA	NA	**5.3**
General Chemistry																	
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																	
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-01 5.95 08/20/02	P-02 5.19 08/20/02	P-03 6.15 08/20/02	P-04 5.46 08/20/02	P-05 - - 08/20/02	P-05R 5.61 03/05/03	P-05R 5.61 06/03/03	P-05R 5.61 02/11/04	P-05R 5.61 05/20/04	P-05R 5.61 10/26/04	P-05R 5.61 03/10/05	P-07 5.4 08/20/02	P-08 6.15 08/20/02	P-09 4.97 04/30/02	P-09 4.97 08/20/02	P-11 5.6 08/20/02	P-11 5.6 03/05/03
Volatile Organics																			
Benzene	1	ug/L	ND	ND	ND	**1.9**	**18**	**190**	**180**	**89**	**180**	**87**	**200**	**27**	**26**	**530**	**190**	**750**	**1,500**
Toluene	5	ug/L	ND	ND	ND	ND	**0.87**	**2.6**	**2.3**	**1.6**	**2.6**	**2.5**	**2.5**	ND	**0.88**	**6.6**	**3.3**	**2.6**	**10**
Ethylbenzene	5	ug/L	ND	ND	ND	**9.6**	**2.4**	**35**	**61**	**3.6**	**28**	**6.7**	**21**	ND	**1.5**	**11**	**6.3**	ND	**8.0**
Xylenes (total)	5	ug/L	ND	ND	ND	**0.62**	**2.0**	**8.8**	**12**	**4.3**	**5.5**	**4.3**	**5.1**	ND	**3.1**	**22**	**12**	**1.8**	**9.6**
Methyl tert-butyl ether	10	ug/L	ND	**0.34**	**0.48**	**0.91**	**8.2**	**59**	**40**	**29**	**56**	**70**	**50**	**3.0**	**18**	NA	**80**	**210**	**350**
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1,2-Trichloroethane	1	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1-Dichloroethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,1-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,2-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,2-Dichloroethane	0.6	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,2-Dichloropropane	1	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
1,4-Dichlorobenzene	3	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Acrylonitrile	- -	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
cis-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Dibromochloromethane	50	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-01 5.95 08/20/02	P-02 5.19 08/20/02	P-03 6.15 08/20/02	P-04 5.46 08/20/02	P-05 - - 08/20/02	P-05R 5.61 03/05/03	P-05R 5.61 06/03/03	P-05R 5.61 02/11/04	P-05R 5.61 05/20/04	P-05R 5.61 10/26/04	P-05R 5.61 03/10/05	P-07 5.4 08/20/02	P-08 6.15 08/20/02	P-09 4.97 04/30/02	P-09 4.97 08/20/02	P-11 5.6 08/20/02	P-11 5.6 03/05/03
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	ND	**21**	ND	ND	ND	**97**	**33**	**26**	ND	**37**	NA	**350**	**120**	ND
Tetrachloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Total VOCs	- -	ug/L	ND	**0.30**	**0.50**	**11**	**52**	**290**	**300**	**130**	**370**	**200**	**310**	**30**	**85**	**570**	**640**	**1,100**	**1,900**
trans-1,2-Dichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
trans-1,3-Dichloropropene	0.4	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Trichloroethene	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
Trichlorofluoromethane	5	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	NA	ND	ND	NA
Vinyl Chloride	2	ug/L	ND	ND	ND	ND	ND	NA	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	ND	ND	ND	**4.7**	ND	**17**	**15**	**1.9**	**7.9**	ND	ND	ND	ND	NA	**1.2**	ND	ND
2,4-Dimethylphenol	50	ug/L	ND	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	NA	ND	ND
Acenaphthene	20	ug/L	ND	**1.4**	ND	**5.3**	**2.0**	**1.2**	**1.2**	**0.72**	**1.3**	**1.3 J**	**1.4 J**	**5.4**	**13**	NA	**18**	**2.0**	**2.0**
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	NA	NA	ND	**2.1**	ND	NA	NA	ND	NA	ND	ND	ND	**1.4**	NA	ND	ND	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	**0.80**	ND	NA	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	ND	ND	NA	NA	NA	ND	NA	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	**0.70**	ND	ND	ND	ND	NA	NA	ND	ND	ND	NA	ND	NA	**0.63**
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	ND	ND	NA	NA	NA	**1.5**	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND
Fluoranthene	50	ug/L	ND	ND	ND	**4.1**	**1.1**	ND	ND	ND	NA	NA	ND	**0.76**	**1.9**	NA	**0.66**	**0.96**	**1.8**
Fluorene	50	ug/L	ND	**0.57**	ND	**6.8**	**2.5**	**1.5**	**1.3**	**0.64**	**1.1**	ND	**1.3 J**	**3.5**	**7.2**	NA	**6.6**	**3.0**	**8.3**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	**1.2**	NA	NA	ND	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	ND	ND	**12**	**2.1**	**0.98**	ND	ND	ND	ND	**0.70 J**	**1.1**	**10**	NA	**2.1**	**5.7**	**10**
Phenol	1	ug/L	ND	ND	NA	NA	NA	ND	**1.7**	ND	**2.5**	**2.1 J**	**2.2 J**	NA	NA	NA	NA	**3.7**	**12**
Pyrene	50	ug/L	ND	ND	ND	**3.0**	**0.87**	ND	NA	ND	ND	NA	ND	**0.62**	**1.2**	NA	**0.60**	**0.77**	**1.7**
Total SVOCs	- -	ug/L	ND	**2.0**	ND	**39**	**8.6**	**22**	**20**	**4.5**	**13**	**3.4**	**5.6**	**11**	**35**	NA	**29**	**16**	**36**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-11 5.6 02/11/04	P-11 5.6 10/26/04	P-11 5.6 03/10/05	P-13 5.45 08/20/02	P-14 5.4 08/20/02	P-14 5.4 03/05/03	P-14 5.4 06/03/03	P-14 5.4 05/20/04	P-14 5.4 10/26/04	P-14 5.4 03/10/05	P-15 5 08/20/02	P-15 5 03/05/03	P-15 5 06/03/03	P-15 5 05/20/04	P-15 5 10/26/04	P-15 5 03/10/05	P-17 - - 08/20/02
Volatile Organics																			
Benzene	1	ug/L	**1,900**	**3,300**	**1,300**	**160**	**240**	**38**	**34**	**50**	**120**	**43**	**1,100**	**300**	**230**	**30**	**24**	**13**	ND
Toluene	5	ug/L	**11**	**19**	**7.5**	**5.7**	**910**	**99**	**110**	**79**	**330**	**350**	**1,900**	**220**	**84**	**14**	**6.1**	**0.38 J**	ND
Ethylbenzene	5	ug/L	**12**	**15**	**12**	**31**	**610**	**130**	**130**	**150**	**240**	**110**	**300**	**160**	**98**	**7.7**	**2.2**	ND	ND
Xylenes (total)	5	ug/L	**17**	**22**	**18**	**25**	ND	**390**	**390**	**280**	**420**	**210**	**770**	**1,000**	ND	**22**	**3.1**	**0.23 J**	ND
Methyl tert-butyl ether	10	ug/L	**310**	**320**	**130**	**94**	ND	**29**	**13**	**32**	**33**	**15**	**210**	**420**	**130**	**88**	**41**	**6.5**	ND
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,1-Dichloroethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	**9.3**	NA	**4.7**	NA	ND	NA	NA	ND
1,1-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	**6.0**	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,2-Dichloropropane	1	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Acrylonitrile	- -	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	**3,400**	**95**	**350**	**2,200**	**3,800**	**34,000**	**1,800**	**190**	**290**	**200**	**5.6**	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Dibromochloromethane	50	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-11 5.6 02/11/04	P-11 5.6 10/26/04	P-11 5.6 03/10/05	P-13 5.45 08/20/02	P-14 5.4 08/20/02	P-14 5.4 03/05/03	P-14 5.4 06/03/03	P-14 5.4 05/20/04	P-14 5.4 10/26/04	P-14 5.4 03/10/05	P-15 5 08/20/02	P-15 5 03/05/03	P-15 5 06/03/03	P-15 5 05/20/04	P-15 5 10/26/04	P-15 5 03/10/05	P-17 - - 08/20/02
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	ND	ND	ND	**120**	ND	ND	NA	ND	ND	ND	ND	ND	**270**	**120**	**85**	**31**	ND
Tetrachloroethene	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Total VOCs	- -	ug/L	**2,200**	**3,700**	**1,500**	**430**	**1,800**	**5,200**	**930**	**650**	**4,400**	**4,800**	**57,000**	**4,900**	**1,100**	**10,000**	**610**	**90**	ND
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	ND	ND	**24**	**7.8**	**3.1**	NA	NA	NA	NA	NA	ND	**0.78**	NA	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	ND
Trichloroethene	5	ug/L	NA	NA	NA	ND	ND	**210**	NA	**52**	NA	**11**	**9,400**	NA	NA	**9,400**	NA	NA	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND
Vinyl Chloride	2	ug/L	NA	NA	NA	ND	ND	**890**	**150**	**400**	**1,100**	**210**	**8,700**	**1,000**	**140**	**250**	**250**	**34**	ND
Semivolatile Organics																			
Naphthalene	10	ug/L	**11**	**1.8 J**	**5.3**	**9.9**	**390**	**52**	**53**	**50**	**68**	**22**	**130**	**30**	**20**	ND	ND	ND	**1.9**
2,4-Dimethylphenol	50	ug/L	NA	NA	**1.1**	ND	**17**	**17**	NA	NA	NA	ND	**2.3**	ND	NA	NA	NA	ND	ND
Acenaphthene	20	ug/L	**6.8**	**1.8**	**2.5**	**6.8**	**8.9**	**5.5**	**6.0**	**8.4**	**8.0**	**4.7**	**20**	**3.3**	**4.4**	**3.7**	**2.9**	**2.5**	ND
Acenaphthylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Anthracene	50	ug/L	**2.5**	**0.58**	**0.56**	**1.0**	ND	NA	NA	NA	**0.59 J**	ND	ND	NA	NA	NA	ND	ND	ND
Benzo(a)anthracene	0.002	ug/L	**1.9**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(a)pyrene	- -	ug/L	**1.5**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(b)fluoranthene	0.002	ug/L	**2.1**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Benzo(k)fluoranthene	0.002	ug/L	**1.7**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	**2.9**	NA	ND	NA	NA	ND	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	**1.7**	NA	ND	NA	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA	NA	ND	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	ND	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA
Fluoranthene	50	ug/L	**7.6**	NA	**1.0 J**	**1.4**	ND	ND	ND	NA	NA	ND	ND	ND	ND	NA	NA	ND	ND
Fluorene	50	ug/L	**11**	**2.4**	**3.6**	**3.9**	**5.8**	**1.7**	**1.9**	**3.0**	**4.2**	**1.7 J**	**5.6**	**1.1**	**1.3**	**1.5**	ND	ND	**8.9**
Hexachlorocyclopentadiene	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Hexachloroethane	5	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
Nitrobenzene	0.4	ug/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	ND	NA	ND	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND	NA
PheNAnthrene	50	ug/L	**21**	**3.2**	**5.1**	**4.3**	**6.0**	**1.3**	ND	**0.96**	**2.6**	**0.67 J**	ND	ND	ND	ND	ND	ND	**1.5**
Phenol	1	ug/L	**9.7**	**11**	**8.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1.4**	ND	ND	ND	ND
Pyrene	50	ug/L	**6.0**	NA	**0.81 J**	**1.0**	ND	ND	NA	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND
Total SVOCs	- -	ug/L	**87**	**21**	**28**	**28**	**430**	**77**	**61**	**62**	**83**	**29**	**160**	**34**	**27**	**5.2**	**2.9**	**2.5**	**12**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18 5 04/30/02	P-18 5 08/20/02	P-18 5 03/05/03	P-18 5 06/03/03	P-18 5 02/11/04	P-18 5 05/20/04	P-18 5 10/26/04	P-18 5 03/09/05	P-18 5 08/10/05	P-19 4.03 04/30/02	P-19 4.03 08/20/02	P-19 4.03 03/19/03	P-19 4.03 06/03/03	P-19 4.03 02/11/04	P-19 4.03 05/20/04	P-19 4.03 10/26/04	P-19 4.03 03/09/05
Volatile Organics																			
Benzene	1	ug/L	**1,400**	**740**	**470**	**360**	**120**	**110**	**200**	**170**	**180**	**15**	**220**	**260**	**420**	**150**	**170**	**170**	NA
Toluene	5	ug/L	**380**	**380**	**140**	**44**	**9.9**	**14**	**16**	**22**	**26**	**150**	**220**	**220**	**450**	**14**	**13**	**82**	NA
Ethylbenzene	5	ug/L	**390**	**470**	**420**	**210**	**80**	**26**	**23**	**34**	**18**	**390**	**76**	**55**	**120**	**86**	**54**	**53**	NA
Xylenes (total)	5	ug/L	**460**	**1,500**	**730**	**350**	**27**	**22**	**17**	**32**	**20**	**70**	**140**	**68**	**230**	**24**	**54**	**34**	NA
Methyl tert-butyl ether	10	ug/L	NA	**790**	**290**	**270**	**72**	**88**	**120**	**230 a**	**140**	NA	**990**	**1,200**	**4,900**	**110**	**62**	**900**	NA
Naphthalene	10	ug/L	**45**	NA	NA	NA	NA	NA	NA	NA	NA	**8.4**	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	**4.7**	NA	NA	ND	NA	**0.64 J**	**0.59**	NA	ND	NA	**68**	NA	ND	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,2-Dichloropropane	1	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	ND	**13,000**	**4,500**	**140**	NA	**2.5**	NA	**7.0**	**5.7**	ND	**11,000**	**20,000**	**79,000**	**7.2**	**1.9**	**3,300**	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-18 5 04/30/02	P-18 5 08/20/02	P-18 5 03/05/03	P-18 5 06/03/03	P-18 5 02/11/04	P-18 5 05/20/04	P-18 5 10/26/04	P-18 5 03/09/05	P-18 5 08/10/05	P-19 4.03 04/30/02	P-19 4.03 08/20/02	P-19 4.03 03/19/03	P-19 4.03 06/03/03	P-19 4.03 02/11/04	P-19 4.03 05/20/04	P-19 4.03 10/26/04	P-19 4.03 03/09/05
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	ND	ND	180	60	120	110	200	130	NA	ND	1,300	2,600	80	64	700	NA
Tetrachloroethene	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Total VOCs	- -	ug/L	2,700	26,000	8,900	1,800	370	390	480	500	610	7,900	20,000	27,000	110,000	480	420	7,800	NA
trans-1,2-Dichloroethene	5	ug/L	ND	ND	11	11	NA	0.42	0.74	2.9	3.1	7,200	ND	NA	100	1.8	0.96	9.8 J	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	NA	NA	ND	NA	NA
Trichloroethene	5	ug/L	ND	ND	4.7	90	NA	ND	NA	1.5	NA	ND	ND	780	NA	NA	ND	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	ND	NA	69	NA	ND	NA	NA
Vinyl Chloride	2	ug/L	ND	9,900	2,300	200	NA	7.4	NA	31	89	ND	8,100	3,500	21,000	15	3.5	2,600	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	140	67	42	13	7.4	ND	ND	ND	NA	29	21	18	4.3	4.3	ND	ND
2,4-Dimethylphenol	50	ug/L	NA	5.1	2.5	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	NA	NA	NA	ND
Acenaphthene	20	ug/L	NA	8.9	2.3	2.3	0.55	2.0	1.6	1.3	2.1	NA	18	10	12	6.6	7.0	5.1	4.3
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Anthracene	50	ug/L	NA	ND	NA	NA	ND	NA	ND	ND	ND	NA	ND	NA	NA	ND	NA	ND	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	0.96	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	0.98	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	1.5	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	0.69	NA	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA	NA	ND
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	0.77	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	2.0	NA	1.5	NA	NA	ND	ND	NA	NA	ND	NA	ND	NA	NA	ND
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	1.4	ND	NA	NA	ND	ND	NA	NA	NA	ND	ND	NA	NA	ND
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	NA	NA	NA	ND	NA	ND
Fluoranthene	50	ug/L	NA	ND	0.86	3.6	ND	NA	NA	ND	ND	NA	NA	ND	ND	ND	NA	NA	ND
Fluorene	50	ug/L	NA	6.5	1.3	1.6	ND	2.0	1.9	1.3 J	2.5	NA	9.1	4.5	5.7	3.2	2.5	2.9	2.0
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	NA	ND
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	ND	NA	NA	ND	ND	NA	NA	NA	NA	ND	NA	NA	ND
PheNAnthrene	50	ug/L	NA	1.0	0.90	2.7	ND	ND	ND	ND	ND	NA	NA	ND	ND	0.74	ND	ND	ND
Phenol	1	ug/L	NA	ND	ND	15	ND	ND	ND	ND	ND	NA	ND	ND	4.3	ND	ND	ND	ND
Pyrene	50	ug/L	NA	ND	0.58	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND	ND	NA	ND
Total SVOCs	- -	ug/L	NA	160	78	73	15	11	3.5	2.6	4.6	NA	56	36	41	15	14	8.0	ND
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-19 4.03 03/10/05	P-20 5 08/20/02	P-21 4 08/20/02	P-22 4.5 08/20/02	P-23 5.15 08/20/02	P-24 3.2 03/19/03	P-26 5.63 08/20/02	P-26 5.63 03/19/03	P-26 5.63 06/03/04	P-26 5.63 05/20/04	P-26 5.63 10/26/04	P-26 5.63 08/10/05	P-28 5.58 08/20/02	TP-01 - - 09/10/96	TP-01 - - 09/13/96	TP-01 - - 04/26/97	TP-01 - - 01/27/98
Volatile Organics																			
Benzene	1	ug/L	**140**	**57**	**46**	**45**	**50**	**12**	**860**	NA	**640**	NA	**110**	**150**	**6.1**	NA	**3.4**	**4.6**	NA
Toluene	5	ug/L	**44**	**220**	**220**	**12**	**2.0**	**1.8**	**210**	NA	**20**	NA	**2.7**	**19**	**0.62**	NA	ND	ND	NA
Ethylbenzene	5	ug/L	**10**	ND	ND	**2.5**	ND	**0.58**	ND	NA	**34**	NA	**56**	**27**	ND	NA	**1.2**	**2.8**	NA
Xylenes (total)	5	ug/L	**27**	**140**	**140**	**6.3**	**1.8**	**1.7**	**810**	NA	**37**	NA	**12**	**15**	**1.2**	NA	**3.4**	ND	NA
Methyl tert-butyl ether	10	ug/L	**410 a**	**61**	**120**	**150**	**150**	**300**	**630**	NA	**210**	NA	**100**	**150**	**25**	NA	**16**	**2.1**	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	**5.7**	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	**1.8**	NA
1,1,1-Trichloroethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**0.63**	ND	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
1,3-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	**170**	**2.0**	**1.2**	**0.66**	**170**	**110**	**130**	NA	**20**	NA	NA	**33**	ND	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.4**	ND	NA
Methylene Chloride	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	**2.3**	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	P-19 4.03 03/10/05	P-20 5 08/20/02	P-21 4 08/20/02	P-22 4.5 08/20/02	P-23 5.15 08/20/02	P-24 3.2 03/19/03	P-26 5.63 08/20/02	P-26 5.63 03/19/03	P-26 5.63 06/03/03	P-26 5.63 05/20/04	P-26 5.63 10/26/04	P-26 5.63 08/10/05	P-28 5.58 08/20/02	TP-01 - - 09/10/96	TP-01 - - 09/13/96	TP-01 - - 04/26/97	TP-01 - - 01/27/98
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
Tertiary butyl alcohol	- -	ug/L	**1,400 a**	**1,600 a**	**430**	**500**	**260**	**380**	**480**	NA	**450**	NA	**130**	**120**	ND	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Total VOCs	- -	ug/L	**2,500**	**490**	**970**	**710**	**630**	**920**	**3,400**	NA	**1,400**	NA	**410**	**610**	**33**	NA	**30**	**19**	NA
trans-1,2-Dichloroethene	5	ug/L	**1.5**	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**2.7**	ND	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	**0.63**	ND	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	**330 a**	**2.0**	**4.8**	**1.1**	**260 a**	**120**	**300**	NA	NA	NA	NA	**94**	ND	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	ND	ND	**0.83**	ND	ND	**77**	**10**	**3.1**	**7.7**	**9.9**	ND	NA	ND	NA	NA	ND
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	**6.7**	**28**	**33**	**1.4**	ND	**26**	**15**	**20**	**9.0**	**9.7**	**12**	**14**	ND	NA	NA	ND
Acenaphthylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA
Anthracene	50	ug/L	NA	ND	**0.61**	**1.4**	ND	NA	ND	NA	NA	NA	ND	ND	**1.8**	ND	NA	NA	ND
Benzo(a)anthracene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**1.0 J**
Benzo(a)pyrene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**2.0 J**
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**3.0 J**
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	**2.0 J**
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	NA	ND	NA	NA	**1.0 J**
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	ND	ND	ND	NA	NA	**3.0 J**
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	NA	ND
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	**2.4**	NA	ND	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	NA	NA	ND	**1.8**	ND	NA	NA	**4.0 J**
Fluorene	50	ug/L	NA	**2.6**	**13**	**13**	ND	ND	**9.2**	**3.5**	**5.0**	**1.1**	**1.1**	ND	**11**	ND	NA	NA	ND
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	**2.0 J**
Nitrobenzene	0.4	ug/L	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	**4.6**	ND	NA	NA	ND
Phenol	1	ug/L	NA	**3.5**	ND	ND	ND	ND	ND	**6.7**	**2.2**	ND	ND	ND	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	ND	ND	**0.65**	ND	ND	ND	ND	NA	**0.61**	NA	ND	**1.1**	ND	NA	NA	**4.0 J**
Total SVOCs	- -	ug/L	NA	**13**	**41**	**49**	**1.4**	ND	**110**	**35**	**30**	**21**	**21**	**12**	**35**	ND	NA	NA	**22**
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**590**	NA	NA	**7,400**

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-01 - - 04/09/98	TP-01 - - 11/02/01	TP-04 4.8 09/10/96	TP-04 4.8 04/26/97	TP-04 4.8 01/27/98	TP-04 4.8 04/09/98	TP-04 4.8 11/02/01	TP-04 4.8 04/30/02	TP-04 4.8 08/20/02	TP-07 - - 04/26/97	TP-09 - - 09/09/96	TP-09 - - 04/26/97	TP-10 - - 09/09/96	TP-10 - - 04/26/97	TP-11 - - 09/09/96	TP-12 - - 04/26/97	TP-13 - - 04/26/97
Volatile Organics																			
Benzene	1	ug/L	**1.5**	ND	NA	**10 [8.8]**	NA	ND	ND [ND]	ND	ND	**13**	NA	**71**	NA	**30**	NA	**3,500**	**3,000**
Toluene	5	ug/L	ND	ND	ND	ND [ND]	NA	ND	**5.4** [ND]	ND	ND	ND	**13**	**5.9**	**7.6**	**5.6**	**22**	**76**	**220**
Ethylbenzene	5	ug/L	**0.20 J**	ND	**1.6**	**1.2 [1.1]**	NA	ND	ND [ND]	ND	ND	**9.1**	**160**	**60**	**78**	**83**	**120**	**510**	**1,400**
Xylenes (total)	5	ug/L	**0.80 J**	ND	**4.6**	**7.1 [5.7]**	NA	ND	ND [ND]	ND	ND	**7.8**	**19**	ND	**17**	**15**	**25**	**3,400**	**4,200**
Methyl tert-butyl ether	10	ug/L	**0.70 J**	ND	**13**	**5.0 [5.1]**	NA	**2.0**	ND **[32]**	NA	ND	**10**	**47**	**28**	**120**	**38**	**670**	**290**	**14,000**
Naphthalene	10	ug/L	**1.3**	ND	ND	ND [ND]	NA	**0.40 J**	ND [ND]	ND	NA	**17**	**170**	**35**	**90**	**76**	**33**	**330**	**960**
Isopropylbenzene	5	ug/L	**0.30 J**	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**4.1**	**24**	**7.3**	**7.9**	**4.8**	**8.8**	ND	**160**
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**1.7**	**4.7**	ND	ND	ND	**290**	**440**	**870**
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	ND	ND	**4.6**	**7.1 [5.7]**	NA	ND	ND [ND]	ND	ND	**7.8**	**15**	**5.6**	**11**	**10**	**19**	**3,400**	**4,200**
Methylene Chloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**4.8**	**29**	ND	**4.0**	ND	**12**	**210**	**1,000**
n-Propylbenzene	- -	ug/L	**0.20 J**	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**7.4**	**47**	**17**	**13**	**5.6**	**13**	ND	**340**
o-Xylene	- -	ug/L	**0.80 J**	ND	ND	ND [ND]	NA	ND	ND [ND]	ND	ND	ND	**4.4**	ND	**6.4**	**5.2**	**6.2**	ND	ND
p-Isopropyltoluene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	ND	**1.8**	ND	ND	ND	**1.8**	ND	ND
sec-Butylbenzene	- -	ug/L	**0.30 J**	NA	ND	ND [ND]	NA	ND	NA	NA	NA	**1.1**	**7.2**	**4.0**	**3.6**	ND	**2.7**	ND	ND

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-01 - - 04/09/98	TP-01 - - 11/02/01	TP-04 4.8 09/10/96	TP-04 4.8 04/26/97	TP-04 4.8 01/27/98	TP-04 4.8 04/09/98	TP-04 4.8 11/02/01	TP-04 4.8 04/30/02	TP-04 4.8 08/20/02	TP-07 - - 04/26/97	TP-09 - - 09/09/96	TP-09 - - 04/26/97	TP-10 - - 09/09/96	TP-10 - - 04/26/97	TP-11 - - 09/09/96	TP-12 - - 04/26/97	TP-13 - - 04/26/97
Volatile Organics (Cont.)																			
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	NA	ND	ND [ND]	NA	ND	NA	NA	NA	ND	**1.6**	ND	ND	ND	ND	ND	ND
Tertiary butyl alcohol	- -	ug/L	NA	ND	NA	NA	NA	NA	ND [ND]	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	- -	ug/L	**5.3**	0	**19**	**23 [21]**	NA	**2.4**	**5.4 [32]**	0	0	**76**	**520**	**230**	**340**	**260**	**1,200**	**8,800**	**26,000**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organics																			
Naphthalene	10	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	**83**	NA	**51**	NA	**11**	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	**6.2**	NA	ND	NA	NA
Acenaphthylene	- -	ug/L	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Anthracene	50	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	NA	ND	NA	**1.0 J**	NA	NA	NA	**2.1**	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(a)pyrene	- -	ug/L	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	**2.5**	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**3.4**	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	ND	NA	**2.0 J**	NA	NA	NA	**3.9**	NA	ND	NA	ND	NA	ND	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	ND	NA	ND	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**6.5**	NA	ND	NA	ND	NA	ND	NA	NA
Fluorene	50	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	**5.9**	NA	ND	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	ND	NA	NA	NA	**1.9**	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	ND	NA	ND	NA	ND	NA	ND	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	NA	NA	ND	NA	ND	NA	NA	NA	**2.5**	NA	ND	NA	**6.5**	NA	ND	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	ND	NA	**3.0 J**	NA	NA	NA	**5.2**	NA	ND	NA	ND	NA	ND	NA	NA
Total SVOCs	- -	ug/L	NA	NA	ND	NA	**16**	NA	NA	NA	**28**	NA	**83**	NA	**70**	NA	**11**	NA	NA
General Chemistry																			
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH																			
Total Petroleum Hydrocarbons	- -	ug/L	NA	NA	ND	NA	**2,600**	NA	NA	NA	NA	NA	**1,200**	NA	**1,300**	NA	**4,300**	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-14 - - 09/09/96	TP-15 - - 04/26/97	TW-01 - - 03/15/04	TW-02 - - 03/15/04	TW-03 - - 03/16/04	TW-04 - - 03/15/04	TW-05 - - 03/16/04	TW-06 - - 03/15/04	TW-07 - - 03/16/04	TW-08 - - 03/16/04
Volatile Organics												
Benzene	1	ug/L	NA	**530**	**7.9 J**	**2.8 J [2.9 J]**	**9.9**	**12**	**5.0**	**22**	**0.83**	ND
Toluene	5	ug/L	**440**	ND	**9.3**	ND [ND]	**8.9**	ND	**0.49 J**	**12**	**0.44 J**	ND
Ethylbenzene	5	ug/L	**1,300**	42 U	**4.1 J**	**4.8 [4.8 J]**	**3.8**	**3.5 J**	**1.9**	**8.6 J**	ND	ND
Xylenes (total)	5	ug/L	**5,200**	ND	**13**	**5.9 [6.0 J]**	**9.0**	ND	**0.91 J**	**20**	ND	ND
Methyl tert-butyl ether	10	ug/L	**25,000**	**640**	**960**	**840 [830]**	**450**	**490**	**850**	**2,800**	**55**	**20**
Naphthalene	10	ug/L	**690**	**41**	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	NA	NA	ND	ND [ND]	ND	NA	ND	ND	**1.7**	**2.9**
1,1-Dichloroethene	5	ug/L	NA	NA	**17**	ND [ND]	ND	**13**	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	**300**	ND	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	7	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	**3,300**	**1,300 [1,300]**	**13**	**6,200**	**28**	**1,200**	ND	ND
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m&p-Xylene	- -	ug/L	**4,500**	ND	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	NA	NA	**32**	ND [ND]	ND	ND	ND	**5.1 J**	ND	ND
n-Butylbenzene	- -	ug/L	ND	**11**	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	**720**	ND	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Location ID: / Sample Depth(Feet): / Date Collected:	NYSDEC TOGS 1.1.1 Water Guidance Values	Units	TP-14 - - 09/09/96	TP-15 - - 04/26/97	TW-01 - - 03/15/04	TW-02 - - 03/15/04	TW-03 - - 03/16/04	TW-04 - - 03/15/04	TW-05 - - 03/16/04	TW-06 - - 03/15/04	TW-07 - - 03/16/04	TW-08 - - 03/16/04
Volatile Organics (Cont.)												
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butyl alcohol	- -	ug/L	NA	NA	**1,400**	**820 [810]**	**870**	**1,400**	**1,100**	**4,600**	**580**	**450**
Tetrachloroethene	5	ug/L	NA	NA	ND	ND [ND]	ND	ND	ND	ND	ND	ND
Total VOCs	- -	ug/L	**33,000**	**1,200**	**9,600**	**3,100 [3,100]**	**1,400**	**8,100**	**2,100**	**17,000**	**640**	**470**
trans-1,2-Dichloroethene	5	ug/L	NA	NA	**30**	**16 [15]**	**0.86 J**	**38**	**1.7**	**25**	ND	ND
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	NA	NA	**3,500**	**24 [25]**	ND	**6.4 J**	**21**	**7,800**	ND	ND
Trichlorofluoromethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	**370**	**110 [120]**	**46**	**33**	**81**	**71**	ND	ND
Semivolatile Organics												
Naphthalene	10	ug/L	**390**	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	250,000	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	0.4	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PheNAnthrene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total SVOCs	- -	ug/L	**390**	NA	NA	NA	NA	NA	NA	NA	NA	NA
General Chemistry												
Chloride	250	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH												
Total Petroleum Hydrocarbons	- -	ug/L	**11,000**	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 47.

Table H-1
Summary of Groundwater Sample Analytical Results

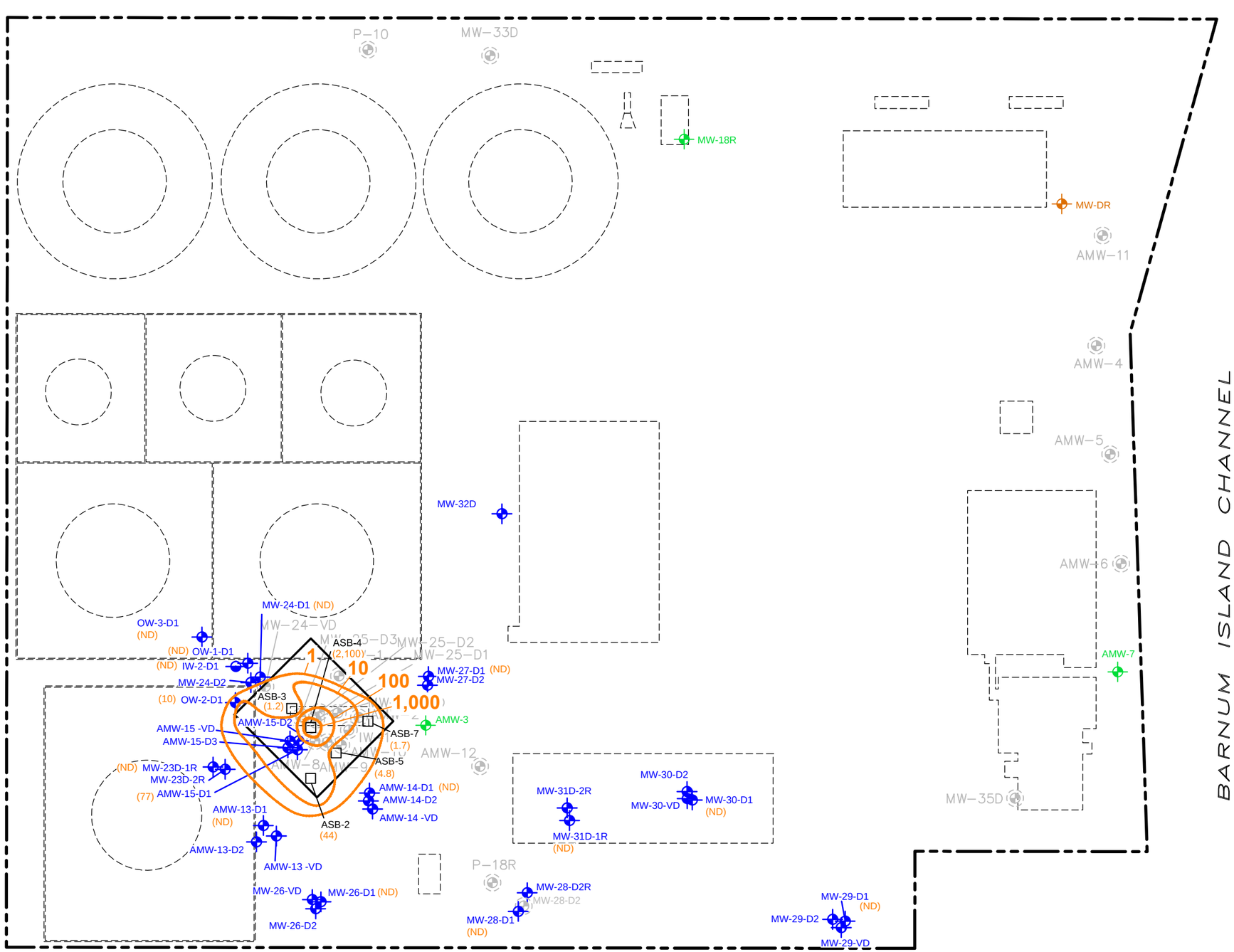
Remedial Investigation Report
Former Gulf Oil Terminal
Oceanside, Town of Hempstead, NY

Notes:

1. Results compared to NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   Gray font = not detected. Bold font = detected. Bold font with Gray shading = Result detected above NYSDEC TOGS 1.1.1.
4. Abbreviations:
   - - = NYSDEC TOGS 1.1.1 not available.
   ug/L = micrograms per Liter.
   NA = Not analyzed.
   ND = Not detected.
   NYSDEC = New York State Department of Environmental Conservation.
   TOGS 1.1.1 = NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values.
   USEPA = United States Environmental Protection Agency.
   VOC = Volatile Organic Compounds.
   SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   J = Estimated value. Result is greater than the RL but less than the MDL.
   U = Analyte not detected at listed reporting detection limit.

APPENDIX I

Isoconcentration Contour Maps



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- GRAB GROUNDWATER SAMPLE LOCATION
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) TRICHLOROETHENE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 TRICHLOROETHENE (TCE) CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60’ 120’

GRAPHIC SCALE

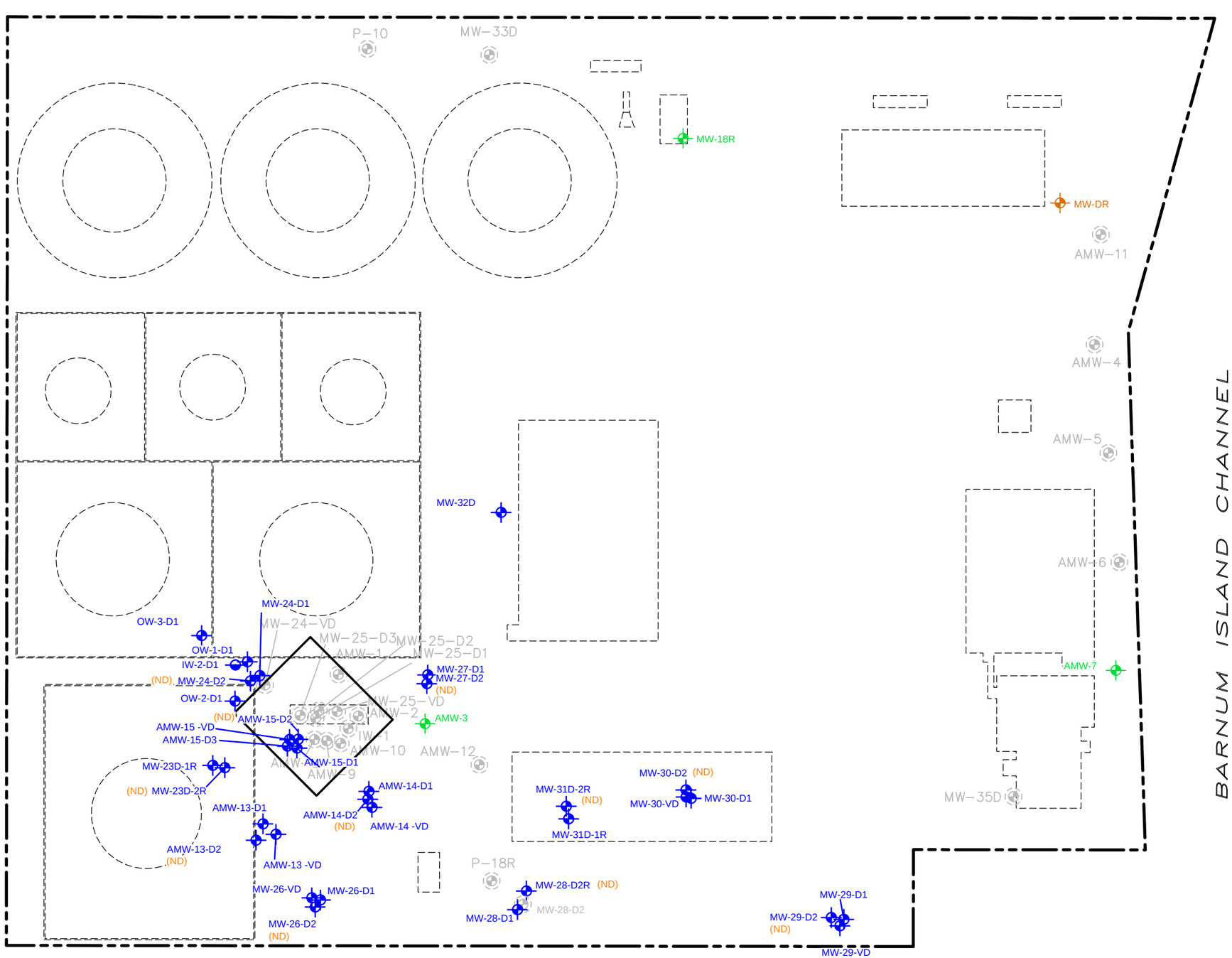
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TCE CONCENTRATIONS IN GROUNDWATER - D1 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-1

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000010\DWG\47517W09.DWG LAYOUT: I-1 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01 IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) TRICHLOROETHENE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 TRICHLOROETHENE (TCE) CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

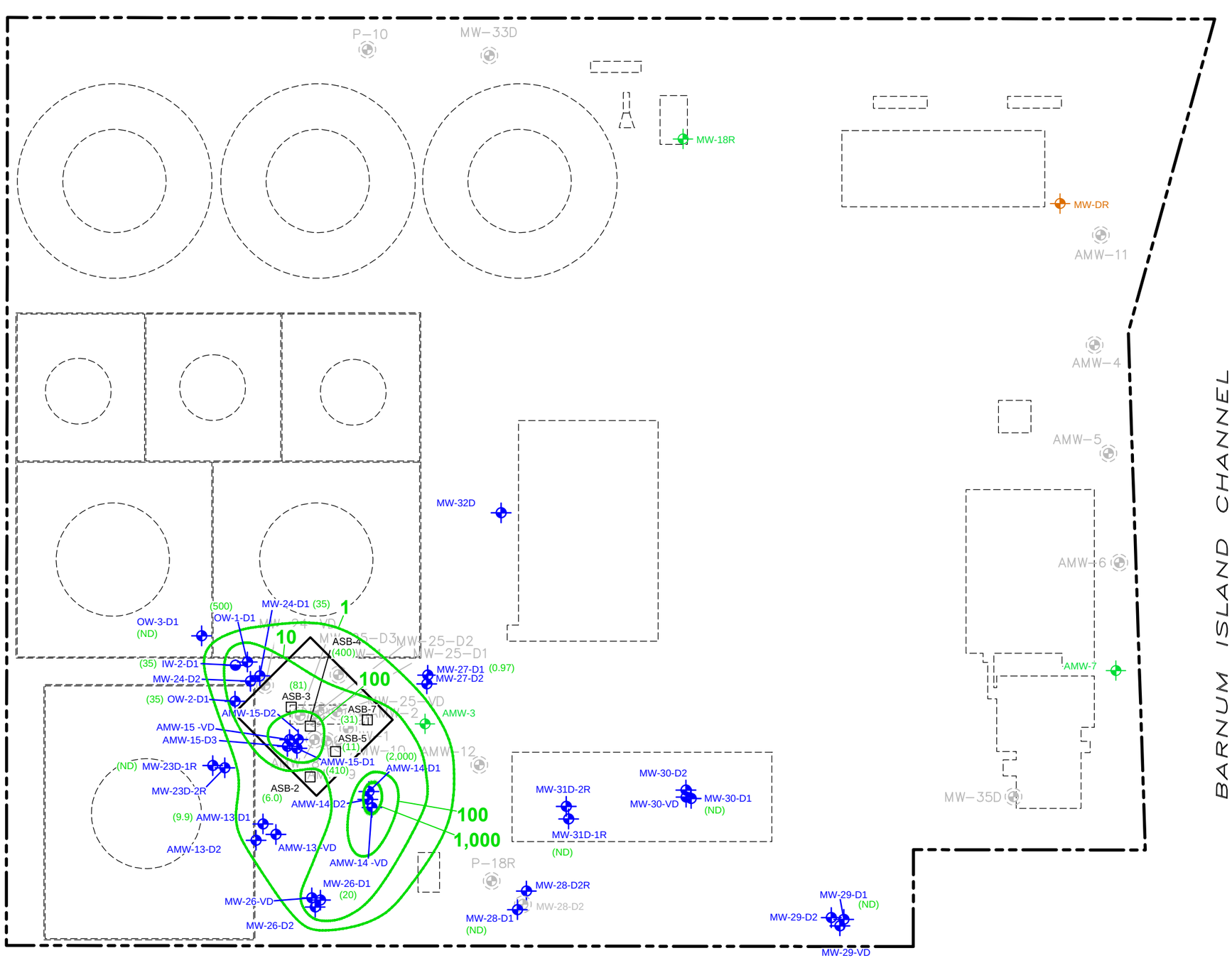
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

TCE CONCENTRATIONS IN GROUNDWATER - D2 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-2

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W10.DWG LAYOUT: I-2 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- GRAB GROUNDWATER SAMPLE LOCATION
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) VINYL CHLORIDE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 VINYL CHLORIDE (VCO CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

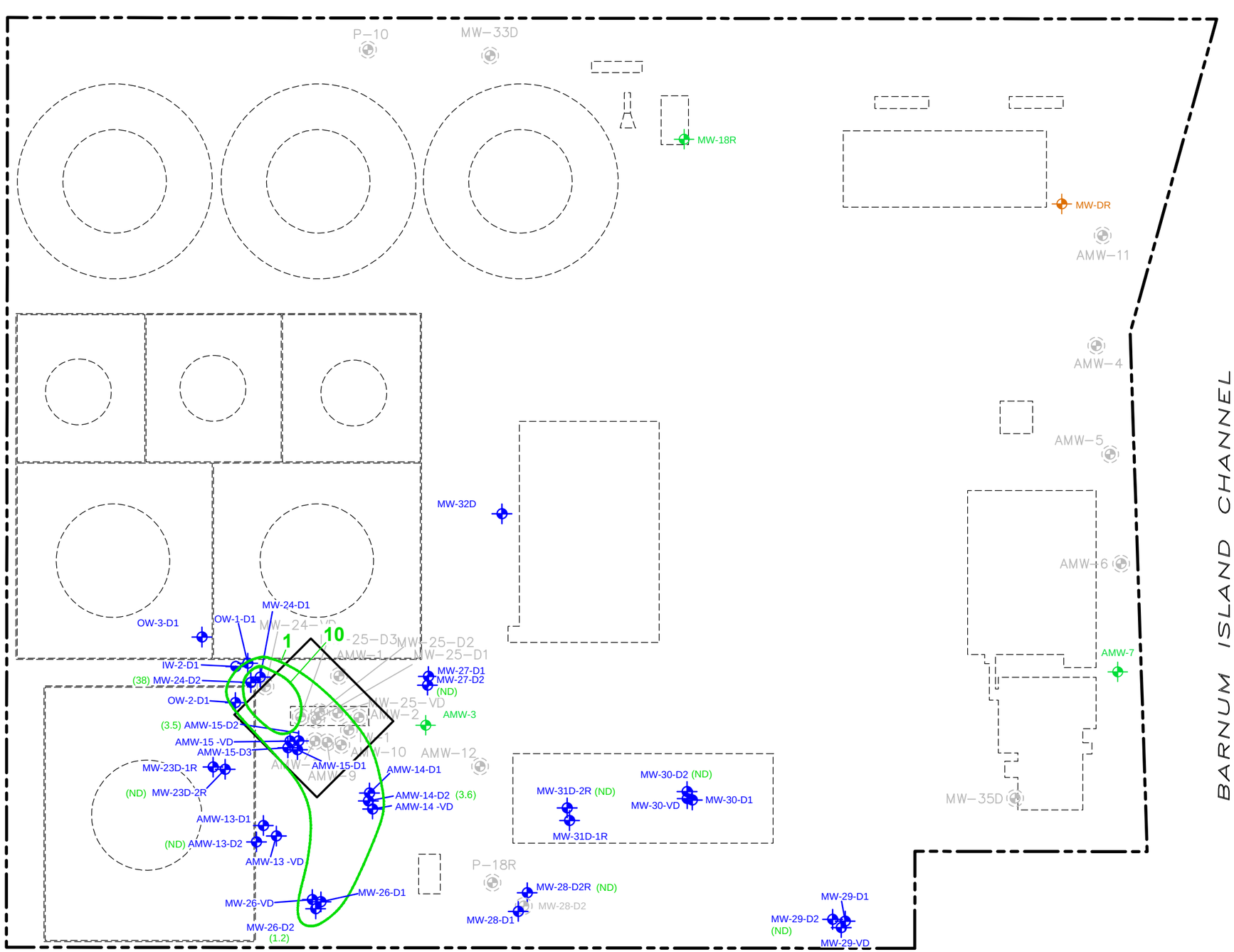
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER - D1 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE I-3

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000\01\DWG\47517W11.DWG LAYOUT: I-3 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01 IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) VINYL CHLORIDE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 VINYL CHLORIDE (VC) CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

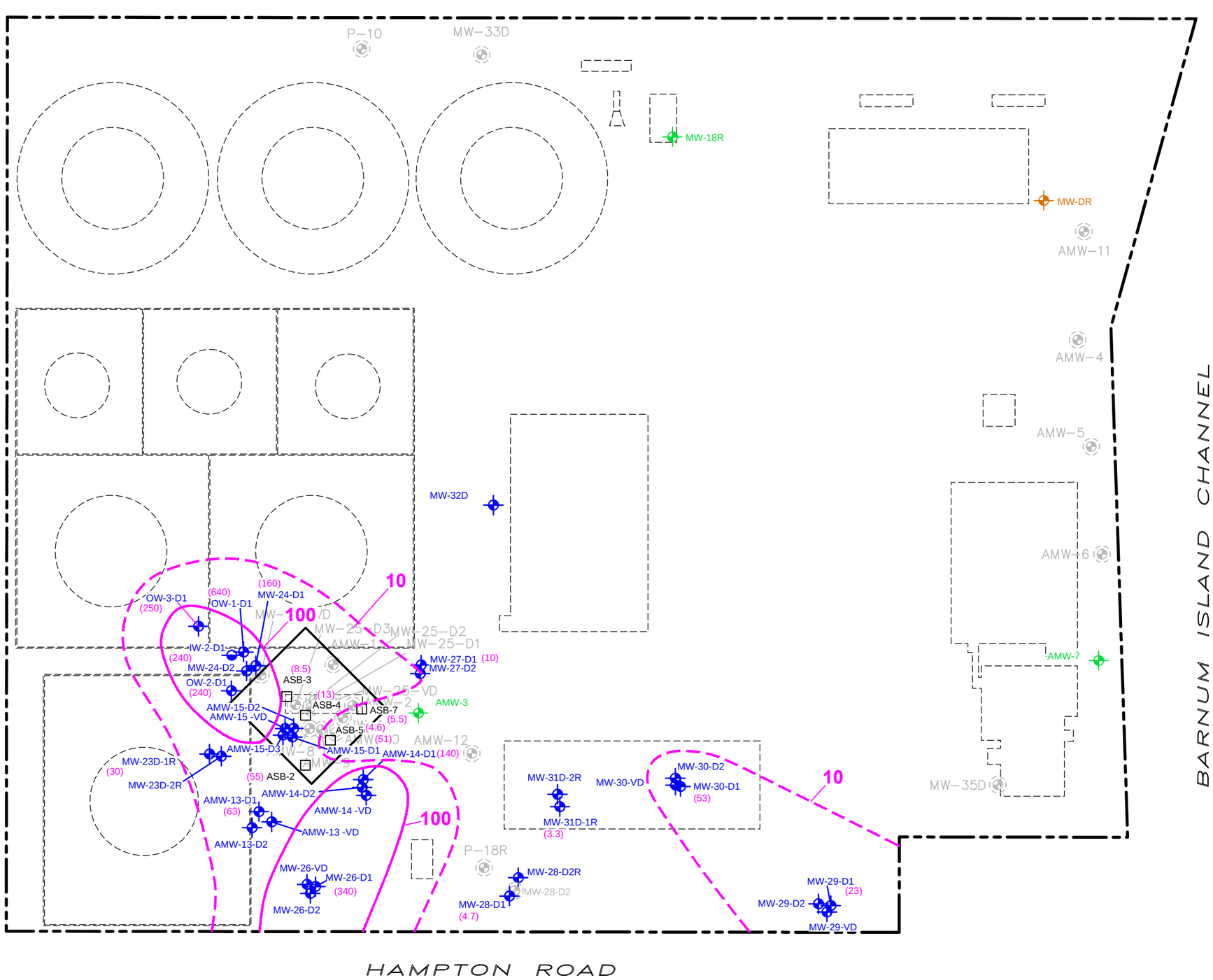
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

VINYL CHLORIDE CONCENTRATIONS IN GROUNDWATER - D2 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-4

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W12.DWG LAYOUT: I-4 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: IMAGES:
47517XBL
47517X01



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- GRAB GROUNDWATER SAMPLE LOCATION
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) MTBE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 MTBE CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

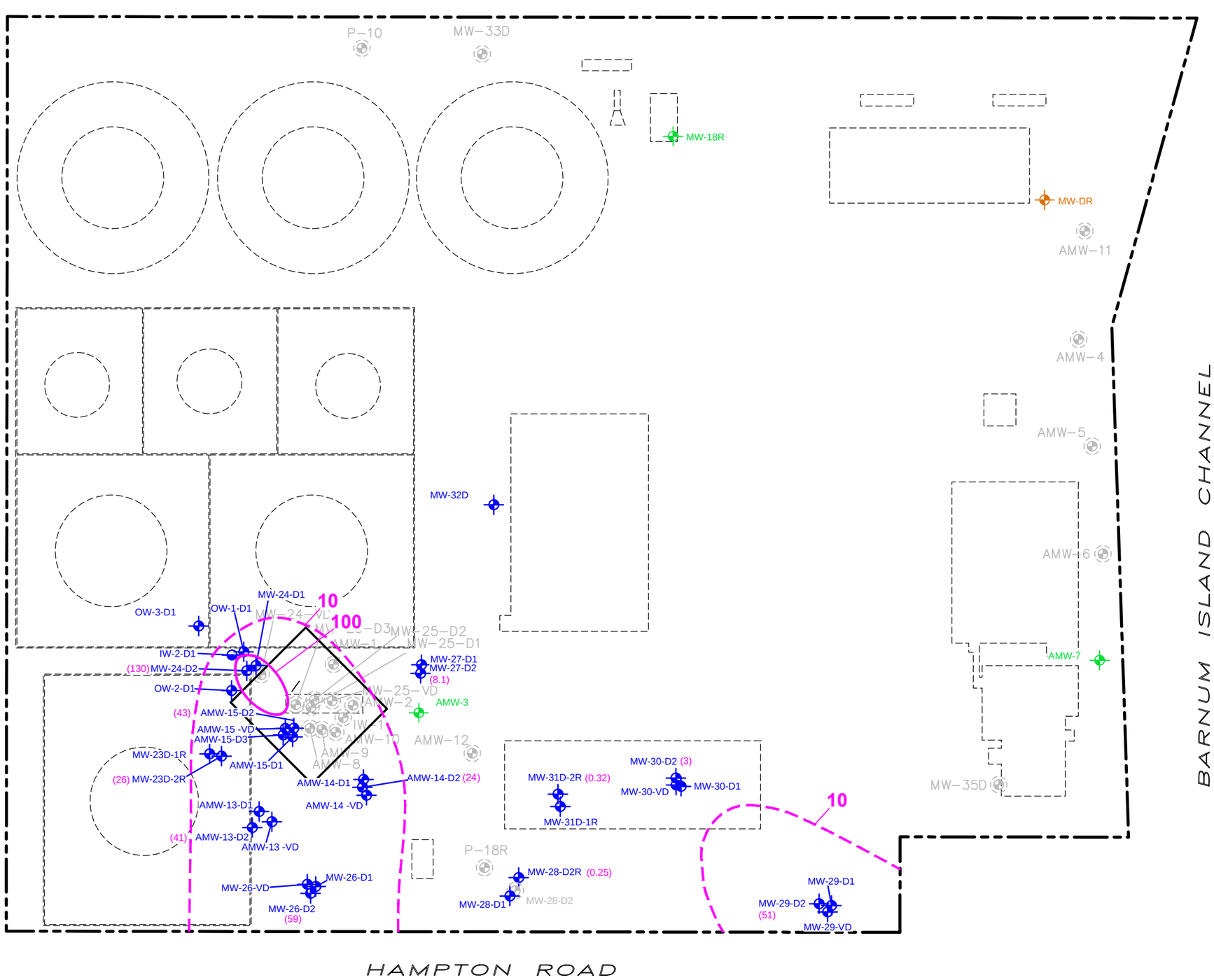
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE CONCENTRATIONS IN GROUNDWATER - D1 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-5

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000010\DWG\47517W13.DWG LAYOUT: I-5 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01
IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) MTBE CONCENTRATION ug/L (ND = NOT DETECTED)
- 1 MTBE CONCENTRATION CONTOUR

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

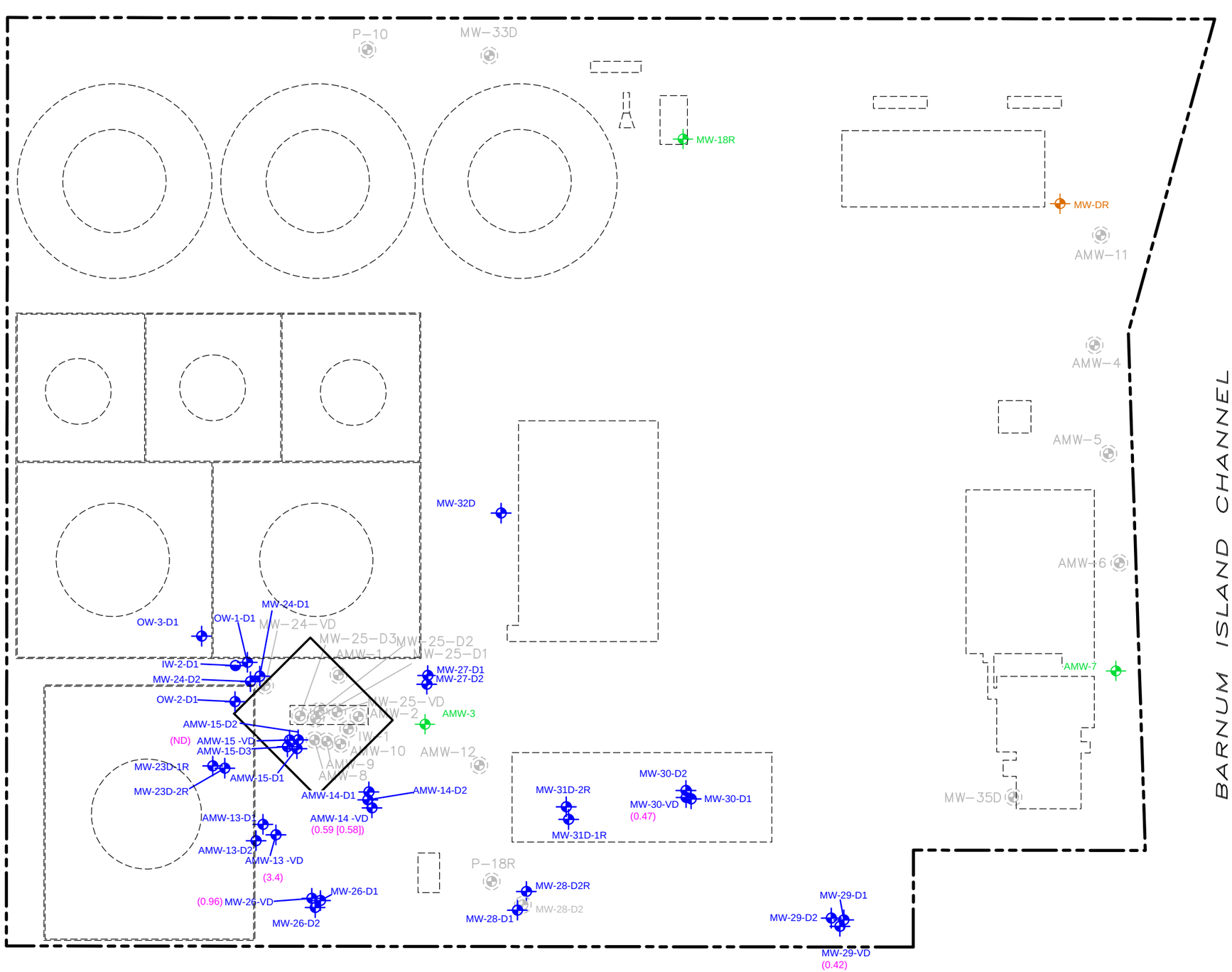
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE CONCENTRATIONS IN GROUNDWATER - D2 HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-6

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*;OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000010\DWG\47517W14.DWG LAYOUT: I-6 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01 IMAGES:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- LIMITS OF EXCAVATION
- HISTORICAL SITE FEATURE
- (4.8) MTBE CONCENTRATION ug/L (ND = NOT DETECTED)

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.

0 60' 120'

GRAPHIC SCALE

GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

MTBE CONCENTRATIONS IN GROUNDWATER - VD HORIZON - 2016

ARCADIS Design & Consultancy for natural and built assets

FIGURE
I-7

CITY: SYRACUSE, NY DIVGROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
C:\ENVCAD\SYRACUSE\ACTIB\0047517\0023000001\DWG\47517W15.DWG LAYOUT: I-7 SAVED: 12/12/2016 10:43 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C:\LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 12/12/2016 10:48 PM BY: STOWELL, GARY
XREFS: 47517XBL 47517X01 IMAGES:

Arcadis U.S., Inc.

6723 Towpath Road

P.O. Box 66

Syracuse, New York 13214-0066

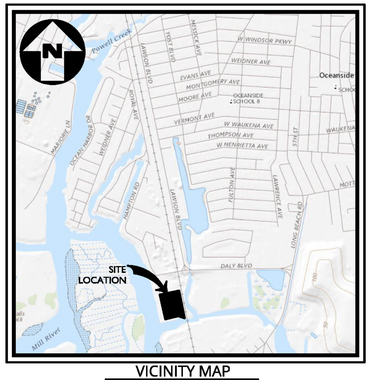
Tel 315 446 9120

Fax 315 449 0017

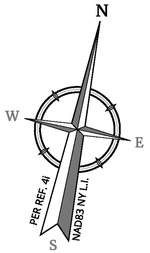
www.arcadis.com

APPENDIX D

Site Boundary Survey and Metes and Bounds



VICINITY MAP
U.S.G.S. QUANDRANGLE MAP
LAWRENCE, NY - PANEL
SCALE: N.T.S.



INFORMATION OF FACT

1. THIS SURVEY AND PLAN IS BASED UPON THE FOLLOWING DATA AND/OR EXCEPTIONS:

	YES	NO	ITEM
a.) OWNER	X		KLEIN COSTCO, LLC; LANDMARK OCEANSIDE, LLC; GATE OCEANSIDE, LLC; 2066 EAST-WEST, LLC; 330 OCEANSIDE, LLC; DA OCEANSIDE, LLC;
b.) DEED OF RECORD	X		DB 13883, PG 743, recorded 12/5/2019 DB 13213, PG 711, recorded 5/28/2015 DB 13840, PG 589, recorded 7/19/2019
c.) FIELD SURVEY	X		JUNE SEPT. 2017, UPDATED APRIL 4, 2023
d.) FILED MAP	X		SEE REFERENCE NOTE 4g & 4h.
e.) TAX MAP	X		SHEET 1 OF 1, SECTION 43, BLOCK 400, LAST REVISED 10/6/2020
f.) TITLE REPORT	X		SEE NOTE #5
g.) OTHER (SEE REFERENCES)	X		SEE NOTE #4

CERTIFIED TO : ARCADIS

2. PROPERTY BEING KNOWN AND DESIGNATED AS TAX LOT 502 & A PORTION OF TAX LOT 720 IN BLOCK 400 IN SECTION 43 AS SHOWN ON SHEET No. 1 OF 1 OF THE CURRENT OFFICIAL LAND & TAX MAP OF NASSAU COUNTY DEPARTMENT OF ASSESSMENT, DATED OCTOBER 6, 2020. PROPERTY BEING LOCATED AT 3705 HAMPTON ROAD, TOWN OF HEMPSTEAD, NASSAU COUNTY, STATE OF NEW YORK.

AREAS:
PARCEL IV (TAX LOT 502) = 42,000 S.F., 0.964 AC.
PARCEL V (TAX LOT 720) = 276,692 S.F., 6.352 AC.
TOTAL AREA= 318,692 S.F., 7.316 AC.

3. THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THOSE FACTS OR FINDINGS WHICH ARE THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE, INFORMATION, AND BELIEF, AND IN ACCORDANCE WITH THE COMMONLY ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE EITHER EXPRESSED OR IMPLIED.

4. REFERENCES
a. A MAP ENTITLED: "EXISTING CONDITIONS SURVEY, HAMPTON ROAD & DALY BOULEVARD OCEANSIDE SITE, COSTCO WHOLESALE CORP. HEMPSTEAD TAX ID: 43-400-202 THRU 207 43-400-709 / 43-400-712 & 713 43-400-501 THRU 504 / 43-400-646, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING, P.A., DATED DEC. 19, 2014 AND REVISED THROUGH APRIL 15, 2015.
b. A MAP ENTITLED: "FINAL AS-BUILT HAMPTON ROAD & DALY BOULEVARD- OCEANSIDE SITE, COSTCO WHOLESALE CORP. HEMPSTEAD TAX ID: 43-400-202 THRU 207 43-400-709 / 43-400-712 & 713 43-400-501 THRU 504 / 43-400-646, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING, P.A., DATED AUGUST 4, 2017 AND REVISED THROUGH SEPT. 15, 2017.
c. A MAP ENTITLED, "R.O.W. DEDICATION EXHIBIT FOR COSTCO WHOLESALE CORP., HEMPSTEAD TAX ID: 43-400 713, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK" PREPARED BY MASER CONSULTING, P.A. DATED MARCH 25, 2015 & REVISED THROUGH JUNE 29, 2015.
d. A MAP ENTITLED, "PROPOSED PORTION OF INDUSTRIAL PLACE TO BE VACATED EXHIBIT, COSTCO WHOLESALE, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING, P.A., DATED MARCH 17, 2014.
e. A MAP ENTITLED, "UTILITY PLAN FOR COSTCO WHOLESALE, OCEANSIDE NEW YORK, TOWN OF HEMPSTEAD" PREPARED BY MASER CONSULTING, P.A. DATED MARCH 18, 2014.
f. A MAP ENTITLED, "COSTCO HAMPTON ROAD, OCEANSIDE NY, EXHIBIT A, PROPOSED 16" MAIN INSTALLATION" PREPARED BY NEW YORK AMERICAN WATER.
g. A MAP ENTITLED, "MAP SHOWING PROPERTY OF OCEANSIDE INVESTING AND INDUSTRIAL CORP., OCEANSIDE, NASSAU CO., N.Y." PREPARED BY LEROY A. BEACH, DATED FEBRUARY 4, 1929.
h. MAP No. 18 OF OCEANSIDE BEACH, OCEANSIDE, NASSAU, N.Y. CONTROLLING REALTY CORP., PREPARED BY LEROY A. BEACH, DATED OCTOBER 22, 1927 AND FILED IN THE NASSAU COUNTY CLERK'S OFFICE AS MAP No. 915.
i. A MAP ENTITLED, "ALTA/NSPS LAND TITLE SURVEY, SECTION 43, BLOCK 400, TAX LOTS 202-207, 501-504, 709, 712, 713 & 720, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING P.A., DATED OCTOBER 14, 2019 AND REVISED THROUGH OCTOBER 31, 2019.

5. SCHEDULE BII - EXCEPTIONS (PREVIOUSLY SHOWN ON MAP REF 4I AS PER TITLE COMMITMENT FILE NO. FN-13467-NY, EFFECTIVE JULY 22, 2019, AMEDED 8/7/19):

5 TERMS, COVENANTS, RESTRICTIONS AND RESERVATIONS OF UTILITY EASEMENTS RECITED IN DEEDS MADE BY OCEANSIDE INVESTING AND INDUSTRIAL CORP. TO MARIA C. BALDWIN, DATED 2/18/1930 RECORDED 2/27/1930 IN LIBER 1493 CP. 450. (AFFECTS P/O PARCEL V AND IS BLANKET IN NATURE, UNPLOTTABLE)

7 UTILITY POLE EASEMENT AGREEMENT MADE BETWEEN ESSO STANDARD OIL COMPANY AND LONG ISLAND LIGHTING COMPANY, DATED 8/8/1955 AND RECORDED ON 12/20/1955 IN LIBER 5937 CP. (AFFECTS P/O PARCEL I, SHOWN)

10 DECLARATION OF RESTRICTIVE COVENANTS BY COREMARK GROUP HOLDINGS, LLC AND COSTCO WHOLESALE CORPORATION, DATED 12/10/2014 AND RECORDED ON 2/4/2015 IN LIBER 13174 CP. 775. (REFERS TO A SPECIAL USE PERMIT AND ASSOCIATE RESTRICTIONS. (AFFECTS PARCELS I - V (LOTS 202 - 207, 709, 712, 713, 501 - 504) AND 646; HOWEVER, IT IS ONLY INDEXED AGAINST PARCEL III AND PARCEL V & IS BLANKET IN NATURE)

11 TERMS, COVENANTS, CONDITIONS AND RESTRICTIONS RECITED IN DEED FROM GULF OIL LIMITED PARTNERSHIP TO COREMARK GROUP HOLDINGS, LLC, DATED 5/11/2015 AND RECORDED ON 5/28/2015 IN LIBER 13213 PAGE 711. (AFFECTS PARCELS III, IV & V & IS BLANKET IN NATURE)

16 TERMS, COVENANTS, CONDITIONS AND AGREEMENTS CONTAINED IN A LEASE MADE BY AND BETWEEN COREMARK GROUP HOLDINGS, LLC, LESSOR, AND COSTCO WHOLESALE CORPORATION, LESSEE. A MEMORANDUM OF WHICH DATED AS OF 5/11/2015 WAS RECORDED ON 5/28/2015 IN (AS) LIBER 13213 PAGE 721. (AFFECTS PARCELS I, II, III, IV & V & IS BLANKET IN NATURE)

17 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NOTICE, DATED SEPTEMBER 9, 2008, AFFECTING LOTS 502 THROUGH 504 (PARCELS III, IV AND V), CONTROL NUMBER 1168. (AFFECTS PARCELS III, IV & V & IS BLANKET IN NATURE)

27 RIGHTS OF THE UNITED STATES GOVERNMENT TO ESTABLISH HARBOR, BULKHEAD OR PIERHEAD LINES OR TO CHANGE OR ALTER ANY SUCH EXISTING LINES AND TO REMOVE OR COMPEL THE REMOVAL OF FILL AND IMPROVEMENTS THEREON INCLUDING BUILDINGS OR OTHER STRUCTURES, FROM LAND NOW OR FORMERLY LYING BELOW THE HIGH WATER MARK OF BARNUM ISLAND CHANNEL WITHOUT COMPENSATION TO THE INSURED. (AFFECTS PARCEL VI (LOT 720).)

28 RIGHTS OF THE UNITED STATES GOVERNMENT, THE STATE OF NEW YORK AND TOWN OF HEMPSTEAD, OR ANY OF THEIR DEPARTMENTS OR AGENCIES TO REGULATE AND CONTROL THE USE OF THE PIERS, BULKHEADS, LAND UNDER WATER AND LAND ADJACENT THERETO. (AFFECTS PARCEL VI (LOT 720).)

29 RIPARIAN RIGHTS AND EASEMENTS OF OTHERS OVER THE WATER OF BARNUM ISLAND CHANNEL. HOWEVER, THE POLICY DOES NOT INSURE ANY RIPARIAN RIGHTS OR EASEMENTS IN FAVOR OF THE OWNER OF THE PREMISES HEREIN. (AFFECTS PARCEL VI (LOT 720).)

6. THE LOCATION OF SITE FEATURES & UTILITIES AS SHOWN HEREON ARE BASED ON MAP REFERENCE 4I. PER CONTRACTUAL AGREEMENT, NO ADDITIONAL FIELD INVESTIGATION WAS PERFORMED REGARDING UNDERGROUND UTILITIES AS PART OF THIS SURVEY.

7. THE HORIZONTAL POSITION OF THIS SURVEY IS BASED ON MAP REFERENCED IN NOTE 4I.

8. WETLANDS / TOXIC WASTE:
THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OR NONEXISTENCE OF WETLANDS AND/OR TOXIC WASTES. THEREFORE IT SHOULD NOT BE ASSUMED OR CONSTRUED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EVIDENCE OF WETLANDS OR TOXIC WASTES IS PORTRAYED HEREON. IT IS IN THE BEST INTEREST OF THE CLIENT TO PURSUE THESE MATTERS AS SEPARATE CONCERNS APART FROM THIS SURVEY.

9. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT, THEREFORE THIS SURVEY IS SUBJECT TO ANY RIGHTS, RESTRICTIONS, EASEMENTS OR COVENANTS WHICH A CURRENT OR ACCURATE TITLE REPORT WOULD DISCLOSE.

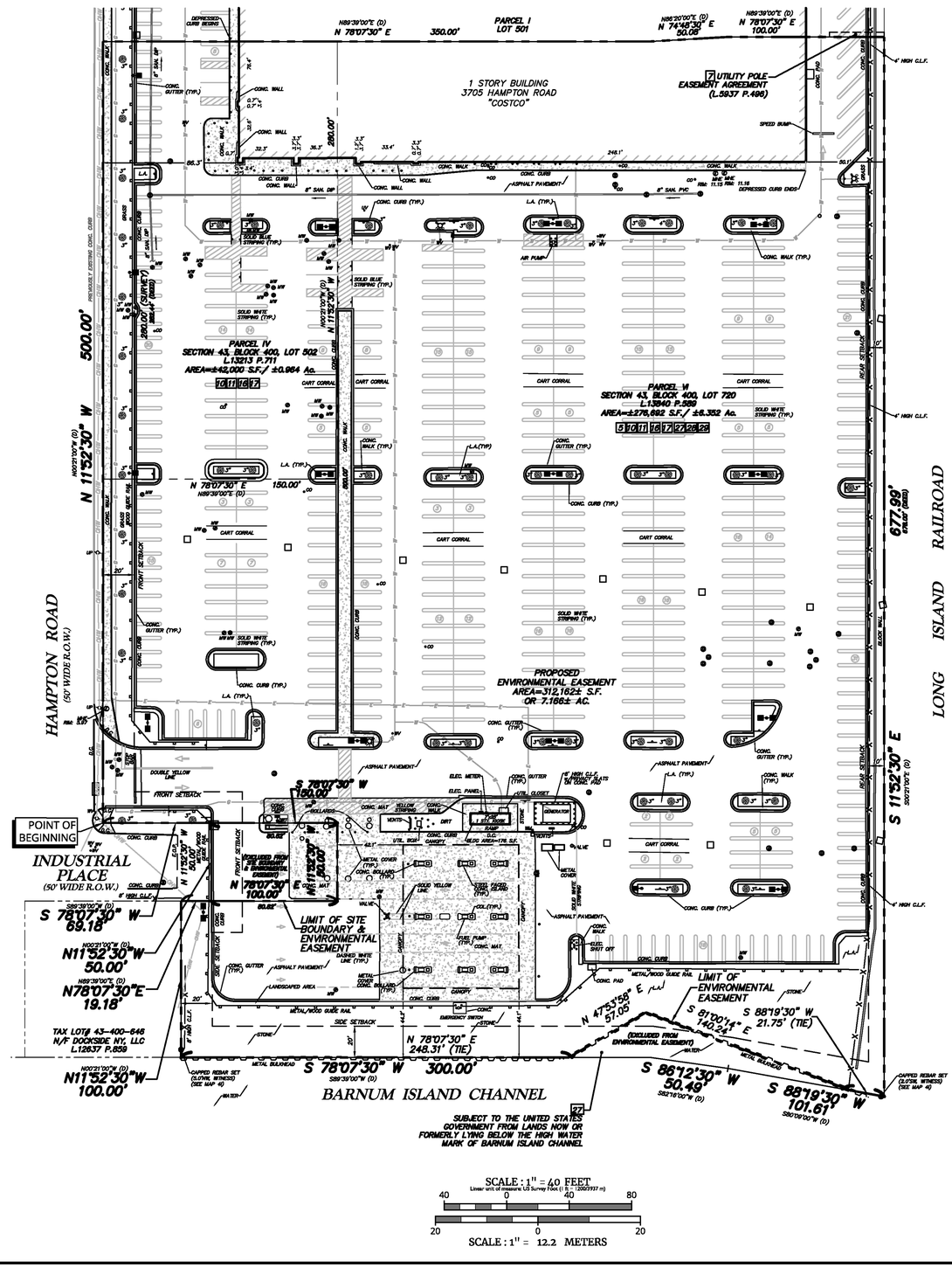
10. DO NOT USE DISTANCES TO FOUNDATION TO ESTABLISH PROPERTY LINES.

11. FLOOD ZONE:
THE SITE IS LOCATED WITHIN ZONES AE (ELEV 9) & AE (ELEV 10) - BASE FLOOD ELEVATIONS DETERMINED, AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR THE TOWN OF HEMPSTEAD, NASSAU COUNTY, NY, COMMUNITY PANEL NUMBER 36059C0307G, EFFECTIVE DATE SEPTEMBER 11, 2009, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
NOTE: PER LETTER OF MAP REVISION BASED ON FILE LOMR-FI DETERMINATION DOCUMENT, CASE NO. 17 02-2146A, DATED 11/08/17, IT WAS DETERMINED THAT THE FUEL KIOSK AT THE GAS STATION AREA HAS BEEN REMOVED FROM FLOOD ZONE AE, BFE = 9 FT., AND MOVE TO FLOOD ZONE X.
IN ADDITION, THE FINISH FLOOR FOR THE WAREHOUSE WAS OBSERVED AT ELEVATION ±11.5, WHICH IS FOUND TO BE ABOVE THE BFE OF 10'.

PARCEL ID NOTE:

PARCEL I = LOTS 202 207, 501 & 709
PARCEL II = LOTS 712& 713
PARCEL III = LOT 504
PARCEL IV = LOT 502
PARCEL V = LOT 503
PARCEL VI = VACATED PORTION OF INDUSTRIAL PLACE & LOT 720

PARCEL NUMBERS LISTED ABOVE ARE BASED ON "SOURCE OF TITLE" INFORMATION PER SCHEDULE A OF TITLE REPORT FN-13467-NY, EFFECTIVE DATE 7/22/2019.



SITE BOUNDARY DESCRIPTION:

ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN THE TOWN OF HEMPSTEAD, THE COUNTY OF NASSAU, AND THE STATE OF NEW YORK, AND BEING ALL OF LOT 502, BLOCK 400 AND A PORTION OF LOT 720, IN BLOCK 400, SECTION 43 AS SHOWN ON THE CURRENT OFFICIAL TAX MAP OF THE TOWN OF HEMPSTEAD, NASSAU COUNTY, LAST REVISED OCTOBER 6, 2020, AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT OF INTERSECTION FORMED BY THE NORTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.) WITH THE EASTERLY LINE OF HAMPTON ROAD (50' WIDE R.O.W.), AND FROM SAID POINT OF BEGINNING, RUNNING, THENCE -

1. N 11°52'30" W 500.00 FEET, ALONG THE EASTERLY LINE OF HAMPTON ROAD TO A POINT WHERE THE SAME IS INTERSECTED BY THE NORTHERLY LINE OF LOT 502, BLOCK 400; THENCE -

ALONG THE SAID NORTHERLY LINE OF LOTS 502 AND 720, BLOCK 400 THE FOLLOWING THREE (3) COURSES;

2. N 78°07'30" E 350.00 FEET, THENCE -
3. N 74°48'30" E 50.08 FEET, THENCE -
4. N 78°07'30" E 100.00 FEET, TO THE EASTERLY LINE OF SAID LOT 720, THENCE -
5. S 11°52'30" E 677.99 FEET, ALONG SAID EASTERLY LINE OF SAID LOT 720, TO THE SOUTHERLY LINE OF SAID LOT 720, THENCE -

RUNNING ALONG THE SOUTHERLY LINE OF SAID LOT 720 THE FOLLOWING THREE (3) COURSES:

6. S 88° 19' 30" W 101.61 FEET, THENCE -
7. S 86° 12' 30" W 50.49 FEET, THENCE -
8. S 78° 07' 30" W 300.00 FEET, TO A POINT ON THE LINE DIVIDING LOTS 646 AND 720, BLOCK 400, THENCE -
9. N 11°52'30" W 100.00 FEET, ALONG THE SAID DIVIDING LINE, TO A POINT ON THE SOUTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.), THENCE -
10. N 78° 07' 30" E, 100.00 FEET, ALONG THE SAID SOUTHERLY LINE OF INDUSTRIAL PLACE AND BEYOND, THROUGH A PORTION OF LOT 720, BLOCK 400, THENCE -
11. N 11° 52' 30" W, 50.00 FEET, TO THE NORTHEASTWARD EXTENSION OF THE NORTHERLY LINE OF SAID INDUSTRIAL PLACE, THENCE -
12. S 78° 07' 30" W, 150.00 FEET, ALONG THE SAID NORTHEASTWARD EXTENSION, AND BEYOND, ALONG THE SAID NORTHERLY LINE OF INDUSTRIAL PLACE TO THE POINT AND PLACE OF BEGINNING.

CONTAINING: ±314,651 SQUARE FEET OF LAND MORE OR LESS OR ±7.223 ACRES OF LAND MORE OR LESS.

ENVIRONMENTAL EASEMENT DESCRIPTION (CONTROLLED PROPERTY):

ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN THE TOWN OF HEMPSTEAD, THE COUNTY OF NASSAU, AND THE STATE OF NEW YORK, AND BEING AN ENVIRONMENTAL EASEMENT ENCOMPASSING ALL OF LOT 502, BLOCK 400 AND A PORTION OF LOT 720, IN BLOCK 400, SECTION 43 AS SHOWN ON THE CURRENT OFFICIAL TAX MAP OF THE TOWN OF HEMPSTEAD, NASSAU COUNTY, LAST REVISED OCTOBER 6, 2020, AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT OF INTERSECTION FORMED BY THE NORTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.) WITH THE EASTERLY LINE OF HAMPTON ROAD (50' WIDE R.O.W.), AND FROM SAID POINT OF BEGINNING, RUNNING, THENCE -

1. N 11°52'30" W 500.00 FEET, ALONG THE EASTERLY LINE OF HAMPTON ROAD TO A POINT WHERE THE SAME IS INTERSECTED BY THE NORTHERLY LINE OF LOT 502, BLOCK 400; THENCE -

ALONG THE SAID NORTHERLY LINE OF LOTS 502 AND 720, BLOCK 400 THE FOLLOWING THREE (3) COURSES;

2. N 78°07'30" E 350.00 FEET, THENCE -
3. N 74°48'30" E 50.08 FEET, THENCE -
4. N 78°07'30" E 100.00 FEET, TO THE EASTERLY LINE OF SAID LOT 720, THENCE -
5. S 11°52'30" E 677.99 FEET, ALONG SAID EASTERLY LINE OF SAID LOT 720, TO THE SOUTHERLY LINE OF SAID LOT 720, THENCE -
6. S 88° 19' 30" W 21.75 FEET, ALONG THE SOUTHERLY LINE OF SAID LOT 720, THENCE -

RUNNING THROUGH SAID LOT 720, AND ALONG A METAL BULKHEAD THE FOLLOWING TWO (2) COURSES:

7. S 81° 00' 14" E 140.24 FEET, THENCE -
8. N 47° 53' 58" E 57.05 FEET, TO THE AFORESAID SOUTHERLY LINE OF LOT 720, THENCE -
9. S 78° 07' 30" W 248.31 FEET, TO A POINT ON THE LINE DIVIDING LOTS 646 AND 720, BLOCK 400, THENCE -
10. N 11°52'30" W 100.00 FEET, ALONG THE SAID DIVIDING LINE, TO A POINT ON THE SOUTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.), THENCE -
11. N 78° 07' 30" E, 100.00 FEET, ALONG THE SAID SOUTHERLY LINE OF INDUSTRIAL PLACE AND BEYOND, THROUGH A PORTION OF LOT 720, BLOCK 400, THENCE -
12. N 11° 52' 30" W, 50.00 FEET, TO THE NORTHEASTWARD EXTENSION OF THE NORTHERLY LINE OF SAID INDUSTRIAL PLACE, THENCE -
13. S 78° 07' 30" W, 150.00 FEET, ALONG THE SAID NORTHEASTWARD EXTENSION, AND BEYOND, ALONG THE SAID NORTHERLY LINE OF INDUSTRIAL PLACE TO THE POINT AND PLACE OF BEGINNING.

CONTAINING: ±312,162 SQUARE FEET OF LAND MORE OR LESS OR ±7.166 ACRES OF LAND MORE OR LESS.

LEGEND

- TRAVERSE LINE, CENTER LINE OR BASELINE (12+00 TL PI 13+00)
- RIGHT OF WAY LINE
- SITE BOUNDARY LINE
- ENVIRONMENTAL EASEMENT LINE
- SITE BOUNDARY LINE AND ENVIRONMENTAL EASEMENT LINE
- EDGE OF PAVEMENT
- CURB LINE (FACE / BACK)
- DEPRESSED CURB
- CHAIN FENCE
- WETLAND LINE
- MUNICIPAL BOUNDARY
- TREELINE
- ELECTRICAL MANHOLE
- WATER MANHOLE
- TELEPHONE MANHOLE
- UNMARKED MANHOLE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- U/G CABLE TV LINE
- U/G FIBER OPTIC LINE
- U/G TELEPHONE LINE
- U/G ELECTRIC LINE
- OVERHEAD WIRE
- WATER MAIN
- GAS MAIN
- SAN. SEWER LATERAL
- SAN. SEWER MAIN
- STORM PIPE
- WETLAND MARKER
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- MAILBOX
- TRAFFIC SIGNAL POLE
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- TRANSFORMER
- FIRE DEPT. CONNECTION
- FIRE HYDRANT
- WATER VALVE
- GAS VALVE
- SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- STORM INLET TYPE 'A'
- STORM INLET TYPE 'B'
- STM. DBL. INLET TYPE 'B'
- STORM INLET TYPE 'E'
- STM. DBL. INLET TYPE 'E'
- FLARED END SECTION
- HEADWALL

ABBREVIATIONS

D.C. = DEPRESSED CURB
BC = BOTTOM OF CURB
TC = TOP OF CURB
BOL = BOLLARD
GRT = GRATE
MB = MAILBOX
FF = FINISH FLOOR
UV = UNKNOWN VALVE
MH = MANHOLE
DEP. = DEPRESSED
CL = CENTERLINE
PM = PARKING METER
MHWL = MEAN HIGH WATERLINE
MLWL= MEAN LOW WATERLINE
TW = TOP OF WALL
BW = BOTTOM WALL

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

Colliers Engineering & Design
www.colliersengineering.com

Copyright © 2026, Colliers Engineering & Design A! Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

Doing Business as MASER CONSULTING

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
1	01/08/25	R.M.P.	REVISED TO ADD PROPOSED ENVIRONMENTAL EASEMENT.
2	01/14/25	R.M.P.	REVISED PER CLIENT'S COMMENTS.
3	01/29/25	B.S.B.	REVISED TO ADD METRIC SCALE BAR.
4	03/13/25	B.S.B.	REVERSED INDUSTRIAL PL. BEARINGS ON PLAN, ADDED PARCEL ID NOTE.
5	11/18/25	B.S.B.	TURNED OFF UNDERGROUND STORM LINES.
6	05/28/26	R.M.P.	REVISED PER CLIENT COMMENTS.
7	07/10/26	R.M.P.	REVISED PER ADDITIONAL CLIENT COMMENTS.
8	07/14/26	R.M.P.	REVISED PER ADDITIONAL CLIENT COMMENTS.
-	-	-	-
-	-	-	-

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Digitally signed by Glenn Lloyd
Date: 2026.07.14 09:39:15 -04'00'

GLENN T. LLOYD
NEW YORK LICENSED
LAND SURVEYOR - LICENSE NUMBER: 050492-1

BOUNDARY SURVEY
FOR
ARCADIS
"Chevron Facility 6518040"
SECTION 43
BLOCK 400
TAX LOT 502 &
A PORTION OF TAX LOT 720

TOWN OF HEMPSTEAD
NASSAU COUNTY
NEW YORK

Colliers Engineering & Design
HOLMDEL (Headquarters)
101 Crawfords Corner Road, Suite 3400
Holmdel, NJ 07733
Phone: 732.383.1950
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	4/14/23	TNM	BSB
PROJECT NUMBER:		DRAWING NAME:	
12000271D		V SURV ESMT 2	

SHEET TITLE:
BOUNDARY SURVEY

SHEET NUMBER:
1 of 1

2012\12000271D\5-survey\9-revit\V SURV ESMT 2.dwg(EASEMENT EXH-1) By: BPONZO

101 Crawfords Corner Road
Suite 3400
Holmdel, NJ 07733
Main: 877 627 3772

Colliers
Engineering & Design

DESCRIPTION OF PROPERTY
TOWN OF HEMPSTEAD
CITY OF LONG ISLAND
COUNTY OF NASSAU
STATE OF NEW YORK

BLOCK 400
LOT 502 AND PORTION OF LOT 720
PROJECT NO. 12000271D
SEPTEMBER 2, 2026

All that certain lot, tract or parcel of land situate, lying and being in the Town of Hempstead, the County of Nassau, and the State of New York, and being all of Lot 502, Block 400 and a portion of Lot 720, in Block 400, Section 43 as shown on the current official tax map of the Town of Hempstead, Nassau county, last revised October 6, 2020, and being more particularly bounded and described as follows:

BEGINNING at a point of intersection formed by the northerly line of Industrial Place (50' wide R.O.W.) with the easterly line of Hampton Road (50' wide R.O.W.), and from said point of beginning, running, thence -

1. **N 11°52'30" W 500.00 feet**, along the easterly line of Hampton Road to a point where the same is intersected by the northerly line of Lot 502, Block 400; thence -

Along the said northerly line of Lots 502 and 720, Block 400 the following three (3) courses;

2. **N 78°07'30" E 350.00 feet**, thence –
3. **N 74°48'30" E 50.08 feet**, thence –
4. **N 78°07'30" E 100.00 feet**, to the easterly line of said Lot 720, thence –
5. **S 11°52'30" E 677.99 feet**, along said easterly line of said Lot 720, to the southerly line of said Lot 720, thence -

Running along the southerly line of said lot 720 the following three (3) courses:

6. **S 88° 19' 30" W 101.61 feet**, thence –
7. **S 86° 12' 30" W 50.49 feet**, thence –
8. **S 78° 07' 30" W 300.00 feet**, to a point on the line dividing Lots 646 and 720, Block 400, thence –
9. **N 11°52'30" W 100.00 feet**, along the said dividing line, to a point on the southerly line of Industrial Place (50' wide R.O.W.), thence –
10. **N 78° 07' 30" E, 100.00 feet**, along the said southerly line of Industrial Place and beyond, through a portion of Lot 720, Block 400, thence –

11. **N 11° 52' 30" W, 50.00 feet**, to the northeastward extension of the northerly line of said Industrial Place, thence –

12. **S 78° 07' 30" W, 150.00 feet**, along the said northeastward extension, and beyond, along the said northerly line of Industrial Place to the point and place of **BEGINNING**.

CONTAINING: ±314,651 square feet of land more or less or ±7.223 acres of land more or less.

SUBJECT TO: all easements, restrictions, reservations, agreements, covenants, and rights of way of record.

The foregoing description was prepared by the undersigned surveyor for the firm of Colliers Engineering & Design and is based on a certain map or plan entitled, "Boundary Survey For Arcadis, 'Chevron Facility 6518040', Section 43, Block 400, Tax Lot 502 & A Portion of Tax Lot 720, Town of Hempstead, Nassau County, New York," dated 4/14/2023 & revised through 07/14/2026.

Glen Lloyd
2026.09.02 10:53:51-04'00'

Glen J. Lloyd, P.L.S.
New York Professional Land Surveyor
License Number 050492

Date:

R:\Projects\2012\12000271D\Survey\Description\Site Boundary Description_260902.docx.

APPENDIX E

Site Management Plan

FORMER GULF OIL TERMINAL

NASSAU COUNTY

OCEANSIDE, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: 130165

Prepared for:

Chevron Environmental Management Company

1500 Louisiana Street, #38142

Houston, Texas 77002

Prepared by:

Arcadis U.S., Inc.

6041 Wallace Road Ext.

Suite 300

Wexford, Pennsylvania 15090

724-742-9180

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

SEPTEMBER 2026

I Joseph Molina certify that I am currently a New York State registered professional engineer (PE) as defined in 6 New York Codes, Rules and Regulations Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10).

Joseph Molina III
_____ [P.E]

September 3, 2026 DATE

TABLE OF CONTENTS

FORMER GULF OIL TERMINAL
NASSAU COUNTY
OCEANSIDE, NEW YORK

SITE MANAGEMENT PLAN

Section	Description	Page
LIST OF ACRONYMS		**VI**
ES	**EXECUTIVE SUMMARY**	**IX**
1.0	**INTRODUCTION**	**1**
1.1	General	1
1.2	Revisions	2
1.3	Notifications	2
2.0	**SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS**	**5**
2.1	Site Location and Description	5
2.2	Physical Setting	5
2.2.1	Land Use	5
2.2.2	Geology	6
2.2.3	Hydrogeology	6
2.3	Investigation and Remedial Action History	7
2.3.1	Site History	7
2.3.2	Summary of Previous Investigations	9
2.3.3	Summary of Historical Remedial Actions and Interim Remedial Measures	10
2.4	Remedial Action Objectives	12
2.4.1	Groundwater	12
2.4.2	Soil	12
2.4.3	Soil Vapor	13
2.5	Residual Contamination	13

2.5.1 Soil 13
2.5.2 Groundwater 14
2.5.3 Soil Vapor 15

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN 16
3.1 General 16
3.2 Institutional Controls 16
3.3 Engineering Controls 17
3.3.1 Cover System 17
3.3.2 Locked Monitoring Well Cover System 18
3.3.3 Sub-Slab Depressurization System 18
3.3.4 Criteria for Completion of Remediation/Termination of Remedial Systems 19

4.0 MONITORING AND SAMPLING PLAN 21
4.1 General 21
4.2 Site Wide Inspection 21
4.3 Groundwater Monitoring 22
4.4 Sub-Slab Depressurization System Monitoring 23

5.0 PERIODIC ASSESSMENTS/EVALUATIONS 25
5.1 Climate Change Vulnerability Assessment 25
5.2 Green Remediation Evaluation 25
5.3 Remedial System Optimization 26

6.0 REPORTING REQUIREMENTS 27
6.1 Inspection Frequency 27
6.2 Site Management Reports 27
6.3 Periodic Review Report 29
6.3.1 Certification of Institutional and Engineering Controls 31
6.4 Corrective Measures Work Plan 32

7.0 REFERENCES 33

List of Tables

Table 1-1. Notifications (In Report)
Table 4-1. Remedial System Sampling Requirements and Schedule (In Report)
Table 4-2. Remedial System Monitoring Requirements and Schedule (In Report)
Table 6-1. Schedule of Interim Monitoring/Inspection Reports (In Report)
Table 1. Groundwater Elevation Data (Attached)
Table 2. Historical Soil Analytical Results (Attached)
Table 3. Historical Groundwater Analytical Results (Attached)
Table 4. Groundwater Monitoring Schedule (Attached)

List of Figures

Figure 1. Site Location Map
Figure 2. Site Layout Map
Figure 3. Tax Map
Figure 4A. Geologic Cross Section
Figure 4B. Geologic Cross Section
Figure 4C. Geologic Cross Section
Figure 5A. Groundwater Contour Map - 2019
Figure 5B. Groundwater Contour Map - 2020
Figure 5C. Groundwater Contour Map - 2021
Figure 6A. Soil Analytical Map- Deep Sand Fill
Figure 6B. Soil Analytical Map- Shallow Sand Fill
Figure 6C. Areas of Residual Soil Impacts
Figure 7A. Groundwater Analytical Map - 2019
Figure 7B. Groundwater Analytical Map - 2020
Figure 7C. Groundwater Analytical Map - 2021
Figure 8. Sub-Slab and Indoor Air Sample Location Map
Figure 9. Site Survey and Drainage Features

List of Appendices

Appendix A. Site Boundary Survey and Metes and Bounds
Appendix B. Environmental Easement
Appendix C. Excavation Work Plan
Appendix D. Site Related Contact Information
Appendix E. Monitoring Well Construction Logs
Appendix F. Health and Safety Plan
Appendix G. Generic Community Air Monitoring Plan
Appendix H. SSD O&M Plan and As-Built
Appendix I. Field Sampling Plan
Appendix J. Quality Assurance Project Plan

List of Acronyms

AST	Aboveground Storage Tank
AWQS	Ambient Water Quality Standards
BCP	Brownfield Cleanup Program
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CAMP	Community Air Monitoring Plan
Catamount	Catamount Petroleum LP
CEMC	Chevron Environmental Management Company
CFI	Cumberland Farms, Inc.
Chevron	Chevron U.S.A. Inc.
COC	Certificate of Completion
Controlled Property	Portion of the Site subject to the Environmental Easement
CP	Commissioner Policy
CVOC	Chlorinated Volatile Organic Compound
DCE	Dichloroethene
DER-10	Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation
DER-31	Division of Environmental Remediation Green Remediation
DUSR	Data Usability Summary Report
EC	Engineering Control
ECL	Environmental Conservation Law
Gulf	Gulf Oil Limited Partnership
HASP	Health and Safety Plan
IC	Institutional Control
IRM	Interim Remedial Measure
ISCO	In-Situ Chemical Oxidation
LNAPL	Light Non-Aqueous Phase Liquid
Lowe's	Lowe's Home Centers, Inc.
mg/kg	Milligrams per Kilogram
MIP	Membrane Interface Probe
MNA	Monitored Natural Attenuation
MTBE	Methyl Tert-Butyl Ether
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
O&M	Operation and Maintenance

OWS	Oil/Water Separator
PAH	Polyaromatic Hydrocarbon
PE	Professional Engineer
RAO	Remedial Action Objective
RCA	Recycled Concrete Aggregate
RI	Remedial Investigation
ROD	Record of Decision
RSO	Remedial System Optimization
SCG	Standards, Criteria and Guideline
SCO	Soil Cleanup Objective
Site	Former Gulf Oil Terminal located in Oceanside, New York
SMP	Site Management Plan
SSD	Sub-slab Depressurization
TCE	Trichloroethene
TO	Toxic Organic
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound
VRU	Vapor Recovery Unit

Site Identification:	Site Identification No. 130165 Former Gulf Oil Terminal 3705 Hampton Road (f/k/a 1 Industrial Place) Oceanside, New York 11572
Institutional Controls:	1. The property may be used for commercial and industrial uses as described in 6 New York Codes, Rules and Regulations (NYCRR) Part 375-1.8(g), although land is subject to local zoning laws.
	2. The use of groundwater underlying the property is prohibited without necessary water quality treatment and regulatory approvals identified in this Site Management Plant (SMP).
	3. Access to the Site must be provided to agents, employees, or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified in the Environmental Easement.
	4. Compliance with the New York State Department of Environmental Conservation approved SMP and Periodic Review Reporting is required.
Engineering Controls:	1. A Site cover has been placed over the Controlled Property in areas exceeding commercial Soil Cleanup Objectives (SCOs) (NYSDEC 2006) as shown on Figure 6C. The cover is either a hardscape (asphalt and concrete, building) or a minimum of 12-inches of depth of exposed material meeting the requirements as set forth in 6 NYCRR Part 375—6.7(d) for commercial use.
	2. Residual groundwater impacts will be addressed through monitored natural attenuation (MNA) in the shallow fill and lower sand units with attenuation reports provided annually.
	3. The potential for soil vapor intrusion will be mitigated through the use of a sub-slab depressurization (SSD) system within the on-Site buildings with periodic sub-slab air monitoring beneath the occupied on-Site commercial building. A Liquid Boot vapor barrier has also been installed beneath the building, but is not a engineering control.

Site Identification:	Site Identification No. 130165 Former Gulf Oil Terminal 3705 Hampton Road (f/k/a 1 Industrial Place) Oceanside, New York 11572
Inspections:	Frequency
1. Cover and SSD	Annually
Monitoring:	
1. Groundwater monitoring per the MNA monitoring plan.	Semi-annual
2. Sub-slab air monitoring beneath the occupied on-Site commercial building; indoor air monitoring contingent on sub-slab monitoring results.	Bi-annually first year; Annual the following year if needed.
3. Soil vapor intrusion evaluation for new buildings	As needed
4. Community Air Monitoring Plan	As needed
Reporting:	
1. Groundwater monitoring report	Annually
2. Periodic Review Report	Annually first year; then every 5 years after
3. Site inspection	Annually

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the portion of the Site covered by the Environmental Easement (the "Controlled Property"), which is described in Appendix "B", as well as the inspections, monitoring, maintenance and reporting activities required by this SMP:

Further descriptions of the above requirements are provided in detail in the latter sections of this SMP. In the event of any conflict between this Executive Summary and the detailed sections below, the detailed sections below shall control.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Former Gulf Oil Terminal located in Oceanside, New York (hereinafter referred to as the "Site"). See Figure 1. The Site, is currently in the New York State Inactive Hazardous Waste Disposal Site Remedial Program (Site No. 130165), which is administered by New York State Department of Environmental Conservation (NYSDEC or Department).

Chevron Environmental Management Company (CEMC) manages environmental matters on behalf of its affiliate, Chevron U.S.A. Inc. (Chevron). Chevron is the party responsible for implementing remediation at the Site. Chevron entered into a Consent Order on December 23, 2009, with the NYSDEC. The Order obligates Chevron to implement a remedial program for the contamination associated with its previous petroleum storage terminal operations. A figure showing the Site location and boundaries of the Site is provided in Figure 2. The boundaries of the Site are more fully described in Appendix A.

After completion of the remedial work, residual contamination was left at this Site, which is hereafter referred to as "residual contamination". Institutional and Engineering Controls (ICs and ECs) have been incorporated into the Site remedy to control exposure to residual contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Nassau County Clerk, requires compliance with this SMP and all ECs and ICs placed on the Controlled Property.

This SMP was prepared to manage residual contamination at the Controlled Property until the Environmental Easement is extinguished in accordance with Environmental Conservation Law (ECL) Article 71, Title 36. This plan has been approved by the NYSDEC. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the implementation procedures that are required by the Environmental Easement specific to the Controlled Property. The intentional failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC);

- Failure to comply with this SMP may also constitute a violation of ECL, 6 New York Codes, Rules and Regulations (NYCRR) Part 375 (NYSDEC 2006) and the Consent Order (Index #W3-1142-09-08; Site #130165) for the Controlled Property, and thereby subject to applicable penalties.

All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Arcadis of New York Inc., on behalf of CEMC in accordance with the requirements of the NYSDEC's Division of Environmental Remediation "Technical Guidance for Site Investigation and Remediation" (DER-10), (NYSDEC 2010a), and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the Controlled Property.

Chevron as the party responsible for implementing remediation at the Site in accordance with the Consent Order, assumes the obligations contained in this SMP which include, but are not limited to, sampling, monitoring, inspections and/or operating a treatment system, and providing certified reports to the NYSDEC. The owner of the Site parcel, is obligated to only provide access to the Site and to comply with the use limitations and restrictions and requirements of this SMP as they apply to the owner and owner's tenant's activity on the Controlled Property.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Upon reasonable notice to the then current owner which shall be not less than sixty (60) days, NYSDEC can also make changes to the SMP or request revisions from the remedial party. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shutdown of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the Site conditions. In accordance with the Environmental Easement for the Controlled Property, the NYSDEC project manager will provide a notice of any approved changes to the SMP and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted to the NYSDEC, as needed by Chevron or the property owner as set forth in Table 1.1, in accordance with NYSDEC's DER-10 for the following reasons:

1. 60-day advance notice of any proposed changes in Site use that are required under the terms of the Consent Order, 6 NYCRR Part 375 and/or ECL.
2. 7-day advance notice of any field activity associated with the remedial program.
3. 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (Appendix C). If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the above-mentioned 60-day advance notice is also required.
4. Notice within 48 hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC within established restricted areas as shown on Figure 6C, and likewise, any action to be taken to mitigate the damage or defect.
5. In the event of any emergency, verbal notice by noon of the following day of any such emergency that reduces or has the potential to reduce the effectiveness of ECs in place at the Controlled Property, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
6. Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

7. Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1-1 on the following page includes contact information for the above notifications. The information on this table will be updated as necessary to provide accurate contact information. A full listing of Site-related contact information is provided in Appendix D.

Table 1-1. Notifications*

Name	**Contact Information**	**Required Notification****	**Notifications Made By**
NYSDEC Project Manager - Sankavi Sampath	518-402-9620 sankavi.sampath@dec.ny.gov	All Notifications	Chevron – Notifications 2 and 6 as well as 3, 4, 5, and 6 as applicable to Chevron. Property Owner – Notifications 1 and 7 as well as 3, 4, 5, and 6 as applicable to Owner
NYSDEC Project Manager's Supervisor - John Swartwout	518-402-9570 john.swartwout@dec.ny.gov	All Notifications	
NYSDEC Site Control – Kelly Lewandowski	518-402-9553 kelly.lewandowski@dec.ny.gov	Notifications 1	
NYSDOH Project Manager – Ryan Minzloff	518-408-5146 ryan.minzloff@health.ny.gov	Notifications 4, 5, and 6	

* Note: Notifications are subject to change and will be updated as necessary.
** Note: Numbers in this column reference the numbered bullets in the notification list in this section.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The Site, more fully described in Appendix "A", is located in Oceanside, Nassau County, New York and is identified as Section 43, Block 400 with Lots 502 and a portion of 720 on the Nassau County Tax Map (see Figure 3). The Site is an approximately 7.223-acre area and is bounded by the Former Exxon Terminal Site which contains most of a Costco warehouse building (currently 78 percent of the Costco warehouse building footprint is located on Lots 202, 203, 204, 205, 206, 207, 501, and 709, which are not affiliated with the Former Gulf Terminal Consent Order, and 22 percent of the Costco warehouse building is on Lots 502 and a portion of 720), Daly Avenue, and Liotta Bros Recycling Corporation across Daly Avenue to the north. In addition, the Site is bounded by Hog Island Channel to the south, Long Island Railroad to the east, and Hampton Road, an office building, and an automobile recycling facility (Novak Auto Corporation) to the west (see Figure 3 – Tax Map). Note, the boundaries depicted on Figures 3, 6A, 6B, and 6C reflect both the Site boundary and the Controlled Property boundary. This SMP does not impose any obligations with respect to lands underwater, notwithstanding the figures or text of this SMP to the contrary. The boundaries of the Site are more fully described in Appendix A and the boundaries of the Controlled Property subject to the Environmental Easement are described in Appendix B. The owner of the Site parcel at the time of issuance of this SMP is/are:

> *KLEIN COSTCO, LLC, 2066 EAST-WEST, LLC, GATE OCEANSIDE, LLC, LANDMARK OCEANSIDE, LLC, DA OCEANSIDE, LLC AND 330 OCEANSIDE, LLC, collectively having an office c/o Nike Equities, 25A Hanover Road, Suite 350, Florham Park, New Jersey 07932*

The operator of the Site parcel at the time of issuance of this SMP is:

> *Costco Wholesale Corporation*
> *3705 Hampton Rd, Oceanside, NY 11572-4808*

2.2 Physical Setting

2.2.1 Land Use

The Site consists of a portion of a Costco warehouse building footprint, a paved parking lot with landscaped features, and a fuel service station with a small modular kiosk building to the south. The Site is zoned for commercial and industrial use and is currently

utilized for commercial use as a Costco in conjunction with the adjacent parcel to the North.

The other properties adjoining the Site and in the neighborhood surrounding the Site primarily include commercial and industrial properties. The properties north of the Site (and adjoining Costco parcel) include commercial and industrial properties; the properties immediately east of the Site include industrial properties; and the properties to the west of the Site include commercial and industrial properties.

2.2.2 Geology

The geologic units identified at the Site during the Remedial Investigation (RI) include:

- An average of approximately 4 feet (below ground surface [bgs]) of fill (below commercial Soil Cleanup Objective [SCOs]) was added to the Site during redevelopment in 2015 prior to paving;
- Sand and gravel fill from the 4 feet bgs to approximately 12 feet bgs;
- Meadow mat (silt with fibrous organics and trace clay) 12 feet bgs to approximately 20 feet bgs;
- Underlying sand (coarse to fine sand, trace to some fine gravel) from 20 feet bgs to approximately 90 feet bgs; and
- Gardiners clay below 90 feet bgs.

With the exception of the southern area of the Site, the meadow mat was encountered throughout the Site at a thickness ranging from 5 to 12 feet.

Cross section locations are shown on Figure 4A; and Cross Sections A' and B' are provided on Figures 4B and 4C**,** respectively.

2.2.3 Hydrogeology

The underlying sand (lower sand unit) has been divided into three horizons for purposes of discussion: monitoring wells in the D1 horizon are generally screened between 20 and 30 feet bgs, monitoring wells in the D2 horizon are screened between 30 and 42 feet bgs, and monitoring wells in the VD horizon are screened at the base of the unit (58 to 83 feet bgs).

Groundwater has historically been observed at elevations ranging between 2 and 5 feet above mean sea level (7 to 9 feet bgs). The groundwater elevation in the lower sand unit is strongly influenced by the tidal cycle. The groundwater elevation in the lower sand unit can change by as much as 3 feet in response to tidal changes. The groundwater elevation in the shallow fill material shows a minimal response to the tidal cycle (less than 0.5 feet).

The groundwater flow direction in the shallow fill material is consistently to the southwest, regardless of the tidal cycle. The groundwater flow direction in the lower sand unit can change by as much as 180 degrees in response to the tidal cycle.

Groundwater contour maps are presented in Figures 5A through 5C. Groundwater elevation data is provided in Table 1. Groundwater monitoring well construction logs are provided in Appendix E.

2.3 Investigation and Remedial Action History

2.3.1 Site History

The Site currently consists of two lots, Lots 502 and a portion of 720. Lot 720 is comprised of former Lots 503 and 504 and are referenced in this section for the purposes of describing historical site purchase history and use. In 1931, Gulf Oil Corporation developed a portion of the Site (Lot 504) as a petroleum storage terminal. Gulf Oil Corporation purchased Lots 503 and 502 in 1950 and 1956, respectively. Chevron acquired Gulf Oil Corporation in the mid-1980s. As part of the purchase agreement, Chevron was required to divest the northeast division. In 1986, Cumberland Farms, Inc. (CFI) purchased the northeast marketing assets of Gulf Oil Corporation from Chevron. The purchase included the Oceanside Terminal, which was transferred to CFI in May 1986. In December 1993, CFI, in a joint venture with Catamount Petroleum LP (Catamount), formed Gulf Oil Limited Partnership (Gulf). CFI owned two-thirds of Gulf as a limited partner, and Catamount owned one-third of Gulf as the general partner. In September 2005, CFI exercised its option to buy out Catamount and reorganized Gulf under a new general partner. However, ownership percentages of Gulf did not change during the reorganization. In 2015, the Site was sold to Coremark Group Holdings LLC, who has leased the property to Costco. The Site is currently developed as a Costco Wholesale Warehouse facility.

Operation of the petroleum storage terminal ceased in the early 1990s. The remaining on-Site buildings (maintenance building, office building, and several small buildings associated with historical petroleum terminal operations) were demolished in 2005.

The Site has undergone extensive investigation and remediation since the 1990s under NYSDEC oversight (Spill No. 92-03883). In January 2007, the NYSDEC accepted Lowe's Home Centers, Inc. (Lowe's) as a volunteer under the Brownfield Cleanup Program (BCP) – Site No. C130165. Following the decision by Lowe's to withdraw from the BCP in 2009, the NYSDEC transferred the Site into the Hazardous Waste Program (State Superfund Site). An Order on Consent and Administrative Settlement

were executed between the NYSDEC and CEMC on December 23, 2009 (Index # W3-1142-09-08, Site #130165).

The following were previously located on the Gulf parcel:

- Nine large-quantity aboveground storage tanks (ASTs) containing fuel oil, kerosene, and gasoline;
- Two small 550-gallon ASTs containing fuel oil for the on-Site garage and office building;
- Three underground storage tanks (USTs) containing fuel oil (one 550-gallon, one 1,000-gallon, and one 5,000-gallon);
- One 1,000-gallon UST containing waste oil;
- A loading rack;
- A retention pond;
- A maintenance garage;
- A vapor recovery unit (VRU); and
- An office complex.

Four of the nine large ASTs were demolished prior to 2000, with the remaining five large ASTs reportedly demolished in 2003. The two 550-gallon ASTs containing fuel oil for the maintenance garage and the office building were demolished in 2005. A Site map depicting the approximate locations of the former building, structures, tanks, and monitoring wells is provided on Figure 2.

Light non-aqueous phase liquid (LNAPL), consisting of a mixture of No. 2 and No. 4 fuel oil, kerosene, and gasoline, had previously been detected in a monitoring well near the bulkhead at the southern portion of the Site at a thickness up to 2.28 feet. LNAPL was also encountered near the former VRU and the former garage building. The observed occurrences of LNAPL and shallow soil impacts were addressed through a series of initial remedial measures. Measurable LNAPL has not been observed at the Site since 2004.

In 2015, approximately four to seven feet of recycled concrete aggregate (RCA) fill from an NYSDEC-approved facility was added to the Site.

2.3.2 Summary of Previous Investigations

The former Gulf Oil Terminal Site has undergone extensive investigation and remediation since the 1990s. Historical soil and groundwater investigations conducted prior to 2004 indicated that soil impacted with volatile organic compounds (VOCs) at concentrations above NYSDEC SCOs were observed primarily in the western and southern portions of the Site. VOC-impacts in groundwater had been observed predominantly in the northeastern, central, and southern portions of the Site. Chlorinated volatile organic compounds (CVOCs), including trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride were also detected in soil and groundwater at the Site in proximity to the former VRU. Concentrations of CVOCs in excess of criteria were also observed in groundwater in the meadow mat and the deep sand layer immediately underlying the meadow mat (Arcadis 2011).

Since 2010, a series of supplemental investigation activities were completed to further characterize the Site conditions. An RI was conducted from November 2010 through April 2011 to further characterize the petroleum impacts (including limits of historically observed LNAPL), augment the existing monitoring well network, and develop additional water quality data required to support selection of a remedial technology. RI field activities included the excavation of a series of test pits, drilling of soil borings, installation of new groundwater monitoring wells, and collection of soil and groundwater samples for field and laboratory analyses. Data generated during the RI is documented in the *Remedial Investigation Data Summary Report* (Arcadis 2011).

In 2016, post 2013-2014 interim remedial measure (IRM), a residual source area investigation was conducted in the former VRU area that included: membrane interface probes (MIPs) advanced in the lower sand unit for the collection of soil data to provide a semi-quantitative delineation of the residual source area and to select the location of the AMW-15 (Figure 2) well cluster; drilling of soil borings for the collection of soil samples and grab groundwater samples from select borings to provide additional characterization in the lower sand unit and to support future remedial actions; installation of new groundwater monitoring wells; and three groundwater monitoring events at 31 existing and 11 newly-installed monitoring wells and eight temporary wells. Data generated during the residual source area investigation is documented in the *Supplemental Remedial Investigation Report* (Arcadis 2017).

Previous investigations indicate that there are two primary sources of contamination at the Site impacts from the historical petroleum terminal operations which occurred from 1931 to the early 1990s, including the operation of the former VRU, and the historical fill used to create the landmass which became the Site. Soil impacts from terminal

operations and historical fill exist primarily in six areas of the Site: the former turbine pump area; the former garage building area; the southwest area which includes a former one-story block building, a former two-story brick building, and a former one-story brick office building; the former loading rack area; the former VRU area; and the former oil/water separator (OWS) area. Isolated soil impacts also exist along Hampton Road.

As shown on Figure 6A and 6A, polyaromatic hydrocarbons (PAHs), including benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, benzo(a)pyrene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected in the shallow fill unit at concentrations exceeding Protection of Groundwater SCOs and/or Commercial Use SCOs. Generally, the PAHs are not located within the shallow fill unit where historical terminal operations occurred. The detected PAHs are not volatile and are highly insoluble. These PAHs are primarily pyrogenic in nature or are the result of combustion of fossil fuels. The presence of these PAHs in the shallow fill unit strongly indicates that the terminal operations were not the source of these PAHs.

It is evident that the PAH constituents of concern in the soils were historically deposited on the Site with the historic fill used to create the landmass which became the Site. Thus, PAHs are not considered constituents of concern related to terminal operations for the Site and are not carried forward in following discussions.

The data generated during the RI and Supplemental RI were used to evaluate the nature and extent of constituents of concern related to terminal operations and identify potential source areas, and in the development of the alternatives presented in the Feasibility Study (Leidos 2017). Maps and presentation of the data are provided in the *Supplemental Remedial Investigation Report* (Arcadis 2017).

2.3.3 Summary of Historical Remedial Actions and Interim Remedial Measures

Historical remedial actions implemented prior to 2011 were completed while the Site was being addressed under the Spills program. Since 2011, two IRMs have been completed at the Site: excavation in the former VRU area and three excavations to address isolated hot spots. A summary of the historical remediation actions and IRMs is provided below.

2.3.3.1 In-Situ Chemical Oxidation Pilot Test - November 2004

An In-Situ Chemical Oxidation (ISCO) pilot test study was completed in November 2004 within the former turbine pump area. A modified Fenton's reagent consisting of ferrous sulfate, citric acid, and hydrogen peroxide was used for the pilot test. The pilot test used 2 and 4 percent aqueous solutions.

Two types of injection methods were tested. The first method used Geoprobe injection points and the second method used temporary well injection points. The reagent was injected at 20 pounds per square inch pressure in the Geoprobe points, whereas gravity feed was used in the temporary well injection points. Pre- and post-injection soil samples were collected and analyzed; results indicated no significant change (less than 10 percent increase or decrease) to the concentration subsequent to injection. Fenton's reagent was determined to be an ineffective means of delivering the reagent to the soil due to poor reagent-soil mixing (Arcadis 2011).

2.3.3.2 Former Vapor Recovery Unit Area – Interim Remedial Measure Activities – 2013 and 2014

In 2013 and early 2014, an IRM was completed in the former VRU area. The VRU area measured approximately 60 feet by 65 feet and was excavated to a final depth that varied from 13 to 18 feet bgs. The excavation was performed using a cement-bentonite slurry, which mitigated the need for dewatering and maintained adequate hydraulic pressure to prevent water infiltration and failure of the minimal remaining clay zone above the lower sand. Impacted material was excavated using traditional construction equipment to the limits shown on Figure 4A. Approximately 3,464 tons of soil were excavated for off-Site disposal. The cement-bentonite slurry was left in place upon completion of the excavation to stabilize. The remainder of the open excavation was backfilled with approximately 6 inches of 1- to 2- inch stone to match the existing grade. Excavation and removal of soil impacts identified within the pre-defined area successfully facilitated protection of human health and the environment through recovery of contaminant mass and elimination or control of potential exposure.

Field activities associated with the former VRU IRM, including well decommissioning and pre-characterization soil borings, are documented in the *Interim Remedial Measure Completion Report* (Arcadis 2014a).

2.3.3.3 Interim Remedial Measure Addendum Activities – 2014

Three IRM Addendum excavation areas were excavated in 2014 in accordance with the Interim Remedial Measure Addendum Work Plan (Arcadis 2014b): the AMW-5 excavation measured 10 feet by 10 feet and was excavated to 13 feet bgs; the GS-2/GP-NORTH excavation measured 10 feet by 15 feet and was excavated to 8 feet bgs; and the GP-6 excavation measured 5 feet by 5 feet and was excavated to 7 feet bgs. Impacted material was excavated using traditional construction equipment to the limits is presented on Figure 4A. Approximately 110 tons of soil was excavated for off-Site disposal. Each excavation was backfilled with acceptable materials. At the AMW-5 and GS-2/GP-NORTH excavations, stone was placed in the bottom of the excavation to bridge the

saturated zone. The top of each excavation, as well as the entire GP-6 excavation, was backfilled with compacted general fill materials to match the existing grades. Excavation and removal of soil impacts identified within the pre-defined areas successfully facilitated protection of human health and the environment through recovery of contaminant mass and elimination or control of potential exposure (Arcadis 2014b).

In summary, the completed IRMs have addressed the sources of VOCs and CVOCs at the Site.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Record of Decision (ROD) dated December 10, 2021 are as follows:

2.4.1 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.

2.4.2 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

2.4.3 Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a Site.

2.5 Residual Contamination

The sources of the Site contamination are associated with historical petroleum terminal operations conducted from 1931 to the early 1990s, and discharges from piping associated with former ASTs, loading rack operations, turbine pump area operations, and bulkhead area loading/unloading operations that have contributed to the impact of soil and groundwater.

Prior investigations have determined that the Site contains soil impacted by petroleum in the historic fill above the meadow mat and groundwater is impacted by petroleum related constituents above and below the meadow mat. In addition, soil and groundwater impacted by chlorinated VOCs have been documented in the area of the former VRU located in the northwestern/central western portion of the Site directly above and below the meadow mat. The chlorinated VOC impacts include TCE, cis-DCE, trans-DCE and vinyl chloride.

2.5.1 Soil

Since 2004, a total of 227 soil samples have been collected for analysis at the Site. Of the 227 soil samples, 162 samples were collected from the shallow fill unit, 10 samples were collected from the meadow mat, and 55 samples were collected from the lower sand unit. The following is a summary of the constituents of concern, that have not been excavated or remediated, that exceed the Protection of Groundwater and/or the Commercial Use SCOs for each of the impacted areas that have been identified at the Site.

Impacted soil and areas of elevated petroleum-hydrocarbons were removed from the area surrounding the former VRU/small AST pad, an area west of the former garage building, an area southeast of the former truck loading racks and an area southeast of the former garage building.

Following the completed IRMs, petroleum-related soil impacts, at concentrations above the Protection of Groundwater SCOs, remain in the shallow fill unit at various depths ranging from approximately 8 to 15 feet bgs in six areas of the Site: the former turbine pump area; the former garage building area; the southwest area; the former loading rack area; the former VRU area; and along Hampton Road. Arsenic, at concentrations up to 28.1

milligrams per kilogram (mg/kg) above the commercial use SCO of 16 mg/kg below 6 feet and remains in isolated areas of the southwest area.

Although reduced as a result of the completed IRMs, soil impacts that remain in the meadow mat and lower sand unit are generally associated with the former VRU, which include chlorinated VOCs (TCE, cis-1,2-DCE, methylene chloride, vinyl chloride) that create concentrations in groundwater above applicable standards. Petroleum-related contaminants (benzene and methyl tert-butyl ether [MTBE]) are also present in the former VRU area at concentrations above the Protection of Groundwater SCOs. Soil impacts remain at various depths ranging from 12 to 30 feet bgs.

Table 2 and Figure 6A and 6B summarize and present the results of the soil samples collected that exceed the Unrestricted Use and the Commercial Use SCOs at the Site following completion of remedial actions. Figure 6C presents the areas of residual soil exceedances (above Protection of Groundwater and/or Commercial Use SCOs) at the Site that remain in place and have not been previously remediated.

2.5.2 Groundwater

Shallow and deeper groundwater at the Site are impacted by VOCs and SVOCs when concentrations were compared to Ambient Water Quality Standards (AWQS) (NYSDEC 1998) as a result of residual VOC and SVOC affects in shallow soil and the meadow mat beneath the Site. The identified areas of concern are the former VRU area, the former loading rack area, the barge dock/bulkhead area, and the area west, south and southeast of the former garage building.

Deeper groundwater in the western half of the Site has been impacted by a mixture of chlorinated hydrocarbons (primarily methylene chloride and TCE) and petroleum hydrocarbons consisting of gasoline fuel-related compounds (benzene, toluene, ethylbenzene and xylene [BTEX] and MTBE) and diesel/fuel oil-related compounds (acenaphthene, fluorene, naphthalene, and phenanthrene) when concentrations were compared to AWQS. Concentrations of these VOCs and SVOCs remain elevated in deeper groundwater. Chlorinated hydrocarbons, primarily methylene chloride and TCE, remain elevated in the deeper groundwater beneath the former VRU area. The daughter products (1,2-DCE and vinyl chloride) from biodegradation of TCE were evident in the groundwater sample results from prior sampling events.

On-Site groundwater at the former VRU is affected by chlorinated hydrocarbons, consisting primarily of TCE, TCE daughter products, and methylene chloride. The plume in the shallow groundwater (water table) zone has moderate dissolved phase concentrations at its core and is located southwest of the former VRU extending beneath Hampton Road. The deeper groundwater plume, below the meadow mat layer, is

relatively compact in size, but dissolved phase concentrations are high at its core. This plume is centered almost directly beneath the location of the former VRU.

Results from post-remedial sampling confirms that natural attenuation is occurring.

Table 3 and Figures 7A through 7C summarize the results of samples of groundwater that exceed the AWQS after completion of the remedial action.

2.5.3 Soil Vapor

Soil vapor has the potential to serve as a pathway for volatile constituents of concern within the subsurface (including BTEX and CVOCs) to migrate into on-Site buildings. However, the potential for a complete pathway to receptors within the building are unlikely. The existing Costco warehouse building is approximately 158,775 square feet and is of significant height. The floor is concrete and serves as a cap. Additionally, a Liquid Boot® vapor intrusion barrier is installed across the warehouse floor. A passive sub-slab depressurization (SSD) system is also installed at the Costco facility and can be made active/operational, if warranted based on proposed sub-slab monitoring and sampling. Further actions to assess the potential for soil vapor will be discussed in Section 4.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since residual contamination exists at the Site, institutional controls (ICs) and engineering controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the Controlled Property. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC project manager.

This plan provides:

- A description of all IC/ECs on the Controlled Property;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (Appendix C) for the proper handling of residual contamination that may be disturbed during maintenance or redevelopment work on the Controlled Property; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the Site remedy, as determined by the NYSDEC project manager.

3.2 Institutional Controls

A series of ICs is required by the December 2021 ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to residual contamination; and, (3) limit the use and development of the Controlled Property to commercial and industrial uses only. Adherence to these ICs on the Controlled Property is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. These ICs are:

- The property may be used for: commercial and industrial use;
- All ECs must be operated and maintained as specified in this SMP;

- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb residual contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the Controlled Property boundaries (Figure 2) and if potential impacts are identified based on vapor intrusion screening criteria and sampling, they must be monitored or mitigated;
- Vegetable gardens and farming on the Controlled Property are prohibited; and

3.3 Engineering Controls

3.3.1 Cover System

Exposure to residual contamination at the Site is prevented by a cover system placed over the Controlled Property. Figure 6C presents the areas of residual soil exceedances (above Protection of Groundwater and/or Commercial Use SCOs) at the Site that remain in place and have not been previously remediated. The cover system only applies to the areas of the Controlled Property with residual soil impacts exceeding applicable Protection of Groundwater and/or Commercial Use SCOs as shown on Figure 6C. The SMP requires a

minimum cover thickness of 1 feet of exposed soil meeting the requirements as set forth in 6 NYCRR Part 375—6.7(d) for commercial use, or an asphalt or concrete cover system and/or building that will be maintained throughout any future Site activities.

The on-Site existing cover system is comprised of a minimum of one to seven feet of soil meeting the requirements as set forth in 6 NYCRR Part 375—6.7(d) for commercial use, topped with asphalt pavement, concrete-covered sidewalks, and concrete building slabs. The Excavation Work Plan provided in Appendix C of this SMP outlines the procedures to be implemented in the event the existing cover system within the restricted areas with residual soil impacts is breached, penetrated or temporarily removed. The procedures to inspect the existing cover system are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the Excavation Work Plan must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP; Appendix F) and associated Community Air Monitoring Plan (CAMP; Appendix G). The template versions of the HASP and CAMP provided must be revised consistent with the specific activities to be implemented prior to implementation. Any disturbance of the Site's cover system must be overseen by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer (PE) who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

3.3.2 Locked Monitoring Well Cover System

Exposure to residual contamination in groundwater via the Site monitoring wells is prevented by a well cover system. This cover system is comprised of a locked seal at the top of the well casing (locked j-plug) and bolted flush-mounted cover over the well. Procedures for the inspection and sampling of the monitoring wells are provided in the Monitoring Plan included in Section 4 of this SMP.

3.3.3 Sub-Slab Depressurization System

The potential for soil vapor intrusion within the Costco warehouse building is mitigated through the use of a Liquid Boot® vapor intrusion barrier installed across the warehouse floor, and existing passive SSD venting system installed as part of the Site IRMs. The SSD system is currently passive. The existing passive SSD will be inspected annually and sampled (for sub-slab vapor, and indoor air contingent on sub-slab vapor sampling results) as part of the Controlled Property annual inspection, discussed in Sections 4.4 and 6. If sub-slab data indicate that the SSD and Liquid Boot® vapor intrusion barrier is effectively mitigating vapor intrusion, a proposal will be sent to the NYSDEC to discontinue annual inspections. Alternatively, based on sub-slab and indoor air sampling

results, if Site-related vapors are impacting the indoor air at the Costco warehouse building, then the passive SSD will be modified to an active SSD.

Procedures for inspecting and monitoring the SSD are documented in Section 4.4. An SSD operation and maintenance (O&M) Plan and as-built drawings, signed and sealed by a PE who is licensed and registered in New York State, are included in Appendix H.

3.3.4 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the RAOs identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10. Unless waived by the NYSDEC, confirmation samples of applicable environmental media are required before terminating any remedial actions at the Site. Confirmation samples require Category B deliverables and a Data Usability Summary Report (DUSR).

As discussed below, the NYSDEC may approve termination of a groundwater monitoring program. When a remedial party receives this approval, the remedial party will decommission all Site-related monitoring, injection and recovery wells as per the NYSDEC Groundwater Monitoring Well Decommissioning Policy (CP-43).

The remedial party will also conduct any needed Site restoration activities, such as asphalt patching and decommissioning treatment system equipment.

3.3.4.1 Cover

The cover system is a permanent control, and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP. As stated in the NYSDOH letter dated August 16, 2022, the "Special Requirements" CAMP (Appendix G) would apply if any ground-intrusive activities occur below the 8-foot demarcation layer within 20 feet of the Costco Service Station.

3.3.4.2 Sub-Slab Depressurization System

The passive SSD system will be maintained unless prior written approval is granted by the NYSDEC and the NYSDOH project managers. If sub-slab monitoring and sampling data indicates that the passive SSD system is not sufficiently mitigating potential vapor intrusion, a proposal to convert to an active SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH project managers. If sub-slab monitoring data indicates that the passive SSD (and existing Liquid Boot® vapor intrusion barrier) is effectively mitigating vapor intrusion and that there is no risk for vapor intrusion inside the Costco warehouse building, a proposal will be submitted to the NYSDEC and

NYDOH to remove the SSD as an engineering control such that no additional monitoring or inspection of the SSD will be needed.

3.3.4.3 Monitoring Wells associated with Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC project manager in consultation with NYSDOH project manager, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the Site Standards, Criteria and Guidelines (SCGs), or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

The monitoring plans incorporated into this SMP include a groundwater monitoring plan, a field sampling procedures plan (Appendix I), a Quality Assurance Project Plan (Appendix J), sub-slab soil gas sampling plan which describes the sub-slab and indoor air (contingent on sub-slab sampling results) sampling methods for evaluating the performance and effectiveness of groundwater and SSD system. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of Site management for the Controlled Property are included in the Quality Assurance Project Plan provided in Appendix J.

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC project manager.

4.2 Site Wide Inspection

Site-wide inspections will be performed by a Qualified Environmental Professional on a regular schedule at a minimum of once per year (Table 4-1). Modification to the frequency or duration of the inspections will require approval from the NYSDEC project manager. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. The form will determine and document the following:

- Compliance with all ICs, including Controlled Property usage;
- Whether the EC continues to perform as intended;
- If EC continues to be protective of human health and the environment; and
- Compliance with requirements of this SMP and the Environmental Easement.
- Compliance with the Controlled Property usage ICs;
- An evaluation of the condition and continued effectiveness of the EC; and
- General Site conditions at the time of the inspection.

Table 4-1. Remedial System Sampling Requirements and Schedule

Monitoring Program	Frequency*
Site-wide periodic inspection of cover system	Annually
Site-wide inspection of cover system after severe weather	10 days after severe event** or when it is safe to access the Site

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH.

** A severe weather event includes rainfall totaling in excess of 8-inches in a 24-hour period.

Reporting requirements are outlined in Section 6 of this plan.

4.3 Groundwater Monitoring

Groundwater monitoring is being implemented by Arcadis on behalf of CEMC at the Controlled Property to assess natural attenuation. Groundwater contamination in the shallow fill unit and lower sand unit is being addressed by monitored natural attenuation (MNA) program. Following the IRM activities, the monitoring well network was evaluated for each water-bearing horizon – shallow fill unit and lower sand unit. A total of 18 monitoring wells are proposed for sampling using Hydrasleeve™ no-purge sampling as part of a MNA program. Groundwater will be monitored for Site-related VOCs and for MNA parameters (carbon dioxide, total chloride, sodium, total alkalinity, nitrate-nitrite, pH, ferric iron and total iron) which will provide an understanding of the biological activity breaking down the contamination. Monitoring for Site-related contamination will be conducted semi-annually and for MNA indicators annually. Wells will be sampled in accordance with the Hydra-sleeves field sampling procedures (Appendix I). The remedial party will measure depth to the water table for each monitoring well in the network before sampling. The groundwater monitoring plan and schedule is included in Table 4 and the well construction logs for wells included in the monitoring plan are included in Appendix E.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC project manager will be notified prior to any repair, replacement or decommissioning of any monitoring well. The repair or decommissioning and

replacement processes implemented during any reporting period will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC project manager. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures". Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC project manager.

The sampling frequency may only be modified with the approval of the NYSDEC project manager. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC project manager. Deliverables for the groundwater monitoring program are specified in Section 6.

4.4 Sub-Slab Depressurization System Monitoring

Sub-slab sampling will be performed initially using existing sub-slab monitoring points beneath the occupied on-Site Costco warehouse building. Indoor air monitoring will be performed only if needed and contingent on the results of sub-slab monitoring, as identified in Table 4-2 Remedial System Monitoring Requirements and Schedule (see below). The inspection of the SSD will be conducted by a qualified environmental professional, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State. If results of the initial sub-slab monitoring and sampling indicates that there is no potential for vapor intrusion and that the passive SSD (and existing Liquid Boot® vapor intrusion barrier) is adequately mitigating vapor intrusion, a proposal will be submitted to the NYSDEC and NYDOH to remove the SSD as an engineering control and no additional monitoring or inspection of the SSD will be needed. Alternatively, based on sub-slab and indoor air sampling results, if Site-related vapors are impacting the indoor air at the Costco warehouse building, then the passive SSD will be modified to an active SSD. Modification to the SDS and/or frequency or sampling requirements will require approval from the NYSDEC project manager.

Table 4-2. Remedial System Monitoring Requirements and Schedule

Remedial System Component	Schedule
Piping Inspection	Annually
Building Slab Inspection	Annually

Sub-slab Vapor Sampling	Bi-annually first year; annual the following year if required by NYSDEC
Indoor Air Sampling	Contingent on sub-slab sampling results

Sub-slab vapor sampling will be conducted bi-annually, followed by an annual sampling the following year if required by the NYSDEC. Sub-slab samples will be analyzed for United States Environmental Protection Agency (USEPA) Method Toxic Organic (TO)-15. The purpose of the vapor sampling is to determine if the SSD system needs to remain in passive operation or be upgraded to an active system or removed as an EC. Should the vapor sample results determine the SSD must be operated as an active system, a revision to this SMP and SSD O&M Plan and As-Builts (Appendix H) will be submitted at a later date. Figure 8 presents the proposed locations of the sub-slab vapor sampling points (and indoor air samples contingent on sub-slab sampling results) inside the Costco warehouse building and Figure 9 presents details of the Site Boundary and the Controlled Property Boundary surveys and relevant drainage features. Appendix I presents the field sampling procedures for sampling the SSD system and sub-slab samples. As per the NYSDEC Comment Letter dated June 7, 2022, it was agreed that soil vapor intrusion evaluation is not needed for the building at the southern portion of the Site since it was an open portico-type structure covering the gas station bays and it is not an actual building.

SSD inspection will be conducted annually if needed contingent on the results of the initial sub-slab monitoring and sampling. Any damaged piping, pipe supports, or piping labels will be repaired or replaced. Each SSD piping discharge will be inspected to verify that no air intakes into the building have been located nearby. A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix K Monitoring and Sampling Protocol.

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix I. Other observations (e.g., groundwater monitoring well integrity) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network. Additional detail regarding monitoring and sampling protocols are provided in the field sampling procedures in Appendix I.

5.0 PERIODIC ASSESSMENTS/EVALUATIONS

5.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the Site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

The subject Site is considered to have low vulnerability related to climatic conditions. There are no State or Federal wetlands located on the Site. Portions of the parking lot are located in a floodplain. The Site will not employ any remedial systems reliant upon electrical power unless the SSD is converted to an active system; the Site is serviced by municipal sewer system (storm and sanitary). As such, acute cover system erosion to a depth greater than 12-inches, and the resultant potential exposure to residual contamination, is highly unlikely.

5.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation (NYSDEC 2010b) requires that green remediation concepts and techniques be considered during all stages of the remedial program including Site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the Site during Site management, and as reported in the Periodic Review Report.

The maintenance of SSD system is not anticipated to use energy for operations, generate additional waste, produce emissions, require substantial water to promote vegetative cover growth, and/or affect any ecosystem.

5.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC project manager or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the Site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a Site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the Site's cleanup goals, gather additional performance or media specific data and information, and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

6.0 REPORTING REQUIREMENTS

6.1 Inspection Frequency

All inspections, maintenance and monitoring events will be conducted at the frequency specified in the schedule provided in section-4 and 5 of this SMP. At a minimum, a Site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any remediation system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

6.2 Site Management Reports

All Site management inspection, maintenance and monitoring events will be recorded on the appropriate Site management forms provided in Appendix K. These forms are subject to NYSDEC revision. All Site management inspection, maintenance, and monitoring events will be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

All applicable inspection forms and other records, including all media sampling data, generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

Table 6-1. Schedule of Interim Monitoring/Inspection Reports

Task/Report	**Reporting Frequency***
Site-Wide Inspection Report	Annually
Groundwater Monitoring Report	Annually
SDS System - Maintenance and Sampling Report	Annually (contingent on vapor sampling results)
Periodic Review Report	Annually after first year; every 5 years following

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC project manager.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.

6.3 Periodic Review Report

A Periodic Review Report will be submitted to the NYSDEC project manager beginning eighteen (18) months after the COC or equivalent document is issued. After submittal of the initial Periodic Review Report, the next Periodic Review Report shall be submitted every fifth year to the NYSDEC project manager or at another frequency as may be required by the NYSDEC project manager. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in Appendices A and B. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Controlled Property.
- Results of the required annual Site inspections, if applicable.
- All applicable Site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.

- Data summary tables and graphical representations of contaminants of concern by media, which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These tables and figures will include a presentation of past data as part of an evaluation of contaminant concentration trends, including but not limited to:
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC.
- A Site evaluation, which includes the following:
  - Compliance of the remedy with the requirements of the Site-specific December 2021 ROD;
  - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan;
  - An evaluation of trends in contaminant levels in the affected media to determine if the remedy continues to be effective in achieving remedial goals as specified by the December 2021 ROD; and
  - The overall performance and effectiveness of the remedy.
- A performance summary for all treatment systems at the Controlled Property during the calendar year, including information such as:
  - The number of days the system operated for the reporting period;
  - The average, high, and low flows per day;
  - The contaminant mass removed and the cost per pound of mass removed during the certification period and during the life of the treatment system;
  - A description of breakdowns and/or repairs along with an explanation for any significant downtime;
  - A description of the resolution of performance problems;

- Alarm conditions;
- Trends in equipment failure; and
- A summary of the performance, effluent and/or effectiveness monitoring.

6.3.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a New York licensed PE will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

"For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

- *The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*
- *The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;*
- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*
- *Nothing has occurred that would constitute a violation or failure to comply with any SMP for this control;*
- *Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*
- *If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;*
- *Use of the Site is compliant with the environmental easement;*
- *The engineering control systems are performing as designed and are effective;*
- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program]; and*
- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative]. [I have been authorized and designated by all Site owners/remedial parties to sign this certification] for the Site."

"I certify that the New York State Education Department has granted a Certificate of Authorization to provide Professional Engineering services to the firm that prepared this Periodic Review Report."

6.4 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control or failure to conduct Site management activities, a Corrective Measures Work Plan will be submitted to the NYSDEC project manager for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC project manager.

7.0 REFERENCES

Arcadis 2011. Remedial Investigation Data Summary Report, Former Gulf Oil Terminal, Oceanside, Township of Hempstead, New York.

Arcadis 2014a. Interim Remedial Measure Completion Report, Former Gulf Oil Terminal, Oceanside, Township of Hempstead, New York. November.

Arcadis 2014b. Interim Remedial Measure Addendum Work Plan. Former Gulf Oil Terminal Oceanside, Township of Hempstead, New York. NYSDEC Site #1301365.

Arcadis 2017. Supplemental Remedial Investigation Report, Former Gulf Oil Terminal, Oceanside, Township of Hempstead, New York. January.

Leidos 2017. Feasibility Study Report, Former Gulf Oil Terminal, Oceanside, Township of Hempstead, New York. December 31.

NYSDEC 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June.

NYSDEC 2006. NYSDEC Technical and Operational Guidance Series for Soil, Subpart 375-6: Remedial Program Soil Cleanup Objectives. December 14.

NYSDEC 2010a. DER-10 – "Technical Guidance for Site Investigation and Remediation". May 3.

NYSDEC 2010b. DER-31 – "Green Remediation". August 11.

TABLES

Table 1
Groundwater Elevation Data
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Monitoring Well ID	Well Depth (feet below TOC)	TOC Elevation (feet NAVD 88)*	Depth to LNAPL (feet below TOC)	Depth to Groundwater (feet below TOC)	Groundwater Table Elevation (feet NAVD 88*)
Shallow Fill Unit Monitoring Wells					
AMW-3	12.42	9.05	ND	6.56	2.49
AMW-7R	13.83	9.95	ND	8.84	1.11
MW-18R	9.91	7.98	ND	4.96	3.02
D1 Horizon Monitoring Wells					
AMW-13-D1	33.39	9.87	ND	9.13	0.74
AMW-14-D1	33.13	9.38	ND	5.61	3.77
AMW-15-D1	36.19	9.74	ND	8.99	0.75
MW-23-D1R	25.81	9.84	ND	14.74	-4.90
MW-24-D1R	31.48	9.82	ND	9.04	0.78
MW-26-D1	20.29	9.95	ND	9.26	0.69
MW-27-D1R	32.30	9.01	ND	8.30	0.71
MW-28-D1	30.25	8.25	ND	NG	NG
MW-29-D1	23.21	5.21	ND	4.18	1.03
MW-30-D1	30.15	8.74	ND	8.43	0.31
MW-31-D1R	30.30	8.39	ND	7.92	0.47
MW-32D	36.25	8.85	ND	7.21	1.64
OW-2-D1	34.12	9.94	ND	8.59	1.35
D2 Horizon Monitoring Wells					
AMW-13-D2	43.51	9.76	ND	9.06	0.70
AMW-14-D2	43.13	9.37	ND	8.40	0.97
AMW-15-D2	21.61	9.71	ND	8.67	1.04
MW-23-D2R	16.77	10.52	ND	9.49	1.03
MW-24-D2	42.02	10.00	ND	9.21	0.79
MW-26-D2	NG	9.40	NG	NG	NG
MW-27-D2	46.87	9.09	ND	8.31	0.78
MW-28-D2R	47.23	8.40	ND	7.63	0.77
MW-29-D2	38.12	5.38	ND	4.61	0.77
MW-30-D2	40.66	8.72	ND	8.34	0.38
MW-31-D2R	46.59	8.35	ND	6.54	1.81
D3 Horizon Monitoring Wells					
AMW-15-D3	48.49	9.81	ND	9.17	0.64
VD Horizon Monitoring Wells					
AMW-13-VD	71.52	9.43	ND	9.43	0.00
AMW-14-VD	74.29	9.25	ND	8.16	1.09
AMW-15-VD	71.85	9.82	ND	8.57	1.25
MW-24-VDR	72.54	9.72	ND	8.49	1.23
MW-26-VD	68.49	9.99	ND	9.39	0.60
MW-29-VD	60.35	5.27	ND	4.24	1.03
MW-30-VD	83.51	8.70	ND	7.57	1.13

Notes:
*Top of casing elevations were surveyed by Borbas Surveying & Mapping, LLC, September 18, 2017 and re-drilled wells on June 1
in = Inches
TOC = top of casing
NAVD 88 = North America Vertical Datum of 1988
LNAPL = light non aqueous phase liquid
NM = not measured
ND = not detected
NG = not gauged; well was covered during event

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.13 U	0.12 U	***0.11 J***	0.0053 U	0.23 U	0.10 U	0.0055 U
Toluene	0.7	0.7	500	mg/kg	0.11 J	0.20	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Ethylbenzene	1	1	390	mg/kg	***2.4***	***6.7***	***2.0***	0.0053 U	0.20 J	0.088 J	0.0055 U
Xylenes (total)	0.26	1.6	500	mg/kg	***5.2***	***6.1***	*0.26*	0.011 U	0.46 U	0.20 U	0.011 U
Acetone	0.05	0.05	500	mg/kg	0.64 U	0.59 U	0.62 U	0.027 U	1.2 U	0.51 U	0.027 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.13 UJ	0.12 UJ	***0.062 J***	0.0052 J	0.23 U	0.10 U	0.0062
Vinyl Chloride	0.02	0.02	13	mg/kg	0.13 U	0.12 U	0.12 U	0.0053 U	0.23 U	0.10 U	0.0055 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
2-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
2-Nitrophenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	R	0.88 U	3.6 U
3-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chloroaniline	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
4-Methylphenol	0.33	0.33	500	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
4-Nitroaniline	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 U	1.7 U	7.0 U
4-Nitrophenol	- -	- -	- -	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
Acenaphthene	20	98	500	mg/kg	0.99 J	0.81 J	0.12 J	0.18 U	1.1	0.46 J	3.6 U
Acenaphthylene	100	107	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Acetophenone	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 UJ
Anthracene	100	1,000	500	mg/kg	0.37 J	0.43 J	0.050 J	0.18 U	1.0 U	0.88 U	3.6 U
Atrazine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Benzaldehyde	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.37 J	0.26 J	0.019 J	0.020 J	0.42 J	0.26 J	0.44 J
Benzo(a)pyrene	1	22	1	mg/kg	0.23 J	2.0 U	0.21 U	0.018 J	0.36 J	0.30 J	0.42 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.27 J	0.20 J	0.21 U	0.021 J	0.42 J	0.38 J	0.52 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.18 J	2.0 U	0.21 U	0.014 J	0.25 J	0.24 J	0.30 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	0.21 J	0.88 U	3.6 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	2.2 UB	2.0 UB	0.21 UB	0.18 U	1.0 U	0.88 U	3.6 U
Butylbenzylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Caprolactam	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	R	0.88 U	3.6 U
Carbazole	- -	- -	- -	mg/kg	0.14 J	2.0 U	0.033 J	0.18 U	1.0 U	0.88 U	3.6 U
Chrysene	1	1	56	mg/kg	0.29 J	0.23 J	0.017 J	0.018 J	0.42 J	0.29 J	0.44 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Dibenzofuran	7	210	350	mg/kg	0.79 J	0.76 J	0.13 J	0.18 U	0.79 J	0.88 U	3.6 U
Diethylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Dimethylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-3 0 - 2 4 - 6 11/30/10 Shallow Sand Fill - Shallow	AMW-3 2 - 4 6 - 8 11/30/10 Shallow Sand Fill - Shallow	AMW-3 4 - 6 8 - 10 11/30/10 Shallow Sand Fill - Shallow	AMW-4 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow	AMW-4 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-4 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-6 2 - 4 6 - 8 11/18/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 UJ	0.88 U	3.6 U
Fluoranthene	100	1,000	500	mg/kg	1.0 J	0.69 J	0.059 J	0.036 J	1.3	0.77 J	1.0 J
Fluorene	30	386	500	mg/kg	1.1 J	1.3 J	0.29 J	0.18 U	1.5	0.66 J	3.6 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Hexachloroethane	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	0.20 J	0.16 J	3.6 U
Isophorone	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Nitrobenzene	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	4.3 U	4.0 U	0.41 U	0.35 U	1.9 UJ	1.7 U	7.0 U
Phenanthrene	100	1,000	500	mg/kg	3.6	3.2	0.45	0.022 J	3.0	1.0	0.74 J
Phenol	0.33	0.33	500	mg/kg	2.2 U	2.0 U	0.21 U	0.18 U	1.0 U	0.88 U	3.6 U
Pyrene	100	1,000	500	mg/kg	0.94 J	0.67 J	0.058 J	0.029 J	1.3	1.0	0.83 J
Total SVOCs	- -	- -	- -	mg/kg	32 J	47 J	8.1 J	0.18 J	23 J	7.2 J	4.7 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	4,860 J	2,230 J	2,810 J	8,070 J	1,390 J	4,010 J	3,660 J
Antimony	- -	- -	- -	mg/kg	19.9 U	18.1 U	18.4 U	16.1 U	17.7 U	15.7 U	16.4 U
Arsenic	13	16	16	mg/kg	2.00 J	2.20 J	2.30 J	3.80	1.10 J	2.00 J	***16.2***
Barium	350	820	400	mg/kg	26.7	14.0	16.0	26.6	7.89	22.1	32.5
Beryllium	7.2	47	590	mg/kg	0.224 J	0.166 J	0.113 J	0.362	0.0530 J	0.186 J	0.174 J
Cadmium	2.5	7.5	9.3	mg/kg	0.282 J	0.231 J	0.246 UBJ	0.193 J	0.0550 J	0.0920 J	0.199 J
Calcium	- -	- -	- -	mg/kg	28,000	113,000	1,670	556	218	428	5,420
Chromium	- -	- -	- -	mg/kg	7.46	4.68	5.67	10.6	2.53	5.58	7.77
Cobalt	- -	- -	- -	mg/kg	2.44	1.76	1.76	4.27	0.924	2.64	2.04
Copper	50	1,720	270	mg/kg	14.5 J	7.00 J	7.40 J	4.80	1.50	4.00	11.5
Ferrous Iron	- -	- -	- -	mg/kg	0.600 J	1.60 J	0.500 J	R	R	1.70 J	R
Iron	- -	- -	- -	mg/kg	5,670 J	5,180 J	5,450 J	10,100 J	1,860 J	5,410 J	6,630 J
Lead	63	450	1,000	mg/kg	*69.6 J*	52.4 J	25.9 J	8.20 J	4.70 J	9.00 J	50.8 J
Magnesium	- -	- -	- -	mg/kg	5,250	63,000	1,330	1,070	309	638	2,300
Manganese	1,600	2,000	10,000	mg/kg	76.6 J	100 J	68.7 J	246	25.4	60.8	63.1
Mercury	0.18	0.73	2.8	mg/kg	0.0329	0.0525	0.0184 J	0.0173 J	0.0240 U	0.0226	0.0785
Nickel	30	130	310	mg/kg	7.11	4.78 J	5.19 J	6.07 J	1.58 J	4.47 J	4.81 J
Potassium	- -	- -	- -	mg/kg	548	490	498	305 J	202 J	298 J	432 J
Selenium	3.9	4	1,500	mg/kg	5.30 U	4.80 U	4.90 U	4.30 U	4.70 U	4.20 U	4.40 U
Silver	2	8.3	1,500	mg/kg	0.662 U	0.602 U	0.614 U	0.536 U	0.590 U	0.523 U	0.546 U
Sodium	- -	- -	- -	mg/kg	119 J	153 J	66.9 J	83.1 J	34.0 J	36.2 J	524
Thallium	- -	- -	- -	mg/kg	7.90 U	7.20 U	7.40 U	6.40 U	7.10 U	6.30 U	6.60 U
Vanadium	- -	- -	- -	mg/kg	8.76	11.5	8.45	13.6	3.38	7.78	9.48
Zinc	109	2,480	10,000	mg/kg	57.3 J	21.1 J	20.2 J	20.8	4.40	10.3	51.6
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	78 J	400	570 J	170	60 J	110 U	89 J
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	6,440	7,720	6,430 J	2,320	8,850	3,610	4,960

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Toluene	0.7	0.7	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Ethylbenzene	1	1	390	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0065 U	0.13 U	0.0058 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.071 U	0.011 U	0.011 U	0.013 U	0.26 U	0.012 U
Acetone	0.05	0.05	500	mg/kg	***0.059***	***0.18***	0.0063 J	0.037	***0.050***	0.66 U	0.019 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0015 J	0.13 U	0.0058 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0090	0.049	0.0076	0.016	0.023	0.13 UJ	0.0094 UB
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0057 U	0.036 U	0.0055 U	0.0055 U	0.0032 J	0.13 U	0.0058 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
Acenaphthene	20	98	500	mg/kg	0.14 J	0.026 J	0.18 U	0.19 U	0.22 U	0.90	0.36
Acenaphthylene	100	107	500	mg/kg	0.38 U	0.025 J	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	0.38 UJ	0.24 UJ	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Anthracene	100	1,000	500	mg/kg	0.27 J	0.052 J	0.017 J	0.017 J	0.22 U	0.16 J	0.081 J
Atrazine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.56	0.15 J	0.088 J	0.054 J	0.024 J	0.079 J	0.048 J
Benzo(a)pyrene	1	22	1	mg/kg	0.54	0.16 J	0.087 J	0.056 J	0.025 J	0.037 J	0.027 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.63	0.19 J	0.093 J	0.064 J	0.028 J	0.067 JY	0.040 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.39	0.12 J	0.061 J	0.043 J	0.021 J	0.016 J	0.024 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.25 J	0.074 J	0.033 J	0.19 U	0.22 U	0.069 JY	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.96	0.63	0.42	0.11 J	0.098 J	0.23 UB	0.29 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.15 J	0.19 U	0.22 U	0.23 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	0.13 J	0.029 J	0.18 U	0.19 U	0.22 U	0.32	0.075 J
Chrysene	1	1	56	mg/kg	0.64	0.17 J	0.082 J	0.050 J	0.021 J	0.065 J	0.041 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.11 J	0.036 J	0.017 J	0.19 U	0.22 U	0.23 U	0.20 U
Dibenzofuran	7	210	350	mg/kg	0.11 J	0.027 J	0.18 U	0.19 U	0.22 U	0.56	0.20
Diethylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-6 4 - 6 8 - 10 11/18/10 Shallow Sand Fill - Shallow	AMW-6 6 - 8 10 - 12 11/18/10 Shallow Sand Fill - Shallow	AMW-7 4 - 6 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 8 - 10 11/29/10 Shallow Sand Fill - Shallow	AMW-7 10 - 12 11/29/10 Shallow Sand Fill - Shallow	AMW-11 2 - 4 6 - 8 12/01/10 Shallow Sand Fill - Shallow	AMW-11 4 - 6 8 - 10 12/01/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	1.1	0.28	0.17 J	0.11 J	0.041 J	0.48	0.25
Fluorene	30	386	500	mg/kg	0.28 J	0.064 J	0.18 U	0.19 U	0.22 U	0.53	0.20
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.34 J	0.10 J	0.049 J	0.033 J	0.22 U	0.23 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.74 U	0.47 U	0.36 U	0.37 U	0.42 U	0.44 U	0.38 U
Phenanthrene	100	1,000	500	mg/kg	1.1	0.27	0.090 J	0.041 J	0.22 U	1.3	0.58
Phenol	0.33	0.33	500	mg/kg	0.38 U	0.24 U	0.18 U	0.19 U	0.22 U	0.23 U	0.20 U
Pyrene	100	1,000	500	mg/kg	1.0	0.24	0.16 J	0.088 J	0.035 J	0.32	0.19 J
Total SVOCs	- -	- -	- -	mg/kg	8.9 J	2.8 J	1.5 J	0.67 J	0.29 J	6.2 J	2.6 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	3,620 J	8,470 J	4,490 J	3,290 J	4,510 J	5,460 J	4,040 J
Antimony	- -	- -	- -	mg/kg	17.1 U	20.9 U	16.4 U	16.8 U	19.3 U	20.0 U	17.6 U
Arsenic	13	16	16	mg/kg	***20.1***	10.6	3.10 J	2.00 J	4.10 J	4.70	4.50
Barium	350	820	400	mg/kg	44.4	44.6	26.0	28.5	13.2	26.3	18.6
Beryllium	7.2	47	590	mg/kg	0.185 J	0.448	0.200 J	0.142 J	0.195 J	0.264 J	0.173 J
Cadmium	2.5	7.5	9.3	mg/kg	0.356	0.468	0.463 J	0.224 UBJ	0.258 UBJ	0.267 UB	0.235 UBJ
Calcium	- -	- -	- -	mg/kg	1,520	2,140	875	743	1,450	1,770	1,560 B
Chromium	- -	- -	- -	mg/kg	6.12	22.7	7.94	7.96	12.1	12.9	9.82
Cobalt	- -	- -	- -	mg/kg	2.12	4.84	2.72	2.27	3.05	3.47	2.76
Copper	50	1,720	270	mg/kg	11.5	14.7	8.40	7.20	5.60	9.70 J	11.4 J
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	R	R	R
Iron	- -	- -	- -	mg/kg	5,890 J	18,200 J	10,600	5,780	9,990	12,000 J	9,160 J
Lead	63	450	1,000	mg/kg	*80.2 J*	43.8 J	22.4 J	18.5 J	6.60 J	15.1 J	14.0 J
Magnesium	- -	- -	- -	mg/kg	577	2,900	878	766	1,950	2,210	1,800
Manganese	1,600	2,000	10,000	mg/kg	52.6	180	119 J	55.2 J	82.8 J	111 J	92.4 J
Mercury	0.18	0.73	2.8	mg/kg	*0.199*	0.122	0.0492	*0.189*	0.0219 J	0.0285	0.0187 J
Nickel	30	130	310	mg/kg	4.56 J	13.0 J	5.49	4.87 J	7.91	9.80	7.78
Potassium	- -	- -	- -	mg/kg	332 J	1,630 J	541	420	1,010	1,210	825
Selenium	3.9	4	1,500	mg/kg	4.60 U	5.60 U	0.600 J	0.600 J	0.700 J	5.30 U	4.70 U
Silver	2	8.3	1,500	mg/kg	0.571 U	0.698 U	0.548 U	0.559 U	0.644 U	0.667 U	0.587 U
Sodium	- -	- -	- -	mg/kg	153 J	392	70.5 J	131 J	742	289	231
Thallium	- -	- -	- -	mg/kg	6.90 U	8.40 U	6.60 U	6.70 U	7.70 U	8.00 U	7.00 U
Vanadium	- -	- -	- -	mg/kg	7.67	24.8	9.26	7.66	13.7	17.9	12.9
Zinc	109	2,480	10,000	mg/kg	96.9	75.0	*120 J*	29.0 J	23.4 J	30.2 J	28.1 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	120 U	130 J	350	290	150	1,500	1,500
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	3,250	15,800	5,020	2,900	22,300	7,270	9,840

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.17 U	0.0027 J	0.0075 U	0.0077 U	0.00050 J	0.13 U	0.0011 J
Toluene	0.7	0.7	500	mg/kg	0.17 U	0.0027 JB	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0011 J
Ethylbenzene	1	1	390	mg/kg	0.17 U	0.016	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0011 J
Xylenes (total)	0.26	1.6	500	mg/kg	0.33 U	0.014	0.015 U	0.015 U	0.013 U	0.26 U	0.012 U
Acetone	0.05	0.05	500	mg/kg	0.83 U	0.032	0.037 U	0.038 U	0.033 U	0.66 U	0.029 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	0.13 U	0.0059 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.17 UJ	0.0049 U	0.0075 U	0.0077 U	0.0099 B	0.13 U	0.049
Vinyl Chloride	0.02	0.02	13	mg/kg	0.17 U	0.0049 U	0.0075 U	0.0077 U	0.0065 U	***0.067 J***	0.0059 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
2-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
2-Nitrophenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.56 U	NA	0.46 U	NA	4.1 U	NA	NA
3-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chloroaniline	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF2	NA	NA
4-Methylphenol	0.33	0.33	500	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Nitroaniline	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
4-Nitrophenol	- -	- -	- -	mg/kg	1.1 U	NA	0.46 U	NA	4.1 UF1	NA	NA
Acenaphthene	20	98	500	mg/kg	4.2	NA	0.24 U	NA	2.1 U	NA	NA
Acenaphthylene	100	107	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Acetophenone	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Anthracene	100	1,000	500	mg/kg	1.4	NA	0.24 U	NA	2.1 U	NA	NA
Atrazine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Benzaldehyde	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.54 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.20 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.28 J	NA	0.24 U	NA	2.1 UF2	NA	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.094 J	NA	0.24 U	NA	2.1 U	NA	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.086 J	NA	0.24 U	NA	2.1 U	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1F2	NA	NA
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.56 UB	NA	0.24 U	NA	2.1 U	NA	NA
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Caprolactam	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Carbazole	- -	- -	- -	mg/kg	1.6	NA	0.24 U	NA	2.1 U	NA	NA
Chrysene	1	1	56	mg/kg	0.46 J	NA	0.24 U	NA	2.1 U	NA	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Dibenzofuran	7	210	350	mg/kg	3.0	NA	0.24 U	NA	2.1 U	NA	NA
Diethylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Dimethylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	AMW-11 6 - 8 10 - 12 12/01/10 Shallow Sand Fill - Shallow	AMW-12A 2 - 2.5 6 - 6.5 02/21/13 Shallow Sand Fill - Shallow	ASB-1 23 - 25 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-1 28 - 30 - 06/07/16 Deep Sand Layer - D1 Unit	ASB-2-SD 24 - 25 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-2-SD 28 - 30 - 06/03/16 Deep Sand Layer - D1 Unit	ASB-3 20.5 - 21.5 - 06/08/16 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Fluoranthene	100	1,000	500	mg/kg	4.0	NA	0.24 U	NA	2.1 U	NA	NA
Fluorene	30	386	500	mg/kg	3.4	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Hexachloroethane	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.074 J	NA	0.24 U	NA	2.1 U	NA	NA
Isophorone	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF2	NA	NA
Nitrobenzene	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.56 U	NA	0.24 U	NA	2.1 UF1	NA	NA
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.1 U	NA	0.46 U	NA	4.1 U	NA	NA
Phenanthrene	100	1,000	500	mg/kg	11	NA	0.24 U	NA	2.1 U	NA	NA
Phenol	0.33	0.33	500	mg/kg	0.56 U	NA	0.24 U	NA	2.1 U	NA	NA
Pyrene	100	1,000	500	mg/kg	2.6	NA	0.24 U	NA	2.1 U	NA	NA
Total SVOCs	- -	- -	- -	mg/kg	40 J	NA	ND	NA	ND	NA	NA
Inorganics											
Aluminum	- -	- -	- -	mg/kg	3,750 J	NA	2,810 F1	NA	3,130	NA	NA
Antimony	- -	- -	- -	mg/kg	25.1 U	NA	21.8 U	NA	18.8 U	NA	NA
Arsenic	13	16	16	mg/kg	8.40	NA	1.90 J	NA	0.950 J	NA	NA
Barium	350	820	400	mg/kg	32.7	NA	5.50	NA	10.1	NA	NA
Beryllium	7.2	47	590	mg/kg	0.254 J	NA	0.120 J	NA	0.0530 J	NA	NA
Cadmium	2.5	7.5	9.3	mg/kg	0.334 UBJ	NA	0.290 U	NA	0.250 U	NA	NA
Calcium	- -	- -	- -	mg/kg	1,500	NA	235	NA	286 B	NA	NA
Chromium	- -	- -	- -	mg/kg	17.2	NA	5.50	NA	6.30	NA	NA
Cobalt	- -	- -	- -	mg/kg	2.81	NA	0.930	NA	1.40	NA	NA
Copper	50	1,720	270	mg/kg	35.1 J	NA	2.60	NA	4.70	NA	NA
Ferrous Iron	- -	- -	- -	mg/kg	R	NA	NA	NA	NA	NA	NA
Iron	- -	- -	- -	mg/kg	15,500 J	NA	3,280 F1	NA	4,510	NA	NA
Lead	63	450	1,000	mg/kg	10.2 J	NA	2.60	NA	2.60	NA	NA
Magnesium	- -	- -	- -	mg/kg	1,330	NA	592	NA	878	NA	NA
Manganese	1,600	2,000	10,000	mg/kg	54.2 J	NA	28.5 BF1	NA	46.0	NA	NA
Mercury	0.18	0.73	2.8	mg/kg	0.0389	NA	0.0260 U	NA	0.0250 U	NA	NA
Nickel	30	130	310	mg/kg	5.83 J	NA	3.80 J	NA	4.20 J	NA	NA
Potassium	- -	- -	- -	mg/kg	801	NA	371	NA	595	NA	NA
Selenium	3.9	4	1,500	mg/kg	1.30 J	NA	0.940 JB	NA	5.00 U	NA	NA
Silver	2	8.3	1,500	mg/kg	0.835 U	NA	0.870 U	NA	0.750 U	NA	NA
Sodium	- -	- -	- -	mg/kg	406	NA	312	NA	325	NA	NA
Thallium	- -	- -	- -	mg/kg	10.0 U	NA	8.70 U	NA	7.50 U	NA	NA
Vanadium	- -	- -	- -	mg/kg	27.1	NA	7.30	NA	7.00	NA	NA
Zinc	109	2,480	10,000	mg/kg	19.7 J	NA	5.10	NA	7.60	NA	NA
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	2,600	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	4,430	NA	1,490 F2F1	NA	1,000 U	NA	NA

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.00096 J*	0.0055 U*
Toluene	0.7	0.7	500	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.00054 J	0.00084 J	0.0055 U
Ethylbenzene	1	1	390	mg/kg	0.0059 U	0.0059 U	0.15 U	0.12 U	0.0061 U	0.00051 J*	0.0055 U*
Xylenes (total)	0.26	1.6	500	mg/kg	0.012 U	0.012 U	0.29 U	0.25 U	0.012 U	0.011 U	0.011 U
Acetone	0.05	0.05	500	mg/kg	0.029 U	0.029 U	0.73 U	0.62 U*	0.030 U	0.029 U	0.028 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.027	0.0039 J	***0.96***	0.12 U	0.0017 J	0.0057 U*	0.0055 U*
Methylene Chloride	0.05	0.05	500	mg/kg	0.0048 J	0.0032 JB	***0.077 J***	0.12 U	0.0061 U	0.0057 U	0.0055 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0013 J	0.0059 U	***0.45***	***0.14***	0.0040 J	***0.061 ***	0.0055 U*
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
2-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
2-Nitrophenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
3-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chloroaniline	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
4-Methylphenol	0.33	0.33	500	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Nitroaniline	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
4-Nitrophenol	- -	- -	- -	mg/kg	0.40 U	0.39 U	NA	0.40 U*	NA	0.38 U	NA
Acenaphthene	20	98	500	mg/kg	0.21 U	0.051 J	NA	0.21 U	NA	0.20 U	NA
Acenaphthylene	100	107	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Acetophenone	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Anthracene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Atrazine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzaldehyde	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(a)anthracene	1	1	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(a)pyrene	1	22	1	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Caprolactam	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Carbazole	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Chrysene	1	1	56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dibenzofuran	7	210	350	mg/kg	0.21 U	0.044 J	NA	0.21 U	NA	0.20 U	NA
Diethylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Dimethylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-3 28 - 30 - 06/08/16 Deep Sand Layer - D1 Unit	ASB-4 24 - 25 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-4 28 - 30 - 06/06/16 Deep Sand Layer - D1 Unit	ASB-5 20.5 - 21 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-5 28 - 30 - 06/02/16 Deep Sand Layer - D1 Unit	ASB-6 26 - 28 - 06/13/16 Deep Sand Layer - D1 Unit	ASB-6 36 - 38 - 06/13/16 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Fluoranthene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Fluorene	30	386	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Hexachloroethane	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Isophorone	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Nitrobenzene	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.40 U	0.39 U	NA	0.40 U	NA	0.38 U	NA
Phenanthrene	100	1,000	500	mg/kg	0.21 U	0.12 J	NA	0.21 U	NA	0.20 U	NA
Phenol	0.33	0.33	500	mg/kg	0.21 U	0.20 U	NA	***0.58***	NA	0.20 U	NA
Pyrene	100	1,000	500	mg/kg	0.21 U	0.20 U	NA	0.21 U	NA	0.20 U	NA
Total SVOCs	- -	- -	- -	mg/kg	ND	0.22 J	NA	0.58	NA	ND	NA
Inorganics											
Aluminum	- -	- -	- -	mg/kg	1,610	NA	NA	5,540	NA	13,400	NA
Antimony	- -	- -	- -	mg/kg	17.8 U	NA	NA	17.9 U	NA	17.4 U	NA
Arsenic	13	16	16	mg/kg	1.10 J	NA	NA	1.00 J	NA	1.50 J	NA
Barium	350	820	400	mg/kg	8.50	NA	NA	4.70	NA	22.2	NA
Beryllium	7.2	47	590	mg/kg	0.0760 J	NA	NA	0.0420 J	NA	0.330	NA
Cadmium	2.5	7.5	9.3	mg/kg	0.240 U	NA	NA	0.240 U	NA	0.0560 J	NA
Calcium	- -	- -	- -	mg/kg	242	NA	NA	773 B	NA	295 B	NA
Chromium	- -	- -	- -	mg/kg	4.70	NA	NA	4.80	NA	18.8	NA
Cobalt	- -	- -	- -	mg/kg	1.10	NA	NA	0.350 J	NA	3.40	NA
Copper	50	1,720	270	mg/kg	2.20	NA	NA	1.20	NA	6.40	NA
Ferrous Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
Iron	- -	- -	- -	mg/kg	1,760	NA	NA	3,120	NA	6,590	NA
Lead	63	450	1,000	mg/kg	1.60	NA	NA	3.00	NA	3.60	NA
Magnesium	- -	- -	- -	mg/kg	512	NA	NA	671	NA	2,040 B	NA
Manganese	1,600	2,000	10,000	mg/kg	26.9 B	NA	NA	33.7	NA	68.8 B	NA
Mercury	0.18	0.73	2.8	mg/kg	0.0250 U	NA	NA	0.0230 U	NA	0.0220 U	NA
Nickel	30	130	310	mg/kg	3.60 J	NA	NA	1.90 J	NA	16.6	NA
Potassium	- -	- -	- -	mg/kg	430	NA	NA	310	NA	1,710	NA
Selenium	3.9	4	1,500	mg/kg	0.760 JB	NA	NA	4.80 U	NA	4.70 U	NA
Silver	2	8.3	1,500	mg/kg	0.710 U	NA	NA	0.720 U	NA	0.700 U	NA
Sodium	- -	- -	- -	mg/kg	211	NA	NA	1,070	NA	735 B	NA
Thallium	- -	- -	- -	mg/kg	7.10 U	NA	NA	7.20 U	NA	7.00 U	NA
Vanadium	- -	- -	- -	mg/kg	5.10	NA	NA	7.40	NA	15.2	NA
Zinc	109	2,480	10,000	mg/kg	6.90	NA	NA	2.80	NA	22.8	NA
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	NA	NA
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	1,110	NA	NA	16,600	NA	1,710	NA

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.019	0.0048 U	0.00060 J	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Toluene	0.7	0.7	500	mg/kg	0.018	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0059 U
Ethylbenzene	1	1	390	mg/kg	0.011	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 UJ	0.0059 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.039	0.0096 U	0.011 U	0.012 U	0.012 U	0.012 U	0.012 U
Acetone	0.05	0.05	500	mg/kg	0.027 U	0.024 U	0.028 U	0.030 U	0.030 U	0.017 J	0.020 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	***2.7***	0.0048 U	0.00079 J	0.0059 U	0.0059 U	0.0060 U	0.010
Methylene Chloride	0.05	0.05	500	mg/kg	0.0053 U	0.0048 U	0.0028 JB	0.0065 B	0.0058 JB	0.019	***0.12 B***
Vinyl Chloride	0.02	0.02	13	mg/kg	***0.58***	0.0048 U	0.0056 U	0.0059 U	0.0059 U	0.0060 U	0.0020 J
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
2-Nitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.20 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 UJ	0.39 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4-Nitroaniline	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
4-Nitrophenol	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
Acenaphthene	20	98	500	mg/kg	NA	NA	NA	NA	0.19 U	0.084 J	0.20 U
Acenaphthylene	100	107	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Anthracene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Atrazine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(a)pyrene	1	22	1	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.25 UB	0.49
Butylbenzylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.078 J	0.20 U
Chrysene	1	1	56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	NA	NA	NA	NA	0.19 U	0.20 UJ	0.20 U
Dibenzofuran	7	210	350	mg/kg	NA	NA	NA	NA	0.19 U	0.071 J	0.20 U
Diethylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	ASB-7 21 - 23 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-7 30 - 32 - 06/01/16 Deep Sand Layer - D1 Unit	ASB-8 20 - 21 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 26 - 28 - 06/14/16 Deep Sand Layer - D1 Unit	ASB-8 36 - 38 - 06/14/16 Deep Sand Layer - D1 Unit	MW-23-D2R 18 - 20 22 - 24 12/07/10 Deep Sand Layer - D2 Unit	MW-25-D3 21 - 23 25 - 27 12/09/10 Deep Sand Layer - D3 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.029 J	0.20 U
Fluorene	30	386	500	mg/kg	NA	NA	NA	NA	0.19 U	0.067 J	0.20 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	NA	NA	NA	NA	0.38 U	0.39 U	0.39 U
Phenanthrene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.24	0.20 U
Phenol	0.33	0.33	500	mg/kg	NA	NA	NA	NA	0.19 U	0.20 U	0.20 U
Pyrene	100	1,000	500	mg/kg	NA	NA	NA	NA	0.19 U	0.016 J	0.20 U
Total SVOCs	- -	- -	- -	mg/kg	NA	NA	NA	NA	ND	0.59 J	0.49
Inorganics											
Aluminum	- -	- -	- -	mg/kg	NA	NA	NA	NA	244	2,270	2,410
Antimony	- -	- -	- -	mg/kg	NA	NA	NA	NA	17.3 U	17.4 U	18.1 U
Arsenic	13	16	16	mg/kg	NA	NA	NA	NA	0.490 J	1.00 J	2.30 J
Barium	350	820	400	mg/kg	NA	NA	NA	NA	0.930	7.26	10.5
Beryllium	7.2	47	590	mg/kg	NA	NA	NA	NA	0.230 U	0.157 J	0.225 J
Cadmium	2.5	7.5	9.3	mg/kg	NA	NA	NA	NA	0.0350 J	0.232 U	0.0660 J
Calcium	- -	- -	- -	mg/kg	NA	NA	NA	NA	22.1 JB	526	553
Chromium	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.750	6.70	8.06
Cobalt	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.300 J	1.01	1.99
Copper	50	1,720	270	mg/kg	NA	NA	NA	NA	1.20 U	4.10	3.40
Ferrous Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	0.900 J	2.40 UJ
Iron	- -	- -	- -	mg/kg	NA	NA	NA	NA	444	3,640	5,350
Lead	63	450	1,000	mg/kg	NA	NA	NA	NA	0.750 J	1.80 J	2.30
Magnesium	- -	- -	- -	mg/kg	NA	NA	NA	NA	29.3 B	641	928
Manganese	1,600	2,000	10,000	mg/kg	NA	NA	NA	NA	2.00 B	31.6	37.5
Mercury	0.18	0.73	2.8	mg/kg	NA	NA	NA	NA	0.0240 U	0.0235 U	0.0229 J
Nickel	30	130	310	mg/kg	NA	NA	NA	NA	0.430 J	3.31 J	4.37 J
Potassium	- -	- -	- -	mg/kg	NA	NA	NA	NA	52.0	387	607
Selenium	3.9	4	1,500	mg/kg	NA	NA	NA	NA	0.760 JB	4.60 U	4.80 U
Silver	2	8.3	1,500	mg/kg	NA	NA	NA	NA	0.690 U	0.581 U	0.604 U
Sodium	- -	- -	- -	mg/kg	NA	NA	NA	NA	161 U	205	752
Thallium	- -	- -	- -	mg/kg	NA	NA	NA	NA	6.90 U	7.00 U	7.20 U
Vanadium	- -	- -	- -	mg/kg	NA	NA	NA	NA	0.750	5.91	10.7
Zinc	109	2,480	10,000	mg/kg	NA	NA	NA	NA	0.740 J	5.00	8.40
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	NA	NA	NA	NA	NA	320	400
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	NA	NA	NA	NA	1,950	1,210 U	1,220 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Toluene	0.7	0.7	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Ethylbenzene	1	1	390	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.010 U	0.0048 J	0.011 J	0.011 U	0.0046 J	0.0026 J	0.012 U
Acetone	0.05	0.05	500	mg/kg	0.0049 J	0.013 J	0.017 J	0.027 U	0.017 J	0.014 J	0.020 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0080 J	0.031 UBJ	0.030 UBJ	0.025 UBJ	0.033 UBJ	0.022 UBJ	0.021
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0052 U	0.0062 U	0.0059 U	0.0054 U	0.0061 U	0.0055 U	0.0060 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
Acenaphthene	20	98	500	mg/kg	0.18 U	0.066 J	0.085 J	0.29 J	0.41	0.19 J	0.046 J
Acenaphthylene	100	107	500	mg/kg	0.18 U	0.21 U	0.20 U	0.029 J	0.21 U	1.9 U	0.21 U
Acetophenone	- -	- -	- -	mg/kg	0.18 UJ	0.21 UJ	0.20 UJ	0.37 U	0.21 U	1.9 UJ	0.21 U
Anthracene	100	1,000	500	mg/kg	0.18 U	0.10 J	0.12 J	0.60	0.40	0.89 J	0.12 J
Atrazine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Benzaldehyde	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.18 U	0.13 J	0.14 J	***3.3***	0.64	***8.9***	0.25
Benzo(a)pyrene	1	22	1	mg/kg	0.18 U	0.095 J	0.094 J	*3.0*	0.61	*11*	0.19 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.014 J	0.10 J	0.11 J	***3.9***	0.74	***11***	0.21
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.18 U	0.040 J	0.037 J	1.2	0.22	6.3	0.13 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.18 U	0.038 J	0.035 J	*1.2*	0.26	***4.5***	0.061 J
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.60	0.10 J	1.2 J	0.38 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Caprolactam	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Carbazole	- -	- -	- -	mg/kg	0.18 U	0.017 J	0.045 J	0.050 J	0.044 J	1.9 U	0.072 J
Chrysene	1	1	56	mg/kg	0.18 U	0.094 J	0.096 J	***2.5***	0.50	***8.5***	0.19 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.18 U	0.21 U	0.20 U	0.27 J	0.053 J	*1.7 J*	0.029 J
Dibenzofuran	7	210	350	mg/kg	0.18 U	0.044 J	0.060 J	0.16 J	0.24	1.9 U	0.034 J
Diethylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 UB
Dimethylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	MW-31-D1R 0 - 2 4 - 6 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D1R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 2 - 4 6 - 8 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 4 - 6 8 - 10 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 6 - 8 10 - 12 11/17/10 Shallow Sand Fill - Shallow	MW-31-D2R 17 - 19 21 - 12/07/10 Deep Sand Layer - D1 Unit
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Fluoranthene	100	1,000	500	mg/kg	0.18 U	0.41	0.43	5.6	1.5	11	0.59
Fluorene	30	386	500	mg/kg	0.18 U	0.084 J	0.11 J	0.32 J	0.43	0.22 J	0.066 J
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Hexachloroethane	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.18 U	0.037 J	0.035 J	*0.87*	0.16 J	*5.8*	0.091 J
Isophorone	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Nitrobenzene	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.34 U	0.41 U	0.40 U	0.73 U	0.41 U	3.7 U	0.40 U
Phenanthrene	100	1,000	500	mg/kg	0.18 U	0.45	0.56	1.5	1.7	1.4 J	0.39
Phenol	0.33	0.33	500	mg/kg	0.18 U	0.21 U	0.20 U	0.37 U	0.21 U	1.9 U	0.21 U
Pyrene	100	1,000	500	mg/kg	0.18 U	0.34	0.36	4.6	1.2	12	0.53
Total SVOCs	- -	- -	- -	mg/kg	0.014 J	2.1 J	2.4 J	30 J	9.5 J	85 J	3.0 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	4,400 J	1,180 J	901 J	4,020 J	1,340 J	2,720 J	2,330
Antimony	- -	- -	- -	mg/kg	15.9 U	18.6 U	17.8 U	16.7 U	18.4 U	17.0 U	17.2 U
Arsenic	13	16	16	mg/kg	1.90 J	0.700 J	0.500 J	2.20	1.00 J	1.60 J	1.80 J
Barium	350	820	400	mg/kg	16.0 J	4.91 J	4.69 J	15.1 J	4.83 J	14.1 J	7.98
Beryllium	7.2	47	590	mg/kg	0.179 J	0.0530 J	0.0420 J	0.158 J	0.0420 J	0.130 J	0.181 J
Cadmium	2.5	7.5	9.3	mg/kg	0.100 J	0.0550 J	0.0490 J	0.120 J	0.0750 J	0.171 J	0.229 U
Calcium	- -	- -	- -	mg/kg	369 J	368 J	232 J	2,220 J	304 J	9,650 J	237
Chromium	- -	- -	- -	mg/kg	4.92	2.08	2.19	5.73	2.88	5.37	6.07
Cobalt	- -	- -	- -	mg/kg	2.61	0.641	0.388 J	2.33	0.667	1.49	0.797
Copper	50	1,720	270	mg/kg	5.10	1.50	1.10 J	6.10	1.60	4.90	1.60
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	R	R	1.40 J
Iron	- -	- -	- -	mg/kg	5,520 J	1,950 J	1,370 J	5,650 J	2,130 J	4,420 J	5,180
Lead	63	450	1,000	mg/kg	11.8	2.80	1.80	17.7	2.50	15.6	1.50 J
Magnesium	- -	- -	- -	mg/kg	777 J	334 J	281 J	920 J	370 J	2,450 J	691
Manganese	1,600	2,000	10,000	mg/kg	154 J	26.2 J	12.4 J	84.4 J	21.1 J	55.7 J	36.9
Mercury	0.18	0.73	2.8	mg/kg	0.0202	0.0237 U	0.0217 U	0.0377	0.0228 U	0.0119 J	0.0186 J
Nickel	30	130	310	mg/kg	4.71 J	1.59 J	1.17 J	4.44 J	1.90 J	3.88 J	1.97 J
Potassium	- -	- -	- -	mg/kg	382 J	220 J	226 J	510 J	247 J	324 J	392
Selenium	3.9	4	1,500	mg/kg	4.20 U	5.00 U	4.80 U	4.50 U	4.90 U	4.50 U	4.60 U
Silver	2	8.3	1,500	mg/kg	0.530 U	0.620 U	0.594 U	0.557 U	0.614 U	0.565 U	0.573 U
Sodium	- -	- -	- -	mg/kg	29.6 J	31.3 J	48.2 J	128 J	53.7 J	52.4 J	662
Thallium	- -	- -	- -	mg/kg	6.40 U	7.40 U	7.10 U	6.70 U	7.40 U	6.80 U	6.90 U
Vanadium	- -	- -	- -	mg/kg	7.37	2.91	2.69	7.66	3.78	6.16	7.85
Zinc	109	2,480	10,000	mg/kg	15.2	4.70	4.00	20.6	6.60	21.0	5.20
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	84 J	98 J	100 J	110 U	130	110 U	400
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	2,780	2,090	2,320	1,780	3,760	5,630	1,260 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0056 U	0.0056 J	0.011	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Toluene	0.7	0.7	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0014 J	0.0054 U	0.0057 U	0.0019 J
Ethylbenzene	1	1	390	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0016 J
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.0022 J	0.0025 J	0.011 J	0.011 U	0.011 U	0.0095 J
Acetone	0.05	0.05	500	mg/kg	0.028 U	0.038	0.030 J	0.018 J	0.020 J	0.015 J	0.035
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.0077 UB	0.013 UB	0.022	0.0085	0.0097	0.011	0.012
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0056 U	0.0062 U	0.0062 U	0.0059 U	0.0054 U	0.0057 U	0.0062 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
2-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
3-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
4-Methylphenol	0.33	0.33	500	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Nitroaniline	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
4-Nitrophenol	- -	- -	- -	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
Acenaphthene	20	98	500	mg/kg	7.1 J	0.092 J	0.15 J	0.018 J	0.19 U	0.20 U	0.21 U
Acenaphthylene	100	107	500	mg/kg	0.20 J	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Acetophenone	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Anthracene	100	1,000	500	mg/kg	0.76 J	0.022 J	0.038 J	0.060 J	0.19 U	0.20 U	0.21 U
Atrazine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Benzaldehyde	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Benzo(a)anthracene	1	1	5.6	mg/kg	***2.0***	0.038 J	0.063 J	0.20	0.19 U	0.20 U	0.21 U
Benzo(a)pyrene	1	22	1	mg/kg	0.58 J	0.027 J	0.039 J	0.19 J	0.19 U	0.20 U	0.21 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.90 J	0.034 J	0.050 J	0.22	0.19 U	0.20 U	0.21 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.17 J	0.022 J	0.024 J	0.15 J	0.19 U	0.20 U	0.21 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.34 J	0.21 U	0.21 U	0.085 J	0.19 U	0.20 U	0.21 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Caprolactam	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Carbazole	- -	- -	- -	mg/kg	0.082 J	0.21 U	0.21 U	0.032 J	0.19 U	0.20 U	0.21 U
Chrysene	1	1	56	mg/kg	***1.8***	0.040 J	0.065 J	0.19 J	0.19 U	0.20 U	0.21 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.96 U	0.21 U	0.21 U	0.029 J	0.19 U	0.20 U	0.21 U
Dibenzofuran	7	210	350	mg/kg	0.53 J	0.031 J	0.039 J	0.20 U	0.19 U	0.20 U	0.21 U
Diethylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	P-18R 0 - 2 4 - 6 12/02/10 Shallow Sand Fill - Shallow	P-18R 4 - 6 8 - 10 12/02/10 Shallow Sand Fill - Shallow	P-18R 6 - 8 10 - 12 12/02/10 Shallow Sand Fill - Shallow	TP-1-1 4 8 11/29/10 Shallow Sand Fill - Shallow	TP-1-2 3 7 11/30/10 Shallow Sand Fill - Shallow	TP-1-3 3.5 7.5 11/30/10 Shallow Sand Fill - Shallow	TP-2-1 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Fluoranthene	100	1,000	500	mg/kg	16	0.14 J	0.30	0.48	0.19 U	0.20 U	0.019 J
Fluorene	30	386	500	mg/kg	1.6 J	0.081 J	0.099 J	0.026 J	0.19 U	0.20 U	0.21 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Hexachloroethane	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.17 J	0.21 U	0.21 U	0.12 J	0.19 U	0.20 U	0.21 U
Isophorone	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Nitrobenzene	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.21 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.9 U	0.40 U	0.41 U	0.40 U	0.36 U	0.39 U	0.41 U
Phenanthrene	100	1,000	500	mg/kg	3.8 J	0.15 J	0.26	0.29	0.19 U	0.20 U	0.024 J
Phenol	0.33	0.33	500	mg/kg	0.96 U	0.21 U	0.21 U	0.20 U	0.19 U	0.20 U	0.11 J
Pyrene	100	1,000	500	mg/kg	13	0.13 J	0.28	0.36	0.19 U	0.20 U	0.21 U
Total SVOCs	- -	- -	- -	mg/kg	49 J	0.84 J	1.4 J	2.5 J	ND	ND	0.15 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	7,410 J	505 J	1,770 J	1,830 J	2,370 J	1,250 J	1,320 J
Antimony	- -	- -	- -	mg/kg	16.9 UJ	17.9 UJ	17.6 UJ	17.5 U	16.4 U	17.6 U	18.5 U
Arsenic	13	16	16	mg/kg	3.80 J	2.40 UJ	0.900 J	1.40 J	1.50 J	2.30 UJ	1.30 J
Barium	350	820	400	mg/kg	21.7	2.37	8.06	18.4	9.88	6.17	10.1
Beryllium	7.2	47	590	mg/kg	0.299 J	0.238 UJ	0.0890 J	0.0580 J	0.104 J	0.234 U	0.246 U
Cadmium	2.5	7.5	9.3	mg/kg	0.123 J	0.238 U	0.0450 J	0.250 J	0.218 UBJ	0.234 UBJ	0.246 UBJ
Calcium	- -	- -	- -	mg/kg	2,080 J	91.1 J	455 J	5,090	1,440 B	687	306
Chromium	- -	- -	- -	mg/kg	8.36	0.961	3.62	4.59	6.17	3.51	3.69
Cobalt	- -	- -	- -	mg/kg	3.45	0.329 J	0.671	0.927	1.32	0.491 J	0.825
Copper	50	1,720	270	mg/kg	7.30	0.600 J	2.30	3.50	3.30	1.40	5.90
Ferrous Iron	- -	- -	- -	mg/kg	2.60 J	1.80 J	2.50 J	R	R	R	R
Iron	- -	- -	- -	mg/kg	9,100 J	805 J	3,130 J	3,540	4,430	2,380	3,240
Lead	63	450	1,000	mg/kg	28.5	1.30	8.90	12.0 J	3.80 J	1.60 J	2.10 J
Magnesium	- -	- -	- -	mg/kg	2,060 J	132 J	567 J	709	752	422	441
Manganese	1,600	2,000	10,000	mg/kg	138 J	7.50 J	27.1 J	40.4 J	26.0 J	15.2 J	27.5 J
Mercury	0.18	0.73	2.8	mg/kg	0.0269	0.0250 U	0.0239 U	0.0234 U	0.0218 U	0.0227 U	0.0119 J
Nickel	30	130	310	mg/kg	6.33	0.616 J	1.86 J	2.56 J	3.77 J	1.63 J	2.00 J
Potassium	- -	- -	- -	mg/kg	347	94.4	258	504	516	352	355
Selenium	3.9	4	1,500	mg/kg	4.50 U	4.80 U	4.70 U	4.70 U	4.40 U	4.70 U	4.90 U
Silver	2	8.3	1,500	mg/kg	0.563 U	0.596 U	0.586 U	0.585 U	0.546 U	0.586 U	0.616 U
Sodium	- -	- -	- -	mg/kg	49.9 J	16.8 J	35.0 J	87.6 J	58.2 J	38.8 J	65.0 J
Thallium	- -	- -	- -	mg/kg	6.80 U	7.10 U	7.00 U	7.00 U	6.60 U	7.00 U	7.40 U
Vanadium	- -	- -	- -	mg/kg	12.7	1.16	4.58	5.77	7.31	4.28	3.92
Zinc	109	2,480	10,000	mg/kg	22.1	1.60 J	8.10	32.6 J	10.5 J	4.90 J	6.10 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	87 J	67 J	140	850	480	270	310
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	3,800	2,420	5,560	3,800	1,320 U	1,200 U	1,250 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-2-2 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow	TP-3-1 5 9 12/01/10 Shallow Sand Fill - Shallow	TP-3-2 6.8 10.8 12/01/10 Shallow Sand Fill - Shallow	TP-3-3 6.5 10.5 12/01/10 Shallow Sand Fill - Shallow	TP-4-B-1 1.5 5.5 12/02/10 Shallow Sand Fill - Shallow	TP-4-D-1 7 11 12/02/10 Shallow Sand Fill - Shallow	TP-4-F-1 4 8 12/02/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Toluene	0.7	0.7	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Ethylbenzene	1	1	390	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.0014 J	0.015 U	0.014 U	0.015 U	0.011 U	0.011 U	0.012 U
Acetone	0.05	0.05	500	mg/kg	0.015 J	0.032 J	0.026 J	0.017 J	0.0062 J	0.0067 J	0.022 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.013	0.0094	0.012	0.0082	0.013	0.0097	0.017
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0064 U	0.0073 U	0.0071 U	0.0073 U	0.0055 U	0.0053 U	0.0059 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
Acenaphthene	20	98	500	mg/kg	0.22 U	0.11 J	0.24 U	0.25 U	0.057 J	0.18 U	0.20 U
Acenaphthylene	100	107	500	mg/kg	0.22 U	0.022 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U
Acetophenone	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Anthracene	100	1,000	500	mg/kg	0.22 U	0.040 J	0.24 U	0.25 U	0.10 J	0.18 U	0.20 U
Atrazine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Benzaldehyde	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.22 U	0.16 J	0.24 U	0.25 U	0.34	0.18 U	0.20 U
Benzo(a)pyrene	1	22	1	mg/kg	0.22 U	0.16 J	0.24 U	0.25 U	0.41	0.18 U	0.20 U
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.22 U	0.17 J	0.24 U	0.25 U	0.50	0.18 U	0.20 U
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.22 U	0.11 J	0.24 U	0.25 U	0.24	0.18 U	0.20 U
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.22 U	0.055 J	0.24 U	0.25 U	0.17 J	0.18 U	0.20 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.22 U	0.24 UB	0.24 UB	0.25 UB	0.21 UB	0.18 UB	0.20 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Caprolactam	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Carbazole	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.042 J	0.18 U	0.20 U
Chrysene	1	1	56	mg/kg	0.22 U	0.15 J	0.24 U	0.25 U	0.35	0.18 U	0.20 U
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Dibenzofuran	7	210	350	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Diethylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-2-2 5.5 9.5 11/30/10 Shallow Sand Fill - Shallow	TP-3-1 5 9 12/01/10 Shallow Sand Fill - Shallow	TP-3-2 6.8 10.8 12/01/10 Shallow Sand Fill - Shallow	TP-3-3 6.5 10.5 12/01/10 Shallow Sand Fill - Shallow	TP-4-B-1 1.5 5.5 12/02/10 Shallow Sand Fill - Shallow	TP-4-D-1 7 11 12/02/10 Shallow Sand Fill - Shallow	TP-4-F-1 4 8 12/02/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Fluoranthene	100	1,000	500	mg/kg	0.22 U	0.21 J	0.24 U	0.25 U	0.71	0.18 U	0.20 U
Fluorene	30	386	500	mg/kg	0.22 U	0.15 J	0.24 U	0.25 U	0.031 J	0.18 U	0.20 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Hexachloroethane	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.22 U	0.083 J	0.24 U	0.25 U	0.21	0.18 U	0.20 U
Isophorone	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Nitrobenzene	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.43 U	0.47 U	0.47 U	0.49 U	0.36 U	0.34 U	0.38 U
Phenanthrene	100	1,000	500	mg/kg	0.22 U	0.049 J	0.24 U	0.25 U	0.29	0.037 J	0.019 J
Phenol	0.33	0.33	500	mg/kg	0.22 U	0.24 U	0.24 U	0.25 U	0.19 U	0.18 U	0.20 U
Pyrene	100	1,000	500	mg/kg	0.22 U	0.23 J	0.24 U	0.25 U	0.70	0.18 U	0.20 U
Total SVOCs	- -	- -	- -	mg/kg	ND	1.7 J	ND	ND	4.2 J	0.037 J	0.019 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	927 J	2,710 J	11,000 J	1,600 J	3,710 J	404 J	745 J
Antimony	- -	- -	- -	mg/kg	18.9 U	21.7 U	20.6 U	22.5 U	15.9 UJ	14.7 UJ	17.2 UJ
Arsenic	13	16	16	mg/kg	2.50 UJ	1.50 J	10.1	1.00 J	4.10 J	0.400 J	2.30 UJ
Barium	350	820	400	mg/kg	8.32	15.9	25.2	8.27	17.6	1.28	2.18
Beryllium	7.2	47	590	mg/kg	0.252 U	0.124 J	0.513	0.0510 J	0.278 J	0.195 U	0.229 UJ
Cadmium	2.5	7.5	9.3	mg/kg	0.252 UBJ	0.289 UBJ	0.314 J	0.300 UBJ	0.284	0.0300 J	0.229 U
Calcium	- -	- -	- -	mg/kg	464	983	1,630	426	4,140 J	65.8 J	165 J
Chromium	- -	- -	- -	mg/kg	2.14	6.76	28.5	3.59	7.72	0.701	1.26
Cobalt	- -	- -	- -	mg/kg	0.331 J	1.54	5.86	1.14	2.42	0.142 J	0.468 J
Copper	50	1,720	270	mg/kg	0.700 J	3.60 J	12.5 J	2.60 J	14.2	0.600 J	1.10
Ferrous Iron	- -	- -	- -	mg/kg	R	R	R	R	1.90 J	1.40 J	R
Iron	- -	- -	- -	mg/kg	1,170	5,200 J	22,200 J	2,770 J	6,560 J	764 J	1,070 J
Lead	63	450	1,000	mg/kg	1.10 J	3.00 J	11.4 J	1.80 J	28.7	0.600 J	1.90
Magnesium	- -	- -	- -	mg/kg	269	1,040	4,380	632	2,230 J	56.2 J	122 J
Manganese	1,600	2,000	10,000	mg/kg	11.1 J	44.4 J	192 J	25.6 J	77.9 J	3.80 J	7.60 J
Mercury	0.18	0.73	2.8	mg/kg	0.0250 U	0.0270 U	0.0166 J	0.0273 U	*0.606*	0.0198 U	0.0226 U
Nickel	30	130	310	mg/kg	1.20 J	4.38 J	18.0	3.04 J	5.97	0.531 J	1.20 J
Potassium	- -	- -	- -	mg/kg	225	751	2,290	479	456	59.5	115
Selenium	3.9	4	1,500	mg/kg	5.00 U	5.80 U	0.800 J	6.00 U	4.20 U	3.90 U	4.60 U
Silver	2	8.3	1,500	mg/kg	0.629 U	0.722 U	0.688 U	0.751 U	*3.32*	0.489 U	0.574 U
Sodium	- -	- -	- -	mg/kg	39.2 J	117 J	1,150	161 J	121 J	15.6 J	19.2 J
Thallium	- -	- -	- -	mg/kg	7.60 U	8.70 U	8.30 U	9.00 U	6.40 U	5.90 U	6.90 U
Vanadium	- -	- -	- -	mg/kg	2.15	9.50	35.7	4.39	11.1	0.704	1.33
Zinc	109	2,480	10,000	mg/kg	3.70 J	12.5 J	43.6 J	7.20 J	62.8	1.40 J	2.10 J
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	260	810	2,300	520	220	110 U	140
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	1,200 U	1,900	7,750	1,410	2,740	1,100 U	1,160 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Toluene	0.7	0.7	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Ethylbenzene	1	1	390	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.21 J	0.064 U	0.21 U	0.011 U	0.011 U	1.1 U	0.0031 J
Acetone	0.05	0.05	500	mg/kg	0.77 U	0.16 U	0.52 U	***0.080***	0.018 J	2.9 U	0.026 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.15 U	***0.11***	0.10 U	0.038 J	0.041 J	0.57 U	0.017
Vinyl Chloride	0.02	0.02	13	mg/kg	0.15 U	0.032 U	0.10 U	0.0053 U	0.0056 U	0.57 U	0.0055 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
2-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
3-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
4-Methylphenol	0.33	0.33	500	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Nitroaniline	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
4-Nitrophenol	- -	- -	- -	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
Acenaphthene	20	98	500	mg/kg	0.27 U	0.11 J	0.22 J	1.8 U	0.19 U	0.94 J	0.020 J
Acenaphthylene	100	107	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J
Acetophenone	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Anthracene	100	1,000	500	mg/kg	0.27 U	0.086 J	1.8 U	0.17 J	0.19 U	0.82 J	0.035 J
Atrazine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Benzaldehyde	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.27 U	0.27	1.8 U	0.50 J	0.019 J	***2.7 J***	0.099 J
Benzo(a)pyrene	1	22	1	mg/kg	0.27 U	0.27	1.8 U	0.48 J	0.019 J	*2.7 J*	0.10 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.27 U	0.34	1.8 U	0.50 J	0.023 J	***2.8 J***	0.12 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.27 U	0.13 J	1.8 U	0.44 J	0.017 J	1.5 J	0.081 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.27 U	0.11 J	1.8 U	1.8 U	0.19 U	*1.2 J*	0.034 J
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.27 UB	0.20 UB	1.8 UB	1.8 UB	0.19 UB	4.8 U	0.19 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Caprolactam	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Carbazole	- -	- -	- -	mg/kg	0.27 U	0.046 J	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Chrysene	1	1	56	mg/kg	0.27 U	0.27	1.8 U	0.52 J	0.024 J	***2.3 J***	0.11 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Dibenzofuran	7	210	350	mg/kg	0.27 U	0.081 J	1.8 U	1.8 U	0.19 U	4.8 U	0.021 J
Diethylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 UB	4.8 U	0.19 UB
Dimethylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-5-1 5 9 12/02/10 Shallow Sand Fill - Shallow	TP-5-2 5.5 9.5 12/02/10 Shallow Sand Fill - Shallow	TP-5-3 6 10 12/02/10 Shallow Sand Fill - Shallow	TP-6-1 5 9 12/03/10 Shallow Sand Fill - Shallow	TP-6-2 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-6-3 5.5 9.5 12/03/10 Shallow Sand Fill - Shallow	TP-7-1 5 9 12/06/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Fluoranthene	100	1,000	500	mg/kg	0.27 U	0.66	0.20 J	1.2 J	0.046 J	4.8	0.19
Fluorene	30	386	500	mg/kg	0.27 U	0.13 J	0.21 J	1.8 U	0.19 U	1.1 J	0.025 J
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Hexachloroethane	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.27 U	0.12 J	1.8 U	0.31 J	0.19 U	*1.1 J*	0.059 J
Isophorone	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Nitrobenzene	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.19 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	0.52 U	0.38 U	3.5 U	3.5 U	0.36 U	9.4 U	0.36 U
Phenanthrene	100	1,000	500	mg/kg	0.039 J	0.63	0.40 J	1.2 J	0.042 J	1.7 J	0.14 J
Phenol	0.33	0.33	500	mg/kg	0.27 U	0.20 U	1.8 U	1.8 U	0.19 U	4.8 U	0.035 J
Pyrene	100	1,000	500	mg/kg	0.27 U	0.69	0.23 J	1.1 J	0.039 J	4.8	0.19
Total SVOCs	- -	- -	- -	mg/kg	0.32 J	4.1 J	1.3 J	6.4 J	0.23 J	28 J	1.3 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	9,740 J	3,430 J	4,230 J	4,640	637	3,000	3,500
Antimony	- -	- -	- -	mg/kg	23.0 UJ	17.0 UJ	15.5 UJ	15.7 U	16.7 U	16.4 U	16.2 U
Arsenic	13	16	16	mg/kg	11.0 J	2.70 J	1.50 J	***28.1***	0.500 J	1.90 J	6.50
Barium	350	820	400	mg/kg	34.4	113	16.8	43.2	6.25	14.0	22.7
Beryllium	7.2	47	590	mg/kg	0.595 J	0.228 J	0.225 J	0.241	0.223 U	0.157 J	0.278
Cadmium	2.5	7.5	9.3	mg/kg	0.366	0.218 J	0.115 J	0.660	0.223 U	0.0790 J	0.0760 J
Calcium	- -	- -	- -	mg/kg	3,570 J	5,800 J	140 J	10,800	490	1,040	3,010
Chromium	- -	- -	- -	mg/kg	26.4	7.41	6.06	9.72	1.57	6.88	4.99
Cobalt	- -	- -	- -	mg/kg	6.33	2.08	3.48	2.68	0.285 J	2.26	2.62
Copper	50	1,720	270	mg/kg	11.3	6.10	4.50	11.9	0.700 J	4.00	5.70
Ferrous Iron	- -	- -	- -	mg/kg	1.70 J	1.30 J	4.40 J	22.1 J	R	0.700 J	R
Iron	- -	- -	- -	mg/kg	25,100 J	6,100 J	6,640 J	8,290	917	4,740	6,380
Lead	63	450	1,000	mg/kg	13.1	28.3	3.60	57.9	0.600 J	9.70	17.8 J
Magnesium	- -	- -	- -	mg/kg	3,850 J	1,870 J	694 J	2,270	230	1,170	714
Manganese	1,600	2,000	10,000	mg/kg	240 J	76.0 J	49.2 J	110	8.30	36.9	91.7
Mercury	0.18	0.73	2.8	mg/kg	0.0306 U	0.0155 J	0.0209 U	0.0732	0.0220 U	0.0224 U	0.0256
Nickel	30	130	310	mg/kg	15.7	4.59 J	4.67 J	5.61	0.810 J	5.40 J	3.98 J
Potassium	- -	- -	- -	mg/kg	2,170	521	299	436	259	705	436
Selenium	3.9	4	1,500	mg/kg	6.10 U	4.50 U	4.10 U	4.20 U	4.50 U	4.40 U	4.30 U
Silver	2	8.3	1,500	mg/kg	0.767 U	0.568 U	0.518 U	0.524 U	0.556 U	0.546 U	0.541 U
Sodium	- -	- -	- -	mg/kg	171 J	107 J	60.9 J	303	44.3 J	107 J	132 J
Thallium	- -	- -	- -	mg/kg	9.20 U	6.80 U	6.20 U	6.30 U	6.70 U	6.60 U	6.50 U
Vanadium	- -	- -	- -	mg/kg	31.4	9.55	8.11	12.1	1.75	7.97	7.37
Zinc	109	2,480	10,000	mg/kg	48.6	68.6	10.5	67.6	2.00 J	15.9	31.4
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	620	65 J	370	380	110 U	70 J	110 U
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	19,100	26,100	6,310	12,800	1,210 U	14,000	1,700

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2 5 9 12/06/10 Shallow Sand Fill - Shallow	TP-8-1 4.5 8.5 12/06/10 Shallow Sand Fill - Shallow	TP-8-2 4 8 12/06/10 Shallow Sand Fill - Shallow	TP-9-1 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-9-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-9-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-10-1 6 10 12/07/10 Shallow Sand Fill - Shallow
Volatile Organics											
Benzene	0.06	0.06	44	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Toluene	0.7	0.7	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Ethylbenzene	1	1	390	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Xylenes (total)	0.26	1.6	500	mg/kg	1.1 U	0.21 U	0.011 U	0.44 U	0.45 U	0.016 U	0.011 U
Acetone	0.05	0.05	500	mg/kg	2.7 U	0.51 U	0.010 J	1.1 U	1.1 U	***0.055***	0.025 J
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.54 U	***0.082 J***	0.016	0.22 U	0.23 U	0.020	0.017
Vinyl Chloride	0.02	0.02	13	mg/kg	0.54 U	0.10 U	0.0054 U	0.22 U	0.23 U	0.0079 U	0.0056 U
Semivolatile Organics											
2-Methylphenol	0.33	0.33	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
2-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
2-Nitrophenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
3-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chloroaniline	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
4-Methylphenol	0.33	0.33	500	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Nitroaniline	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
4-Nitrophenol	- -	- -	- -	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
Acenaphthene	20	98	500	mg/kg	1.7 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Acenaphthylene	100	107	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Acetophenone	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Anthracene	100	1,000	500	mg/kg	1.5 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Atrazine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Benzaldehyde	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Benzo(a)anthracene	1	1	5.6	mg/kg	***3.7 J***	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.18 J
Benzo(a)pyrene	1	22	1	mg/kg	*3.7 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.17 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	***4.1 J***	0.072 J	0.18 U	0.99 U	0.94 U	0.26 U	0.15 J
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	2.1 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.13 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	*1.1 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	4.7 UB	0.95 UB	0.18 UB	0.99 UB	0.94 U	0.26 UB	1.0 UB
Butylbenzylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Caprolactam	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Carbazole	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Chrysene	1	1	56	mg/kg	***3.5 J***	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.13 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Dibenzofuran	7	210	350	mg/kg	1.1 J	0.95 U	0.18 U	0.99 U	0.88 J	0.26 U	1.0 U
Diethylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 UB	0.99 U	0.94 U	0.26 UB	1.0 U
Dimethylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-7-2 5 9 12/06/10 Shallow Sand Fill - Shallow	TP-8-1 4.5 8.5 12/06/10 Shallow Sand Fill - Shallow	TP-8-2 4 8 12/06/10 Shallow Sand Fill - Shallow	TP-9-1 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-9-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-9-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-10-1 6 10 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)											
Di-n-Butylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Fluoranthene	100	1,000	500	mg/kg	7.0	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.23 J
Fluorene	30	386	500	mg/kg	1.9 J	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorobenzene	0.33	3.2	6	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Hexachloroethane	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	*1.8 J*	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	0.094 J
Isophorone	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Nitrobenzene	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	9.1 U	1.8 U	0.36 U	1.9 U	1.8 U	0.51 U	1.9 U
Phenanthrene	100	1,000	500	mg/kg	4.2 J	0.95 U	0.18 U	0.99 U	1.5	0.26 U	0.11 J
Phenol	0.33	0.33	500	mg/kg	4.7 U	0.95 U	0.18 U	0.99 U	0.94 U	0.26 U	1.0 U
Pyrene	100	1,000	500	mg/kg	7.7	0.11 J	0.18 U	0.077 J	0.94 U	0.26 U	0.30 J
Total SVOCs	- -	- -	- -	mg/kg	45 J	0.18 J	ND	0.077 J	2.4 J	ND	1.5 J
Inorganics											
Aluminum	- -	- -	- -	mg/kg	2,280	728	545	4,520	564	11,200	1,730
Antimony	- -	- -	- -	mg/kg	16.1 U	17.7 U	16.5 U	17.5 U	16.0 U	23.2 U	16.8 U
Arsenic	13	16	16	mg/kg	3.60	2.40 U	2.20 U	2.40	2.10 U	10.3	7.90
Barium	350	820	400	mg/kg	21.4	3.31	2.64	19.5	2.12	32.4	37.4
Beryllium	7.2	47	590	mg/kg	0.218	0.0470 J	0.0430 J	0.283	0.0440 J	0.822	0.155 J
Cadmium	2.5	7.5	9.3	mg/kg	0.258	0.235 U	0.220 U	0.234 U	0.213 U	0.362	0.109 J
Calcium	- -	- -	- -	mg/kg	9,740	229	150	800	106	2,480	1,890
Chromium	- -	- -	- -	mg/kg	5.83	1.82	1.27	13.4	1.35	31.9	3.01
Cobalt	- -	- -	- -	mg/kg	1.36	0.406 J	0.247 J	1.95	0.411 J	5.96	1.38
Copper	50	1,720	270	mg/kg	13.4	1.00 J	0.700 J	22.3	0.700 J	11.4	6.00
Ferrous Iron	- -	- -	- -	mg/kg	8.30 J	0.900 J	R	1.10 J	0.400 J	2.20 J	0.700 J
Iron	- -	- -	- -	mg/kg	3,860	973	628	6,920	778	27,900	5,430
Lead	63	450	1,000	mg/kg	35.0 J	2.80 J	0.700 J	4.70 J	0.700 J	7.70 J	*200 J*
Magnesium	- -	- -	- -	mg/kg	2,320	214	165	1,610	108	4,700	570
Manganese	1,600	2,000	10,000	mg/kg	49.7	9.50	6.60	61.6	6.70	361	50.4
Mercury	0.18	0.73	2.8	mg/kg	0.104	0.0220 U	0.0216 U	0.0213 U	0.0230 U	0.0313 U	0.0325
Nickel	30	130	310	mg/kg	5.85	1.08 J	0.792 J	5.55 J	0.964 J	18.5	2.78 J
Potassium	- -	- -	- -	mg/kg	359	196	148	1,170	110	2,680	243
Selenium	3.9	4	1,500	mg/kg	4.30 U	4.70 U	4.40 U	4.70 U	4.30 U	6.20 U	4.50 U
Silver	2	8.3	1,500	mg/kg	0.537 U	0.589 U	0.549 U	0.584 U	0.533 U	0.774 U	0.561 U
Sodium	- -	- -	- -	mg/kg	115 J	41.6 J	48.9 J	148 J	32.3 J	351	840
Thallium	- -	- -	- -	mg/kg	6.40 U	7.10 U	6.60 U	7.00 U	6.40 U	9.30 U	6.70 U
Vanadium	- -	- -	- -	mg/kg	7.57	2.72	1.40	14.4	1.42	38.4	4.74
Zinc	109	2,480	10,000	mg/kg	75.1	2.40	1.80 J	24.0	1.50 J	47.1	60.6
Miscellaneous											
Sulfate	- -	- -	- -	mg/kg	110 U	94 J	110 U	120 U	110 U	810	440
TOC											
Total Organic Carbon	- -	- -	- -	mg/kg	8,210	1,160 U	1,100 U	1,120 U	1,090 U	21,200	2,730

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Volatile Organics								
Benzene	0.06	0.06	44	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Toluene	0.7	0.7	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Ethylbenzene	1	1	390	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Xylenes (total)	0.26	1.6	500	mg/kg	0.011 U	0.012 U	0.020 J	0.23 U
Acetone	0.05	0.05	500	mg/kg	0.028 U	0.018 J	***0.058 J***	0.58 U
cis-1,2-Dichloroethene	0.25	0.25	500	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Methylene Chloride	0.05	0.05	500	mg/kg	0.018	0.015	***0.086***	0.12 U
Vinyl Chloride	0.02	0.02	13	mg/kg	0.0056 U	0.0062 U	0.040 U	0.12 U
Semivolatile Organics								
2-Methylphenol	0.33	0.33	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
2-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
2-Nitrophenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
3,3'-Dichlorobenzidine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
3-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4,6-Dinitro-2-methylphenol	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Bromophenyl-phenylether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloro-3-Methylphenol	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chloroaniline	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Chlorophenyl-phenylether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
4-Methylphenol	0.33	0.33	500	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitroaniline	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
4-Nitrophenol	- -	- -	- -	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
Acenaphthene	20	98	500	mg/kg	0.94 U	0.31	0.10 J	0.69 J
Acenaphthylene	100	107	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Acetophenone	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Anthracene	100	1,000	500	mg/kg	0.068 J	0.11 J	0.099 J	0.78 U
Atrazine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Benzaldehyde	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Benzo(a)anthracene	1	1	5.6	mg/kg	0.24 J	0.026 J	0.039 J	0.26 J
Benzo(a)pyrene	1	22	1	mg/kg	0.26 J	0.21 U	0.024 J	0.23 J
Benzo(b)fluoranthene	1	1.7	5.6	mg/kg	0.25 J	0.017 J	0.029 J	0.39 JY
Benzo(g,h,i)perylene	100	1,000	500	mg/kg	0.14 J	0.21 U	0.23 U	0.19 J
Benzo(k)fluoranthene	0.8	1.7	56	mg/kg	0.94 U	0.21 U	0.23 U	0.48 JY
bis(2-Chloroethoxy)methane	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Chloroethyl)ether	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
bis(2-Ethylhexyl)phthalate	- -	- -	- -	mg/kg	0.94 UB	0.21 UB	0.23 UB	0.34 J
Butylbenzylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Caprolactam	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Carbazole	- -	- -	- -	mg/kg	0.94 U	0.020 J	0.033 J	0.78 U
Chrysene	1	1	56	mg/kg	0.23 J	0.024 J	0.030 J	0.22 J
Dibenzo(a,h)anthracene	0.33	1,000	0.56	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Dibenzofuran	7	210	350	mg/kg	0.94 U	0.19 J	0.093 J	0.78 U
Diethylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 UB	0.78 U
Dimethylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID: Historical Sample Depth(feet): Current Estimated Sample Depth (feet) Date Collected: Sampling Event:	Unrestricted Use SCOs	Restricted Use SCO - Protection of Groundwater	Restricted Use SCO - Commercial	Units	TP-10-2 6 10 12/07/10 Shallow Sand Fill - Shallow	TP-10-3 6.5 10.5 12/07/10 Shallow Sand Fill - Shallow	TP-11-1 5 9 12/07/10 Shallow Sand Fill - Shallow	TP-12-1 4.7 8.7 12/07/10 Shallow Sand Fill - Shallow
Semivolatile Organics (Cont.)								
Di-n-Butylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Di-n-Octylphthalate	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Fluoranthene	100	1,000	500	mg/kg	0.42 J	0.21 U	0.13 J	0.58 J
Fluorene	30	386	500	mg/kg	0.94 U	0.23	0.15 J	1.6
Hexachlorobenzene	0.33	3.2	6	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorobutadiene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachlorocyclopentadiene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Hexachloroethane	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Indeno(1,2,3-cd)pyrene	0.5	8.2	5.6	mg/kg	0.11 J	0.21 U	0.23 U	0.16 J
Isophorone	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Nitrobenzene	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitroso-di-n-propylamine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
N-Nitrosodiphenylamine	- -	- -	- -	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Pentachlorophenol	0.8	0.8	6.7	mg/kg	1.8 U	0.41 U	0.45 U	1.5 U
Phenanthrene	100	1,000	500	mg/kg	0.94 U	0.21	0.27	3.3
Phenol	0.33	0.33	500	mg/kg	0.94 U	0.21 U	0.23 U	0.78 U
Pyrene	100	1,000	500	mg/kg	0.41 J	0.15 J	0.11 J	0.75 J
Total SVOCs	- -	- -	- -	mg/kg	2.1 J	1.3 J	1.6 J	22 J
Inorganics								
Aluminum	- -	- -	- -	mg/kg	2,440	5,570	3,760	3,550
Antimony	- -	- -	- -	mg/kg	15.7 U	17.7 U	20.4 U	17.6 U
Arsenic	13	16	16	mg/kg	***20.7***	1.00 J	3.00	1.70 J
Barium	350	820	400	mg/kg	44.9	16.8	14.6	13.0
Beryllium	7.2	47	590	mg/kg	0.182 J	0.369	0.304	0.277
Cadmium	2.5	7.5	9.3	mg/kg	0.222	0.0400 J	0.382	0.0870 J
Calcium	- -	- -	- -	mg/kg	8,390	387	1,190	4,180
Chromium	- -	- -	- -	mg/kg	4.57	6.72	10.4	9.55
Cobalt	- -	- -	- -	mg/kg	1.61	1.70	2.72	1.69
Copper	50	1,720	270	mg/kg	9.40	5.00	8.10	5.60
Ferrous Iron	- -	- -	- -	mg/kg	2.70 J	2.10 J	1.00 J	1.20 J
Iron	- -	- -	- -	mg/kg	4,600	6,830	7,510	6,210
Lead	63	450	1,000	mg/kg	41.8 J	8.30 J	13.4 J	7.70 J
Magnesium	- -	- -	- -	mg/kg	2,420	823	1,480	2,050
Manganese	1,600	2,000	10,000	mg/kg	74.6	50.0	73.7	46.6
Mercury	0.18	0.73	2.8	mg/kg	0.0675	0.0251 U	0.0279 U	***1.35***
Nickel	30	130	310	mg/kg	3.98 J	5.02 J	6.14 J	6.08
Potassium	- -	- -	- -	mg/kg	268	365	910	853
Selenium	3.9	4	1,500	mg/kg	4.20 U	4.70 U	5.40 U	4.70 U
Silver	2	8.3	1,500	mg/kg	0.523 U	0.589 U	0.679 U	0.587 U
Sodium	- -	- -	- -	mg/kg	83.2 J	116 J	57.9 J	78.5 J
Thallium	- -	- -	- -	mg/kg	6.30 U	7.10 U	8.20 U	7.00 U
Vanadium	- -	- -	- -	mg/kg	6.75	9.88	12.5	11.6
Zinc	109	2,480	10,000	mg/kg	80.7	14.0	24.2	17.1
Miscellaneous								
Sulfate	- -	- -	- -	mg/kg	230	390	140 U	220
TOC								
Total Organic Carbon	- -	- -	- -	mg/kg	3,350	1,730	1,250 U	1,470

See Notes on Page 23.

Table 2
Hisotrical Soil Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Notes:

1. Unrestricted use SCO, Restricted use SCO for commercial use and protection of groundwater are from 6 NYCRR Part 375-6.8.
2. Field duplicate sample results are presented in brackets, [ ].
3. Designations:
   - Gray font = Analyte was not detected.
   - Italic font = Analyte was detected above unrestricted use SCO.
   - Black Bold Italic font = Analyte detected above restricted - protection of groundwater SCO.
   - Gray Shading = Analyte detected above restricted - commercial use SCO.
4. Abbreviations:
   - - - = 6 NYCRR SCO not available.
   - 6 NYCRR = Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York.
   - ft = feet.
   - LCS/LCSD = Laboratory Control Sample/Laboratory Control Sample Duplicate.
   - mg/kg = milligrams per kilogram or part per million.
   - NA = Not Analyzed.
   - SCO = Soil Cleanup Objectives.
   - VOC = Volatile Organic Compounds.
   - SVOC = Semi-Volatile Organic Compounds.
5. Qualifier Definitions:
   - B = Analyte was detected in the blank and sample.
   - E = Analyte exceeded calibration range.
   - J = Estimated value. Result is greater than the RL but less than the MDL.
   - R = Rejected results.
   - U = Analyte not detected at listed reporting detection limit.
   - * = LCS/LCSD or relative percent difference of LCS/LCSD exceeds the control limits.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-12	01/14/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
AMW-13-D1	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AMW-13-D2	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AMW-13-VD	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AMW-14-D1	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.91 J**	**0.46 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 4.0	< 4.0		< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/12/2018	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	**0.62 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.36 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.54 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.180 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.606 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	11/04/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.790 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	**0.561 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
AMW-14-D2	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/12/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
	08/19/2020	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
	11/05/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
AMW-14-VD	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/12/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-14-VD (cont.)	05/10/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	09/13/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.43 J**	<1.0
	12/05/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.45 J**	<1.0
	02/12/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.46 J**	<1.0
	06/10/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/20/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	**0.350 J**	<1.00
	11/05/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	**0.119 J**	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	**0.221 J**	<1.00
AMW-15-D1	06/23/2016	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	10/26/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	10/26/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**1.5 J**	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	**0.89 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.75 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.87 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0 *	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00
	08/19/2020	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00 J4	<5.00	<5.00
	11/04/2020	<1.00	<1.00	<1.00	<1.00	<1.00	0.325 J	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00
AMW-15-D2	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00
	11/04/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
AMW-15-D3	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-15-D3 (cont.)	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/13/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	**0.187 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.104 J**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00
	11/04/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.139 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
AMW-15-VD	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/13/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00 J4	**0.144 J**	<1.00
	11/04/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
AMW-3	01/13/2016	< 5.0	< 5.0	< 5.0	**4.8 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
AMW-7R	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/11/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
ASB-2	06/06/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
ASB-3	06/08/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
ASB-4	06/07/2016	**4.2 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
ASB-5	06/02/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
ASB-7	06/02/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-18R	06/22/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	07/11/2018	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	10/17/2018	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<5.00	<5.00	<5.00	<5.00 J4	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-23-D1R	10/26/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/26/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/20/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/12/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/12/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0 *	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00
	11/05/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-23-D2R	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/20/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/12/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/12/2018	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00
	11/05/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/18/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-24-D1R	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.56 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.74 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/12/2018	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/16/2018	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**0.72 J [0.69 J]**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-24-D1R (cont.)	12/05/2019	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**0.36 J [0.71 J]**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]
	02/11/2020	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 * [<1.0]	< 1.0 * [<1.0]	< 1.0 [<1.0]	**0.46 J [0.59 J**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]
	06/09/2020	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]
	08/19/2020	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 J4 [<5.00 J4]	<5.00 [<5.00]	<5.00 [<5.00]
	11/05/2020	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]
	03/19/2021	<1.00 [<5.00]	<1.00 [<5.00]	<1.00 [<5.00]	<1.00 [<5.00]	<1.00 [<5.00]	**0.457 J [<5.00]**	<1.00 [<5.00]	<5.00 [<25.0]	<1.00 [<5.00]	<1.00 [<5.00]	<1.00 [<5.00]	<1.00 [<5.00]
MW-24-D2	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/25/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/25/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	07/05/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	08/27/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/12/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	**0.293 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/18/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.210 J**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00
	11/05/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.553 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	**0.611 J**	<1.00	<5.00	<1.00	<1.00	<1.00	**1.08**
MW-24-VDR	07/12/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/18/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00
	11/05/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/19/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-26-D1	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/22/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/25/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	10/25/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/05/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	08/27/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/13/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-26-D1 (cont.)	02/11/2020	< 1.0	< 1.0	< 1.0 *	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.285 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.218 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.159 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-26-D2	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 5.0	< 5.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/25/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/25/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.102 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-26-VD	01/13/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-27-D1R	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	08/27/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/13/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/18/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.29 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.36 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/19/2020	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00
	11/06/2020	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<5.00	<5.00
	03/20/2021	<1.00	<1.00	<1.00	<1.00	<1.00	**0.359 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-27-D2	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/12/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/18/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.28 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.29 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.38 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.4 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		5	5	5	1	5	5	5	0.04	0.0006	3	0.6	1
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-27-D2 (cont.)	06/10/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	**0.430 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.483 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.118 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/20/2021	<1.00	<1.00	<1.00	<1.00	<1.00	**0.242 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-28-D1	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.76 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/28/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.58 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.69 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.67 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.4 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.52 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	**0.209 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.172 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.741 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-28-D2R	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.48 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.21 J**	< 1.0
	07/28/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.67 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 1.0	0.74 J	< 1.0	**0.79 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.74 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	**0.155 J**	<1.00	<5.00	<1.00	**0.205 J**	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.186 J**	<1.00	<5.00	<1.00	**0.251 J**	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<1.00	<1.00	<1.00	**0.342 J**	<1.00	<5.00	<1.00	**0.109 J**	<1.00	<1.00
	03/20/2021	<1.00	<1.00	<1.00	<1.00	<1.00	**0.217 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-29-D1	01/14/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	08/27/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/12/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/18/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		1,1 Dichloro-ethene	1,1,1-Trichloro-ethane	1,1,2,2-Tetrachloro-ethane	1,1,2-Trichloro-ethane	1,1,2-Trichlorotri-fluoroethane (Freon 113)	1,1-Dichloro-ethane	1,2,4-Trichloro-benzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromo-ethane	1,2-Dichloro-benzene (o-Dichloro-benzene)	1,2-Dichloro-ethane	1,2-Dichloro-propane
NYSDEC TOGS 1.1.1		**5**	**5**	**5**	**1**	**5**	**5**	**5**	**0.04**	**0.0006**	**3**	**0.6**	**1**
Units		**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	**ug/L**	ug/L	**ug/L**	**ug/L**
MW-29-D1 (cont.)	02/12/2020	< 1.0	< 1.0	< 1.0 *	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
	03/20/2021	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00
MW-29-D2	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**7.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-29-VD	01/14/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-30-D1	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-30-D2	01/14/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**3.2 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	01/14/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**2.9**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.87 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-30-VD	01/14/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-31-D1R	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-31-D2R	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.94 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-12	01/14/2016	< 5.0	< 5.0	< 50	< 25	< 25	**25 J**	**80**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
AMW-13-D1	06/24/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**6.5 J**	< 1.0	**0.99 J**	**3.4**	< 1.0	**2.7**	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.4 J**	**4.5**	< 1.0	**1.1**	< 1.0	**2.8**	< 1.0
AMW-13-D2	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	**3.3 J**	**3.2 J**	< 1.0	**0.97 J**	**4.2**	< 1.0	**0.66 J**	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**4.8 J**	< 1.0	< 1.0	**0.62 J**	< 1.0	**12**	< 1.0
AMW-13-VD	06/23/2016	< 1.0	< 1.0	**3.2 J**	< 5.0	< 5.0	**18**	< 1.0	< 1.0	**3.1**	< 1.0	**1.5**	< 1.0
	07/27/2016	< 1.0	< 1.0	**5.8 J**	< 5.0	**2.4 J**	**46**	< 1.0	< 1.0	< 1.0	< 1.0	**7.9**	< 1.0
AMW-14-D1	06/24/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**4.6 J**	< 1.0	**0.85 J**	**2.5**	< 1.0	**2.6**	< 1.0
	07/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.9 J**	**4.3**	< 1.0	< 1.0	< 1.0	**2.8**	< 1.0
	07/05/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**2.0 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**4.7**	< 2.0	< 2.0	< 2.0	**1.3 J**	< 2.0
	07/12/2018	< 8.0	< 8.0	< 80	< 40	< 40	< 80	**5.3 J**	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	**0.98 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**7.0**	< 1.0	< 1.0	< 1.0	**0.79 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**0.64 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**3.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.533 J**	<1.00	<1.00	<5.00	**0.294 J**	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	**5.40**	<1.00	<1.00	<5.00	**0.615 J**	<1.00
	11/04/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**7.94**	<1.00	<1.00 C3 J4	<5.00	**<1.00**	<1.00 C3
	03/19/2021	<1.00	<1.00	<10.0	<10.0	**1.41 J**	<50.0	**3.41**	<1.00	<1.00 C3	<5.00	<1.00	<1.00
AMW-14-D2	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	**3.2 J**	**3.3 J**	< 1.0	**0.99 J**	**4.6**	< 1.0	**5.5**	< 1.0
	07/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.1 J**	**0.88 J**	< 1.0	**1.3**	< 1.0	**12**	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**9.6 J**	< 1.0	< 1.0	< 1.0	< 1.0	**8.4**	< 1.0
	08/27/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**2.7**	< 1.0
	10/11/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.94 J**	< 1.0
	07/12/2018	< 2.0	< 2.0	< 20	< 10	< 10	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.32 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<10.0	<10.0	<100	<100	<100	<500	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0
	08/19/2020	<10.0 J4	<10.0 J4	<100	<100	<100	<500	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0
	11/05/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.533 J**	<1.00
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3	<5.00	<1.00	<1.00
AMW-14-VD	06/23/2016	< 1.0	< 1.0	**3.9 J**	< 5.0	**2.1 J**	**22**	< 1.0	**0.87 J**	**3**	< 1.0	**0.63 J**	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**8.9 J**	< 1.0	< 1.0	< 1.0	< 1.0	**9.9**	< 1.0
	07/05/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.7 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.25 J**	< 1.0
	08/27/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/11/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**1.6**	< 1.0
	07/12/2018	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-14-VD (cont.)	05/10/2019	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	09/13/2019	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	12/05/2019	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	02/12/2020	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	08/20/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	11/05/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3 J4	<5.00	<1.00	<1.00 C3
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.120 J**	<1.00
AMW-15-D1	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	**2.1 J**	**4.2 J**	**0.48 J**	< 1.0	**2.2**	< 1.0	**0.46 J**	< 1.0
	07/27/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	**3.9 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	10/26/2016	< 10	< 10	< 100	< 50	< 50	< 100	**11**	< 10	< 10	< 10	< 10	< 10
	10/26/2016	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**5.1**	< 4.0	< 4.0	< 4.0	**1.7 J**	< 4.0
	07/05/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**12**	< 4.0	< 4.0	< 4.0	**2.7 J**	< 4.0
	10/11/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**11**	< 2.0	< 2.0	< 2.0	**2**	< 2.0
	10/17/2018	< 5.0	< 5.0	< 250	< 50	< 50	< 130	**12**	< 5.0	< 5.0	< 5.0	**1.7 J**	< 5.0
	05/09/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**6.3**	< 1.0	< 1.0	< 1.0	**1.3**	< 1.0
	09/13/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**6.2**	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**6.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<5.00	<5.00	<50.0	<50.0	<50.0	<250	**6.35**	<5.00	<5.00	<25.0	<5.00	<5.00
	08/19/2020	<5.00	<5.00	<50.0	<50.0	<50.0	<250	**4.70 J**	<5.00	<5.00	<25.0	6.45	<5.00
	11/04/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**3.55**	<1.00	<1.00	<5.00	**0.777 J**	<1.00
	03/19/2021	<5.00	<5.00	<50.0	<50.0	<50.0	<250	**5.80**	<5.00	<5.00 C3	<25.0	<5.00	<5.00
AMW-15-D2	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**9.3 J**	< 1.0	< 1.0	< 1.0	< 1.0	**1.8**	< 1.0
	06/23/2016	< 1.0	< 1.0	**1.3 J**	< 5.0	< 5.0	**11**	< 1.0	< 1.0	< 1.0	< 1.0	**1.6**	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.8 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.42 J**	< 1.0
	10/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**13**	< 1.0	< 1.0	< 1.0	< 1.0	**0.75 J**	< 1.0
	10/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**5.1 J**	**0.47 J**	< 1.0	< 1.0	< 1.0	**0.42 J**	< 1.0
	07/05/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**9.8**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**2.7 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	**0.34 J**	< 1.0
	05/10/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.25 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.123 J**	<1.00	<1.00	<5.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.102 J**	<1.00	<1.00	<5.00	**2.33**	<1.00
	11/04/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.529 J**	<1.00	<1.00 C3 J4	<5.00	<1.00	<1.00 C3
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.230 J**	<1.00
AMW-15-D3	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**6.9 J**	< 1.0	< 1.0	< 1.0	< 1.0	**4.4**	< 1.0
	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**7.3 J**	< 1.0	< 1.0	< 1.0	< 1.0	**4.6**	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.6 J**	< 1.0	< 1.0	< 1.0	< 1.0	**1.4**	< 1.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	**36 J**	**3.7 J**	< 4.0	< 4.0	< 4.0	**1.8 J**	< 4.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-15-D3 (cont.)	10/11/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/13/2018	< 2.0	< 2.0	< 20	< 10	< 10	**16 J**	< 2.0	< 2.0	< 2.0	< 2.0	**0.70 J**	< 2.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	**0.42 J**	< 1.0
	05/10/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.29 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**0.29 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.318 J**	<1.00
	08/19/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.664 J**	<1.00	<1.00	<5.00	**1.93**	<1.00
	11/04/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.430 J**	<1.00	<1.00 C3 J4	<5.00	<1.00	<1.00 C3
	03/19/2021	<1.00	<1.00	**11.0**	<10.0	**0.640 J**	**62.4**	**12.8**	<1.00	<1.00	<5.00	**1.23**	<1.00
AMW-15-VD	06/23/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.2 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/27/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**8.3 J**	< 1.0	< 1.0	**2.4**	< 1.0	< 1.0	< 1.0
	08/27/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/11/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**5.0 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/13/2018	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	11/04/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3 J4	<5.00	<1.00	<1.00 C3
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
AMW-3	01/13/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	**280**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	**3.4 J**	< 5.0	< 5.0	**21**	< 1.0	< 1.0	< 1.0	< 1.0	**0.51 J**	< 1.0
AMW-7R	01/12/2016	< 5.0	< 5.0	< 50	< 25	< 25	**30 J**	**5.7**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**6.2 J**	**1.1**	< 1.0	< 1.0	< 1.0	**0.43 J**	< 1.0
	07/11/2018	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**0.82 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	**8.1 J**	**0.78 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**0.69 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**0.39 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**0.89 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	<5.0	<5.0	<5.0	<5.0	**0.82 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.926 J**	<1.00	<1.00	<5.00	<1.00	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	**0.566 J**	<1.00	<1.00	<5.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.214 J**	<1.00	<1.00 C3	<5.00 C3	**0.271 J**	<1.00
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.0960 J**	<1.00	<1.00	<5.00	**0.140 J**	<1.00
ASB-2	06/06/2016	< 1.0	< 1.0	< 10	< 5.0	**6**	**20**	**1.8**	**1.9**	< 1.0	< 1.0	**1.1**	< 1.0
ASB-3	06/08/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**5.5 J**	< 1.0	**0.75 J**	**2.4**	< 1.0	**0.27 J**	< 1.0
ASB-4	06/07/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	**3.0 J**	< 5.0	< 5.0	< 5.0	**0.95 J**	< 5.0
ASB-5	06/02/2016	< 1.0	< 1.0	**1.4 J**	< 5.0	**5**	**12**	< 1.0	**1.5**	< 1.0	< 1.0	**0.53 J**	< 1.0
ASB-7	06/02/2016	< 2.0	< 2.0	< 20	< 10	**5.3 J**	< 20	< 2.0	**3.3**	< 2.0	< 2.0	**1.1 J**	< 2.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-18R	06/22/2016	< 10	< 10	< 100	< 50	< 50	< 100	**310**	< 10	< 10	< 10	< 10	< 10
	07/11/2018	< 20	< 20	**74 J**	< 100	< 100	**330**	**48**	< 20	< 20	< 20	**6.2 J**	< 20
	10/17/2018	< 5.0	< 5.0	**70 J**	< 50	< 50	**230**	**69**	< 5.0	< 5.0	< 5.0	**2.4 J**	< 5.0
	09/14/2019	< 1.0	< 1.0	**10**	< 5.0	**2.2 J**	**47**	**85**	< 1.0	< 1.0	< 1.0	**3.2**	< 1.0
	12/05/2019	< 1.0	< 1.0	**33**	**3.7 J**	**2.9 J**	**130**	**74**	< 1.0	< 1.0	< 1.0	**2**	< 1.0
	02/12/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	**19**	**0.29 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<5.00	<5.00	**10.7 J**	<50.0	<50.0	<250	**27.0**	<5.00	<5.00	<25.0	**1.26 J**	<5.00
	03/19/2021	<1.00	<1.00	**12.6**	**1.62 J**	**1.76 J**	**44.4 J**	**8.34**	<1.00	<1.00	<5.00	**1.28**	<1.00
MW-23-D1R	10/26/2016	< 2.0	< 2.0	< 20	< 10	< 10	< 20	< 2.0	< 2.0	< 2.0	< 2.0	**0.53 J**	< 2.0
	10/26/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	01/12/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/20/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**6.4 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/12/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/12/2018	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**2.7 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	**3.8**	< 1.0	< 1.0	< 1.0	**0.29 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**1.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**1.4**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.56 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.408 J**	<1.00	<1.00	<5.00	<1.00	<1.00
	08/19/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.312 J**	<1.00	<1.00	<5.00	**0.671 J**	<1.00
	11/05/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.0955 J**	<1.00	<1.00 C3	<5.00 C3	**0.400 J**	<1.00
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.150 J**	<1.00	<1.00	<5.00	**0.142 J**	<1.00
MW-23-D2R	01/12/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/20/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**23**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/05/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**4.0 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/12/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.44 J**	< 1.0
	07/12/2018	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	**2.3**	<1.0	<1.0	<1.0	<1.0	<1.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**2.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**1.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/19/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.407 J**	<1.00	<1.00	<5.00	**0.253 J**	<1.00
	11/05/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3	<5.00 C3	**0.447 J**	<1.00
	03/18/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.110 J**	<1.00	<1.00	<5.00	**0.119 J**	<1.00
MW-24-D1R	01/13/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**5.4**	< 4.0	< 4.0	< 4.0	**1.6 J**	< 4.0
	10/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**4.1**	< 1.0	< 1.0	< 1.0	**1.7**	< 1.0
	10/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**4.9**	< 1.0	< 1.0	< 1.0	**1.3**	< 1.0
	10/26/2016	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/12/2018	< 8.0	< 8.0	< 80	< 40	< 40	< 80	**11**	< 8.0	< 8.0	< 8.0	**2.1 J**	< 8.0
	10/16/2018	< 5.0	< 5.0	< 250	< 50	< 50	< 130	**8.3**	< 5.0	< 5.0	< 5.0	**1.4 J**	< 5.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**1.5**	< 1.0	< 1.0	< 1.0	**0.62 J**	< 1.0
	09/13/2019	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	<5.0 [<5.0]	<5.0 [<5.0]	**13 [13]**	< 1.0 [<1.0]	<1.0* [<1.0*]	< 1.0 [<1.0]	**3.2 [1.8]**	< 1.0 [<1.0]

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-24-D1R (cont.)	12/05/2019	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	<5.0 [<5.0]	**9.4**	**5.7 [11]**	< 1.0 [<1.0]	<1.0 [<1.0]	< 1.0 [<1.0]	1.0 [1.0]	< 1.0 [<1.0]
	02/11/2020	< 1.0 [<1.0]	< 1.0 [<1.0]	<5.0 [<5.0]	<5.0 [<5.0]	<5.0 [<5.0]	**6[<5.0]**	**8.9 [13]**	< 1.0 [<1.0]	<1.0 [<1.0]	< 1.0 [<1.0]	**1.5 [1.4]**	< 1.0 [<1.0]
	06/09/2020	<5.00 [<5.00]	<5.00 [<5.00]	<50.0 [<50.0]	<50.0 [<50.0]	<50.0 [<50.0]	<250 [<250]	**10.3 [11.7]**	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 [<5.00]
	08/19/2020	<5.00 [<5.00]	<5.00 [<5.00]	<50.0 [<50.0]	<50.0 [<50.0]	<50.0 [<50.0]	<250 [<250]	**10.2 [9.74]**	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	**8.28 [3.68 J]**	<5.00 [<5.00]
	11/05/2020	<5.00 [<5.00]	<5.00 [<5.00]	<50.0 [<50.0]	<50.0 [<50.0]	<50.0 [<50.0]	<250 [<250]	**10.9 [8.99]**	<5.00 [<5.00]	<5.00 C3 [<5.00 C3]	<25.0 C3 [<25.0 C3]	**2.27 J [2.18 J]**	<5.00 [<5.00]
	03/19/2021	<1.00 [<5.00]	<1.00 [<5.00]	<10.0 [<50.0]	<10.0 [<50.0]	**0.587 J[<50.0]**	<50.0 [<250]	**11.3 [11.5]**	<1.00 [<5.00]	1.00 [<5.00] [<5.00 C	<5.00 [<25.0]	**0.811 J [<5.00**	<1.00 [<5.00]
MW-24-D2	01/13/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	**3.3 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	01/13/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	**3.1 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**0.97 J**	< 1.0	< 1.0	< 1.0	**0.31 J**	< 1.0
	10/25/2016	< 4.0	< 4.0	< 40	< 20	< 20	**62**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/25/2016	< 5.0	< 5.0	< 50	< 25	< 25	**56**	**3.0 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	07/05/2017	< 8.0	< 8.0	< 80	< 40	< 40	< 80	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	08/27/2017	< 8.0	< 8.0	< 80	< 40	< 40	< 80	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/11/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/12/2018	< 2.0	< 2.0	< 20	< 10	< 10	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	**2.8 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.24 J**	< 1.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**5.2**	**1.4**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.4 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.367 J**	<1.00	<1.00	<5.00	**0.167 J**	<1.00
	08/18/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.227 J**	<1.00	<1.00	<5.00	**0.266 J**	<1.00
	11/05/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.581 J**	<1.00	<1.00 C3	<5.00 C3	**0.931 J**	<1.00
	03/19/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.662 J**	<1.00	<1.00	<5.00	**0.376 J**	<1.00
MW-24-VDR	07/12/2018	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	**0.64 J**	< 1.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.30 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**2.4**	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	**5.5**	**7.2**	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.347 J**	<1.00
	08/18/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.394 J**	<1.00
	11/05/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3	<5.00 C3	**0.423 J**	<1.00
	03/19/2021	<1.00	<1.00	<10.0	<10.0	**2.68 J**	**139**	<1.00	<1.00	<1.00	<5.00	**0.150 J**	<1.00
MW-26-D1	01/12/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	**9.1**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/22/2016	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**9.3**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/25/2016	< 10	< 10	< 100	< 50	< 50	< 100	**8.6 J**	< 10	< 10	< 10	< 10	< 10
	10/25/2016	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**12**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/05/2017	< 10	< 10	< 100	< 50	< 50	< 100	**8.7 J**	< 10	< 10	< 10	< 10	< 10
	08/27/2017	< 10	< 10	< 100	< 50	< 50	< 100	**9.5 J**	< 10	< 10	< 10	< 10	< 10
	10/11/2017	< 2.0	< 2.0	< 20	< 10	< 10	**6.5 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/13/2018	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**17**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	**4.9**	< 1.0	< 1.0	< 1.0	**0.45 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**9.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**6.2**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-26-D1 (cont.)	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**7.5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**8.93**	<1.00	<1.00	<5.00	**0.773 J**	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	**6.46**	<1.00	<1.00	<5.00	**0.360 J**	<1.00
	11/06/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**5.88**	<1.00	<1.00 C3	<5.00 C3	**0.582 J**	<1.00
MW-26-D2	01/12/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**1.4**	< 1.0
	10/25/2016	< 2.0	< 2.0	< 20	< 10	< 10	**9.4 J**	< 2.0	< 2.0	< 2.0	< 2.0	**0.60 J**	< 2.0
	10/25/2016	< 2.0	< 2.0	< 20	< 10	< 10	**37**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/05/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.37 J**	< 1.0
	08/27/2017	< 8.0	< 8.0	< 80	< 40	< 40	< 80	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
	10/11/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	**0.69 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.79 J**	< 1.0	< 1.0	< 1.0	**0.25 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.46 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.204 J**	<1.00
MW-26-VD	01/13/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**170**	< 1.0	< 1.0	< 1.0	< 1.0	**0.19 J**	< 1.0
MW-27-D1R	01/13/2016	< 5.0	< 5.0	< 50	< 25	< 25	**53**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	**1.7 J**	< 5.0	< 5.0	**5.0 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.66 J**	< 1.0
	07/05/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**1.1 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	08/27/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**1.6 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	07/13/2018	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**7.8**	< 2.0	< 2.0	< 2.0	**0.64 J**	< 2.0
	10/18/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	**3.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**2.4**	< 1.0	< 1.0	< 1.0	**1.0**	< 1.0
	09/14/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**4.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**6.4**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/19/2020	<5.00 J4	<5.00 J4	<50.0	<50.0	<50.0	<250	**3.12 J**	<5.00	<5.00	<25.0	**0.852 J**	<5.00
	11/06/2020	<5.00	<5.00	<50.0	<50.0	<50.0	<250	**2.58 J**	<5.00	<5.00 C3	<25.0 C3	**1.74 J**	<5.00
	03/20/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**2.56**	<1.00	<1.00 C3	<5.00	<1.00	<1.00
MW-27-D2	01/13/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 4.0	< 4.0	**8.2 J**	< 20	< 20	**38 J**	**160**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/05/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	08/27/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/12/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/13/2018	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/18/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/12/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-27-D2 (cont.)	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.133 J**	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3	<5.00 C3	<1.00	<1.00
	03/20/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.155 J**	<1.00
MW-28-D1	06/24/2016	< 1.0	< 1.0	**2.3 J**	< 5.0	< 5.0	**45**	**2.1**	< 1.0	< 1.0	< 1.0	**1**	< 1.0
	07/28/2016	< 10	< 10	< 100	< 50	< 50	**280**	< 10	< 10	< 10	< 10	< 10	< 10
	07/05/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**8.9**	< 1.0	< 1.0	< 1.0	**0.40 J**	< 1.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**2.7 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**3.7 J**	< 4.0	< 4.0	< 4.0	**4.9**	< 4.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	**9.3 J**	**5.6**	< 1.0	< 1.0	< 1.0	**0.47 J**	< 1.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**2.4**	< 1.0	< 1.0	< 1.0	**0.34 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**9.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/05/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**11.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**17.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**9.35**	<1.00	<1.00	<5.00	<1.00	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	**5.03**	<1.00	<1.00	<5.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**24.3**	<1.00	<1.00 C3	<5.00 C3	<1.00	<1.00
MW-28-D2R	06/24/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**3.3 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	07/28/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**4.4 J**	< 1.0	**1.2**	**5.6**	< 1.0	**0.52 J**	< 1.0
	07/05/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.38 J**	< 1.0
	08/27/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/11/2017	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.95 J**	< 1.0
	07/13/2018	< 4.0	< 4.0	< 40	< 20	< 20	< 40	< 4.0	< 4.0	< 4.0	< 4.0	**1.0 J**	< 4.0
	10/17/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/09/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.50 J**	< 1.0	< 1.0	< 1.0	**0.27 J**	< 1.0
	09/13/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.24 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/09/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.781 J**	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.404 J**	<1.00
	11/06/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00 C3	<5.00 C3	**0.424 J**	<1.00
	03/20/2021	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.102 J**	<1.00
MW-29-D1	01/14/2016	< 5.0	< 5.0	< 50	< 25	< 25	**25 J**	**81**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	06/21/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**9.5 J**	**6.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**32**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	10/26/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**5.5**	< 1.0	< 1.0	< 1.0	**0.21 J**	< 1.0
	07/05/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**9.7**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	08/27/2017	< 2.0	< 2.0	< 20	< 10	< 10	< 20	**19**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	10/12/2017	< 4.0	< 4.0	< 40	< 20	< 20	< 40	**4.3**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	07/13/2018	< 4.0	< 4.0	< 40	**9.1 J**	< 20	< 40	**5.2**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
	10/18/2018	< 1.0	< 1.0	< 50	< 10	< 10	< 25	**3.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	05/10/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**9.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	09/14/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	**0.67 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	12/06/2019	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		1,3-Dichloro-benzene	1,4-Dichloro-benzene	2-Butanone (Methyl ethyl ketone)	2-Hexanone	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform	Bromomethane (Methyl bromide)	Carbon disulfide	Carbon Tetrachloride
NYSDEC TOGS 1.1.1		3	3	50	50	NE	50	1	50	50	5	60	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-29-D1 (cont.)	02/12/2020	< 1.0	< 1.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/10/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	**0.307 J**	<1.00
	08/19/2020	<1.00 J4	<1.00 J4	<10.0	<10.0	<10.0	<50.0	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00
	11/06/2020	<1.00	<1.00	<10.0	<10.0	<10.0	<50.0	**0.110 J**	<1.00	<1.00 C3	<5.00 C3	**0.364 J**	<1.00
	03/20/2021	<1.00	<1.00	<10.0	<10.0	**0.488 J**	<50.0	<1.00	<1.00	<1.00	<5.00	**0.130 J**	<1.00
MW-29-D2	01/14/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/21/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.62 J**	< 1.0
MW-29-VD	01/14/2016	< 10	< 10	< 100	< 50	< 50	< 100	< 10	< 10	< 10	< 10	< 10	< 10
	06/21/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-30-D1	01/14/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	**1.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	**0.19 J**	< 1.0
MW-30-D2	01/14/2016	< 5.0	< 5.0	< 50	< 25	< 25	< 50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	01/14/2016	< 2.0	< 2.0	< 20	< 10	< 10	< 20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-30-VD	01/14/2016	< 10	< 10	< 100	< 50	< 50	< 100	< 10	< 10	< 10	< 10	< 10	< 10
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**5.9 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-31-D1R	01/14/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	**11**	**1.1**	< 1.0	< 1.0	< 1.0	**0.32 J**	< 1.0
MW-31-D2R	01/14/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	06/22/2016	< 1.0	< 1.0	< 10	< 5.0	< 5.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-12	01/14/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**12**	< 5.0	< 5.0	< 5.0	**24**	< 13
AMW-13-D1	06/24/2016	< 1.0	< 1.0	**0.37 J**	< 1.0	< 1.0	< 1.0	< 1.0	**2.4**	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.82 J**	< 1.0	**1.8**	< 1.0	< 2.5
AMW-13-D2	06/23/2016	< 1.0	< 1.0	**0.36 J**	< 1.0	< 1.0	< 1.0	< 1.0	**2.6**	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.41 J**	< 1.0	< 1.0	< 1.0	< 2.5
AMW-13-VD	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.1**	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
AMW-14-D1	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2**	< 1.0	< 1.0	< 1.0	< 2.5
	07/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	**1**	< 1.0	**1.9**	< 1.0	< 1.0	**3.6**	< 1.0	< 2.5
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**3**	< 2.0	< 2.0	**7.2**	< 2.0	< 5.0
	07/12/2018	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	**7.5 J**	< 8.0	< 20
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	**1**	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.1**	< 1.0	< 1.0	**5.9**	**1.0**	<5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.43 J**	< 1.0	<5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.5**	< 1.0	<5.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	**0.3 J**	< 1.0 *	**0.88 J**	< 1.0 *	< 1.0	**2.7**	**0.44 J**	<5.0
	06/10/2020	<1.00	<5.00	<5.00	<2.50	**0.427 J**	<1.00	<1.00	<1.00	<5.00	**0.486 J**	**0.172 J**	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	**6.29**	**1.08**	<20.0
	11/04/2020	<1.00	<5.00	<5.00	<2.50	**0.221 J**	<1.00	**2.02**	<1.00	<5.00	**6.53**	**1.18**	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50 C3	**0.214 J**	<1.00	**1.33**	<1.00	<5.00	**3.34**	**0.698 J**	<20.0
AMW-14-D2	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.6**	< 1.0	< 1.0	< 1.0	< 2.5
	07/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.79 J**	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/12/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	**0.35 J**	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	<5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	06/10/2020	<10.0	<50.0	<50.0	<25.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<200
	08/19/2020	<10.0	<50.0	<50.0	<25.0	**2.50 J**	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<200
	11/05/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50 C3	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
AMW-14-VD	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.32 J**	**2**	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	**0.37 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/12/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-14-VD (cont.)	05/10/2019	<1.0	<1.0	<1.0	<1.0*	<1.0	<1.0	<1.0	<1.0	<1.0*	<1.0	<1.0	<5.0
	09/13/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	12/05/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	02/12/2020	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0 *	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	06/10/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/20/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/05/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
AMW-15-D1	06/23/2016	< 1.0	< 1.0	**0.51 J**	< 1.0	**20**	< 1.0	< 1.0	**1.1**	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 5.0	< 5.0	< 5.0	< 5.0	**220**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	10/26/2016	< 10	< 10	< 10	< 10	**81**	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	10/26/2016	< 4.0	< 4.0	< 4.0	< 4.0	**38**	< 4.0	**2.0 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	**5.1**	< 4.0	< 4.0	< 4.0	< 4.0	**4.1**	< 4.0	< 10
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	**1.6 J**	< 2.0	< 2.0	< 2.0	< 2.0	**4.3**	< 2.0	< 5.0
	10/17/2018	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**2.8 J**	< 5.0	< 5.0	**5**	< 5.0	< 50
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.79 J**	< 1.0	< 1.0	**2.6**	< 1.0	<5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.36 J**	< 1.0	**0.66 J**	< 1.0	< 1.0	**2.3**	< 1.0	<5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.63 J**	< 1.0	**0.77 J**	< 1.0	< 1.0	**2.8**	< 1.0	<5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	**0.33 J**	< 1.0 *	< 1.0	**0.99 J**	< 1.0	<5.0
	06/10/2020	<5.00	<25.0	<25.0	<12.5	<5.00	<5.00	**<5.00**	<5.00	<25.0	**4.05 J**	0.535 J	<100
	08/19/2020	<5.00	<25.0	<25.0	<12.5	<5.00	<5.00	**<5.00**	<5.00	<25.0	**2.57 J**	<5.00	<100
	11/04/2020	<1.00	<5.00	<5.00	<2.50	**0.362 J**	<1.00	<1.00	<1.00	<5.00	**1.80**	**0.216 J**	<20.0
	03/19/2021	<5.00	<25.0	<25.0	<12.5 C3	<5.00	<5.00	<5.00	<5.00	<25.0	**4.74 J**	<5.00	<100
AMW-15-D2	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	**3.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	**3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	**1.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	**0.86 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	**1.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**5.1**	< 4.0	< 10
	10/11/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	**0.26 J**	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.34 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	06/09/2020	<1.00	<5.00	<5.00	<2.50	**0.310 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/04/2020	<1.00	<5.00	<5.00	<2.50	**0.188 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	**0.157 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
AMW-15-D3	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	**19**	< 4.0	< 4.0	< 4.0	< 4.0	**3.4 J**	< 4.0	< 10

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-15-D3 (cont.)	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	07/13/2018	< 2.0	< 2.0	< 2.0	< 2.0	**3.1**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	**0.44 J**	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	**0.99 J**	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<5.0
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	**1.73**	<1.00	<1.00	<1.00	<5.00	**0.161 J**	<1.00	<20.0
	11/04/2020	<1.00	<5.00	<5.00	<2.50	**0.951 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	**13.0**	<1.00	**0.672 J**	<1.00	<5.00	**1.97**	**0.672 J**	<20.0
AMW-15-VD	06/23/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/27/2016	< 1.0	< 1.0	**0.74 J**	< 1.0	< 1.0	< 1.0	< 1.0	**1**	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/13/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/04/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
AMW-3	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**57**	< 5.0	< 5.0	**29**	**65**	< 13
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
AMW-7R	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**18**	< 1.0	< 1.0	< 1.0	**2.8**	< 2.5
	07/11/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**16**	< 2.0	< 2.0	< 2.0	**7.1**	< 5.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**29**	< 1.0	< 1.0	**0.19 J**	**4.9**	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	**19**	< 1.0	< 1.0	**0.39 J**	**4.2**	<5.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**16**	< 1.0	< 1.0	< 1.0	**4.4**	<5.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**11**	< 1.0	< 1.0	**0.49 J**	**1.9**	<5.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	**17**	< 1.0	< 1.0	**0.49 J**	**3.9**	< 5.0
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	**13.5**	<1.00	<5.00	**0.805 J**	**4**	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	**14.6**	<1.00	<5.00	**0.331 J**	**3.11**	<20.0
	11/06/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	**11.6**	<1.00	<5.00	<1.00	**3.27**	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	**2.77**	<1.00	<5.00	<1.00	**0.968 J**	<20.0
ASB-2	06/06/2016	< 1.0	< 1.0	**14**	< 1.0	**5.6**	< 1.0	< 1.0	**0.35 J**	< 1.0	< 1.0	< 1.0	< 2.5
ASB-3	06/08/2016	< 1.0	< 1.0	**0.92 J**	< 1.0	**2.8**	< 1.0	< 1.0	**1.5**	< 1.0	< 1.0	< 1.0	< 2.5
ASB-4	06/07/2016	< 5.0	< 5.0	< 5.0	< 5.0	**1600 E**	< 5.0	**5**	< 5.0	< 5.0	**6.7**	< 5.0	< 13
ASB-5	06/02/2016	< 1.0	< 1.0	**19**	< 1.0	**2.2**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
ASB-7	06/02/2016	< 2.0	< 2.0	**21**	< 2.0	**67**	< 2.0	< 2.0	**0.65 J**	< 2.0	< 2.0	< 2.0	< 5.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-18R	06/22/2016	< 10	< 10	< 10	< 10	**14**	< 10	**20**	< 10	< 10	< 10	**14**	< 25
	07/11/2018	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 50
	10/17/2018	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**8.3 J**	< 5.0	< 5.0	**1.2 J**	**6.8**	< 50
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.38 J**	< 1.0	**6.7**	< 1.0	< 1.0	**1.4**	**7.4**	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.28 J**	< 1.0	**7.2**	< 1.0	< 1.0	**1.6**	**4.8**	< 5.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	**0.66 J**	< 1.0	< 1.0	< 1.0	**0.35 J**	< 5.0
	06/09/2020	<5.00 J4	<25.0	<25.0	<12.5	<5.00	<5.00	**2.51 J**	<5.00	<25.0	**1.27 J**	**4.03 J**	<100
	03/19/2021	<1.00	<5.00	<5.00	<2.50	**0.268 J**	<1.00	**4.84**	<1.00	<5.00	**0.672 J**	**3.93**	**1.31 J**
MW-23-D1R	10/26/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**0.40 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	10/26/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/20/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/05/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/12/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	07/12/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	**1.7**	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	**0.56 J**	< 10
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.73 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.35 J**	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.72 J**	< 1.0	**0.41 J**	< 1.0	< 1.0	< 1.0	**0.44 J**	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	**0.35 J**	< 1.0 *	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 5.0
	06/10/2020	<1.00	<5.00	<5.00	<2.50	**0.382 J**	<1.00	<1.00	<1.00	<5.00	<1.00	**0.439 J**	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	**0.517 J**	<1.00	**0.267 J**	<1.00	<5.00	<1.00	**0.414 J**	<20.0
	11/05/2020	<1.00	<5.00	<5.00	<2.50	**0.267 J**	<1.00	**0.259 J**	<1.00	<5.00	<1.00	**0.314 J**	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	**0.196 J**	<1.00	<1.00	<1.00	<5.00	<1.00	**0.163 J**	<20.0
MW-23-D2R	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/20/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/12/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/12/2018	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/05/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/18/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
MW-24-D1R	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	**10**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/21/2016	< 4.0	< 4.0	< 4.0	< 4.0	**4.9**	< 4.0	**1.9 J**	< 4.0	< 4.0	**3.1 J**	< 4.0	< 10
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	**4**	< 1.0	**1.6**	< 1.0	< 1.0	**2.3**	< 1.0	< 2.5
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	**6.1**	< 1.0	**1.4**	< 1.0	< 1.0	**2.2**	< 1.0	< 2.5
	10/26/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	07/12/2018	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	**7.1 J**	< 8.0	< 20
	10/16/2018	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 25	< 5.0	< 5.0	**6.1**	< 5.0	< 50
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	< 1.0	< 5.0
	09/13/2019	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**1.1**	< 1.0 [<1.0]	< 1.0 [<1.0]	**7.9 [7.2]**	**0.97 J [0.86 J]**	<5.0 [<5.0]

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-24-D1R (cont.)	12/05/2019	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 **[0.99 J]**	< 1.0 [<1.0]	< 1.0 [<1.0]	**2.4 [7.2]**	1.0	<5.0 [<5.0]
	02/11/2020	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 * [<1.0]	**0.65 J [1.]**	< 1.0 * [<1.0]	< 1.0 [<1.0]	**5.7 [8.9]**	**0.61 J [1.0]**	<5.0 [<5.0]
	06/09/2020	<5.00 [<5.00]	<25.0 [<25.0]	<25.0 [<25.0]	<12.5 [<12.5]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	**8.28 [8.90]**	**0.954 J [1.08 J]**	<100 [<100]
	08/19/2020	<5.00 [<5.00]	<25.0 [<25.0]	<25.0 [<25.0]	<12.5 [<12.5]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	**6.80 [6.57]**	**0.712 J [0.681 J]**	<100 [<100]
	11/05/2020	<5.00 [<5.00]	<25.0 [<25.0]	<25.0 [<25.0]	<12.5 [<12.5]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	**7.18 [5.76]**	**0.771 J [0.560 J]**	<100 [<100]
	03/19/2021	<1.00 [<5.00]	<5.00 [<25.0]	<5.00 [<25.0]	<2.50 [<12.5 C3]	**0.131 J [<5.00]**	<1.00 [<5.00]	**0.766 J [<5.00]**	<1.00 [<5.00]	<5.00 [<25.0]	**8.35 [9.32]**	**1.04 [0.940 J]**	<20.0 [<100]
MW-24-D2	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	**1.6**	< 1.0	< 1.0	< 1.0	< 1.0	**0.84 J**	< 1.0	< 2.5
	10/25/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/25/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	07/05/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 20
	08/27/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 20
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	07/12/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	**0.52 J**	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	5.0 U
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	**0.467 J**	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/18/2020	<1.00	<5.00	<5.00	<2.50	**0.364 J**	<1.00	<1.00	<1.00	<5.00	<1.00	**0.141 J**	<20.0
	11/05/2020	<1.00	<5.00	<5.00	<2.50	**0.809 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	**0.197 J**	<2.50	**0.652 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
MW-24-VDR	07/12/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	**0.28 J**	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	**0.206 J**	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/18/2020	<1.00	<5.00	<5.00	<2.50	**0.140 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/05/2020	<1.00	<5.00	<5.00	<2.50	**0.218 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/19/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
MW-26-D1	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/22/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/25/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	10/25/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**3.0 J**	< 4.0	< 10
	07/05/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	08/27/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	07/13/2018	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**3.5**	< 2.0	< 5.0
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	**0.42 J**	< 1.0	< 5.0	< 1.0	< 1.0	**0.95 J**	**0.43 J**	< 10
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0	< 1.0	< 1.0	**1.8**	**0.73 J**	< 5.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.75 J**	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	**0.56 J**	< 5.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-26-D1 (cont.)	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0 *	< 1.0	< 1.0 *	< 1.0	**1.3**	**0.67 J**	< 5.0
	06/10/2020	<1.00	<5.00	<5.00	<2.50	**3.28**	<1.00	<1.00	<1.00	<5.00	**2.47**	**1.06**	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	**1.45**	<1.00	<1.00	<1.00	<5.00	**1.38**	**0.555 J**	<20.0
	11/06/2020	<1.00	<5.00	<5.00	<2.50	**0.903 J**	<1.00	**0.189 J**	<1.00	<5.00	**1.05**	**0.459 J**	<20.0
MW-26-D2	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	**0.86 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/25/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	10/25/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 20
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	**0.39 J**	< 1.0	< 10
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	**0.44 J**	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	**0.37 J**	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	06/10/2020	<1.00	<5.00	<5.00	<2.50	**0.254 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	**0.398 J**	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
MW-26-VD	01/13/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-27-D1R	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	**1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/05/2017	< 2.0	< 2.0	< 2.0	< 2.0	**2.2**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	08/27/2017	< 2.0	< 2.0	< 2.0	< 2.0	**3.2**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	07/13/2018	< 2.0	< 2.0	< 2.0	< 2.0	**2**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	10/18/2018	< 1.0	< 1.0	< 1.0	< 1.0	**1**	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.57 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.80 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.40 J**	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	**0.95 J**	< 1.0	< 1.0	< 1.0	< 1.0	**0.48 J**	< 1.0	< 5.0
	08/19/2020	<5.00	<25.0	<25.0	<12.5	**0.855 J**	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<100
	11/06/2020	<5.00	<25.0	<25.0	<12.5	**1.13 J**	<5.00	<5.00	<5.00	<25.0	<5.00	<5.00	<100
	03/20/2021	<1.00	<5.00	<5.00	<2.50 C3	**0.751 J**	<1.00	<1.00	<1.00	<5.00	**0.263 J**	<1.00	<20.0
MW-27-D2	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	06/21/2016	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**22 J**	< 4.0	< 4.0	**92**	**38**	< 10
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	10/12/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/18/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-27-D2 (cont.)	06/10/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/06/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/20/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
MW-28-D1	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/28/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 2.5
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/11/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	**1.4**	**0.33 J**	< 10
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	**0.49 J**	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.7**	**0.56 J**	< 5.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.1**	1.0 U	5.0 U
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	**2.1**	**0.34 J**	< 5.0
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	**0.164 J**	<1.00	<1.00	<1.00	<5.00	**2.5**	**0.440 J**	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	**0.750 J**	<1.00	<20.0
	11/06/2020	<1.00	<5.00	<5.00	<2.50	**0.305 J**	<1.00	**0.296 J**	<1.00	<5.00	**3.68**	**0.548 J**	<20.0
MW-28-D2R	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/28/2016	< 1.0	< 1.0	**0.51 J**	< 1.0	< 1.0	< 1.0	< 1.0	**3.2**	< 1.0	< 1.0	< 1.0	< 2.5
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 10
	10/17/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	< 5.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0
	06/09/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00 J4	<1.00 J4	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/06/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	03/20/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
MW-29-D1	01/14/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**13**	< 5.0	< 5.0	< 5.0	**24**	< 13
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**8**	< 1.0	< 1.0	< 1.0	**5.4**	< 2.5
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**21**	< 1.0	< 1.0	< 1.0	**16**	< 2.5
	10/26/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**11**	< 1.0	< 1.0	< 1.0	**6.4**	< 2.5
	07/05/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**7.6**	< 2.0	< 2.0	< 2.0	**7.7**	< 5.0
	08/27/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**12**	< 2.0	< 2.0	< 2.0	**9.3**	< 5.0
	10/12/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**5.4**	< 4.0	< 4.0	< 4.0	**5.8**	< 10
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**24**	< 4.0	< 4.0	< 4.0	**19**	< 10
	10/18/2018	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**20**	< 1.0	< 1.0	**0.31 J**	**16**	< 10
	05/10/2019	< 1.0	< 1.0	< 1.0	< 1.0*	< 1.0	< 1.0	**24**	< 1.0	< 1.0*	**0.34 J**	**18**	< 5.0
	09/14/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.8**	< 1.0	< 1.0	< 1.0	**2.2**	< 5.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.47 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		Chlorobenzene	Chloroethane	Chloroform	Chloro-methane (Methyl chloride)	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Cyclohexane	Dibromo-chloro-methane	Dichloro-difluoromethane (Freon 12)	Ethylbenzene	Isopropyl-benzene	Methyl acetate
NYSDEC TOGS 1.1.1		5	5	7	5	5	0.4	NE	50	5	5	5	NE
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-29-D1 (cont.)	02/12/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 *	< 1.0	< 1.0 *	< 1.0	< 1.0	< 1.0	< 5.0
	06/10/2020	<1.00 J4	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00 J4	**0.107 J**	<20.0
	08/19/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<1.00	<20.0
	11/06/2020	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	**0.536 J**	<1.00	<5.00	<1.00	<1.00	<20.0
	03/20/2021	<1.00	<5.00	<5.00	<2.50	<1.00	<1.00	**0.452 J**	<1.00	<5.00	<1.00	<1.00	<20.0
MW-29-D2	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-29-VD	01/14/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	06/21/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-30-D1	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.39 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.27 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-30-D2	01/14/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 13
	01/14/2016	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-30-VD	01/14/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 25
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-31-D1R	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
MW-31-D2R	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5
	06/22/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.5

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-12	01/14/2016	**32**	**5.4**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
AMW-13-D1	06/24/2016	**10**	< 1.0	< 1.0	< 1.0	**0.38 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.3**	< 2.0
	07/27/2016	**63 F1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**9.9**	< 2.0
AMW-13-D2	06/23/2016	**3.5**	< 1.0	< 1.0	< 1.0	**0.57 J**	**1.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/27/2016	**41**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
AMW-13-VD	06/23/2016	**5**	< 1.0	< 1.0	< 1.0	**1.5**	**1.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/27/2016	**3.4**	< 1.0	< 1.0	< 1.0	**1**	**1.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
AMW-14-D1	06/24/2016	**12**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.4**	< 2.0
	07/26/2016	**140 E**	**0.97 J**	< 1.0	< 1.0	< 1.0	**7.1**	**7.8**	< 1.0	< 1.0	< 1.0	**1600 E**	**11**
	07/05/2017	**170**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**78**	**3.2 J**
	08/27/2017	**170**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**7.6**	< 8.0
	10/11/2017	**170**	**2.4**	**0.95 J**	< 2.0	< 2.0	**1.0 J**	**13**	< 2.0	< 2.0	< 2.0	**3.2**	**20**
	07/12/2018	**160**	**1.7 J**	< 8.0	< 8.0	< 8.0	< 8.0	**8.6**	< 8.0	< 8.0	< 8.0	< 8.0	**16**
	10/17/2018	**120**	**0.40 J**	< 5.0	< 1.0	< 1.0	**0.27 J**	< 1.0	< 1.0	< 1.0	< 1.0	**32**	**1.6 J**
	05/10/2019	**250**	**3.0**	< 1.0	< 1.0	< 1.0	**0.84 J**	**11**	< 1.0	< 1.0	< 1.0*	**2.1**	**16**
	09/13/2019	**50**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.5**	< 1.0	< 1.0	< 1.0	**9**	< 2.0
	12/05/2019	**94**	**0.74 J**	< 1.0	< 1.0	< 1.0	< 1.0	**9.0**	< 1.0	**0.44 J**	< 1.0	**22**	**1.8 J**
	02/12/2020	**130**	**1.2**	< 1.0	< 1.0	< 1.0	**0.58 J**	**12.0**	< 1.0	**0.46 J**	< 1.0	**40**	**5.7**
	06/10/2020	**37.6**	<1.00	<5.00	<1.00	<1.00	<1.00	**3.79**	<1.00	**0.218 J**	<5.00	**5.59**	**0.780 J**
	08/19/2020	**181**	**3.18**	<5.00	<1.00	<1.00	**0.465 J**	**10.8**	<1.00	<1.00	<5.00	**4.74**	**4.86**
	11/04/2020	**190**	**3.97**	<5.00	<1.00	<1.00	**0.552 J**	**12.1**	<1.00	**0.290 J**	<5.00	**6.16**	**3.95**
	03/19/2021	**53.9**	**1.86**	<5.00	<1.00	<1.00	**0.439 J**	**14.3**	<1.00	**0.342 J**	<5.00	**25.3**	**3.77**
AMW-14-D2	06/23/2016	**3.1**	< 1.0	< 1.0	< 1.0	< 1.0	**0.81 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/26/2016	**24**	< 1.0	< 1.0	< 1.0	< 1.0	**0.64 J**	**0.90 J**	< 1.0	< 1.0	< 1.0	**3.6**	< 2.0
	07/27/2016	**0.58 J**	< 1.0	< 1.0	< 1.0	**0.38 J**	**7.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	**14**	**0.27 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/11/2017	**48**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/12/2018	**62**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	10/17/2018	**44**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	05/10/2019	**33**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.85 J**	< 1.0	< 1.0	< 1.0	**0.32 J**	<2.0
	09/13/2019	**37**	< 1.0	**0.59 J**	< 1.0	< 1.0	< 1.0	**0.52 J**	< 1.0	< 1.0	< 1.0	**0.65 J**	<2.0
	12/05/2019	**29**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.33 J**	<2.0
	02/12/2020	**36**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.51 J**	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	06/10/2020	**33.2**	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	**4.00 J**
	08/19/2020	**32.0**	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<30.0
	11/05/2020	**31.1**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/19/2021	**20.8**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
AMW-14-VD	06/23/2016	**0.91 J**	**0.36 J**	< 1.0	< 1.0	**0.59 J**	**10**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.79 J**
	07/27/2016	**0.59 J**	< 1.0	< 1.0	< 1.0	**0.41 J**	**8.2**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/05/2017	**0.51 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	**0.42 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/11/2017	**0.65 J**	**0.58 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.2**
	07/12/2018	**0.49 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/17/2018	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-14-VD (cont.)	05/10/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
	09/13/2019	**0.54 J**	<1.0	**0.36 J**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
	12/05/2019	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
	02/12/2020	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
	06/10/2020	**0.317 J**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	<3.00
	08/20/2020	**0.303 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/05/2020	**0.434 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/19/2021	**0.270 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
AMW-15-D1	06/23/2016	**29**	< 1.0	**9.9**	< 1.0	**0.43 J**	**3**	< 1.0	< 1.0	**5.5**	< 1.0	**70**	< 2.0
	07/27/2016	**51**	< 5.0	**140**	< 5.0	< 5.0	**7.5**	< 5.0	< 5.0	**73**	< 5.0	**410**	**6.5 J**
	10/26/2016	**110**	**3.3 J**	**8.9 J**	< 10	< 10	**18**	< 10	< 10	**48**	< 10	**600 F1**	**15 J**
	10/26/2016	**180**	**0.87 J**	**4.1**	< 4.0	< 4.0	**6.6**	< 4.0	< 4.0	**18**	< 4.0	**240**	**5.5 J**
	07/05/2017	**170**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**10**	< 8.0
	08/27/2017	**200**	< 4.0	**2.2 J**	< 4.0	< 4.0	**17**	**28**	< 4.0	< 4.0	< 4.0	**76**	**17**
	10/11/2017	**300 E**	< 2.0	< 2.0	< 2.0	< 2.0	**5.9**	**13**	< 2.0	< 2.0	< 2.0	**24**	**12**
	10/17/2018	**170**	**1.2 J**	< 25	< 5.0	< 5.0	**1.5 J**	**21**	< 5.0	< 5.0	< 5.0	< 5.0	**19**
	05/09/2019	**120**	**0.50 J**	< 1.0	< 1.0	< 1.0	< 1.0	**7.4**	< 1.0	< 1.0	< 1.0*	**1.1**	**6.3**
	09/13/2019	**100**	**0.51 J**	< 1.0	< 1.0	< 1.0	< 1.0	**6.7**	< 1.0	< 1.0	< 1.0	**2**	**5.1**
	12/05/2019	**120**	< 1.0	**0.41 J**	< 1.0	< 1.0	**0.43 J**	**7.1**	< 1.0	< 1.0	< 1.0	**2.2**	**5.8**
	02/11/2020	**37**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.5**	< 1.0	< 1.0	< 1.0	< 1.0	**1.6 J**
	06/10/2020	**171**	<5.00	<25.0	<5.00	<5.00	<5.00	**5.47**	<5.00	<5.00	<25.0	<5.00	**6.20 J**
	08/19/2020	**94.3**	<5.00	<25.0	<5.00	<5.00	<5.00	**4.20 J**	<5.00	<5.00	<25.0	<5.00	**2.96 J**
	11/04/2020	**76.7**	<1.00	<5.00	<1.00	<1.00	<1.00	**2.53**	<1.00	<1.00	<5.00	<1.00	**1.61 J**
	03/19/2021	**127**	<5.00	<25.0	<5.00	<5.00	<5.00	**5.63**	<5.00	<5.00	<25.0	<5.00	**5.23 J**
AMW-15-D2	06/23/2016	**68**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.8**	< 2.0
	06/23/2016	**66**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.7**	< 2.0
	07/27/2016	**43**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.5**	< 2.0
	10/26/2016	**42**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.7**	< 2.0
	10/26/2016	**110 E**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**30**	< 2.0
	07/05/2017	**120**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	08/27/2017	**350**	< 4.0	< 4.0	< 4.0	< 4.0	**7.8**	**5.5**	< 4.0	< 4.0	< 4.0	**300**	**12**
	10/11/2017	**160**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**25**	< 8.0
	10/17/2018	**120**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	05/10/2019	**61**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	09/13/2019	**100**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.39 J**	<2.0
	12/05/2019	**96**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	02/11/2020	**91**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	06/09/2020	**126**	<1.00	<5.00	<1.00	<1.00	<1.00	**0.209 J**	<1.00	<1.00	<5.00	<1.00	**0.225 J**
	08/19/2020	**11.0**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/04/2020	**57.1**	<1.00	<5.00	<1.00	<1.00	<1.00	**0.430 J**	<1.00	<1.00	<5.00	<1.00	<3.00
	03/19/2021	**74.6**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	**7.82**	<3.00
AMW-15-D3	06/23/2016	**2.4**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/23/2016	**2.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/27/2016	**23**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	**64**	< 4.0	**2.4 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**140**	< 4.0	**16**	**17**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
AMW-15-D3 (cont.)	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	07/13/2018	**22**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**20**	< 2.0	< 2.0	< 4.0
	10/17/2018	**10**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.5**	< 1.0	< 1.0	< 3.0
	05/10/2019	**16**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.39 J**	< 1.0	< 1.0	<2.0
	09/13/2019	**14**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.54 J**	< 1.0	< 1.0	<2.0
	12/05/2019	**7.7**	< 1.0	**0.32 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	02/11/2020	**51**	<5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4.3**	< 1.0	**0.57 J**	<2.0
	06/09/2020	**10.1**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	08/19/2020	**72.8**	<1.00	<5.00	<1.00	<1.00	<1.00	**0.226 J**	<1.00	**8.84**	<5.00	<1.00	**0.376 J**
	11/04/2020	**80.6**	<1.00	<5.00	<1.00	<1.00	<1.00	**<1.00**	<1.00	**4.31**	<5.00	<1.00	**0.174 J**
	03/19/2021	**63.6**	<1.00	<5.00	**0.147 J**	<1.00	**2.41**	**0.435 J**	<1.00	**51.1**	<5.00	**7.44**	**4.59**
AMW-15-VD	06/23/2016	**1.1**	< 1.0	< 1.0	< 1.0	< 1.0	**0.52 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/27/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**15**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	**1.2**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/11/2017	**0.94 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3**
	07/13/2018	**0.44 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/17/2018	**1.3**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	05/10/2019	**1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	09/13/2019	**1.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	12/05/2019	**1.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	02/11/2020	**1.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<2.0
	06/09/2020	**0.856 J**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	<3.00
	08/19/2020	**0.684 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/04/2020	**0.581 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/19/2021	**0.437 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
AMW-3	01/13/2016	< 5.0	**27**	**15**	< 5.0	< 5.0	**6.9**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**20**
	06/21/2016	**0.40 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
AMW-7R	01/12/2016	**1.4 J**	**1.5 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/21/2016	**0.23 J**	**9.4**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.79 J**
	07/11/2018	< 2.0	**29**	**1.1 J**	< 2.0	< 2.0	**1.0 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	10/17/2018	< 1.0	**50**	< 5.0	< 1.0	< 1.0	**0.60 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.61 J**
	05/10/2019	< 1.0	**31**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.3 J**
	09/14/2019	< 1.0	**29**	**0.53 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	12/06/2019	< 1.0	**7.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.73 J**
	02/12/2020	< 1.0	**24**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.86 J**
	06/09/2020	<1.00	**14.9**	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	**1.66 J**
	08/19/2020	<1.00	**25.1**	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	**0.990 J**
	11/06/2020	<1.00	**18.9**	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	**0.241 J**
	03/19/2021	<1.00	**7.03**	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
ASB-2	06/06/2016	**55**	< 1.0	< 1.0	< 1.0	**1.4**	**0.87 J**	< 1.0	< 1.0	**4.4**	< 1.0	**6**	< 2.0
ASB-3	06/08/2016	**8.5**	< 1.0	**0.60 J**	< 1.0	**1.3**	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	**81**	< 2.0
ASB-4	06/07/2016	**13**	**4.5 J**	**330**	< 5.0	**6.7**	**9**	**13**	< 5.0	**1500 E**	< 5.0	**400**	**36**
ASB-5	06/02/2016	**4.6**	< 1.0	< 1.0	< 1.0	**1.2**	< 1.0	< 1.0	< 1.0	**4.8**	< 1.0	**11**	**0.89 J**
ASB-7	06/02/2016	**5.5**	< 2.0	< 2.0	< 2.0	**1.2 J**	< 2.0	< 2.0	< 2.0	**1.7 J**	< 2.0	**31**	< 4.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-18R	06/22/2016	**65**	**4.4 J**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
	07/11/2018	**11 J**	**5.1 J**	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40
	10/17/2018	**28**	**6.2 J**	< 25	< 5.0	< 5.0	**4.1 J**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**5.2 J**
	09/14/2019	**40**	**5.6**	**0.68 J**	< 1.0	< 1.0	**4.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**7.1**
	12/05/2019	**14**	**3.3**	**0.62 J**	< 1.0	< 1.0	**4.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**5.2**
	02/12/2020	< 1.0	**0.56 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/09/2020	**3.42 J**	<5.00	<25.0	<5.00	<5.00 J4	**3.31 J**	<5.00	<5.00	<5.00 J4	<25.0	<5.00	**5.52 J**
	03/19/2021	**0.765 J**	**5.86**	<5.00	<1.00	<1.00	**2.36**	<1.00	<1.00	<1.00	<5.00	<1.00	**4.41**
MW-23-D1R	10/26/2016	**140**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	10/26/2016	**180**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	01/12/2016	**210**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/20/2016	**30**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/05/2017	**140**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	08/27/2017	**130**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/12/2017	**150**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	07/12/2018	**91**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/17/2018	**94**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1**	< 3.0
	09/13/2019	**92**	< 1.0	**0.53 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.26 J**	< 2.0
	12/05/2019	**83**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	02/11/2020	**35**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/10/2020	**106**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	**0.190 J**
	08/19/2020	**85.5**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/05/2020	**98.5**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/19/2021	**38.7**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-23-D2R	01/12/2016	**130**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/20/2016	**26**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/05/2017	**8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	**72**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/12/2017	**150 E**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 2.0
	07/12/2018	**8.8**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
	05/09/2019	**8.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	09/13/2019	**63**	< 1.0	**0.47 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	12/05/2019	**14**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/19/2020	**42.2**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/05/2020	**71.1**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/18/2021	**57.0**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-24-D1R	01/13/2016	**220**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**99**	< 10
	06/21/2016	**160**	**1.3 J**	< 4.0	< 4.0	< 4.0	< 4.0	**11**	< 4.0	< 4.0	< 4.0	**35**	**9.3**
	10/26/2016	**140 E**	**0.64 J**	< 1.0	< 1.0	< 1.0	**0.68 J**	**6.5**	< 1.0	< 1.0	< 1.0	**33**	**7.2**
	10/26/2016	**120 E**	**0.66 J**	< 1.0	< 1.0	< 1.0	**0.64 J**	**6.8**	< 1.0	< 1.0	< 1.0	**15**	**6.6**
	10/26/2016	**81**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	07/12/2018	**290**	< 8.0	< 8.0	< 8.0	< 8.0	**23**	**22**	< 8.0	< 8.0	< 8.0	**160**	**29**
	10/16/2018	**270**	< 25	< 25	< 5.0	< 5.0	**17**	**12**	< 5.0	< 5.0	< 5.0	**22**	**25**
	05/09/2019	**65**	< 1.0	< 1.0	< 1.0	< 1.0	**1.5**	**2.0**	< 1.0	< 1.0	< 1.0	**1.5**	**3.6**
	09/13/2019	**210 [200]**	**0.63 J [0.57 J]**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**7.2 [6.4]**	**16**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**8.0 [9.2]**	**33 [30]**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics												
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-24-D1R (cont.)	12/05/2019	**180 [210]**	1.0 [0.56 J]	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**1.4 [2.3]**	**7.0 [16]**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**3.4 [5.4]**	**11 [29]**
	02/11/2020	**210 [220]**	< 1.0 **[0.57 J]**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**0.9 J [2.5]**	**9.5 [14]**	< 1.0 [<1.0]	< 1.0 [<1.0]	< 1.0 [<1.0]	**2.3 [7.9]**	**24 [37]**
	06/09/2020	**195 [255]**	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 [<5.00]	**1.62 J [<5.00]**	**12.2 [13.8]**	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	**2.86 J [<5.00]**	**31.1 [34.4]**
	08/19/2020	**220 [206]**	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	**12.9 [13.2]**	<5.00	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	**26.9 [26.3]**
	11/05/2020	**207 [180]**	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	<5.00 [<5.00]	<5.00 [<5.00]	**12.8 [9.50]**	<5.00 [<5.00]	<5.00 [<5.00]	<25.0 [<25.0]	<5.00 [<5.00]	**24.1 [18.6]**
	03/19/2021	**201 [213]**	<1.00 [<5.00]	<5.00 [<25.0]	<1.00 [<5.00]	<1.00 [<5.00]	**1.42 [<5.00]**	**12.6 [11.4]**	<1.00 [<5.00]	<1.00 [<5.00]	<5.00 [<25.0]	<1.00 [<5.00]	**23.8 [22.7]**
MW-24-D2	01/13/2016	**260**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**180**	< 10
	01/13/2016	**250**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**170**	< 10
	06/21/2016	**140 E**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.98 J**	< 1.0	< 1.0	< 1.0	**38**	< 2.0
	10/25/2016	**120**	< 4.0	**120**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**20**	< 8.0
	10/25/2016	**270**	< 5.0	**84 F1**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**280 F1**	< 10
	07/05/2017	**220**	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	**250 F1**	< 16
	08/27/2017	**87**	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	**72**	< 16
	10/11/2017	**60**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**18**	< 4.0
	07/12/2018	**2.5**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	10/17/2018	**2**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.23 J**	< 3.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	12/05/2019	**13**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	02/11/2020	**47**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/09/2020	**136**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	**0.716 J**	<1.00	<1.00 J4	<5.00	**0.269 J**	<3.00
	08/18/2020	**76.4**	<1.00	<5.00	<1.00	<1.00	<1.00	**0.359 J**	<1.00	<1.00	<5.00	<1.00	<3.00
	11/05/2020	**296**	<1.00	<5.00	<1.00	<1.00	<1.00	**1.13**	<1.00	**0.244 J**	<5.00	<1.00	<3.00
	03/19/2021	**448**	<1.00	<5.00	<1.00	<1.00	<1.00	**1.19**	<1.00	<1.00	<5.00	<1.00	<3.00
MW-24-VDR	07/12/2018	**4.2**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/17/2018	**2.9**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.55 J**	< 3.0
	05/09/2019	**1.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.40 J**	< 2.0
	09/13/2019	**0.75 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.35 J**	< 2.0
	12/05/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	02/11/2020	**1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/09/2020	**0.998 J**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	<3.00
	08/18/2020	**1.16**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/05/2020	**0.944 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/19/2021	**1.01**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-26-D1	01/12/2016	**380**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	**16**	< 10
	06/22/2016	**340**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**20**	< 8.0
	10/25/2016	**310**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**18**	< 20
	10/25/2016	**390**	< 4.0	**3.6 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**51**	< 8.0
	07/05/2017	**290**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**28**	< 20
	08/27/2017	**240**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
	10/11/2017	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	07/13/2018	**220 E**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**13**	< 4.0
	10/17/2018	**110**	< 5.0	< 5.0	< 1.0	< 1.0	**0.23 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	09/13/2019	**86**	< 1.0	< 1.0	< 1.0	< 1.0	**0.67 J**	**1.0**	< 1.0	< 1.0	< 1.0	**19**	< 2.0
	12/06/2019	**77**	< 1.0	< 1.0	< 1.0	< 1.0	**0.4 J**	**0.74 J**	< 1.0	< 1.0	< 1.0	**12**	< 2.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-26-D1 (cont.)	02/11/2020	**80**	< 1.0	< 1.0	< 1.0	< 1.0	**0.46 J**	**0.92 J**	< 1.0	< 1.0	< 1.0	**26**	< 2.0
	06/10/2020	**115**	<1.00	<5.00	<1.00	<1.00	**0.516 J**	**2.36**	<1.00	<1.00	<5.00	**79.3**	**1.74 J**
	08/19/2020	**97.4**	<1.00	<5.00	<1.00	<1.00	<1.00	**1.57**	<1.00	<1.00	<5.00	**39**	**1.02 J**
	11/06/2020	**84.1**	<1.00	<5.00	<1.00	<1.00	<1.00	**1.42**	<1.00	<1.00	<5.00	**38.8 C5**	**0.793 J**
MW-26-D2	01/12/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/22/2016	**59**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	< 2.0
	10/25/2016	**85**	< 2.0	**15**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	10/25/2016	**43**	< 2.0	**81**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0	< 16
	10/11/2017	**14**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/17/2018	**76**	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	05/09/2019	**84**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.90 J**	< 1.0	**0.50 J**	< 1.0	**1.5**	< 2.0
	09/13/2019	**60**	< 1.0	**0.44 J**	< 1.0	< 1.0	< 1.0	**0.56 J**	< 1.0	< 1.0	1.0 U	< 1.0	< 2.0
	12/06/2019	**29**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	02/11/2020	**52**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/10/2020	**105**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	**0.218 J**
	08/19/2020	**64.4**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-26-VD	01/13/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/22/2016	**0.96 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-27-D1R	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/21/2016	**10**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.97 J**	< 2.0
	07/05/2017	**84**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**28**	< 4.0
	08/27/2017	**100**	< 2.0	**0.94 J**	< 2.0	< 2.0	< 2.0	**5**	< 2.0	< 2.0	< 2.0	**110**	< 4.0
	07/13/2018	**62**	< 2.0	< 2.0	< 2.0	< 2.0	**1.6 J**	**4.1**	< 2.0	< 2.0	< 2.0	**88**	< 4.0
	10/18/2018	**38**	< 5.0	< 5.0	< 1.0	< 1.0	**1**	< 1.0	< 1.0	**0.26 J**	< 1.0	**70**	< 3.0
	05/10/2019	**18**	< 1.0	< 1.0	< 1.0	< 1.0	**0.44 J**	**0.96 J**	< 1.0	< 1.0	< 1.0	**17**	< 2.0
	09/14/2019	**33**	< 1.0	< 1.0	< 1.0	< 1.0	**1.2**	**2.3**	< 1.0	< 1.0	< 1.0	**25**	**1.2 J**
	12/05/2019	**39**	< 1.0	< 1.0	< 1.0	< 1.0	**1.7**	**3.6**	< 1.0	**0.37 J**	1.0 U	**61**	**1.6 J**
	08/19/2020	**26.0**	<5.00	<25.0	<5.00	<5.00	<5.00	**1.52 J**	<5.00	<5.00	<25.0	**33.6**	**1.12 J**
	11/06/2020	**22.2**	<5.00	<25.0	<5.00	<5.00	<5.00	**2.01 J**	<5.00	<5.00	<25.0	**26.0 C5**	<15.0
	03/20/2021	**21.1**	<1.00	<5.00	<1.00	<1.00	**0.450 J**	**1.82**	<1.00	<1.00	<5.00	**26.9**	**0.593 J**
MW-27-D2	01/13/2016	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/21/2016	**8.1**	**26**	**5.7**	< 4.0	< 4.0	**17**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**68**
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	10/12/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/13/2018	**3.4 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/18/2018	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	05/10/2019	**7.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	09/14/2019	**9.0**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	12/05/2019	**4.9**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	02/12/2020	**4.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-27-D2 (cont.)	06/10/2020	**0.843 J**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	**0.181 J**
	08/19/2020	**1.21**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/06/2020	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/20/2021	**0.380 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-28-D1	06/24/2016	**6.2**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/28/2016	**4.7 J**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
	07/05/2017	**19**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	**6.6**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/11/2017	**4.8**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/17/2018	**9.5**	< 5.0	< 5.0	< 1.0	< 1.0	**0.39 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2.6 J**
	05/09/2019	**7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**0.47 J**
	09/13/2019	**22**	< 1.0	**0.42 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**1.0**	**2.2**
	12/05/2019	**21**	< 1.0	< 1.0	< 1.0	< 1.0	**0.53 J**	**0.25 J**	< 1.0	< 1.0	< 1.0	**0.68 J**	**1.9 J**
	02/11/2020	**34**	< 1.0	< 1.0	< 1.0	< 1.0	**0.62 J**	**0.35 J**	< 1.0	< 1.0	< 1.0	**1.7**	**3**
	06/09/2020	**20.1**	<1.00	<5.00	<1.00	<1.00 J4	**0.578 J**	**0.205 J**	<1.00	<1.00 J4	<5.00	**0.625 J**	**3.11**
	08/19/2020	**16.5**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	**1.02 J**
	11/06/2020	**28.8**	<1.00	<5.00	<1.00	<1.00	**0.497 J**	**0.362 J**	<1.00	<1.00	<5.00	<1.00	**4.11**
MW-28-D2R	06/24/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/28/2016	**0.25 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/05/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	08/27/2017	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/11/2017	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	07/13/2018	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 8.0
	10/17/2018	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0
	05/09/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	09/13/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	12/06/2019	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	02/11/2020	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/09/2020	<1.00	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	<3.00
	08/19/2020	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/06/2020	**0.108 J**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/20/2021	<1.00	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-29-D1	01/14/2016	**34**	**5.5**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	06/21/2016	**23**	**3.8**	< 1.0	< 1.0	< 1.0	**1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**2**
	10/26/2016	**44**	**10**	< 1.0	< 1.0	< 1.0	**3.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**9.7**
	10/26/2016	**23**	**2.5**	< 1.0	< 1.0	< 1.0	**1.6**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**4**
	07/05/2017	**71**	**1.8 J**	< 2.0	< 2.0	< 2.0	**2.3**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**3.7 J**
	08/27/2017	**28**	**5.8**	< 2.0	< 2.0	< 2.0	**1.7 J**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	**4.3**
	10/12/2017	**20**	**1.5 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**4.3 J**
	07/13/2018	**39**	**11**	< 4.0	< 4.0	< 4.0	**3.0 J**	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	**5.5 J**
	10/18/2018	**33**	**11**	< 5.0	< 1.0	< 1.0	**2.8**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**8.1**
	05/10/2019	**51**	**8.6**	< 1.0	< 1.0	< 1.0	**2.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	**3.3**
	09/14/2019	**18**	**1.2**	**0.48 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	12/06/2019	**12**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	Volatile Organics											
		Methyl-t-butyl ether	Methyl-cyclohexane	Methylene chloride (Dichloro-methane)	Styrene	Tetrachloro-ethene	Toluene	trans-1,2-Dichloro-ethene	trans-1,3-Dichloro-propene	Trichloro-ethene (Trichloro-ethylene)	Trichloro-fluoromethane (Freon 11)	Vinyl Chloride (Chloroethene)	Xylene (total)
NYSDEC TOGS 1.1.1		10	NE	5	5	5	5	5	0.4	5	5	2	5
Units		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-29-D1 (cont.)	02/12/2020	**3.1**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/10/2020	**22.7**	<1.00	<5.00	<1.00	<1.00 J4	<1.00	<1.00	<1.00	<1.00 J4	<5.00	<1.00	<3.00
	08/19/2020	**29.5**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	11/06/2020	**28.7**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
	03/20/2021	**26.4**	<1.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<5.00	<1.00	<3.00
MW-29-D2	01/14/2016	**66**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/21/2016	**51**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-29-VD	01/14/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
	06/21/2016	**0.42 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-30-D1	01/14/2016	**100 E**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/22/2016	**53**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-30-D2	01/14/2016	**7.3**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 10
	01/14/2016	**8.1**	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 4.0
	06/22/2016	**3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-30-VD	01/14/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
	06/22/2016	**0.47 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-31-D1R	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/22/2016	**3.3**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
MW-31-D2R	01/14/2016	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0
	06/22/2016	**0.32 J**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
AMW-12	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMW-13-D1	06/24/2016	NA	NA	NA	NA	**3,500**	**510 B**	NA	**569,000 B**	**5,69,000 B**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMW-13-D2	06/23/2016	NA	NA	NA	NA	**2,700**	**740 B**	NA	**1100 B**	**7,32,000 B**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMW-13-VD	06/23/2016	NA	NA	NA	NA	**26,100**	**1100 B**	NA	**1100 B**	**7,32,000 B**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AMW-14-D1	06/24/2016	NA	NA	NA	NA	**410**	**370 B**	NA	**< 140**	**8,86,000 B**	NA	NA
	07/26/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/05/2017	**130**	< 150	< 140	**1,100**	**4,700**	**48**	**16,90,000 ^**	NA	**7,16,000 B**	**3,060**	**4.5**
	08/27/2017	**79**	< 330	**200 J**	**550**	**5,200**	**49 B**	**1,730,000**	NA	**5,63,000 B**	**3,130**	**5.2**
	10/11/2017	**23**	< 170	**190**	**580**	**4,400**	**48 B**	**1,590,000**	NA	**563,000**	**1,860**	**4.4**
	07/12/2018	**42**	< 660	**260 J**	**2,000**	**1,600**	**14 B**	**975,000**	NA	**6,23,000 B**	**2,970**	**1.5**
	10/17/2018	**120 B**	< 330	< 310	**1,600**	**5,000**	**55 B**	**1,560,000**	NA	**673,000**	**3,620**	**4.7**
	05/10/2019	**73**	**150 J**	**440**	**1,900**	**5,780**	**94.9**	**1,740,000**	NA	**805,000**	**3,700**	**5.8**
	09/13/2019	**150**	<83	<77	**3,600**	**3,630**	**70.2**	**1,680,000**	NA	**779,000**	**3,000**	**3.1**
	12/05/2019	**160**	**13**	**210**	**3,800**	**6,940**	**59**	**1,100,000**	NA	**582,000**	**2,100**	**6.9**
	02/12/2020	**100 B**	**160**	**690**	**3,000 B**	**5,170**	**41.1**	**967,000**	NA	**386,000**	**2,400**	**5**
	06/10/2020	**43.1 T8**	<13.0	**86.3**	**3,200**	**1,800**	**33.3**	**1,380,000**	NA	**613,000**	**2,750**	**0.334 T8**
	08/19/2020	**42,500 T8**	**378**	**176**	**3,340**	**8,480**	**131**	**1,930,000**	NA	**678**	**2,950**	**6.97 T8**
	11/04/2020	**28.2 T8**	**816**	**225**	**5,990**	**3,130**	**22.0**	**986,000**	NA	**581,000**	**3,030**	**2.71 T8**
	03/19/2021	**61.8 P1 T8**	**110**	**661**	**5,200**	**12,500**	**150**	**1,950,000**	NA	**808,000**	**3,950**	**10.1 T8**
AMW-14-D2	06/23/2016	NA	NA	NA	NA	**6,600**	**510 B**	NA	**740 B**	**7,40,000 B**	NA	NA
	07/26/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08/27/2017	**18**	< 83	< 77	**210**	**34 J**	**16 B**	**13,500**	NA	**4,39,000 B**	**4,930**	< 0.10
	10/11/2017	**100**	< 170	< 150	**1,200**	**17,300**	**760 B**	**3,260,000**	NA	**830,000**	**4,070**	**17.3**
	07/12/2018	**120**	< 330	< 310	**970**	**2,500**	**78 B**	**2,210,000**	NA	**7,85,000 B**	**4,380**	**2.5**
	10/17/2018	**150 B**	< 330	< 310	**2,200**	**2,700**	**100 B**	**2,230,000**	NA	**4,85,000 B**	**4,510**	**2.7**
	05/10/2019	**150**	< 330	< 310	**1,900**	**548**	**80.1**	**2,080,000**	NA	**822,000**	**4,200**	<0.10
	09/13/2019	**160**	<83	<77	**2,600**	**1,870**	**86.3**	**2,070,000**	NA	**823,000**	**3,400**	**1.3**
	12/05/2019	**170**	**0.74 J**	< 3.0	**2,200**	**6,830**	**135**	**2,380,000**	NA	**727,000**	**4,200**	**6.5**
	02/12/2020	**120 B**	**1.1 J**	< 3.0	**1,800 B**	**5,590**	**116**	**1,630,000**	NA	**810,000**	**4,500**	**4.7**
	06/10/2020	**69.7 T8**	<13.0	<13.0	**2,070**	**5,070**	**119**	**1,990,000**	NA	**744,000**	**4,190**	**2.71 T8**
	08/19/2020	**55,800 T8**	<13.0	<13.0	1670	**17,800**	**340**	**2,510,000**	NA	**832**	**4,380**	**16.9 T8**
	11/05/2020	**26.3 T8**	<13.0	<13.0	**1,970**	**3,290**	**104**	**1,950,000**	NA	**692,000**	**4,330**	**2.96 T8**
	03/19/2021	**44.6 T8**	<13.0	<13.0	**1,820**	**28,300**	**506**	**2,530,000**	NA	**750,000**	**5,310**	**27.4 T8**
AMW-14-VD	06/23/2016	NA	<13.0	<13.0	1,820	**28,300**	**506**	2,530,000	**427**	**427,000**	NA	NA
	07/27/2016	NA	<13.0	<13.0	1,820	28,300	506	2,530,000	NA	NA	NA	NA
	07/05/2017	**120**	<13.0	<13.0	**1,820**	**28,300**	**506**	**2,530,000**	NA	**4,40,000 B**	**15,200**	**11.3**
	08/27/2017	**100**	<13.0	<13.0	**1,820**	**28,300**	**506**	**2,530,000**	NA	**4,15,000 B**	**15,400**	**12.3**
	10/11/2017	**82**	<13.0	<13.0	**1,820**	**28,300**	**506**	**2,530,000**	NA	**454,000**	**16,200**	**14.8**
	07/12/2018	**120**	< 7.5	< 7.0	**27**	**18,400**	**410 B**	**8,660,000**	NA	**4,72,000 B**	**19,400**	**18.4**
	10/17/2018	**110 B**	< 7.5	< 7.0	**24**	**18,500**	**390 B**	**9,100,000**	NA	**4,09,000 B**	**16,300**	**18.5**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
AMW-14-VD (cont.)	05/10/2019	**130**	<7.5 H	<7.0 H	**12 H**	**14,700**	**387**	**71,50,000 B**	NA	**493,000**	**110,000**	**14.4**
	09/13/2019	**140**	<7.5	<7.0	**20**	**15,200**	**376**	**6,810,000**	NA	**493,000**	**14,000**	**13.8**
	12/05/2019	**130**	< 4.0	<3.0	**33**	**18,800**	**432**	**8,960,000**	NA	**493,000**	**17,000**	**18.7**
	02/12/2020	**100 B**	< 4.0	< 3.0	**28 B**	**12,800**	**339**	**5,740,000**	NA	**495,000**	**15,000**	**12.1**
	06/10/2020	**88.9 T8**	<13.0	<13.0	**467**	**17,600**	**381**	**8,070,000**	NA	**528,000**	**18,000**	<0.100 T8
	08/20/2020	**82,100 T8**	<13.0	<13.0	**26.4**	**16700**	**389**	**8,790,000**	NA	**527**	**17,000**	**1.82 T8**
	11/05/2020	<20 T8	<13.0	<13.0	**48.6**	**18,000**	**396**	**7,940,000**	NA	**501,000**	**17,200**	<0.1 T8
	03/19/2021	**82.5 T8**	<13.0	<13.0	**51.9**	**18,500**	**395**	**8,320,000**	NA	**522,000**	**17,300**	**0.969 T8**
AMW-15-D1	06/23/2016	NA	NA	NA	NA	**2,200**	**500 B**	NA	**602**	**602,000**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/26/2016	NA	NA	NA	NA	**1,900 B**	**70 B**	NA	**130**	**130,000**	NA	NA
	10/26/2016	NA	NA	NA	NA	**95 B**	**110 B**	NA	**528**	**528,000**	NA	NA
	07/05/2017	**110**	< 150	< 140	**400**	**2,100**	**84**	**17,50,000 ^**	NA	**597,000**	**73.2**	**2.1**
	08/27/2017	**27**	**92 J**	**830**	**4,000**	**12,400**	**170 B**	**1,520,000**	NA	**4,71,000 B**	**2,480**	**12.4**
	10/11/2017	**34**	< 330	**470**	**2,400**	**6,900**	**100 B**	**17,10,000 ^**	NA	**641,000**	**2,760**	**6.9**
	10/17/2018	**40**	< 660	< 620	**5,100**	**3,900**	**320**	**989,000**	NA	**442,000**	**1,910**	**3.8**
	05/09/2019	**52**	<830	<770	**3,200**	**3,340**	**335**	**1,170,000**	NA	**422,000**	**2,500**	**3.3**
	09/13/2019	**47**	**290 J**	**150 J**	**4,000**	**3,740**	**311**	**1,160,000**	NA	**254,000**	**1,700**	**1.5**
	12/05/2019	**39**	**490**	**550**	**6,200**	**3,550**	**243**	**1,200,000**	NA	**424,000**	**2,000**	**3.2**
	02/11/2020	**20 B**	**89**	**49**	**700 B**	**4,740**	**303**	**1,050,000**	NA	**206,000**	**1,800**	**3.3**
	06/10/2020	<20.0 T8	**775**	**165**	**6,590**	**512**	**150**	**1,050,000**	NA	**393,000**	**2,010**	<0.050 T8
	08/19/2020	<20000 T8	**550**	**27.5**	**4,380**	**1,320**	**126**	**1,460,000**	NA	**442**	**1990**	**0.836 T8**
	11/04/2020	<20 T8	**722**	<13.0	**5,200**	**800**	**80.5**	**1,030,000**	NA	**425,000**	**2,250**	**0.142 T8**
	03/19/2021	**23 T8**	**1,370**	**90.7**	**9,900**	**13,700**	**113**	**1,210,000**	NA	**598,000**	**2,590**	**13.4 T8**
AMW-15-D2	06/23/2016	NA	NA	NA	NA	**110**	**5.8 B**	NA	**50 B**	**1,81,000 B**	NA	NA
	06/23/2016	NA	NA	NA	NA	**120**	**6.3 B**	NA	**185**	**185,000**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/26/2016	NA	NA	NA	NA	**50 B**	**85 B**	NA	**99.9**	**99,900**	NA	NA
	10/26/2016	NA	NA	NA	NA	< 50	**98 B**	NA	**600**	**600,000**	NA	NA
	07/05/2017	**98**	< 150	< 140	**430**	**700**	**110**	**20,90,000 ^**	NA	**687,000**	**3,700**	**0.53**
	08/27/2017	**94**	< 170	**37 J**	**880**	**3,500**	**140 B**	**2,200,000**	NA	**6,73,000 B**	**3,650**	**3.5**
	10/11/2017	**68**	< 170	< 150	**280**	**4,500**	**130 B**	**21,50,000 ^**	NA	**811,000**	**3,710 F1**	**4.5**
	10/17/2018	**110**	< 330	< 310	**560**	**750**	**55**	**2,130,000**	NA	**461,000**	**3,790**	**0.75**
	05/10/2019	**130**	<170	<150	**520**	**328**	**72**	**2,030,000**	NA	**672,000**	**4,200**	**0.24**
	09/13/2019	**140**	<170	<150	**680**	**493**	**54.6**	**2,030,000**	NA	**649,000**	**3,800**	**0.35**
	12/05/2019	**120**	**1.3 J**	3 U	**800**	**739**	**62.7**	**1,870,000**	NA	**636,000**	**4,000**	**0.46**
	02/11/2020	**97 B**	**1.9 J**	< 3.0	**690 B**	**978**	**69.9**	**1,820,000**	NA	**651,000**	**4,200**	**0.79**
	06/09/2020	**39.8 T8**	<13.0	<13.0	**920**	**595**	**75.7**	**1,580,000**	NA	**610,000**	**3,750**	<0.050 T8
	08/19/2020	**46,600 T8**	<13.0	<13.0	**409**	**10,500**	**150**	**2,230,000**	NA	**413**	**2410**	**5.04 T8**
	11/04/2020	**21.5 T8**	**6.37 J**	<13.0	**809**	**963**	**76.6**	**1,940,000**	NA	**540,000**	**4,150**	**0.29 T8**
	03/19/2021	**36.2 T8**	<13.0	<13.0	**19.3**	**14,800**	**258**	**2,220,000**	NA	**590,000**	**3,500**	**5.62 T8**
AMW-15-D3	06/23/2016	NA	NA	NA	NA	**98**	**250 B**	NA	**2,980,000 ^**	**6,17,000 B**	NA	NA
	06/23/2016	NA	NA	NA	NA	**120**	**240 B**	NA	**< 5**	**12,200 B**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08/27/2017	**5.1**	< 330	< 310	**2,400**	**2,300**	**450 B**	**29,80,000 ^**	NA	**4,08,000 B**	**4,230**	**2.3**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
AMW-15-D3 (cont.)	10/11/2017	< 5	< 170	< 150	**610**	**450**	**99 B**	**25,00,000 ^**	NA	**508,000**	**7,530**	**0.45**
	07/13/2018	**7.6**	< 330	< 310	**1,500**	**3,100**	**1,100 B**	**3,870,000**	NA	**5,18,000 B**	**4,670**	**3.1**
	10/17/2018	**100**	< 170	< 150	**2,800**	**260**	**200**	**2,610,000**	NA	**108,000**	**7,380**	**0.26**
	05/10/2019	**140**	<330	<310	**1,600**	**301**	**222**	**2,730,000**	NA	**616,000**	**8,800**	**0.30**
	09/13/2019	**130**	< 170	< 150	**1,400**	**612**	**231**	**2,720,000**	NA	**646,000**	**4,400**	**0.40**
	12/05/2019	**100**	< 4.0	< 3.0	**1,400**	**349**	**97.4**	**1,550,000**	NA	**594,000**	**5,300**	**0.35**
	02/11/2020	**85 B**	**3.1 J**	< 3.0	**1,100 B**	**3,631**	**106**	**1,330,000**	NA	**626,000**	**2,600**	**3.10**
	06/09/2020	**29.8 T8**	<13.0	<13.0	**1,340**	**1,130**	**138**	**1,690,000**	NA	**676,000**	**4,630**	**0.605 T8**
	08/19/2020	**52,200 T8**	**19.0**	<13.0	**2,800**	**3,030**	**871**	**3,930,000**	NA	**479**	**8160**	**2.8 T8**
	11/04/2020	**23.4 T8**	<13.0	<13.0	**2,010**	**795**	**131**	**1,660,000**	NA	**649,000**	**4,790**	**0.447 T8**
	03/19/2021	<20 T8	**76.3**	**6.25 J**	**6,270**	**439**	**484**	**2,960,000**	NA	**310,000**	**3,000**	<0.100 T8
AMW-15-VD	06/23/2016	NA	NA	NA	NA	**4,200**	**200 B**	NA	**303**	**303,000**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08/27/2017	**31**	< 7.5	< 7.0	**24**	**11,800**	**350 B**	**8,910,000**	NA	**135,000 B**	**16,100**	**11.5**
	10/11/2017	**40**	< 7.5	< 7.0	**8**	**11,700**	**340 B**	**91,80,000 ^**	NA	**329,000**	**16,000**	**11.7**
	07/13/2018	**41**	< 7.5	< 7.0	**37**	**10,600**	**320 B**	**8,290,000**	NA	**3,57,000 B**	**19,200**	**10.6**
	10/17/2018	**37**	< 7.5	< 7.0	**27**	**10,700**	**310**	**8,770,000**	NA	**271,000**	**13,200**	**10.7**
	05/10/2019	**17**	<7.5 H	<7.0 H	**25 H**	**3,600**	**287**	**8,560,000**	NA	**432,000**	**18,000**	**3.6**
	09/13/2019	**49**	<7.5	<7.0	**22**	**7,650**	**192**	**5,240,000**	NA	**429,000**	**16,000**	**7.2**
	12/05/2019	**22**	< 4.0	< 3.0	**51**	**5,150**	**220**	**6,360,000**	NA	**478,000**	**17,000**	**5**
	02/11/2020	**11 B**	< 4.0	< 3.0	**38 B**	**2,850**	**157**	**4,770,000**	NA	**468,000**	**15,000**	**1.5**
	06/09/2020	<20.0 T8	<13.0	<13.0	**54.9**	**5,330**	**213**	**6,680,000**	NA	**517,000**	**18,000**	<0.100 T8
	08/19/2020	**29,500 T8**	<13.0	<13.0	**44.9**	**6,080**	**230**	**6,370,000**	NA	**509**	**17,000**	<0.1 T8
	11/04/2020	<20 T8	<13.0	<13.0	**63.3**	**4,530**	**280**	**8,440,000**	NA	**523,000**	**17,300**	<0.1 T8
	03/19/2021	**21.7 T8**	<13.0	<13.0	**64.5**	**10,200**	**288**	**8,660,000**	NA	**523,000**	**17,300**	**5.31 T8**
AMW-3	01/13/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**16,200**	**1,400 B**	NA	**351**	**351,000**	NA	NA
AMW-7R	01/12/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**170**	**74 B**	NA	**2,900 B**	**1,99,000 B**	NA	NA
	07/11/2018	**82**	< 330	< 310	**3,500**	**20,000**	**2,500 B**	**199,000**	NA	**8,81,000 B**	**253**	**19.7**
	10/17/2018	**94 B**	< 330	< 310	**5,800**	**12,500**	**2,900 B**	**168,000**	NA	**997,000**	**192**	**12.5**
	05/10/2019	**94**	< 330 UH	< 310 UH	**3,100 H**	**8,080**	**2,770**	**105,000**	NA	**558,000**	**120 F1**	**8.1**
	09/14/2019	**110**	<170	<150	**3,600**	**6,840**	**2,770**	**95,700**	NA	**651,000**	**62**	**6**
	12/06/2019	**47**	**1.6 J**	< 3.0	**6,200**	**4,790**	**1,420**	**93,300**	NA	**462,000**	**80**	**4.7**
	02/12/2020	**52 B**	**2.4 J**	< 3.0	**5,500 B**	**24,900**	**2,730**	**86,900**	NA	**597,000**	**85**	**23.2**
	06/09/2020	**38.1 T8**	<13.0	<13.0	**9,370**	**16,000**	**2,270**	**93,200**	NA	**516,000**	**100**	**4.63 T8**
	08/19/2020	**46300 T8**	<13.0	<13.0	**3550**	**94900**	**3080**	**113,000**	NA	**656**	**86.6**	**83.6 T8**
	11/06/2020	**44.3 T8**	**4.44 J**	<13.0	**7,880**	**33,200**	**3,500**	**111,000**	NA	**723,000**	**78.2**	**17.2 T8**
	03/19/2021	**32.1 T8**	<13.0	<13.0	**7,700**	**35,500**	**2,390**	**234,000**	NA	**615,000**	**547**	**23.4 T8**
ASB-2	06/06/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ASB-3	06/08/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ASB-4	06/07/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ASB-5	06/02/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ASB-7	06/02/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
MW-18R	06/22/2016	NA	NA	NA	NA	**11,500 B**	**470 B**	NA	**20,000 B**	**5,15,000 B**	NA	NA
	07/11/2018	**2.2 J**	< 660	< 620	**3,800**	**1,400**	**17 B**	**161,000**	NA	**1,84,000 B**	**367**	**1.3**
	10/17/2018	**11 B**	< 660	< 620	**9,700**	**450**	**26 B**	**193,000**	NA	**365,000**	**259**	**0.45**
	09/14/2019	**32**	<660	<620	**13,000**	**11,700**	**110**	**310,000**	NA	**386,000**	**480**	**8.2**
	12/05/2019	**3 J**	**21**	**0.81 J**	**16,000**	**3,100**	**30.8**	**323,000**	NA	**225,000**	**400**	**2.8**
	02/12/2020	**3.9 J B**	< 4.0	< 3.0	**89**	**9,770**	**49.9**	**45,100**	NA	**24,400**	**77**	**9.6**
	06/09/2020	<20.0 T8	**8.80 J**	<13.0	**5,640**	**5,240**	**28.9**	**204,000**	NA	**101,000**	**269**	<0.100 T8
	03/19/2021	<20 T8	**19**	<13.0	**8,840**	**1,450**	**11.7**	**191,000**	NA	**131,000**	**223**	**0.907 T8**
MW-23-D1R	10/26/2016	NA	NA	NA	NA	< 50	**21 B**	NA	**555**	**555,000**	NA	NA
	10/26/2016	NA	NA	NA	NA	**240 B**	**670 B**	NA	**525**	**525,000**	NA	NA
	01/12/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/20/2016	NA	NA	NA	NA	**660**	**690 B**	NA	**485**	**485,000**	NA	NA
	07/05/2017	**82**	< 150	< 140	**150**	**17,100**	**3,100**	**11,90,000 ^**	NA	**500,000**	**1,970**	**17.1**
	08/27/2017	**75**	< 83	< 77	**1,500**	**33,900**	**2200 B**	**11,90,000 ^**	NA	**5,12,000 B**	**2,190**	**31.9**
	10/12/2017	**55**	< 170	< 150	**1,300**	**3,800**	**1000 B**	**12,30,000 ^**	NA	**562,000**	**2,270**	**3.8**
	07/12/2018	**64**	< 330	< 310	**4,800**	**4,300**	**810 B**	**1,360,000**	NA	**4,95,000 B**	**2,250**	**4**
	10/17/2018	**63**	< 660	< 620	**3,600**	**1,900**	**930**	**1,220,000**	NA	**360,000**	**2,260**	**1.9**
	09/13/2019	**68**	<83	<77	**1,400**	**1,460**	**636**	**971,000**	NA	**467,000**	**2,000**	**1.1**
	12/05/2019	**660**	**8.2**	< 3.0	**2,100**	**2,020**	**852**	**389,000**	NA	**309,000**	**1,300**	**1.8**
	02/11/2020	**10 B**	**3.3 J**	< 3.0	**770 B**	**2,650**	**191**	**474,000**	NA	**173,000**	**730**	**2.5**
	06/10/2020	**29.6 T8**	**6.78 J**	<13.0	**1,560**	**1,430**	**511**	**1,240,000**	NA	**320,000**	**1,690**	<0.050 T8
	08/19/2020	**41,200 T8**	**6.95 J**	<13.1	**1,780**	**6,320**	**1,260**	**1,300,000**	NA	**543**	**2,340**	**1.44 T8**
	11/05/2020	**23.9 T8**	**7.51 J**	<13.0	**2,040**	**3,260**	**1,050**	**1,300,000**	NA	**401,000**	**2,030**	<0.1 T8
	03/19/2021	**29.3 T8**	<13.0	<13.0	**303**	**105,000**	**4,350**	**1,310,000**	NA	**469,000**	**2,470**	**103 T8**
MW-23-D2R	01/12/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/20/2016	NA	NA	NA	NA	**40 J**	**110 B**	NA	**543**	**543,000**	NA	NA
	07/05/2017	**130**	< 38	< 35	**73**	**4,400**	**210**	**21,90,000 ^**	NA	**520,000**	**5,260**	**4.2**
	08/27/2017	**110**	< 83	< 77	**360**	**1,800**	**170 B**	**19,30,000 ^**	NA	**4,34,000 B**	**5,420**	**1.8**
	10/12/2017	**100**	< 170	< 150	**200**	**2,800**	**140 B**	**25,70,000 ^**	NA	**654,000**	**4,460**	**2.8**
	07/12/2018	**32**	< 170	< 150	**290**	**1,660**	**279**	**1,930,000**	NA	**587,000**	**3,800**	**1.4**
	05/09/2019	**32**	< 170	< 150	**290**	**1,660**	**279**	**1,930,000**	NA	**587,000**	**3,800**	**1.4**
	09/13/2019	**140**	< 170	< 150	**700**	**25,700**	**2,350**	**1,600,000**	NA	**415,000**	**2,500**	**21.6**
	12/05/2019	**69**	**2.9 J**	< 3.0	**1,500**	**26,100**	**2,120**	**1,410,000**	NA	**349,000**	**2,400**	**26.1**
	08/19/2020	**54,100 T8**	<13.0	<13.0	**1,190**	**46,200**	**290**	**2,340,000**	NA	**505**	**3,710**	**43.4 T8**
	11/05/2020	**32.6 T8**	<13.0	<13.0	**1,020**	**12,700**	**2,830**	**1,900,000**	NA	**398,000**	**3,730**	**6.28 T8**
	03/18/2021	**53.5 T8**	<13.0	<13.0	**61**	**8,940**	**139**	**2,220,000**	NA	**667,000**	**4,360**	**7.82 T8**
MW-24-D1R	01/13/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**32 J**	**60 B**	NA	**550 J**	**6,42,000 B**	NA	NA
	10/26/2016	NA	NA	NA	NA	< 50	**49 B**	NA	**526**	**526,000**	NA	NA
	10/26/2016	NA	NA	NA	NA	**58 B**	**8.9 B**	NA	**324**	**324,000**	NA	NA
	10/26/2016	NA	NA	NA	NA	**24 J B**	**59 B**	NA	**577**	**577,000**	NA	NA
	07/12/2018	**67**	**130 J**	**1,100**	**5,900**	**10,100**	**120 B**	**2,140,000**	NA	**8,75,000 B**	**4,220**	**10.1**
	10/16/2018	**59**	< 660	**550 J**	**6,000**	**2,900**	**91**	**1,070,000**	NA	**583,000**	**2,370**	**2.9**
	05/09/2019	**98**	< 330	< 310	**1,600**	**4,120**	**79.6**	**1,720,000**	NA	**572,000**	**3,900**	**3.3**
	09/13/2019	**36 [51]**	**750 [730]**	**100 J [99 J]**	**7,300 [7,700]**	**2,140 [4,060]**	**32.1 [56.5]**	**13,20,000 [15,20,000]**	NA	**4,11,000 [5,88,000]**	**1,800 [3,000]**	**1.9 [3.5]**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
MW-24-D1R (cont.)	12/05/2019	30 [60]	320 [880]	88 [280]	2,400 [8,400]	1,540 [1,410]	40.6 [38.3]	13,40,000 [11,70,000]	NA	3,01,000 [5,14,000]	1,900 [2,000]	1.3 [1.3]
	02/11/2020	57 B [57 B]	520 [520]	110 [270]	4,500 B [5900]	196 [426]	13.1 J [15]	13,70,000 [15,40,000]	NA	3,78,000 [5,30,000]	2,300 [2,500]	0.2 [0.26]
	06/09/2020	47.8 T8 [38.3 T8]	419 [549]	230 [147]	5,930 [6,460]	1,290 [2,340]	22.6 [40.8]	15,50,000 [16,50,000]	NA	6,03,000 [6,05,000]	2,910 [3,200]	1.02 T8 [1.67 T8]
	08/19/2020	47,000 T8 [46,300 T8]	589 [566]	116 [111]	6,530 [6,280]	674 [819]	9.41 J [14.6]	14,40,000 [14,70,000]	NA	423 [485]	2,360 [2,390]	0.454 T8 [0.576 T8]
	11/05/2020	57.2 T8 [48.7 T8]	794 [609]	274 [219]	12,600 [9,970]	486 [631]	9.69 J [10.4]	1,430,000 [1,420,000]	NA	290,000 [287,000]	2,380 [2,310]	0.302 T8 [0.247 T8]
	03/19/2021	<20 T8 [38 T8]	647 [752]	209 [219]	10,400 [11,100]	415 [4,070]	7.67 J [42.5]	1,430,000 [1,330,000]	NA	461,000 [523,000]	2,640 [2,750]	0.159 T8 [3.73 T8]
MW-24-D2	01/13/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/13/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	40 J	55 B	NA	298,000 B	7,41,000 B	NA	NA
	10/25/2016	NA	NA	NA	NA	49 J	62	NA	512	512,000	NA	NA
	10/25/2016	NA	NA	NA	NA	< 50	56	NA	759	759,000	NA	NA
	07/05/2017	130	< 150	< 140	130	1,800	88	25,20,000 ^	NA	667,000	4,060	1.8
	08/27/2017	110	< 170	< 150	980	6,600	160 B	2,260,000	NA	7,74,000 B	4,100	6.6
	10/11/2017	54	< 170	< 150	410	5,500	140 B	23,80,000 ^	NA	804,000	3,720	5.5
	07/12/2018	15	< 7.5	< 7.0	44	1,100	33 B	94,900	NA	1,14,000 B	182	1.1
	10/17/2018	5.7	< 170	< 150	370	610	32	1,08,000 ^	NA	102,000	201	0.61
	05/09/2019	5.0	< 7.5	< 7.0	< 4.0	391	7.7 J	100,000	NA	112,000	89	0.39
	09/13/2019	15.0	< 7.5	< 7.0	< 4.0	2,160	35.6	81,400	NA	108,000	49	2
	12/05/2019	26	1.5 J	0.57 J	270	2,090	58.7	366,000	NA	190,000	550	1.9
	02/11/2020	8 B	2.7 J	< 3.0	210 B	1,450	22.2	349,000	NA	482,000	340	1.2
	06/09/2020	<20.0 T8	25.3	<13.0	2,180	380	24.8	471,000	NA	267,000	805	<0.050 T8
	08/18/2020	<20,000 T8	13.7	<13.0	1,200	436	32.8	518,000	NA	235	728	<0.05 T8
	11/05/2020	<20 J T8	57.4	<13.0	5,720	491	36.4	819,000	NA	241,000	724	<0.05 T8
	03/19/2021	24.7 T8	44.7	<13.0	4,500	1,960	51.9	1,210,000	NA	607,000	2,240	1.14 T8
MW-24-VDR	07/12/2018	89	2.1 J	2.3 J	160	37900	910 B	8,960,000	NA	4,54,000 B	16,000	37.8
	10/17/2018	79	< 7.5	< 7.0	120	26,100	740	8,730,000	NA	416,000	13,100	26.1
	05/09/2019	92	< 83	< 77	13 J	25,200	597	6,100,000	NA	461,000	16,000	25.2
	09/13/2019	92	<7.5	<7.0	26	8,910	235	2,520,000	NA	295,000	7,300	8.2
	12/05/2019	3.8 J	< 4.0	1.7 J	28	36,500	694	9,030,000	NA	446,000	17,000	36.5
	02/11/2020	85 B	< 4.0	<3.0	40 B	31,500	523	7,000,000	NA	474,000	15,000	29.5
	06/09/2020	57.7 T8	<13.0	<13.0	77.0	37,100	454	7,320,000	NA	337,000	13,700	<0.100 T8
	08/18/2020	75,500 T8	<13.0	<13.0	55.8	44,900	578	8,910,000	NA	332	12,800	12.8 T8
	11/05/2020	28.5 T8	<13.0	<13.0	68.1	45,100	588	8,850,000	NA	388,000	15,800	2.71 T8
	03/19/2021	81.7 T8	<13.0	<13.0	87.1	63,900	687	8,250,000	NA	459,000	17,300	31.6 T8
MW-26-D1	01/12/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	< 50	35 B	NA	569,000 B	5,69,000 B	NA	NA
	10/25/2016	NA	NA	NA	NA	< 50	25	NA	479	479,000	NA	NA
	10/25/2016	NA	NA	NA	NA	< 50	37	NA	591	591,000	NA	NA
	07/05/2017	120	< 150	< 140	250	230	41	15,70,000 ^	NA	542,000	2,520	0.23
	08/27/2017	95	< 170	< 150	1,200	640	48 B	1,500,000	NA	5,32,000 B	2,530	0.64
	10/11/2017	10	< 7.5	< 7.0	10	190	75 B	304,000	NA	177,000	483	0.19
	07/13/2018	110	< 330	< 310	2,900	320	35 B	1,640,000	NA	558,000	2,810	0.32
	10/17/2018	65 B	< 170	< 150	1,800	280	24 B	1,510,000	NA	416,000	2,540	0.28
	09/13/2019	79	< 170	< 150	4,100	93.9 J	19.2	1,400,000	NA	542,000	3,000	<0.10
	12/06/2019	64	5.3	21	2,400	364	18	1,260,000	NA	405,000	2,000	0.25

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
	Units	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
MW-26-D1 (cont.)	02/11/2020	**45 H B**	4.9	21	**1,900 B**	**1,080**	**25.6**	**1,440,000**	NA	**405,000**	**2,100**	**0.51**
	06/10/2020	**72.0 T8**	**15.0**	**65.8**	**3,260**	**553**	**21.4**	**1,300,000**	NA	**438,000**	**2,400**	<0.050 T8
	08/19/2020	**34,800 T8**	**7.93 J**	**23.2**	**2,030**	**1,340**	**31.4**	**1,370,000**	NA	**500**	**2,360**	**1.01 T8**
	11/06/2020	**58.2 T8**	**12.7 J**	**39.2**	**2,820**	**554**	**21.4**	**1,360,000**	NA	**387,000**	**2,340**	**0.326 T8**
MW-26-D2	01/12/2016	NA	NA	NA	NA	**NA**	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	**490 B**	**700 B**	NA	**344**	**344,000**	NA	NA
	10/25/2016	NA	NA	NA	NA	**55**	**63**	NA	NA	NA	NA	NA
	10/25/2016	NA	NA	NA	NA	**< 50**	**140**	NA	**653**	**653,000**	NA	NA
	07/05/2017	**130**	< 7.5	< 7.0	**76**	**970**	**420**	**39,30,000 ^**	NA	**348,000**	**9,010**	**0.97**
	08/27/2017	**110**	< 83	< 77	**92**	**970**	**310 B**	**3,370,000**	NA	**379,000**	**7,980**	**0.97**
	10/11/2017	**55**	< 170	< 150	**670**	**1,100**	**160 B**	**2,770,000**	NA	**435,000**	**8,600**	**1.1**
	10/17/2018	**110 B**	< 170	< 150	**1,100**	**150**	**52 B**	**2,190,000**	NA	**509,000**	**3,820**	**0.15**
	05/09/2019	**130**	< 660	< 620	**750**	**466**	**75.2**	**2,420,000**	NA	**684,000**	**5,000**	**0.47**
	09/13/2019	**150**	<83	<77	**1,000**	**207**	**65.6**	**2,270,000**	NA	**702,000**	**4,000**	**0.21**
	12/06/2019	**140**	**1.1 J**	< 3.0	**1,300**	**54.4 J**	**59.8**	**2,340,000**	NA	**628,000**	**4,000**	< 0.1
	02/11/2020	**83 B**	**0.8 J**	< 3.0	**710 B**	**348**	**88.8**	**2,500,000**	NA	**588,000**	**3,900**	**0.35**
	06/10/2020	**57.8 T8**	<13.0	<13.0	**1,340**	**84.3 J**	**68.3**	**2,190,000**	NA	**671,000**	**4,390**	<0.050 T8
	08/19/2020	**47,900 T8**	<13.0	<13.0	**360**	**402**	**99.5**	**2,280,000**	NA	**638**	**4,160**	**0.242 T8**
MW-26-VD	01/13/2016	NA	NA	NA	NA	**NA**	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	**74,000 B**	**2,600 B**	NA	**61 B**	**1,76,000 B**	NA	NA
MW-27-D1R	01/13/2016	NA	NA	NA	NA	**NA**	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**430**	**200 B**	NA	**51,600**	**7,95,000 B**	NA	NA
	07/05/2017	**26**	< 380	< 350	**550**	**2,800**	**56**	**11,30,000 ^**	NA	**3,94,000 B**	**2,860**	**2.8**
	08/27/2017	**100**	< 170	< 150	**1,100**	**1,300**	**330 B**	**960,000**	NA	**884,000**	**5,640**	**1.3**
	07/13/2018	**140**	< 660	< 620	**3,700**	**8,200**	**170 B**	**1,690,000**	NA	**5,26,000 B**	**2,770**	**8**
	10/18/2018	**150 B**	< 170	< 150	**3,900**	**2,100**	**61 B**	**1,770,000**	NA	**725,000**	**3,890**	**2**
	05/10/2019	**97**	< 83	< 77	**1,600**	**51,600**	**456**	**1,900,000**	NA	**579,000**	**3,500**	**50.7**
	09/14/2019	**170**	<330	<310	**1,600**	**12,800**	**161**	**2,090,000**	NA	**724,000**	**3,400**	**12.4**
	12/05/2019	**170**	**5.5**	**40**	**2,600**	**1,310**	**51.9**	**1,920,000**	NA	**762,000**	**3,800**	**1.3**
	08/19/2020	**55,300 T8**	<13.0	**19.9**	**1,530**	**10,600**	**156**	**2,710,000**	NA	**945**	**5,060**	**0.178 T8**
	11/06/2020	**83.4 T8**	<13.0	**27.8**	**2,010**	**10,900**	**176**	**2,140,000**	NA	**652,000**	**3,870**	**10.4 T8**
	03/20/2021	**56.6 T8**	**9.14 J**	**39.4**	**3,920**	**8,780**	**150**	**2,160,000**	NA	**788,000**	**4,300**	**8.07 T8**
MW-27-D2	01/13/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**1,300**	**38 B**	NA	**940 B**	**2,79,000 B**	NA	NA
	07/05/2017	**130**	< 75	< 70	**53**	**12,400**	**550**	**26,90,000 ^**	NA	**4,08,000 B**	**6,330**	**12.4**
	08/27/2017	**100**	< 83	< 77	**180**	**11,600**	**1,200 B**	**31,40,000 ^**	NA	**303,000**	**9,140**	**11.6**
	10/12/2017	**81**	< 170	< 150	**350**	**9,500**	**1,700 B**	**44,60,000 ^**	NA	**374,000**	**8,290**	**9.1**
	07/13/2018	**140**	< 330	< 310	**1,500**	**4,600**	**340 B**	**2,530,000**	NA	**3,63,000 B**	**7,510**	**4.6**
	10/18/2018	**130 B**	< 170	< 150	**1,200**	**2,800**	**940 B**	**3,580,000**	NA	**195,000**	**8,300**	**2.8**
	05/10/2019	**66**	< 170	< 150	**310**	**902**	**197**	**505,000**	**NA**	**599,000**	**4,100**	**0.14**
	09/14/2019	**150**	< 170	< 150	**1,200**	**4,080**	**272**	**1,120,000**	NA	**638,000**	**3,500**	**3.5**
	12/05/2019	**150**	< 4.0	< 3.0	**1,600**	**1,190**	**174**	**1,620,000**	NA	**526,000**	**3,600**	**1.1**
	02/12/2020	**110 B**	< 4.0	< 3.0	**910 B**	**1,920**	**230**	**1,940,000**	NA	**511,000**	**3,800**	**1.4**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
MW-27-D2 (cont.)	06/10/2020	**98.7 T8**	<13.0	<13.0	**1,100**	**887**	**97.6**	**1,880,000**	NA	**496,000**	**4,660**	<0.100 T8
	08/19/2020	**75,400 T8**	<13.0	<13.0	**876**	**747**	**199**	**2,470,000**	NA	**397**	**3,690**	<0.05 T8
	11/06/2020	**60.9 T8**	<13.0	<13.0	**408**	**1,360**	**996**	**3,260,000**	NA	**323,000**	**7,520**	<0.1 T8
	03/20/2021	**93.9 T8**	<13.0	<13.0	**907**	**10,600**	**1,610**	**4,090,000**	NA	**291,000**	**8,920**	**6.06 T8**
MW-28-D1	06/24/2016	NA	NA	NA	NA	**79**	**68 B**	NA	**667,000**	**7,45,000 B**	NA	NA
	07/28/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/05/2017	**51**	< 150	< 140	**290**	**3,600**	**67**	**418,000 ^**	NA	**457,000**	**3,120**	**3.6**
	08/27/2017	**15**	< 170	< 150	**1,000**	**740**	**19 B**	**10,40,000 ^**	NA	**393,000**	**3,310**	**0.74**
	10/11/2017	**3.8 J**	< 170	< 150	**520**	**950**	**27 B**	**998,000**	NA	**196,000**	**1,530**	**0.95**
	10/17/2018	**8.9 B**	< 330	< 310	**1,500**	**980**	**22 B**	**386,000**	NA	**102,000**	**945**	**0.98**
	05/09/2019	**120**	< 660	< 620	**1,300**	**2,480**	**89**	**1,940,000**	NA	**667,000**	**3,300**	**1.9**
	09/13/2019	**160**	<170	<150	**1,600**	**511**	**63.1**	**1,970,000**	NA	**735,000**	**2,900**	<0.10
	12/05/2019	**75**	**33**	**15**	**2,500**	**169**	**10.4 J**	**874,000**	NA	**337,000**	**1,800**	<0.10
	02/11/2020	**73 B**	**25**	**11**	**1,800 B**	**253**	**49.4**	**1,160,000**	NA	**495,000**	**1,900**	<0.10
	06/09/2020	**26.5 T8**	**12.2 J**	<13.0	**1,140**	**226**	**47.8**	**1,360,000**	NA	**472,000**	**2,570**	<0.050 T8
	08/19/2020	**23,000 T8**	<13.0	<13.0	**361**	**167**	**57.7**	**1,410,000**	NA	**496**	**2,490**	**0.0216 JT8**
	11/06/2020	**73.8 T8**	**46.5**	<13.0	**4,740**	**54.8 J**	**51.3**	**1,540,000**	NA	**548,000**	**3,110**	<0.05 T8
MW-28-D2R	06/24/2016	NA	NA	NA	NA	**52,800**	**1,100 B**	NA	**182**	**182,000**	NA	NA
	07/28/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/05/2017	**120**	< 7.5	< 7.0	**67**	**6,800**	**340**	**38,10,000 ^**	NA	**334,000**	**9,090**	**6.7**
	08/27/2017	**120**	< 83	< 77	**62**	**6,000**	**500 B**	**5,340,000**	NA	**3,37,000 B**	**11,300 B**	**5.6**
	10/11/2017	**91**	< 170	< 150	**370**	**9,300**	**470 F1 B**	**4,750,000**	NA	**412,000**	**6,670**	**9.1**
	07/13/2018	**91**	< 330	< 310	**880**	**5,200**	**190 B**	**3,000,000**	NA	**4,68,000 B**	**4,010**	**5.2**
	10/17/2018	**140 B**	< 170	< 150	**240**	**2,200**	**710 B**	**4,670,000**	NA	**333,000**	**9,820**	**2.2**
	05/09/2019	**42**	< 330	< 310	**730**	**569**	**224**	**2,850,000**	NA	**385,000**	**7,600**	**0.37**
	09/13/2019	**160**	<7.5	<7.0	**620**	**450**	**241**	**2,700,000**	NA	**428,000**	**4,600**	**0.25**
	12/06/2019	**160**	< 4.0	<3.0	**310**	**463**	**989**	**4,430,000**	NA	**349,000**	**7,400**	**0.3**
	02/11/2020	**100 B**	< 4.0	< 3.0	**1,000 B**	**252**	**184**	**1,620,000**	NA	**276,000**	**3,600**	**0.25**
	06/09/2020	**90.0 T8**	<13.0	<13.0	**239**	**5,050**	**1,730**	**4,130,000**	NA	**339,000**	**18,800**	<0.100 T8
	08/19/2020	**90,300 T8**	<13.0	<13.0	**212**	**48,300**	**855**	**5,750,000**	NA	**343**	**9,550**	**43.8 T8**
	11/06/2020	**85.8 T8**	<13.0	<13.0	**618**	**5,890**	**370**	**2,760,000**	NA	**395,000**	**6,460**	<0.1 T8
	03/20/2021	**68 T8**	<13.0	<13.0	**416**	**4,220**	**1,190**	**5,210,000**	NA	**347,000**	**10,800**	**3.66 T8**
MW-29-D1	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**520**	**270 B**	NA	**4.3 J**	**5,67,000 B**	NA	NA
	10/26/2016	NA	NA	NA	NA	**220 B**	**250 B**	NA	**540**	**540,000**	NA	NA
	10/26/2016	NA	NA	NA	NA	< 50	**5.2 B**	NA	**547**	**547,000**	NA	NA
	07/05/2017	**180**	< 300	< 280	**680**	**460**	**350**	**9,51,000 ^**	NA	**556,000**	**1,610**	**0**
	08/27/2017	**150**	< 660	< 620	**11,000**	**2,400**	**150 B**	**24,70,000 ^**	NA	**5,60,000 B**	**1,580**	**2.4**
	10/12/2017	**140**	< 170	< 150	**5,200**	**3,400**	**300 B**	**8,93,000 ^**	NA	**619,000**	**1,530**	**3.4**
	07/13/2018	**180**	< 660	< 620	**15,000**	**1,300**	**340 B**	**988,000**	NA	**5,63,000 B**	**1,680**	**1.3**
	10/18/2018	**210 B**	< 1700	< 1500	**19,000**	**1,500**	**270 B**	**960,000**	NA	**535,000**	**1,550**	**1.5**
	05/10/2019	**190**	< 83	< 77	**9,300 E**	**1,450**	**470**	**839,000**	NA	**469,000**	**1,700**	**1.4**
	09/14/2019	**40**	<170	<150	**3,200**	**4,370**	**58.4**	**23,500**	NA	**40,100**	**58**	**4.3**
	12/06/2019	**28**	**1 J**	< 3.0	**1,100**	**673**	**32.1**	**75,900**	NA	**63,500**	**130**	**0.67**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	GC Volatiles - RSK-175				Inorganics			General Chemistry			
		Carbon Dioxide	Ethane	Ethene	Methane	Iron	Manganese	Sodium	Alkalinity, Bicarbonate as CaCO3	Alkalinity, Total as CaCO3	Chloride	Ferric Iron
NYSDEC TOGS 1.1.1		NE	NE	NE	NE	300	300	20,000	NE	NE	250	NE
Units		mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	mg/L	mg/L
MW-29-D1 (cont.)	02/12/2020	**15 B**	< 4.0	< 3.0	**340 B**	**2,040**	**131**	**105,000**	NA	**62,700**	**160**	**1.8**
	06/10/2020	**53.4 T8**	**5.33 J**	<13.0	**10,700**	**741**	**161**	**643,000**	NA	**273,000**	**1,050**	**0.379 T8**
	08/19/2020	**39,600 T8**	<13.0	<13.0	**6,710**	**1,360**	**172**	**574,000**	NA	**256**	**950**	**1.13 T8**
	11/06/2020	**31.7 T8**	**10.6 J**	<13.0	**10,700**	**199**	**146**	**460,000**	NA	**208,000**	**795**	<0.05 T8
	03/20/2021	**30.9 T8**	**9.15 J**	<13.0	**6,640**	**8,750**	**205**	**524,000**	NA	**285,000**	**975**	**4.55 T8**
MW-29-D2	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**64**	**150 B**	NA	**430 B**	**4,53,000 B**	NA	NA
MW-29-VD	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**390**	**62 B**	NA	**229 B**	**2,29,000 B**	NA	NA
MW-30-D1	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	**360 B**	**93 B**	NA	**841 B**	**8,41,000 B**	NA	NA
MW-30-D2	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	< 50	**110 B**	NA	**755 B**	**7,55,000 B**	NA	NA
MW-30-VD	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	**4,900 B**	**260 B**	NA	**713 B**	**7,13,000 B**	NA	NA
MW-31-D1R	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	**230 B**	**25 B**	NA	**221 B**	**2,21,000 B**	NA	NA
MW-31-D2R	01/14/2016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	**2,200 B**	**430 B**	NA	**508 B**	**5,08,000 B**	NA	NA

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
Units		ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
AMW-12	01/14/2016	NA	NA	NA	NA	NA	NA	NA
AMW-13-D1	06/24/2016	NA	NA	NA	NA	**170,000**	**11,900**	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA
AMW-13-D2	06/23/2016	NA	NA	NA	NA	**250,000**	**2,600**	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA
AMW-13-VD	06/23/2016	NA	NA	NA	NA	**1,860,000**	< 100	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA
AMW-14-D1	06/24/2016	NA	NA	NA	NA	**103,000**	**48,000**	NA
	07/26/2016	NA	NA	NA	NA	NA	NA	NA
	07/05/2017	**170 HF**	< 50	< 0.050	NA	**140,000**	**38,000**	**13,100 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**251,000**	**56,400**	**10,600 B**
	10/11/2017	< 100	< 50	< 0.050	NA	**1,24,000 B**	**50,400**	**23,600 B**
	07/12/2018	**120 HF**	< 50	< 0.050	NA	**172,000**	**50,800**	NA
	10/17/2018	**260 HF**	< 50	< 0.050	NA	**1,98,000 B**	**48,400**	NA
	05/10/2019	< 100 HF	**80 J**	<0.10	NA	**98,000**	**52,700**	**45,400 B**
	09/13/2019	**570 HF**	**14 J B**	<0.10	NA	**240,000**	**64,600**	**22,100**
	12/05/2019	< 100 HF	<100	<0.10	NA	**130,000**	**62,600**	**21,100**
	02/12/2020	**150 HF**	**17 J H**	< 0.1	NA	**280,000**	**64,700**	**18,400**
	06/10/2020	**1,470 T8**	**--**	**--**	<1,000	**219,000**	<50.0	**19,200**
	08/19/2020	**1,500 T8**	NA	NA	<2,000	**131,000**	**4.16**	**26,900**
	11/04/2020	**418 T8**	NA	NA	<100	**127,000**	**458**	**39,000**
	03/19/2021	**2,440 T8**	NA	NA	<2,000	**112,000**	**182**	**20,000 B**
AMW-14-D2	06/23/2016	NA	NA	NA	NA	**263,000**	**22,500**	NA
	07/26/2016	NA	NA	NA	NA	**NA**	NA	NA
	07/27/2016	NA	NA	NA	NA	**NA**	NA	NA
	08/27/2017	< 100	< 50	< 0.050	NA	**507,000**	**4,200**	**7,800 B**
	10/11/2017	< 100	< 50	< 0.050	NA	**2,10,000 B**	**27,200**	**11,600 B**
	07/12/2018	< 100	< 50	< 0.050	NA	**315,000**	**56,000**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**3,27,000 B**	**58,800**	NA
	05/10/2019	**1,100 HF**	**49 J**	<0.10	NA	**84,000**	**71,600**	**18,500 B**
	09/13/2019	**550 HF**	<100	**0.0092 J B**	NA	**120,000**	**60,800**	**19,200**
	12/05/2019	**290 HF**	<100	<0.10	NA	**260,000**	**51,200**	**18,300**
	02/12/2020	**850 HF**	< 100	<0.1	NA	**310,000**	**59,700**	**16,700**
	06/10/2020	**2,360 T8**	NA	NA	<1,000	**270,000**	<50.0	**14,500**
	08/19/2020	**847 T8**	NA	NA	<2,000	**182,000**	**1.01**	**16,200**
	11/05/2020	**322 T8**	NA	NA	<100	**176,000**	**8,060**	**16,800**
	03/19/2021	**904 T8**	--	--	<2,000	**321,000**	**79**	**15,300**
AMW-14-VD	06/23/2016	NA	NA	NA	NA	**1,780,000**	< 100	NA
	07/27/2016	NA	NA	NA	NA	**NA**	NA	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**1,830,000**	**800 J**	**3,400 B**
	08/27/2017	**4,700 HF**	< 50	< 0.050	NA	**2,000,000**	< 1,000	**4,000 B**
	10/11/2017	**1,600 HF**	< 50	< 0.050	NA	**1,890,000**	**800 J**	**4,500 B**
	07/12/2018	< 100	< 50	< 0.050	NA	**1,870,000**	**5,200 F1**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**19,20,000 B**	< 1,000	NA

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
Units		ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
AMW-14-VD (cont.)	05/10/2019	**300 HF**	**94 J**	**0.076 J**	NA	**2,000,000**	<1,000	**18,300 B**
	09/13/2019	**1,400 HF**	**35 J B**	**0.027 J B**	NA	**1,700,000**	**830 J**	**8,500**
	12/05/2019	**130 HF**	< 100	**0.020 J B**	NA	**2,800,000**	**1,200**	**9,300**
	02/12/2020	**680 HF**	**21 J B**	**0.019 J B**	NA	**2,000,000**	< 1.0	**7,900**
	06/10/2020	**17,800 T8**	NA	NA	<100	**1,920,000**	<50.0	**7,270**
	08/20/2020	**14,900 T8**	NA	NA	<100	**1,850,000**	<0.05	**8,160**
	11/05/2020	**18,000 T8**	NA	NA	<100	**2,250,000**	**117**	**7,270**
	03/19/2021	**17,600 T8**	NA	NA	**82.0 J**	**1,960,000**	<50	**8,300**
AMW-15-D1	06/23/2016	NA	NA	NA	NA	**166,000**	**20,500**	NA
	07/27/2016	NA	NA	NA	NA	**NA**	NA	NA
	10/26/2016	NA	NA	NA	NA	**63,100**	**8,000**	NA
	10/26/2016	NA	NA	NA	NA	**164,000**	**36,000**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**1,640,000**	**42,000**	**9,400 B**
	08/27/2017	< 500	< 50	< 0.050	NA	**156,000**	**53,200**	**53,400 B**
	10/11/2017	< 200	< 50	< 0.050	NA	**1,89,000 B**	**41,600**	**36,200 B**
	10/17/2018	**120 HF**	**79**	< 0.050	NA	**188,000**	**56,000**	NA
	05/09/2019	<100 HF	**430 J**	**0.38 J**	NA	**200,000**	**41,400**	**36,800 B**
	09/13/2019	**2,200 HF**	< 100	**0.029 J**	NA	**380,000**	**31,100**	**38,500**
	12/05/2019	**340 HF**	< 100	<0.10	NA	**180,000**	**30,700**	**40,800**
	02/11/2020	**1,400 HF**	**17 J H**	**0.017 J H**	NA	**380,000**	**11,500**	**26,300**
	06/10/2020	**662 T8**	NA	NA	<1,000	**331,000**	**51.0**	**31,800**
	08/19/2020	**481 T8**	NA	NA	<10000	**202,000**	**25.6**	**40,600**
	11/04/2020	**658 T8**	NA	NA	<100	**138,000**	**514**	**32,100**
	03/19/2021	**324 T8**	NA	NA	<2,000	**115,000**	**1,630**	**27,400**
AMW-15-D2	06/23/2016	NA	NA	NA	NA	**166,000**	**1,800**	NA
	06/23/2016	NA	NA	NA	NA	**165,000**	**1,900 F1**	NA
	07/27/2016	NA	NA	NA	NA	**NA**	NA	NA
	10/26/2016	NA	NA	NA	NA	**243,000**	**12,800**	NA
	10/26/2016	NA	NA	NA	NA	**216,000**	**36,000**	NA
	07/05/2017	**170 HF**	< 50	< 0.050	NA	**269,000**	**34,000**	**10,300 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**237,000**	**58,000**	**10,900 B**
	10/11/2017	< 100	< 50	< 0.050	NA	**2,54,000 B**	**45,200**	**9,800 B**
	10/17/2018	< 100	< 50	< 0.050	NA	**2,62,000 B**	**48,000**	NA
	05/10/2019	**85 J HF**	**47 J**	**0.0070 J**	NA	**220,000**	**50,800**	**14,200 B**
	09/13/2019	**140 HF**	< 100	<0.10	NA	**330,000**	**55,100**	**14,800**
	12/05/2019	**280 HF**	< 100	<0.10	NA	**280,000**	**58,800**	**15,800**
	02/11/2020	**190 HF**	< 100	<0.10	NA	**380,000**	**54,600**	**13,700**
	06/09/2020	**1,460 T8**	NA	NA	<1,000	**301,000**	**186**	**12,000**
	08/19/2020	**5,440 T8**	NA	NA	<2000	**166,000**	**0.214**	**12,300**
	11/04/2020	**673 T8**	NA	NA	<100	**263,000**	**58**	**13,300**
	03/19/2021	**9,200 T8**	NA	NA	<2,000	**256,000**	**98**	**12,700**
AMW-15-D3	06/23/2016	NA	NA	NA	NA	**1,790,000**	NA	NA
	06/23/2016	NA	NA	NA	NA	**784,000**	NA	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA
	08/27/2017	< 500	< 50	< 0.050	NA	**495,000**	**16,400**	**34,300 B**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
Units		ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
AMW-15-D3 (cont.)	10/11/2017	< 100	< 50	< 0.050	NA	**897,000 B**	**39,200**	**7,200 B**
	07/13/2018	< 100	< 50	< 0.050	NA	**482,000**	**22,800**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**916,000**	**35,600**	NA
	05/10/2019	< 100	**42 J**	**0.056 J**	NA	**980,000**	**41,400**	**14,400 B**
	09/13/2019	**210 HF**	< 100	<0.10	NA	**300,000**	**55,100**	**11,000**
	12/05/2019	< 100	< 100	<0.10	NA	**470,000**	**58,800**	**12,300**
	02/11/2020	**470 HF**	< 500 H	< 0.5 H	NA	**290,000**	**23,200**	**13,700**
	06/09/2020	**526 T8**	NA	NA	<1,000	**534,000**	<50.0	**13,700**
	08/19/2020	**229 T8**	NA	NA	<500	**919,000**	**6.8**	**20,100**
	11/04/2020	**348 T8**	NA	NA	<100	**337,000**	**1,050**	**13,500**
	03/19/2021	**5,440 T8**	NA	NA	<500	**275,000**	**27.0 J**	**8,250**
AMW-15-VD	06/23/2016	NA	NA	NA	NA	**1,810,000**	< 100	NA
	07/27/2016	NA	NA	NA	NA	NA	NA	NA
	08/27/2017	**280 HF**	< 50	< 0.050	NA	**2,140,000**	< 1,000	**3,500 B**
	10/11/2017	< 100	< 50	< 0.050	NA	**20,70,000 B**	< 1,000	**3,400 B**
	07/13/2018	< 100	< 50	< 0.050	NA	**1,890,000**	**800 J**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**15,30,000 B**	< 1,000	NA
	05/10/2019	< 100*	< 100	**0.035 J**	NA	**2,000,000**	<1000	**6,800 B**
	09/13/2019	**500 HF**	< 100	**0.011 J**	NA	**1,800,000**	<1,000	**6,900**
	12/05/2019	**130 HF**	< 100 U F1	**0.019 JB**	NA	**2,800,000**	<1,000	**7,700**
	02/11/2020	**370 HF**	< 500 H	< 0.5 H	NA	**2,000,000**	< 1.0	**6,500**
	06/09/2020	**6,390 T8**	NA	NA	<100	**1,990,000**	<50.0	**6,450 B**
	08/19/2020	**52,800 T8**	NA	NA	<500	**1,970,000**	<0.05	**7,560**
	11/04/2020	**4,880 T8**	NA	NA	<100	**2,270,000**	**144**	**8,040 B**
	03/19/2021	**4,850 T8**	NA	NA	<2,000	**1,990,000**	**<50**	**8,970**
AMW-3	01/13/2016	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**970,000**	**5,300**	NA
AMW-7R	01/12/2016	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**82,300**	**5,200**	NA
	07/11/2018	**320 HF**	< 50	< 0.050	NA	**41,900**	**3,800**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**22,600 B**	**1,600**	NA
	05/10/2019	< 100 HF	< 100	**0.023 J**	NA	**82,000 F1**	<1000	**19,800**
	09/14/2019	**840 HF**	<100	**0.015 J B**	NA	**49,000**	**1,200**	**20,800**
	12/06/2019	**100 HF**	**25 J B**	**0.017 J**	NA	**84,000**	**1,900**	**88,400**
	02/12/2020	**1700 HF**	**23 J B**	**0.02 J B**	NA	**75,000**	**10,400**	**19,800**
	06/09/2020	**11,300 T8**	NA	NA	<100	**68,600**	<50.0	**20,500**
	08/19/2020	**11200 T8**	NA	NA	<500	**96,200**	**0.062**	**28,900**
	11/06/2020	**16,000 T8**	NA	NA	<100	**37,600**	<50	**23,500**
	03/19/2021	**12,100 T8**	NA	NA	<100	**115,000**	<50	**24,300**
ASB-2	06/06/2016	NA	NA	NA	NA	NA	NA	NA
ASB-3	06/08/2016	NA	NA	NA	NA	NA	NA	NA
ASB-4	06/07/2016	NA	NA	NA	NA	NA	NA	NA
ASB-5	06/02/2016	NA	NA	NA	NA	NA	NA	NA
ASB-7	06/02/2016	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
Units		ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
MW-18R	06/22/2016	NA	NA	NA	NA	**27,800**	< 100	NA
	07/11/2018	**110 HF**	< 50	< 0.050	NA	**120,000**	**12,200**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**20,000 B**	**11,600**	NA
	09/14/2019	**3,500 HF**	<100	**0.024 J B**	NA	**86,000**	**14,800**	95,400
	12/05/2019	**0.28 HF**	**30 JB**	**0.029 J**	NA	**74,000**	**15,900**	**123,000**
	02/12/2020	**150 H F**	**160 B**	**0.053 J B**	NA	**14,000**	**910 J**	**55,000**
	06/09/2020	**5,360 T8**	NA	NA	<1,000	**87,100**	**70.0**	**57,700**
	03/19/2021	**547 T8**	NA	NA	<2,000	**48,700**	**55.0**	**61,100**
MW-23-D1R	10/26/2016	NA	NA	NA	NA	**148,000**	**6,400**	NA
	10/26/2016	NA	NA	NA	NA	**156,000**	**13,600**	NA
	01/12/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/20/2016	NA	NA	NA	NA	**180,000**	**16,900 F1**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**259,000**	**8,400**	**16,100 B**
	08/27/2017	**2,000 HF**	**23 J H**	< 0.050	NA	**173,000**	**15,400**	**17,300 B**
	10/12/2017	< 100	< 50	< 0.050	NA	**1,78,000 B**	**26,800**	**15,400 B**
	07/12/2018	**260 HF**	< 50	< 0.050	NA	**149,000**	**28,800**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**177,000**	**25,200**	NA
	09/13/2019	**330 HF**	**26 J B**	**0.017 J B**	NA	**190,000**	**10,300**	20,800
	12/05/2019	**260 HF**	**37 JB**	**0.018 J**	NA	**130,000**	**3,500**	**22,300**
	02/11/2020	**120 HF**	**99 J H**	**0.018 J H**	NA	**130,000**	**8,800**	**7,500**
	06/10/2020	**1,460 T8**	NA	NA	<1,000	**213,000**	**39.0 J**	**18,200**
	08/19/2020	**4,880 T8**	NA	NA	<2,000	**111,000**	<0.05	**21,600**
	11/05/2020	**3,600 T8**	NA	NA	405	**121,000**	<50	**20,200**
	03/19/2021	**2,600 T8**	NA	NA	**275**	**234,000**	**414 J6**	**15,200**
MW-23-D2R	01/12/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/20/2016	NA	NA	NA	NA	**317,000**	**700**	NA
	07/05/2017	**170 HF**	< 50	< 0.050	NA	**861,000**	**29,600**	**5,200 B**
	08/27/2017	< 100	**37 J H**	< 0.050	NA	**665,000**	**36,200**	**6,100 B**
	10/12/2017	< 100	< 50	< 0.050	NA	**4,78,000 B**	**20,000**	**9,700 B**
	07/12/2018	**240 HF**	**38 J**	**0.0045 J**	NA	**290,000**	**10,900**	**20,700 B**
	05/09/2019	**240 HF**	**38 J**	**0.0045 J**	NA	**290,000**	**10,900**	**20,700 B**
	09/13/2019	**4,100 HF**	**17 J B**	**0.025 J B**	NA	**160,000**	**34,100**	**17,100**
	12/05/2019	< 100	**69 JB**	**0.051 J**	NA	**160,000**	**3,800**	**18,900**
	08/19/2020	**2,780 T8**	NA	NA	<500	**229,000**	**0.092**	**12,700**
	11/05/2020	**6,430 T8**	NA	NA	<100	**202,000**	<50	**11,700**
	03/18/2021	**1,120 T8**	NA	NA	<2,000	**336,000**	**86**	**11,600**
MW-24-D1R	01/13/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/21/2016	NA	NA	NA	NA	**189,000**	**79,300**	NA
	10/26/2016	NA	NA	NA	NA	**217,000**	**64,000 F1**	NA
	10/26/2016	NA	NA	NA	NA	**248,000**	**60,000**	NA
	10/26/2016	NA	NA	NA	NA	**219,000**	**56,000**	NA
	07/12/2018	< 100	< 50	< 0.050	NA	**200,000**	**66,400**	NA
	10/16/2018	< 100	< 50	< 0.050	NA	**75,300**	**56,400**	NA
	05/09/2019	**860 HF**	**63 J**	**0.014 J**	NA	**250,000**	**41,400**	**15,400 B**
	09/13/2019	**230 HF**	<100 [<100]	**0.015 J [<0.10]**	NA	**3,20,000 [2,00,000]**	**29,200 [75,900]**	**36,100 [34,900]**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
Units		ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
MW-24-D1R (cont.)	12/05/2019	**290 HF**	**150 B** [< 100]	**0.17 B**	NA	**3,50,000 [1,30,000]**	**22,400 [92,800]**	**50,900 [25,900]**
	02/11/2020	< 100 **[170 H F]**	**16 J H [< 50]**	< 0.1 [< 0.5]	NA	**3,80,000 [3,40,000]**	**43,300 [66,900]**	**35,500 [29,600]**
	06/09/2020	**270 T8 [669 T8]**	NA	NA	<1,000 [<1,000]	**2,16,000 [2,73,000]**	**129** [<50.0]	**31,100 [21,600]**
	08/19/2020	**220 T8 [243 T8]**	NA	NA	<10,000 [<2,000]	**2,04,000 [1,61,000]**	**0.58 [1.53]**	**36,000 [29,600]**
	11/05/2020	**184 T8 [384 T8]**	NA	NA	<100 [<100]	**189,000 [248,000]**	**160 [<50]**	**36,700 [35,000]**
	03/19/2021	**256 T8 [345 T8]**	NA	NA	<2,000 [<2,000]	**191,000 [165,000]**	**77.0 [193]**	**36,300 [37,800]**
MW-24-D2	01/13/2016	NA	NA	NA	NA	**NA**	NA	NA
	01/13/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/21/2016	NA	NA	NA	NA	**270,000**	**92,200**	NA
	10/25/2016	NA	NA	NA	NA	**374,000**	**48,000**	NA
	10/25/2016	NA	NA	NA	NA	**270,000**	**64,000**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**541,000**	**84,000**	**12,500 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**346,000**	**61,800**	**11,600 B**
	10/11/2017	< 100	< 50	< 0.050	NA	**2,98,000 B**	**56,400**	**10,800 B**
	07/12/2018	< 100	**51 H**	**0.020 J H**	NA	**28,000**	**800 J**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**29,900**	**800 J**	NA
	05/09/2019	< 100 HF	**18 J**	**0.038 J**	NA	**9,100**	< 1,000	**6,300 B**
	09/13/2019	**160 HF**	**1,200**	**0.013 J**	NA	**9,900**	< 1,000	**6,000**
	12/05/2019	**180 HF**	< 100	< 0.1	NA	**55,000**	**12,100**	**59,700**
	02/11/2020	**220 HF**	**30 J H**	**0.016 J**	NA	**48,000**	< 1.0	**23,200**
	06/09/2020	**492 T8**	NA	NA	**63.3 J**	**89,200**	<50.0	**13,700**
	08/18/2020	**1,160 T8**	NA	NA	<500	**98,300**	<0.05	**15,800**
	11/05/2020	**1,050 T8**	NA	NA	<100	**85,500**	<50	**19,200**
	03/19/2021	**815 T8**	NA	NA	<2,000	**174,000**	**27 J**	**36,600**
MW-24-VDR	07/12/2018	**100 HF**	< 50	< 0.050	NA	**1,640,000**	< 1,000	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**1,300,000**	< 1,000	NA
	05/09/2019	< 100 HF	**10 J**	**0.063 J**	NA	**1,700,000**	<1,000	**7,700 B**
	09/13/2019	**700 HF**	<100	**0.010 J**	NA	**720,000**	**1,200**	**7,700**
	12/05/2019	< 100 HF	< 100	< 0.10	NA	**3,100,000**	< 1,000	**4,800**
	02/11/2020	**2000 HF**	36 J H	**0.013 J**	NA	**2,000,000**	< 1,000	**8,200**
	06/09/2020	**43,100 T8**	NA	NA	<100	**1,580,000**	<50.0	**7,030**
	08/18/2020	**32,100 T8**	NA	NA	<100	**1,510,000**	<0.05	**8,400**
	11/05/2020	**42,400 T8**	NA	NA	<100	**1,770,000**	<50	**6,760 B**
	03/19/2021	**32,400 T8**	NA	NA	<100	**2,020,000**	<50	**11,300**
MW-26-D1	01/12/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/22/2016	NA	NA	NA	NA	**139,000**	**70,600 F1**	NA
	10/25/2016	NA	NA	NA	NA	**252,000**	**48,000**	NA
	10/25/2016	NA	NA	NA	NA	**131,000**	**56,000**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**313,000**	**44,000**	**9,100 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**203,000**	**43,200**	**10,800 B**
	10/11/2017	< 100	**600**	**5.1**	NA	**69,200**	< 1,000	**22,900 B**
	07/13/2018	< 100	< 50	< 0.050	NA	**237,000**	**44,800**	NA
	10/17/2018	< 100	< 50	< 0.050	NA	**2,64,000 B**	**28,400**	NA
	09/13/2019	**170 HF**	**12 J B**	**0.012 J B**	NA	**98,000**	**23,600**	**33,000**
	12/06/2019	**110 HF**	**30 JB**	**0.010 J**	NA	**230,000**	**21,000**	**31,600**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
Units		ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
MW-26-D1 (cont.)	02/11/2020	**570 HF**	NA	NA	NA	**290,000**	NA	**32,800**
	06/10/2020	**557 T8**	NA	NA	<1,000	**343,000**	**123**	**28,100**
	08/19/2020	**336 T8**	NA	NA	<500	**185,000**	**125**	**31,500**
	11/06/2020	**228 T8**	NA	NA	<100	**203,000**	<50	**31,100**
MW-26-D2	01/12/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/22/2016	NA	NA	NA	NA	**1,200,000**	**1,700**	NA
	10/25/2016	NA	NA	NA	NA	**NA**	**40,000**	NA
	10/25/2016	NA	NA	NA	NA	**382,000**	**36,000**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**1,580,000**	**24,400**	**4,300 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**1,100,000**	**16,000**	**4,800 B**
	10/11/2017	< 100	**28 J**	< 0.050	NA	**1,100,000**	**26,800**	**8,800 B**
	10/17/2018	< 100	< 50	< 0.050	NA	**3,61,000 B**	**25,600**	NA
	05/09/2019	< 100 HF	**21 J**	< 0.10	NA	**350,000**	**54,600**	**14,600 B**
	09/13/2019	<100 HF	<100	**0.0071 J B**	NA	**280,000**	**57,000**	**14,900**
	12/06/2019	**270 HF**	<100	< 0.10	NA	**280,000**	**45,600**	**13,700**
	02/11/2020	< 100 HF	**18 J H**	< 0.1	NA	**420,000**	**28,200**	**15,400**
	06/10/2020	**279 T8**	NA	NA	<1,000	**368,000**	**282**	**13,200 B**
	08/19/2020	**160 T8**	NA	NA	<500	**288,000**	**6.6**	**17,800**
MW-26-VD	01/13/2016	NA	NA	NA	NA	**NA**	**NA**	NA
	06/22/2016	NA	NA	NA	NA	**497,000**	**6,000**	NA
MW-27-D1R	01/13/2016	NA	NA	NA	NA	**NA**	**NA**	NA
	06/21/2016	NA	NA	NA	NA	**290,000**	**97,300**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**308,000**	**14,400**	**13,700 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**699,000**	**1,400**	**14,400 B**
	07/13/2018	**170 HF**	< 50	< 0.050	NA	**157,000**	**63,200**	NA
	10/18/2018	**91 J HF**	< 50	< 0.050	NA	**183,000**	**63,200**	NA
	05/10/2019	**910 HF**	**19 J**	**0.010 J**	NA	**260,000**	**37,600**	**17,600**
	09/14/2019	**420 HF**	<100	**0.0084 J B**	NA	**160,000**	**53,200**	**17,600**
	12/05/2019	< 100	**45 JB**	< 0.10	NA	**200,000**	**45,600**	**16,600**
	08/19/2020	**10,400 T8**	NA	NA	<2,000	**310,000**	**93.7**	**18,700**
	11/06/2020	**552 T8**	NA	NA	<100	**170,000**	<50	**14,400 B**
	03/20/2021	**703 T8**	NA	NA	<2,000	**171,000**	**79.0**	**18,800 B**
MW-27-D2	01/13/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/21/2016	NA	NA	NA	NA	**49,200**	**160**	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**808,000**	**12,800**	**6,300 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**1,300,000**	**16,600**	**4,800 B**
	10/12/2017	**450 HF**	**40 J**	< 0.050	NA	**11,20,000 B**	**8,800**	**4,700 B**
	07/13/2018	< 100	< 50	< 0.050	NA	**844,000**	**10,800**	NA
	10/18/2018	< 100	< 50	< 0.050	NA	**1,250,000**	**7,200**	NA
	05/10/2019	**760 HF**	**29 J**	< 0.10	NA	**250,000**	**24,400**	**15,200**
	09/14/2019	**630 HF**	**26 J B**	**0.013 J B**	NA	**250,000**	**32,200**	**12,700**
	12/05/2019	**120 HF**	< 100	**0.011 J**	NA	**280,000**	**22,000**	**12,000**
	02/12/2020	**480 HF F1**	**31 J B**	**0.02 J B**	NA	**400,000**	**14,100**	**10,100**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
	Units	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
MW-27-D2 (cont.)	06/10/2020	**4,450 T8**	NA	NA	<1,000	**485,000**	<50.0	**9,620**
	08/19/2020	**1,470 T8**	NA	NA	<100 J6	**367,000**	**0.047 J**	**8,900**
	11/06/2020	**12,600 T8**	NA	NA	461	**1,100,000**	<50	**6,090**
	03/20/2021	**4,550 T8**	NA	NA	**53.7 J J6**	**1,120,000**	<50	**6,900**
MW-28-D1	06/24/2016	NA	NA	NA	NA	**155,000**	**54,400**	NA
	07/28/2016	NA	NA	NA	NA	NA	NA	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**340,000**	**4,000**	**13,000 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**349,000**	**18,200**	**14,400 B**
	10/11/2017	< 100	< 50	< 0.050	NA	**196,000**	**32,800**	**23,900 B**
	10/17/2018	< 100	**76**	**0.044 J**	NA	**231,000**	**7,200**	NA
	05/09/2019	**600 HF**	< 100	**0.016 J**	NA	**170,000**	**45,200**	**12,900 B**
	09/13/2019	**560 HF**	<100	**0.014 J B**	NA	**81,000**	**51,400**	**14,800**
	12/05/2019	**100 HF**	**21 JB**	**0.017 J**	NA	**280,000**	**1,600**	**17,300**
	02/11/2020	**280 HF**	**22 J H**	**0.018 J**	NA	**290,000**	**50,900**	**17,700**
	06/09/2020	**522 T8**	NA	NA	<100	**343,000**	<50.0	**15,300 B**
	08/19/2020	**145 T8**	NA	NA	<100	**304,000**	<0.05	**31,300**
	11/06/2020	**160 T8**	NA	NA	<100	**178,000**	190	**16,500**
MW-28-D2R	06/24/2016	NA	NA	NA	NA	**1,080,000**	< 100	NA
	07/28/2016	NA	NA	NA	NA	**NA**	NA	NA
	07/05/2017	**92 J HF**	< 50	< 0.050	NA	**1,620,000**	**2,400**	**4,000 B**
	08/27/2017	**420 HF**	< 50	< 0.050	NA	**1,370,000**	**4,000**	**4,800 B**
	10/11/2017	**160 HF**	< 50	< 0.050	NA	**938,000**	**3,600**	**4,500 B**
	07/13/2018	< 100	< 50	< 0.050	NA	**432,000**	**11,200**	NA
	10/17/2018	< 100	**260**	< 0.050	NA	**1,330,000**	**3,200**	NA
	05/09/2019	**200 HF**	< 100	**0.036 J**	NA	**870,000**	**10,900**	**9,400 B**
	09/13/2019	**200 HF**	**23 J B**	**0.020 J B**	NA	**530,000**	**6,100**	**8,800**
	12/06/2019	**160 HF**	**25 JB**	**0.015 J**	NA	**850,000**	**5,000**	**6,600**
	02/11/2020	**100 U HF**	**140 H**	**0.014 J**	NA	**440,000**	**11,500**	**8,300**
	06/09/2020	**6,540 T8**	NA	NA	**55.8 J**	**2,220,000**	<50.0	**5,920**
	08/19/2020	**4,540 T8**	NA	NA	<100	**1,140,000**	<0.05	**6,560**
	11/06/2020	**8,800 T8**	NA	NA	138	**618,000**	<50	**6,560**
	03/20/2021	**566 T8**	NA	NA	**217**	**1,270,000**	<50	**6,950**
MW-29-D1	01/14/2016	NA	NA	NA	NA	**NA**	NA	NA
	06/21/2016	NA	NA	NA	NA	**< 5000**	**230**	NA
	10/26/2016	NA	NA	NA	NA	**< 5000**	**1,200**	NA
	10/26/2016	NA	NA	NA	NA	**1,800 J**	< 2,000	NA
	07/05/2017	< 100	< 50	< 0.050	NA	**< 1,00,000**	**800 J**	**13,500 B**
	08/27/2017	< 100	< 50	< 0.050	NA	**< 1,00,000**	**101,000**	**12,900 B**
	10/12/2017	< 100	< 50	< 0.050	NA	**< 40,000**	**1,200**	**11,300 B**
	07/13/2018	< 100	< 50	< 0.050	NA	**< 40,000**	**1,200**	NA
	10/18/2018	< 100	< 50	< 0.050	NA	**13,600 J**	**800 J**	NA
	05/10/2019	**63 J HF**	< 100	**0.026 J**	NA	**13,000**	**1,100**	**14,200**
	09/14/2019	**110 HF**	<100	**0.016 J B**	NA	**6,900**	**830 J**	**10,000**
	12/06/2019	< 100	**53 J B**	**0.036 J**	NA	**16,000**	< 1,000	**29,500**

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

Location ID	Date Sampled	General Chemistry						
		Ferrous Iron	Nitrogen, Nitrate as N	Nitrogen, Nitrite	Nitrate-Nitrite	Sulfate (SO4)	Sulfide	Total Organic Carbon (TOC)
NYSDEC TOGS 1.1.1		NE	10,000	1	10,000	NE	NE	NE
	Units	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
MW-29-D1 (cont.)	02/12/2020	**230 HF**	`	**0.018 J B**	NA	**17,000**	**910 J**	**3,400**
	06/10/2020	**362 T8**	NA	NA	<100	**72,600**	<50.0	**16,400**
	08/19/2020	**232 T8**	NA	NA	**107**	**60,500**	**0.031 J**	**18,700**
	11/06/2020	**204 T8**	NA	NA	**<100**	**43,800**	<50	**17,200**
	03/20/2021	**4,200 T8**	NA	NA	<2,000	**44,500**	<50	**17,700 B**
MW-29-D2	01/14/2016	NA	NA	NA	NA	NA	**NA**	NA
	06/21/2016	NA	NA	NA	NA	**939,000**	**17,000**	NA
MW-29-VD	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	06/21/2016	NA	NA	NA	NA	**1,890,000**	< 100	NA
MW-30-D1	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	NA	**92,700**	NA
MW-30-D2	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	NA	**64,100 F1**	NA
MW-30-VD	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	NA	< 100	NA
MW-31-D1R	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	NA	**600**	NA
MW-31-D2R	01/14/2016	NA	NA	NA	NA	NA	NA	NA
	06/22/2016	NA	NA	NA	NA	NA	**2,800**	NA

See Notes on Page 49.

Table 3
Historical Groundwater Analytical Results
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

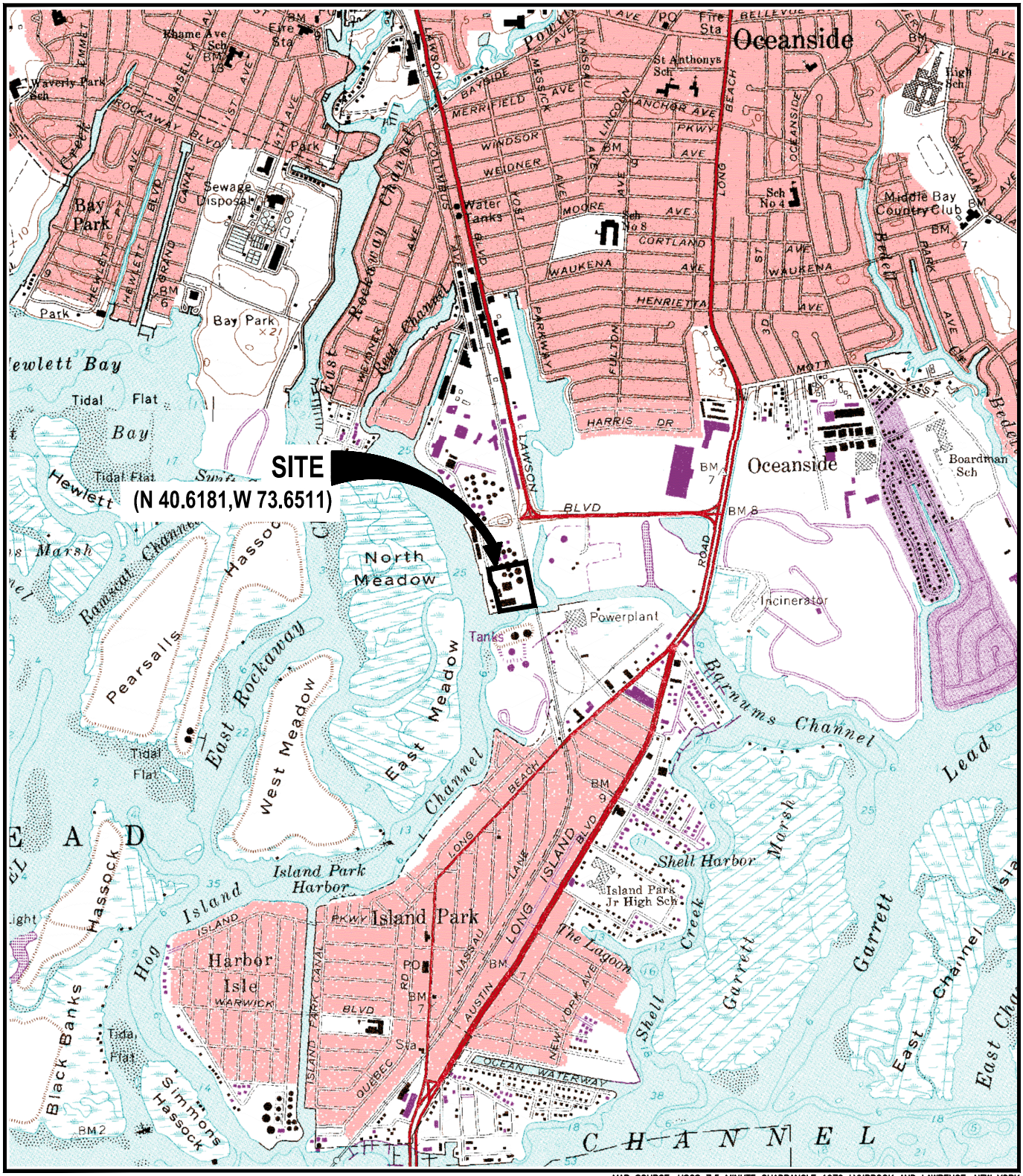
Notes:
ID = Identification
NYSDEC = New York State Department of Environmental Conservation
TOGS = NYSDEC Technical and Operational Guidance Series ambient water quality standards and guidance values of June 1998
ug/L = micrograms per liter
Bolded values = compound was detected
Shaded cells = concentration was above the TOGS
< = Less than indicated reporting limit
NE = Not established
CaCO3 '= calcium carbonate
J = Analyte detected at a level less than the Reporting Limit and greater than or equal to the Method Detection Limit. Concentrations within this range are estimated.
J0 = The identification of the analyte is acceptable, but the reported concentration is an estimate. The calibration metmethod criteria.
J4 = The associated batch QC was outside the established quality control range for accuracy.
J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low
T8 = Sample(s) received past/too close to holding time expiration.
HF = Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
H = Sample was prepped or analyzed beyond the specified holding time.
B = Compound was found in the blank and sample.
F1 = Matrix spike and/or matrix spike duplicate recovery was outside acceptance limits.
E = Result exceeded calibration range
C3 = The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C5 = The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
[ ] = Duplicate analysis results
D = Sample was diluted due to high concentration of target analytes.
* = LCS or LCSD was above the control limits.
^ = Instrument related QC was outside acceptance limits.
-- = Not available

Table 4
Groundwater Monitoring Schedule
Chevron Facility #6518040
Former Gulf Oil Terminal
Oceanside, Township of Hempstead, New York

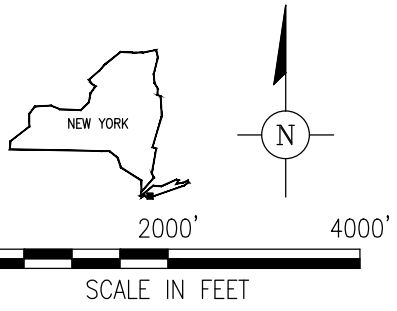
ARCADIS

				Sample and analyze for:									
MW ID	Diameter (inches)	Screen Length (feet)	Installed Total Depth (feet BTIC)	VOCs USEPA Method 8260C	Total Iron, Sodium & Manganese USEP Method 6010C	Nitrite and Nitrate USEPA Method 353.2	Alkalinity	Sulfate & Chloride	Sulfide	Total Organic Carbon	Ferric and ferrous iron	Carbon dioxide	Ethane, Ethene and Methane
AMW-7R	2	4.2-14.22	14.42	X	X	X	X	X	X	X	X	X	X
AMW-14-D1	2	22-32	32.00	X	X	X	X	X	X	X	X	X	X
AMW-14-D2	2	32-42	42.00	X	X	X	X	X	X	X	X	X	X
AMW-14-VD	2	64-74	75.00	X	X	X	X	X	X	X	X	X	X
AMW-15-D1	2	23.5-33.5	36.19	X	X	X	X	X	X	X	X	X	X
AMW-15-D2	2	40-50	52.00	X	X	X	X	X	X	X	X	X	X
AMW-15-VD	2	60-70	72.00	X	X	X	X	X	X	X	X	X	X
AMW-15-D3	2	30-40	42.00	X	X	X	X	X	X	X	X	X	X
MW-18R	2	2-7	7.00	X	X	X	X	X	X	X	X	X	X
MW-23-D1R	2	21-31	25.81	X	X	X	X	X	X	X	X	X	X
MW-23-D2R	2	35-45	17	X	X	X	X	X	X	X	X	X	X
MW-24-D1R	2	22.76-32.79	31.48	X	X	X	X	X	X	X	X	X	X
MW-24-D2	2	36-46	42	X	X	X	X	X	X	X	X	X	X
MW-24-VDR	2	63.76-73.78	73.98	X	X	X	X	X	X	X	X	X	X
MW-27-D1R	2	22.76-32.79	32.99	X	X	X	X	X	X	X	X	X	X
MW-27-D2	2	37-47	46.87	X	X	X	X	X	X	X	X	X	X
MW-29-D1	2	21-31	23.21	X	X	X	X	X	X	X	X	X	X
MW-26-D2	2	34-44	42.10	X	X	X	X	X	X	X	X	X	X
MW-28-D1	2	22-32	30.25	X	X	X	X	X	X	X	X	X	X
Total depth of wells being sampled:			738										
Blind Dup	Collect blind duplicate below at MW-24-D1R			X	X	X	X	X	X	X	X	X	X
Field Blank				X	X	X	X	X	X	X	X	X	X
Trip Blank				X									

FIGURES



MAP SOURCE: USGS 7.5 MINUTE QUADRANGLE 1979 LYNBROOK AND LAWRENCE, NEW YORK



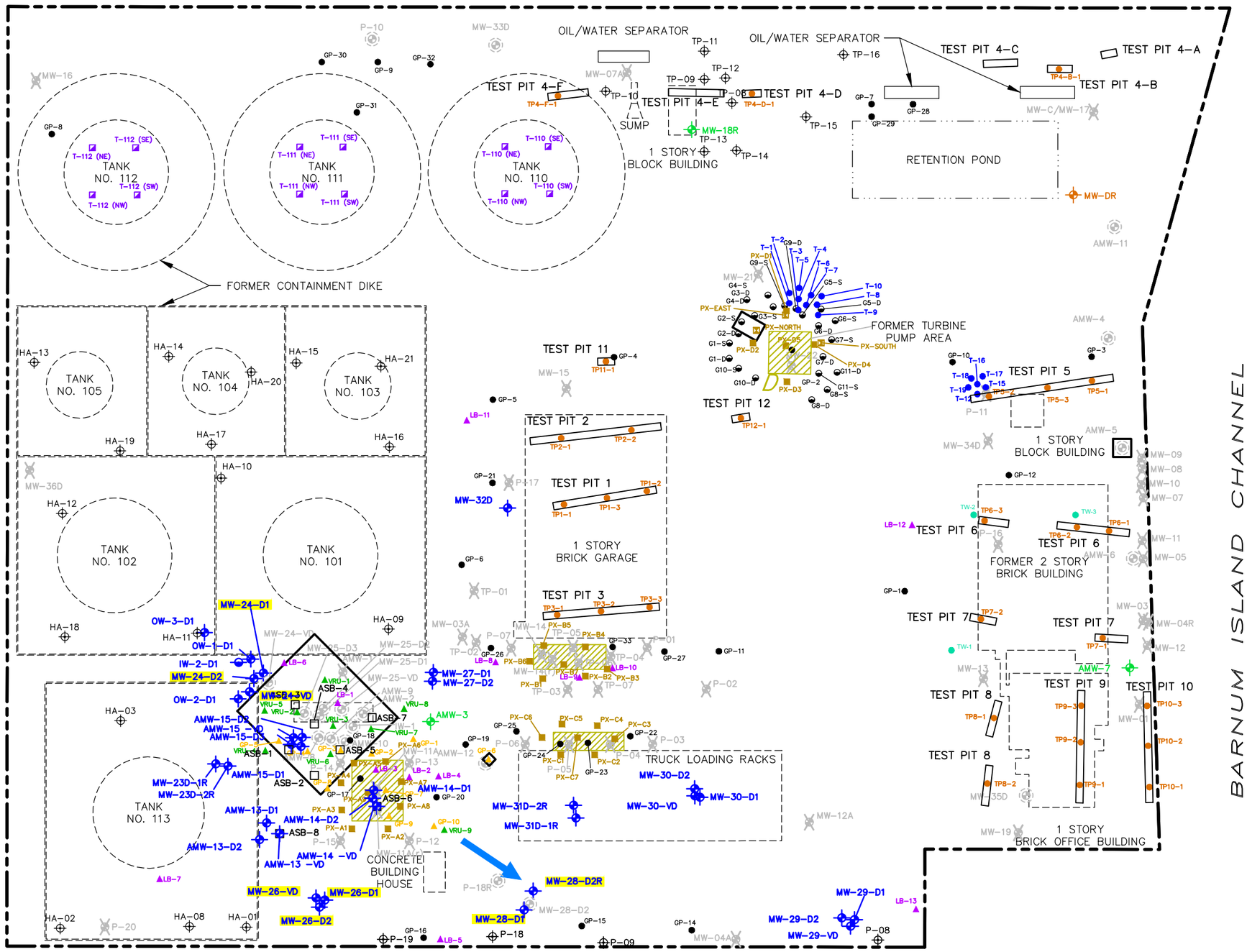
FORMER GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
SITE MANAGEMENT PLAN

SITE LOCATION MAP

ARCADIS

FIGURE
1

CITY:SYRACUSE-NY DIV/GROUP:ENVCAD DB:G.STEINBERGER LD: PIC:A.HEBERT PM:B.MCCUNE TM:J.ROBERTSON LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0023\0001\DWG\47517N01.d::g LAYOUT: 1 SAVED: 9/26/2014 2:28 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: PDF-AP PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/16/2016 12:46 PM BY: HOWES, DAVID
XREFS: IMAGES: 47517X01.TIF 47517X02.TIF PROJECTNAME:



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- HISTORICAL SITE FEATURE

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.
4. REFER TO FIGURE 9 FOR STORM DRAINS, CATCH BASINS, AND ASSOCIATED PIPING DETAILS.

0 60' 120'

GRAPHIC SCALE

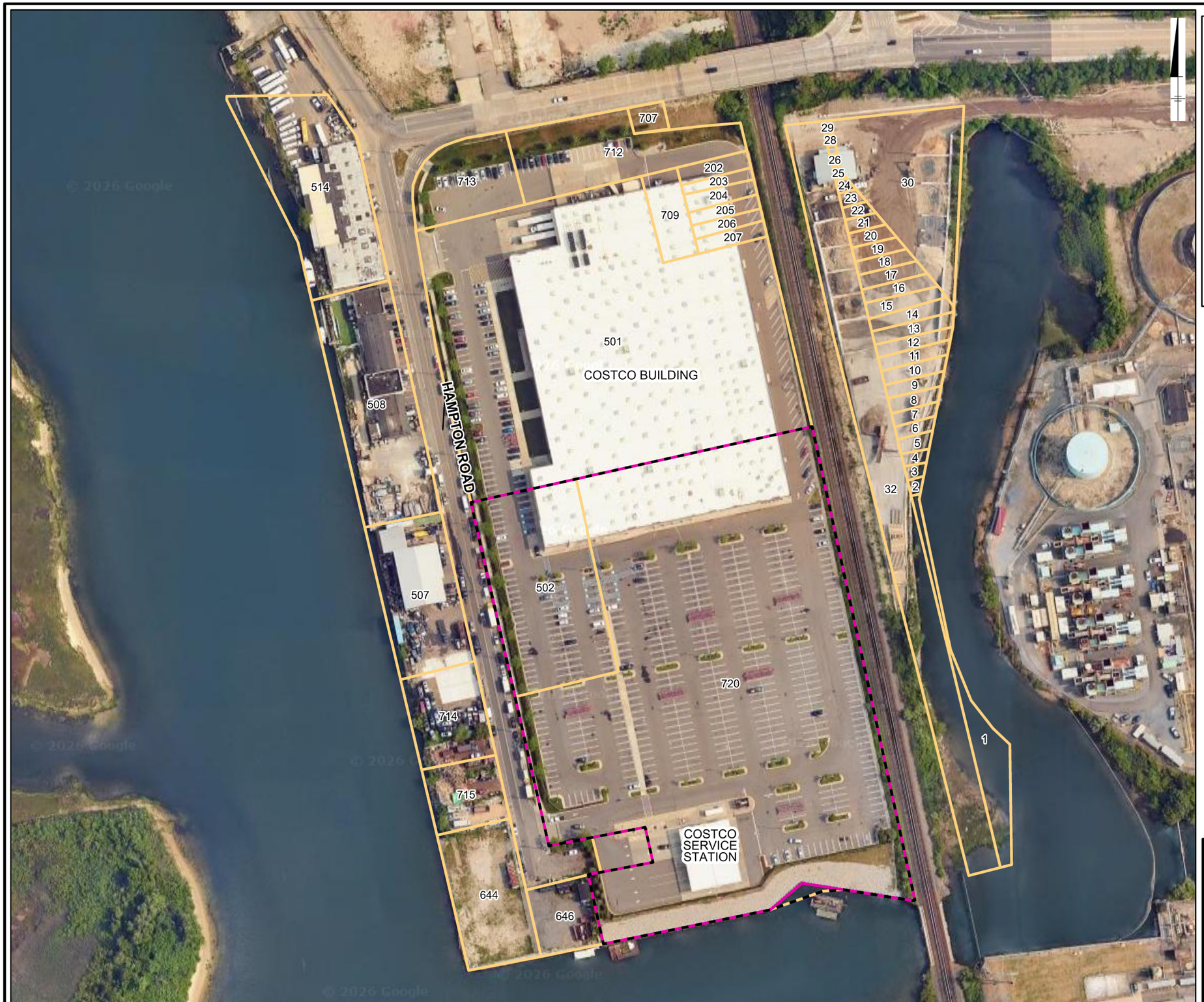
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK

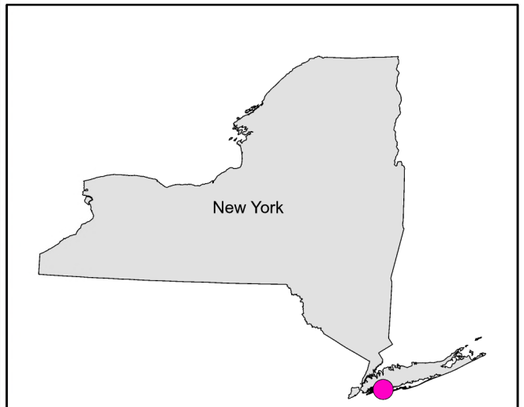
SITE LAYOUT MAP

ARCADIS

FIGURE 2

C:\Users\JDLoving\ARCADIS\Environmental CAD Team - BIM360 - OneDrive Sync Location\AUS-CHEVRON-GULF OIL 6518040-OCEANSIDE New York\2022\01-In Progress\01-DWG\6518040_SITE PLAN_FIG 2.DWG LAYOUT: 2 SAVED: 9/20/2022 8:59 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: ----
PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 9/20/2022 9:00 AM BY: LOVING, JEFF
XREFS:
6518040_X-BASE
47517X01





SITE LOCATION

LEGEND:

- SITE BOUNDARY
- PARCEL BOUNDARY
- ENVIRONMENTAL EASEMENT BOUNDARY

0 150 300 Feet

GRAPHIC SCALE

NOTES:

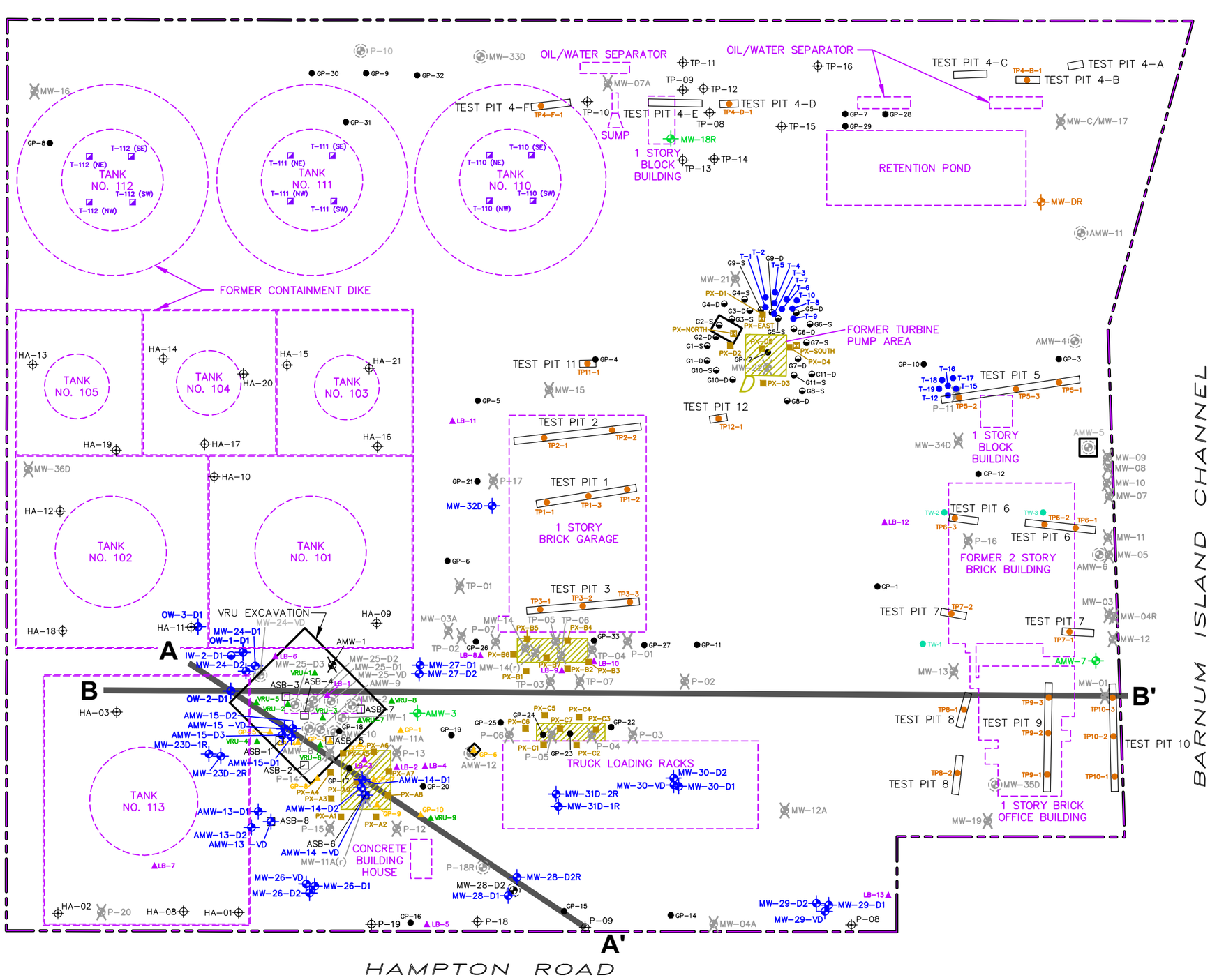
1. 2023 IMAGERY OBTAINED FROM GOOGLE EARTH PRO.
2. TAX PARCEL DATA DIGITIZED APPROXIMATELY FROM NASSAU COUNTY NEW YORK GIS PARCEL VIEWER AT : https://lrv.nassaucountyny.gov/

CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY

TAX PARCEL MAP

ARCADIS | FIGURE 3

T:_ENV\Chevron_Oceanside_NY\2025\SiteManagementPlan_Pro\Chevron_Oceanside_SiteManagementPlan.aprx 5/19/2026 1:21 PMLast Saved By: jrapp



LEGEND:

- WATER TABLE MONITORING WELL
- MEADOW MAT MONITORING WELL
- LOWER SAND UNIT MONITORING WELL
- LOWER SAND UNIT INJECTION WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- HISTORIC TEMPORARY PIEZOMETER
- HISTORIC EXISTING MONITORING WELL
- HISTORIC ABANDONED/DESTROYED MONITORING POINT
- 2000 LBG GEOPROBE SOIL BORING LOCATION
- 2000 BBL SOIL BORING LOCATION
- 2002 BBL SOIL BORING LOCATION
- 2002 BBL POST EXCAVATION BORING LOCATION
- 2003 LBG SOIL SAMPLING TANK LOCATION
- 2004 LANGAN SOIL BORING LOCATION
- 2004 CEDAR CREEK TEMPORARY WELL
- 2005 BBL BORING LOCATION
- 2005 BBL POST EXCAVATION BORING LOCATION
- 2005 BBL PAIRED WELL LOCATION
- 2010 TEST PIT SOIL SAMPLE LOCATION
- 2016 SOIL BORING
- LIMITS OF 2003/2004 IRM EXCAVATIONS
- LIMITS OF 2013/2014 IRM EXCAVATIONS
- A—A' LINE OF CROSS SECTION

NOTES:

1. SITE PLAN DERIVED FROM STORB, INC. DRAWING ENTITLED "PAVING PLAN–GULF OIL COMPANY–U.S., OCEANSIDE TERMINAL" AUGUST 7, 1976 AND LANGAN DRAWING ENTITLED "HISTORICAL SOIL AND GROUNDWATER SAMPLING PLAN MAY 11, 2007.
2. HISTORICAL SITE LAYOUT AND SAMPLE LOCATIONS ARE APPROXIMATE.
3. MONITORING WELL LOCATIONS SURVEYED BY AMERICAN ENGINEERING AND SURVEY.

0 60' 120'

GRAPHIC SCALE

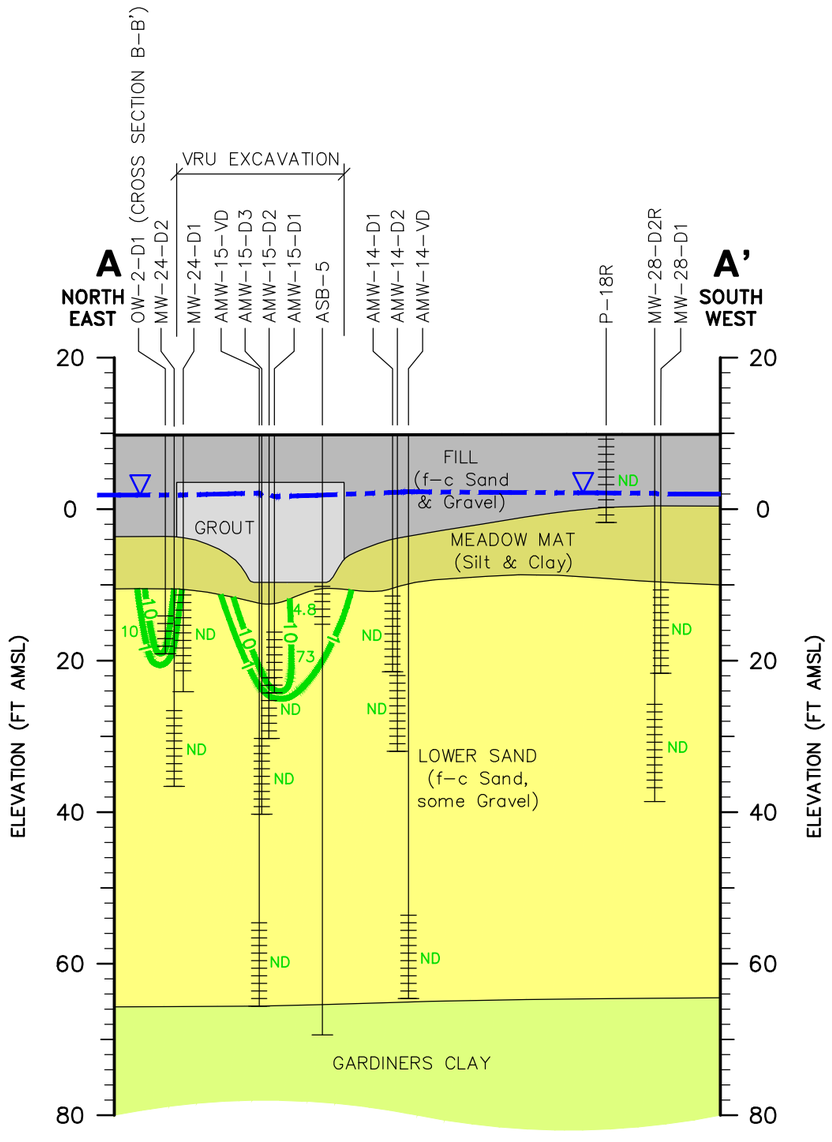
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
SITE MANAGEMENT PLAN

GEOLOGIC CROSS SECTION

ARCADIS

FIGURE 4A

CITY: SYRACUSE, NY DIV/GROUP: ENV/IM-DV DB: L.FORAKER, R. ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENV\CAD\SYRACUSE\ACT\B0047517\00230002\DWG\47517V04.DWG LAYOUT: 4 SAVED: 11/29/2016 2:56 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: C-LB-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/29/2016 3:00 PM BY: ALLEN, ROYCE
XREFS: IMAGES:
47517XBL
47517X01



OW-2-D1

LEGEND:

- WELL OR BORING ID
- GROUND SURFACE
- LITHOLOGIC CONTACT (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION AT HIGH TIDE JULY 2016
- SCREEN
- 4.8 — TRICHLOROETHENE CONCENTRATION (µg/L)
- 10 — TRICHLOROETHENE CONCENTRATION CONTOUR
- BOTTOM OF BORING
- FILL
- GROUT
- MEADOW MAT
- LOWER SAND
- GARDINERS CLAY

NOTES:

1. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

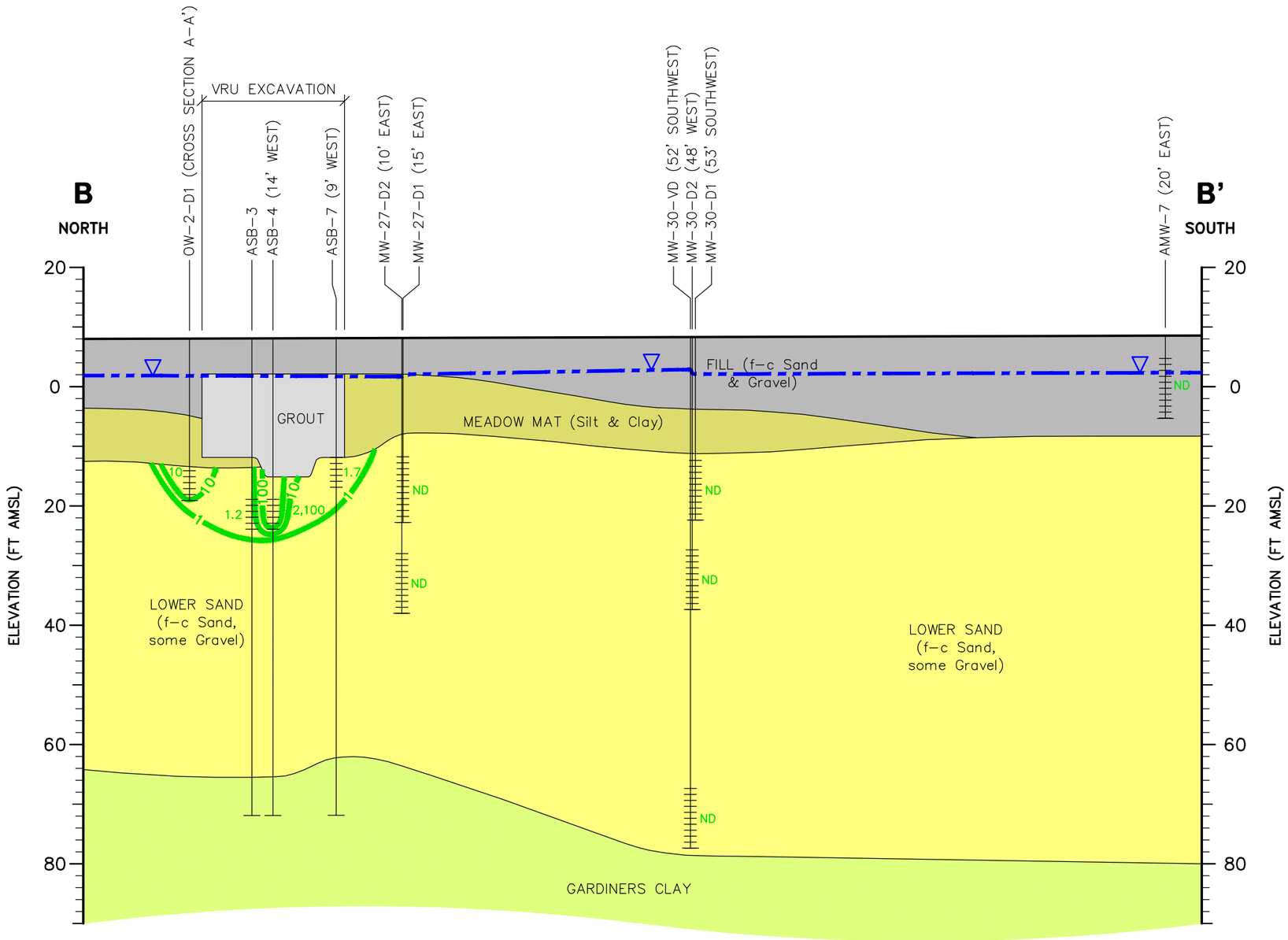
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
SITE MANAGEMENT PLAN

GEOLOGIC CROSS SECTION

ARCADIS

FIGURE
4B

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: L. FORAKER, R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\B0047517\0023000021DWG\47517V02.DWG LAYOUT: 5 SAVED: 11/22/2016 11:00 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/22/2016 11:02 AM BY: ALLEN.ROYCE
XREFS: 47517X01 47517XBL IMAGES:



NOTES:

1. CONCENTRATIONS SHOWN ARE FROM THE MOST RECENT GROUNDWATER SAMPLES COLLECTED IN 2016.
2. ND – NOT DETECTED.

VERTICAL EXAGGERATION = 3X

0 20' 40'

VERTICAL SCALE

0 60' 120'

HORIZONTAL SCALE

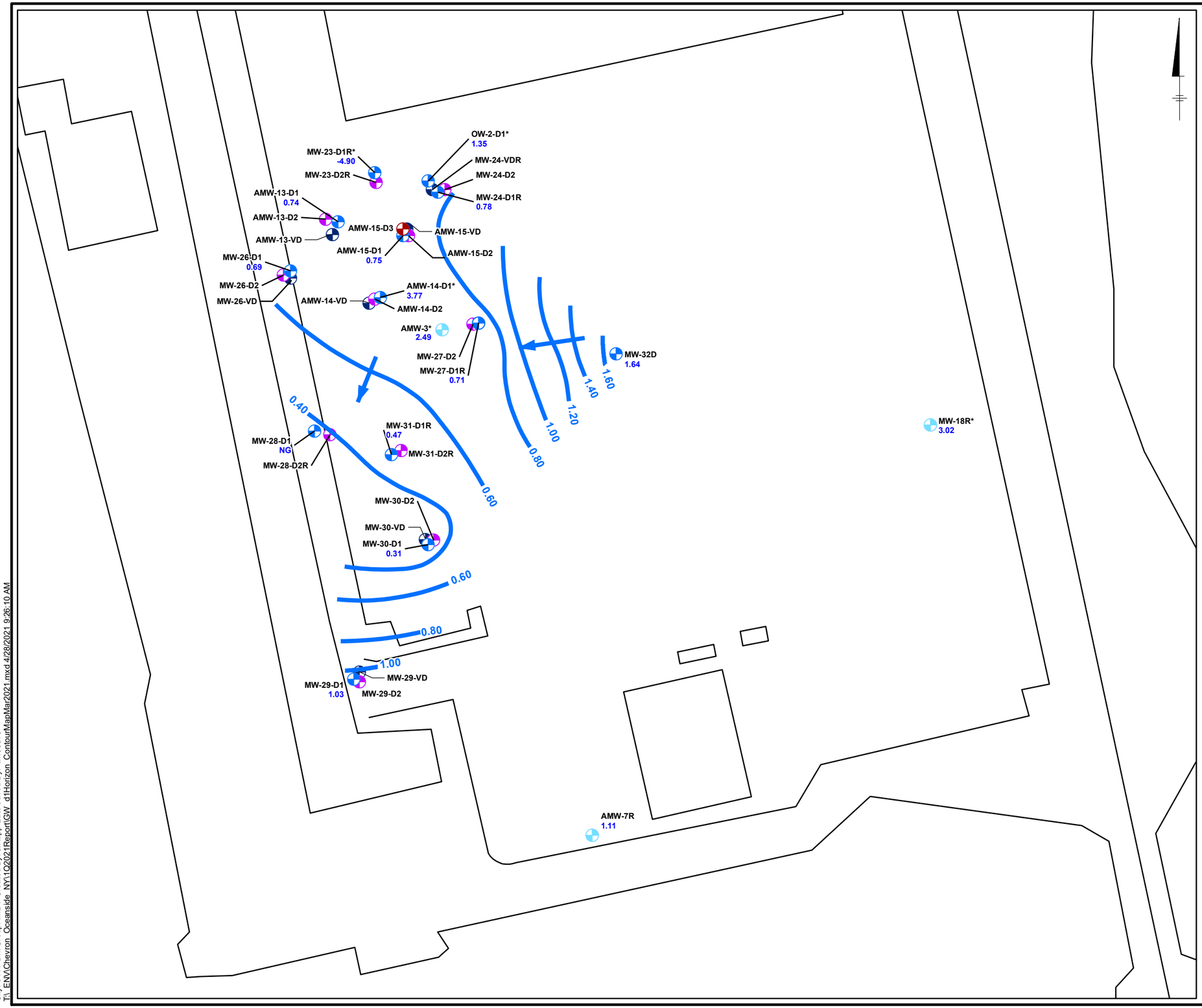
GULF OIL TERMINAL
(CHEVRON FACILITY #6518040)
OCEANSIDE, NEW YORK
SITE MANAGEMENT PLAN

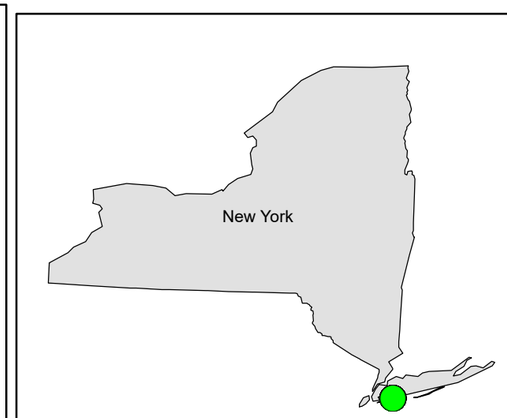
GEOLOGIC CROSS SECTION

ARCADIS

FIGURE
4C

CITY: SYRACUSE, N.Y. DIV/GROUP: ENVCAD-141 DB: R.ALLEN LD: PIC: J. VOGELEY PM: W. McCUNE TM: W. McCUNE LYR: ON=*; OFF=*REF*
G:\ENVCAD\SYRACUSE\ACTIB\047517\0023\00002\DWG\47517V03.DWG LAYOUT: 6 SAVED: 11/22/2016 10:55 AM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 11/22/2016 10:57 AM BY: ALLEN, ROYCE
XREFS:
47517X01
47517XBL
IMAGES:





SITE LOCATION

LEGEND:

- SHALLOW FILL UNIT MONITORING WELLS
- D1 HORIZON MONITORING WELLS
- D2 HORIZON MONITORING WELLS
- D3 HORIZON MONITORING WELLS
- VD HORIZON MONITORING WELLS
- GROUNDWATER ELEVATION CONTOUR (NAVD 88)
- APPROXIMATE FLOW DIRECTION
- 0.71 GROUNDWATER ELEVATION IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- 3.02* NOT USED TO GENERATE CONTOURS
- NG NOT GAUGED

0 70 140 Feet

GRAPHIC SCALE

NOTE:

1. 2017 IMAGERY OBTAINED FROM GOOGLE EARTH.
2. THE WELLS WERE GAUGED DURING LOW TIDE.

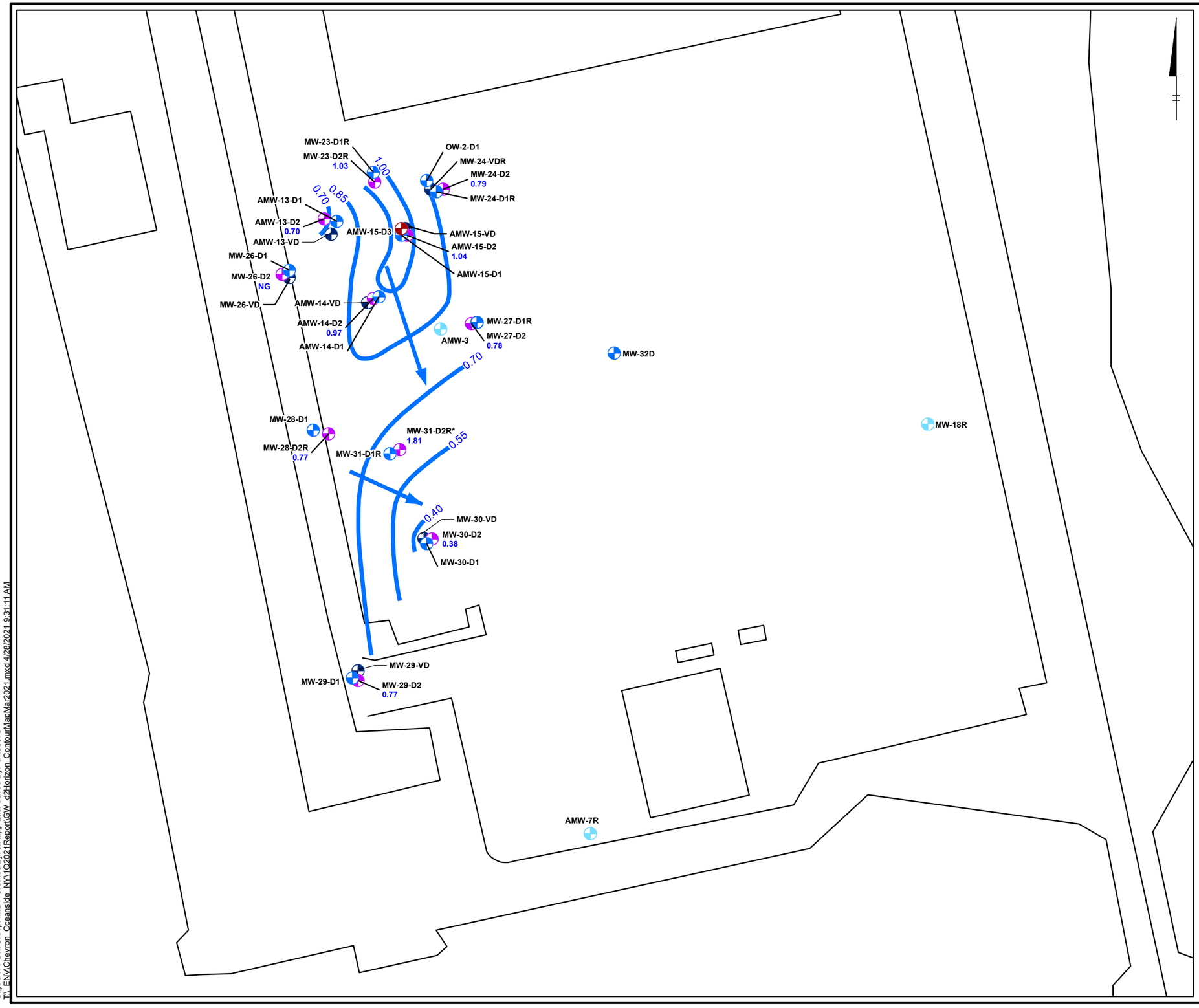
CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY
SITE MANAGEMENT PLAN

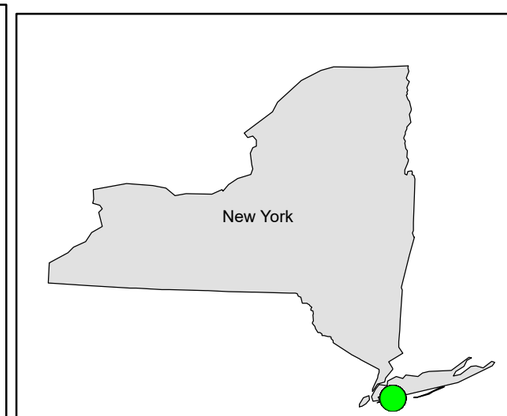
GROUNDWATER CONTOUR MAP 2019

ARCADIS

FIGURE 5A

City: SYR Div/Group: IMDV Created By: J.Rapp Last Saved By: avi00976
T:_ENV\Chevron_Oceanside_NY\1Q2021Report\GW_d1Horizon_ContourMapMar2021.mxd 4/28/2021 9:26:10 AM





SITE LOCATION

LEGEND:

- SHALLOW FILL UNIT MONITORING WELLS
- D1 HORIZON MONITORING WELLS
- D2 HORIZON MONITORING WELLS
- D3 HORIZON MONITORING WELLS
- VD HORIZON MONITORING WELLS
- GROUNDWATER ELEVATION CONTOUR (NAVD 88)
- APPROXIMATE FLOW DIRECTION
- 0.70 GROUNDWATER ELEVATION IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
- 1.81* NOT USED TO GENERATE CONTOURS
- NG NOT GAUGED

0 70 140 Feet

GRAPHIC SCALE

NOTE:

1. 2017 IMAGERY OBTAINED FROM GOOGLE EARTH.
2. THE WELLS WERE GAUGED DURING LOW TIDE.

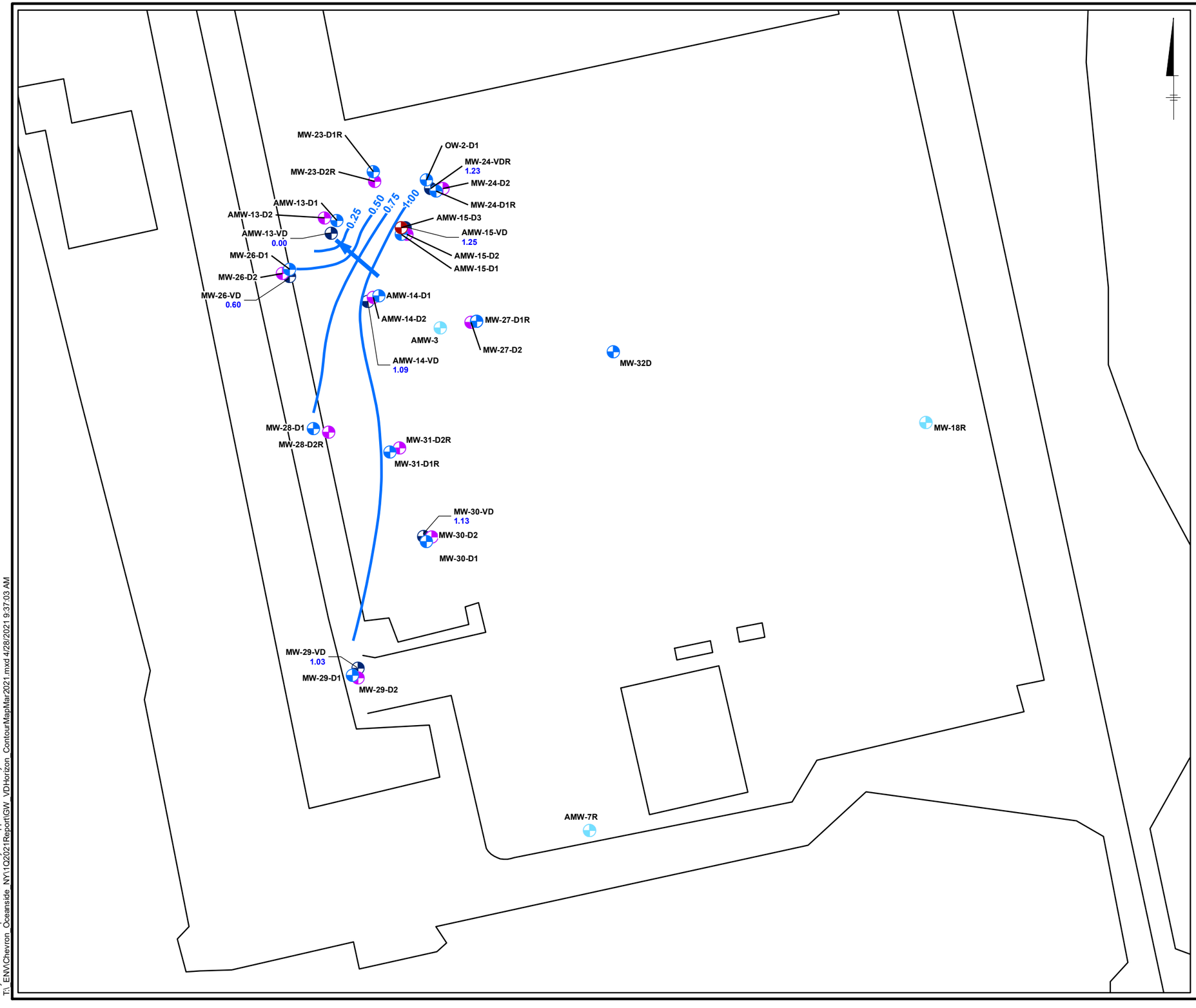
CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY
SITE MANAGEMENT PLAN

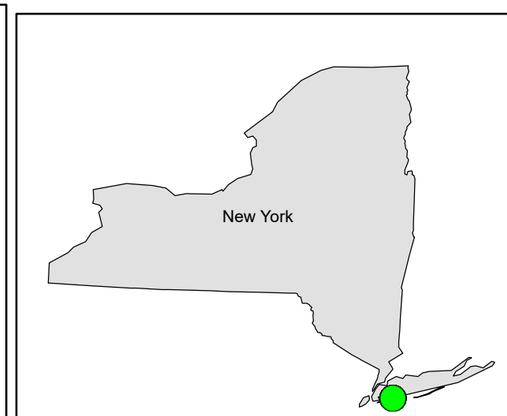
GROUNDWATER CONTOUR MAP 2020

ARCADIS

FIGURE 5B

City: SYR Div/Group: IMDV Created By: JRapp Last Saved By: avi00976
T:_ENV\Chevron_Oceanside_NY\1Q2021Report\GW_d2Horizon_ContourMapMar2021.mxd 4/28/2021 9:31:11 AM





SITE LOCATION

LEGEND:

- SHALLOW FILL UNIT MONITORING WELLS
- D1 HORIZON MONITORING WELLS
- D2 HORIZON MONITORING WELLS
- D3 HORIZON MONITORING WELLS
- VD HORIZON MONITORING WELLS
- 1.09 GROUNDWATER ELEVATION CONTOUR (NAVD 88)
- GROUNDWATER ELEVATION CONTOUR (NAVD 88)
- APPROXIMATE FLOW DIRECTION

0 70 140
Feet
GRAPHIC SCALE

NOTE:

1. 2017 IMAGERY OBTAINED FROM GOOGLE EARTH.
2. THE WELLS WERE GAUGED DURING LOW TIDE.

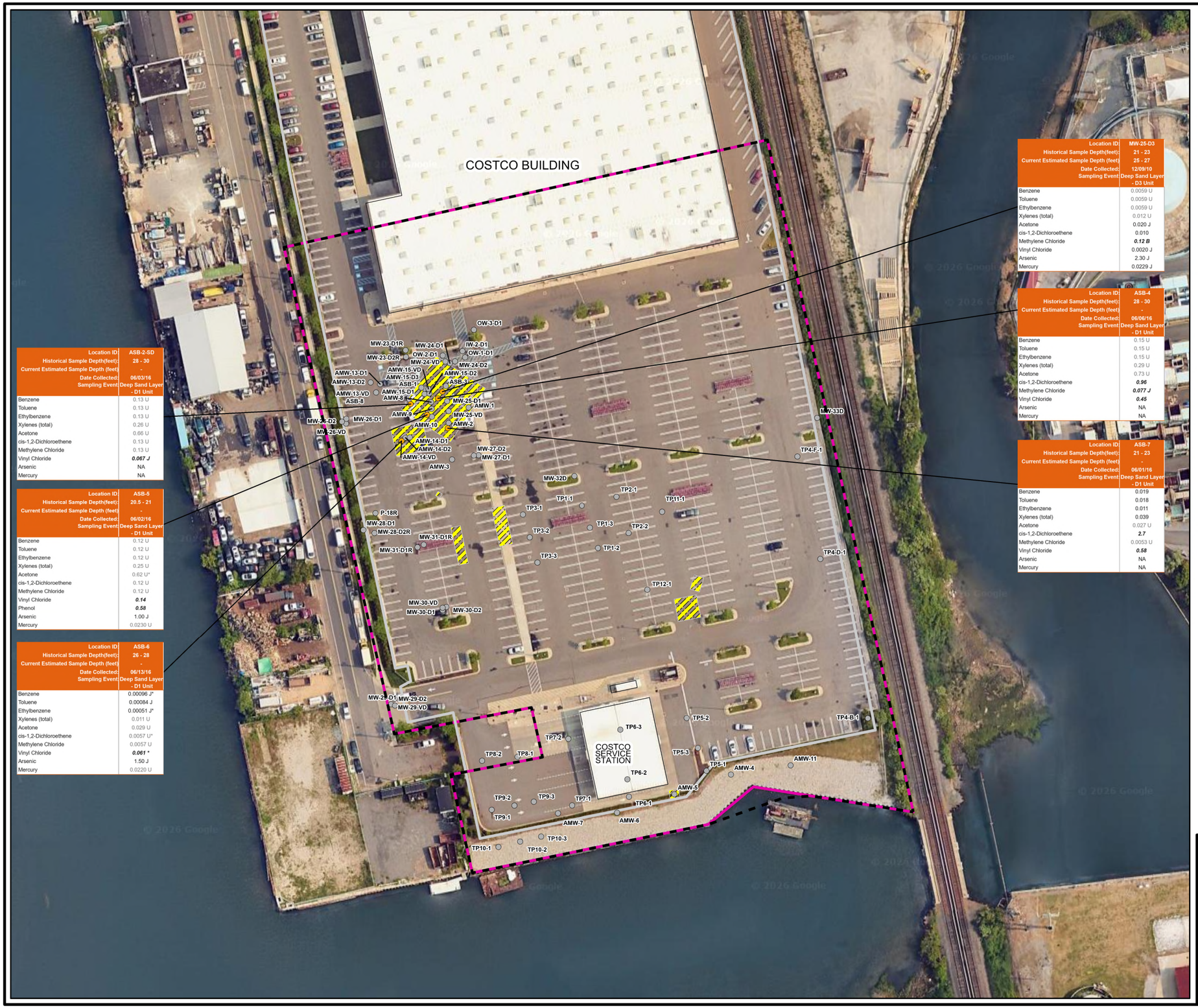
CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY

GROUNDWATER CONTOUR MAP 2021

ARCADIS

FIGURE 5C

City: SYR Div/Group: IMDV Created By: JRapp Last Saved By: avi00976
T:_ENV\Chevron_Oceanside_NY\1Q2021Report\GW_VDHorizon_ContourMapMar2021.mxd 4/28/2021 9:37:03 AM



Location ID:	ASB-2-SD
Historical Sample Depth(feet):	28 - 30
Current Estimated Sample Depth (feet)	-
Date Collected:	06/03/16
Sampling Event	Deep Sand Layer - D1 Unit
Benzene	0.13 U
Toluene	0.13 U
Ethylbenzene	0.13 U
Xylenes (total)	0.26 U
Acetone	0.66 U
cis-1,2-Dichloroethene	0.13 U
Methylene Chloride	0.13 U
Vinyl Chloride	***0.067 J***
Arsenic	NA
Mercury	NA

Location ID:	ASB-5
Historical Sample Depth(feet):	20.5 - 21
Current Estimated Sample Depth (feet)	-
Date Collected:	06/02/16
Sampling Event	Deep Sand Layer - D1 Unit
Benzene	0.12 U
Toluene	0.12 U
Ethylbenzene	0.12 U
Xylenes (total)	0.25 U
Acetone	0.62 U*
cis-1,2-Dichloroethene	0.12 U
Methylene Chloride	0.12 U
Vinyl Chloride	***0.14***
Phenol	***0.58***
Arsenic	1.00 J
Mercury	0.0230 U

Location ID:	ASB-6
Historical Sample Depth(feet):	26 - 28
Current Estimated Sample Depth (feet)	-
Date Collected:	06/13/16
Sampling Event	Deep Sand Layer - D1 Unit
Benzene	0.00096 J*
Toluene	0.00084 J
Ethylbenzene	0.00051 J*
Xylenes (total)	0.011 U
Acetone	0.029 U
cis-1,2-Dichloroethene	0.0057 U*
Methylene Chloride	0.0057 U
Vinyl Chloride	***0.061 ****
Arsenic	1.50 J
Mercury	0.0220 U

Location ID:	MW-25-D3
Historical Sample Depth(feet):	21 - 23
Current Estimated Sample Depth (feet)	25 - 27
Date Collected:	12/09/10
Sampling Event	Deep Sand Layer - D3 Unit
Benzene	0.0059 U
Toluene	0.0059 U
Ethylbenzene	0.0059 U
Xylenes (total)	0.012 U
Acetone	0.020 J
cis-1,2-Dichloroethene	0.010
Methylene Chloride	***0.12 B***
Vinyl Chloride	0.0020 J
Arsenic	2.30 J
Mercury	0.0229 J

Location ID:	ASB-4
Historical Sample Depth(feet):	28 - 30
Current Estimated Sample Depth (feet)	-
Date Collected:	06/06/16
Sampling Event	Deep Sand Layer - D1 Unit
Benzene	0.15 U
Toluene	0.15 U
Ethylbenzene	0.15 U
Xylenes (total)	0.29 U
Acetone	0.73 U
cis-1,2-Dichloroethene	***0.96***
Methylene Chloride	***0.077 J***
Vinyl Chloride	***0.45***
Arsenic	NA
Mercury	NA

Location ID:	ASB-7
Historical Sample Depth(feet):	21 - 23
Current Estimated Sample Depth (feet)	-
Date Collected:	06/01/16
Sampling Event	Deep Sand Layer - D1 Unit
Benzene	0.019
Toluene	0.018
Ethylbenzene	0.011
Xylenes (total)	0.039
Acetone	0.027 U
cis-1,2-Dichloroethene	**2.7**
Methylene Chloride	0.0053 U
Vinyl Chloride	***0.58***
Arsenic	NA
Mercury	NA

LEGEND:

- SAMPLE LOCATION WITH EXCEEDANCE
- SAMPLE LOCATION
- SITE BOUNDARY
- ASPHALT AREA
- SITE FEATURE
- FORMER EXCAVATION AREA
- ENVIRONMENTAL EASEMENT BOUNDARY

0 100 200 Feet

GRAPHIC SCALE

NOTE:

1. 2023 IMAGERY OBTAINED FROM GOOGLE EARTH PRO.

CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY

SOIL ANALYTICAL MAP - DEEP SAND FILL

ARCADIS

FIGURE 6A

T:_ENV\Chevron_Oceanside_NY\2025\SiteManagementPlan_Pro\Chevron_Oceanside_SiteManagementPlan.aprx 5/19/2026 1:27 PMLast Saved By: jrapp



Location ID:	P-18R
Historical Sample Depth(feet):	0 - 2
Current Estimated Sample Depth (feet)	4 - 6
Date Collected:	12/02/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0056 U
Toluene	0.0056 U
Ethylbenzene	0.0056 U
Xylenes (total)	0.011 U
Acetone	0.028 U
cis-1,2-Dichloroethene	0.0056 U
Methylene Chloride	0.0077 UB
Vinyl Chloride	0.0056 U
Benzo(a)anthracene	***2.0***
Benzo(a)pyrene	0.58 J
Benzo(b)fluoranthene	0.90 J
Benzo(g,h,i)perylene	0.17 J
Benzo(k)fluoranthene	0.34 J
bis(2-Chloroethoxy)methane	0.96 U
Chrysene	***1.8***
Dibenzo(a,h)anthracene	0.96 U
Phenol	0.96 U
Arsenic	3.80 J
Mercury	0.0269

Location ID:	AMW-3	AMW-3	AMW-3
Historical Sample Depth(feet):	0 - 2	2 - 4	4 - 6
Current Estimated Sample Depth (feet)	4 - 6	6 - 8	8 - 10
Date Collected:	11/30/10	11/30/10	11/30/10
Sampling Event	Shallow Sand Fill - Shallow Unit	Shallow Sand Fill - Shallow Unit	Shallow Sand Fill - Shallow Unit
Benzene	0.13 U	0.12 U	***0.11 J***
Toluene	0.11 J	0.20	0.12 U
Ethylbenzene	***2.4***	***6.7***	***2.0***
Xylenes (total)	***5.2***	***6.1***	*0.26*
Acetone	0.64 U	0.59 U	0.62 U
cis-1,2-Dichloroethene	0.13 U	0.12 U	0.12 U
Methylene Chloride	0.13 UJ	0.12 UJ	***0.062 J***
Vinyl Chloride	0.13 U	0.12 U	0.12 U
Arsenic	2.00 J	2.20 J	0.184 J
Mercury	0.0329	0.0525	0.0184 J

Location ID:	TP-1-1
Historical Sample Depth(feet):	4
Current Estimated Sample Depth (feet)	8
Date Collected:	11/29/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0059 U
Toluene	0.0014 J
Ethylbenzene	0.0059 U
Xylenes (total)	0.011 J
Acetone	0.018 J
cis-1,2-Dichloroethene	0.0059 U
Methylene Chloride	0.0085
Vinyl Chloride	0.0059 U
Benzo(a)anthracene	0.20
Benzo(a)pyrene	0.19 J
Benzo(b)fluoranthene	0.22
Benzo(g,h,i)perylene	0.15 J
Benzo(k)fluoranthene	0.085 J
bis(2-Chloroethoxy)methane	0.20 U
Chrysene	0.19 J
Dibenzo(a,h)anthracene	0.029 J
Phenol	0.20 U
Arsenic	1.40 J
Mercury	0.0234 U

Location ID:	TP-1-3
Historical Sample Depth(feet):	3.5
Current Estimated Sample Depth (feet)	7.5
Date Collected:	11/30/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0057 U
Toluene	0.0057 U
Ethylbenzene	0.0057 U
Xylenes (total)	0.011 U
Acetone	0.015 J
cis-1,2-Dichloroethene	0.0057 U
Methylene Chloride	0.011
Vinyl Chloride	0.0057 U
Arsenic	2.30 UJ
Mercury	0.0227 U

Location ID:	TP-1-2
Historical Sample Depth(feet):	3
Current Estimated Sample Depth (feet)	7
Date Collected:	11/30/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0054 U
Toluene	0.0054 U
Ethylbenzene	0.0054 U
Xylenes (total)	0.011 U
Acetone	0.020 J
cis-1,2-Dichloroethene	0.0054 U
Methylene Chloride	0.0097
Vinyl Chloride	0.0054 U
Arsenic	1.50 J
Mercury	0.0218 U

Location ID:	TP-11-1
Historical Sample Depth(feet):	5
Current Estimated Sample Depth (feet)	9
Date Collected:	12/07/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.040 U
Toluene	0.040 U
Ethylbenzene	0.040 U
Xylenes (total)	0.020 J
Acetone	***0.058 J***
cis-1,2-Dichloroethene	0.040 U
Methylene Chloride	***0.086***
Vinyl Chloride	0.040 U
Benzo(a)anthracene	0.039 J
Benzo(a)pyrene	0.024 J
Benzo(b)fluoranthene	0.029 J
Benzo(g,h,i)perylene	0.23 U
Benzo(k)fluoranthene	0.23 U
bis(2-Chloroethoxy)methane	0.23 U
Chrysene	0.030 J
Dibenzo(a,h)anthracene	0.23 U
Phenol	0.23 U
Arsenic	3.00
Mercury	0.0279 U

Location ID:	TP-12-1
Historical Sample Depth(feet):	4.7
Current Estimated Sample Depth (feet)	8.7
Date Collected:	12/07/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.12 U
Toluene	0.12 U
Ethylbenzene	0.12 U
Xylenes (total)	0.23 U
Acetone	0.58 U
cis-1,2-Dichloroethene	0.12 U
Methylene Chloride	0.12 U
Vinyl Chloride	0.12 U
Benzo(a)anthracene	0.26 J
Benzo(a)pyrene	0.23 J
Benzo(b)fluoranthene	0.39 JY
Benzo(g,h,i)perylene	0.19 J
Benzo(k)fluoranthene	0.48 JY
bis(2-Chloroethoxy)methane	0.78 U
Chrysene	0.22 J
Dibenzo(a,h)anthracene	0.78 U
Phenol	0.78 U
Arsenic	1.70 J
Mercury	***1.35***

Location ID:	TP-6-3
Historical Sample Depth(feet):	5.5
Current Estimated Sample Depth (feet)	9.5
Date Collected:	12/03/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.57 U
Toluene	0.57 U
Ethylbenzene	0.57 U
Xylenes (total)	1.1 U
Acetone	2.9 U
cis-1,2-Dichloroethene	0.57 U
Methylene Chloride	0.57 U
Vinyl Chloride	0.57 U
Benzo(a)anthracene	***2.7 J***
Benzo(a)pyrene	2.7 J
Benzo(b)fluoranthene	***2.8 J***
Benzo(g,h,i)perylene	1.5 J
Benzo(k)fluoranthene	*1.2 J*
bis(2-Chloroethoxy)methane	4.8 U
Chrysene	***2.3 J***
Dibenzo(a,h)anthracene	4.8 U
Phenol	4.8 U
Arsenic	1.90 J
Mercury	0.0224 U

Location ID:	TP-6-1
Historical Sample Depth(feet):	5
Current Estimated Sample Depth (feet)	9
Date Collected:	12/03/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0053 U
Toluene	0.0053 U
Ethylbenzene	0.0053 U
Xylenes (total)	0.011 U
Acetone	***0.080***
cis-1,2-Dichloroethene	0.0053 U
Methylene Chloride	0.038 J
Vinyl Chloride	0.0053 U
Arsenic	***28.1***
Mercury	0.0732

Location ID:	TP-5-2
Historical Sample Depth(feet):	5.5
Current Estimated Sample Depth (feet)	9.5
Date Collected:	12/02/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.032 U
Toluene	0.032 U
Ethylbenzene	0.032 U
Xylenes (total)	0.064 U
Acetone	0.16 U
cis-1,2-Dichloroethene	0.032 U
Methylene Chloride	***0.11***
Vinyl Chloride	0.032 U
Arsenic	2.70 J
Mercury	0.0155 J

Location ID:	MW-31-D2R
Historical Sample Depth(feet):	2 - 4
Current Estimated Sample Depth (feet)	6 - 8
Date Collected:	11/17/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0054 U
Toluene	0.0054 U
Ethylbenzene	0.0054 U
Xylenes (total)	0.011 U
Acetone	0.027 U
cis-1,2-Dichloroethene	0.0054 U
Methylene Chloride	0.025 UBJ
Vinyl Chloride	0.0054 U
Benzo(a)anthracene	***3.3***
Benzo(a)pyrene	*3.0*
Benzo(b)fluoranthene	***3.9***
Benzo(g,h,i)perylene	1.2
Benzo(k)fluoranthene	1.2
bis(2-Chloroethoxy)methane	0.37 U
Chrysene	***2.5***
Dibenzo(a,h)anthracene	0.27 J
Phenol	0.37 U
Arsenic	2.20
Mercury	0.0377

Location ID:	TP-7-2
Historical Sample Depth(feet):	5
Current Estimated Sample Depth (feet)	9
Date Collected:	12/06/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.54 U
Toluene	0.54 U
Ethylbenzene	0.54 U
Xylenes (total)	1.1 U
Acetone	2.7 U
cis-1,2-Dichloroethene	0.54 U
Methylene Chloride	0.54 U
Vinyl Chloride	0.54 U
Benzo(a)anthracene	***3.7 J***
Benzo(a)pyrene	3.7 J
Benzo(b)fluoranthene	***4.1 J***
Benzo(g,h,i)perylene	2.1 J
Benzo(k)fluoranthene	*1.1 J*
bis(2-Chloroethoxy)methane	4.7 U
Chrysene	***3.5 J***
Dibenzo(a,h)anthracene	4.7 U
Phenol	4.7 U
Arsenic	3.60
Mercury	0.104

Location ID:	TP-8-1
Historical Sample Depth(feet):	4.5
Current Estimated Sample Depth (feet)	8.5
Date Collected:	12/06/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.10 U
Toluene	0.10 U
Ethylbenzene	0.10 U
Xylenes (total)	0.21 U
Acetone	0.51 U
cis-1,2-Dichloroethene	0.10 U
Methylene Chloride	***0.082 J***
Vinyl Chloride	0.10 U
Arsenic	2.40 U
Mercury	0.0220 U

Location ID:	TP-10-2
Historical Sample Depth(feet):	6
Current Estimated Sample Depth (feet)	10
Date Collected:	12/07/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0056 U
Toluene	0.0056 U
Ethylbenzene	0.0056 U
Xylenes (total)	0.011 U
Acetone	0.028 U
cis-1,2-Dichloroethene	0.0056 U
Methylene Chloride	0.018
Vinyl Chloride	0.0056 U
Benzo(a)anthracene	0.24 J
Benzo(a)pyrene	0.26 J
Benzo(b)fluoranthene	0.25 J
Benzo(g,h,i)perylene	0.14 J
Benzo(k)fluoranthene	0.94 U
bis(2-Chloroethoxy)methane	0.94 U
Chrysene	0.23 J
Dibenzo(a,h)anthracene	0.94 U
Phenol	0.94 U
Arsenic	*20.7*
Mercury	0.0675

Location ID:	TP-9-3
Historical Sample Depth(feet):	6.5
Current Estimated Sample Depth (feet)	10.5
Date Collected:	12/07/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0079 U
Toluene	0.0079 U
Ethylbenzene	0.0079 U
Xylenes (total)	0.016 U
Acetone	***0.055***
cis-1,2-Dichloroethene	0.0079 U
Methylene Chloride	0.020
Vinyl Chloride	0.0079 U
Arsenic	10.3
Mercury	0.0313 U

Location ID:	AMW-7
Historical Sample Depth(feet):	10 - 12
Current Estimated Sample Depth (feet)	
Date Collected:	11/29/10
Sampling Event	Shallow Sand Fill - Shallow Unit
Benzene	0.0065 U
Toluene	0.0065 U
Ethylbenzene	0.0065 U
Xylenes (total)	0.013 U
Acetone	***0.050***
cis-1,2-Dichloroethene	0.0015 J
Methylene Chloride	0.023
Vinyl Chloride	0.0032 J
Arsenic	4.10 J
Mercury	0.0219 J

Location ID:	AMW-6	AMW-6	AMW-6
Historical Sample Depth(feet):	2 - 4	4 - 6	6 - 8
Current Estimated Sample Depth (feet)	6 - 8	8 - 10	10 - 12
Date Collected:	11/18/10	11/18/10	11/18/10
Sampling Event	Shallow Sand Fill - Shallow Unit	Shallow Sand Fill - Shallow Unit	Shallow Sand Fill - Shallow Unit
Benzene	0.0055 U	0.0057 U	0.036 U
Toluene	0.0055 U	0.0057 U	0.036 U
Ethylbenzene	0.0055 U	0.0057 U	0.036 U
Xylenes (total)	0.011 U	0.011 U	0.071 U
Acetone	0.027 U	***0.059***	***0.18***
cis-1,2-Dichloroethene	0.0055 U	0.0057 U	0.036 U
Methylene Chloride	0.0062	0.0090	0.049
Vinyl Chloride	0.0055 U	0.0057 U	0.036 U
Arsenic	*16.2*	*20.1*	10.6
Mercury	0.0785	*0.199*	0.122

LEGEND:

- SAMPLE LOCATION WITH EXCEEDANCE
- SAMPLE LOCATION
- SITE BOUNDARY
- ASPHALT AREA
- SITE FEATURE
- FORMER EXCAVATION AREA
- ENVIRONMENTAL EASEMENT BOUNDARY

0 100 200 Feet

GRAPHIC SCALE

NOTE:

1. 2023 IMAGERY OBTAINED FROM GOOGLE EARTH PRO.

CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY

SOIL ANALYTICAL MAP - SHALLOW SAND FILL

ARCADIS

FIGURE 6B

T:_ENV\Chevron_Oceanside_NY\2025\SiteManagementPlan_Pro\Chevron_Oceanside_SiteManagementPlan.aprx 5/19/2026 1:29 PMLast Saved By: jrapp



LEGEND:

- SITE BOUNDARY
- ASPHALT AREA
- SITE FEATURE
- ENVIRONMENTAL EASEMENT BOUNDARY
- DEEP SOIL IMPACTS RANGING FROM 24 FEET TO 34 FEET BGS
- SHALLOW SOIL IMPACTS RANGING FROM 8 FEET TO 16 FEET BGS

0 100 200 Feet

GRAPHIC SCALE

NOTES:

1. 2023 IMAGERY OBTAINED FROM GOOGLE EARTH PRO.
2. AREAS OF REMAINING SOIL IMPACTS ARE BASED ON SOIL SAMPLES THAT EXCEED PROTECTION OF GROUNDWATER AND/OR COMMERCIAL CLEANUP OBJECTIVES.
3. AREAS OF REMAINING SOIL IMPACTS HAVE BEEN IDENTIFIED IN LOCATIONS THAT HAVE NOT BEEN EXCAVATED OR REMEDIATED.
4. DEPTHS OF SHALLOW AND DEEP SOIL IMPACTS ARE BASED ON EXISTING FINAL DESIGN GRADE. DEPTHS OF IMPACTS ARE CONSIDERED APPROXIMATE.
5. BGS = BELOW GROUND SURFACE

CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY

AREAS OF CONCERN

ARCADIS

FIGURE
6C

T:_ENV\Chevron_Oceanside_NY\2025\SiteManagementPlan_Pro\Chevron_Oceanside_SiteManagementPlan.aprx 5/19/2026 1:28 PMLast Saved By: jrapp



Well ID	MW-23-D2R		
Sample Date	5/9/2019	9/13/2019	12/5/2019
Benzene	2.3	<1.00	1.8
Methyl-t-butyl ether	8.8	63	14

Well ID	MW-24-VDR		
Sample Date	5/9/2019	9/13/2019	12/5/2019
Benzene	<1.00	2.4	7.2
Methyl-t-butyl ether	1.6	0.75 J	<1.00
Vinyl chloride (Chloroethene)	0.40 J	0.35 J	<1.00

Well ID	MW-24-D2		
Sample Date	5/9/2019	9/13/2019	12/5/2019
Benzene	<1.00	<1.00	1.4
Methyl-t-butyl ether	<1.00	<1.00	13

Well ID	MW-24-D1R		
Sample Date	5/9/2019	9/13/2019	12/5/2019
Benzene	1.5	13 [13]	5.7 [11]
Ethylbenzene	1	7.9 [7.2]	2.4 [7.2]
Methyl-t-butyl ether	65	210 [200]	180 [210]
trans-1,2-Dichloroethene	2.0	15.0	7.0 [16]
Vinyl chloride (Chloroethene)	1.5	8 [9.2]	3.4 [5.4]
Xylene (total)	3.6	33 [30]	11 [29]

Well ID	MW-23-D1R		
Sample Date	9/13/2019	12/5/2019	
Benzene	1.5	1.4	
Methyl-t-butyl ether	92	83	
Vinyl chloride (Chloroethene)	0.26 J	<1.0	

Well ID	MW-26-D1		
Sample Date	9/13/2019	12/6/2019	
Benzene	9.3	6.2	
Ethylbenzene	1.8	1.2	
Methyl-t-butyl ether	86	77	
trans-1,2-Dichloroethene	1.0	0.74 J	
Vinyl chloride (Chloroethene)	19	12	

Well ID	AMW-15-VD		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Methyl-t-butyl ether	1	1	1

Well ID	MW-26-D2		
Sample Date	5/9/2019	9/13/2019	12/6/2019
Benzene	0.79 J	0.46 J	<1.0
Ethylbenzene	0.44 J	<1.0	<1.0
Methyl-t-butyl ether	84	60	29
trans-1,2-Dichloroethene	0.90 J	0.56 J	<1.0
Trichloroethene (Trichloroethylene)	0.50 J	<1.0	<1.0
Vinyl chloride (Chloroethene)	1.5	<1.0	<1.0

Well ID	AMW-15-D3		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Methyl-t-butyl ether	16	14	7.7
Trichloroethene (Trichloroethylene)	0.39 J	0.54 J	<1.0

Well ID	AMW-14-D1		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Benzene	7	0.64 J	1.8
Ethylbenzene	5.9	0.43 J	1.5
Methyl-t-butyl ether	250	50	94
trans-1,2-Dichloroethene	11.0	3.5	9.0
Trichloroethene (Trichloroethylene)	<1.00	<1.00	0.44 J
Vinyl chloride (Chloroethene)	2.1	9	22
Xylene (total)	16	<2.0	1.8 J

Well ID	AMW-15-D2		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Methyl-t-butyl ether	61	100	96
Vinyl chloride (Chloroethene)	<1.0	0.39 J	<1.0

Well ID	MW-18R	
Sample Date	9/14/2019	12/5/2019
Benzene	85	74
Ethylbenzene	1.4	1.6
Methyl-t-butyl ether	40	14
Xylene (total)	7.1	5.2

Well ID	AMW_14-D2		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Methyl-t-butyl ether	33	37	29
trans-1,2-Dichloroethene	0.85 J	0.52 J	<1.00
Vinyl chloride (Chloroethene)	0.32 J	0.65 J	0.33 J

Well ID	AMW_14-VD		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Methyl-t-butyl ether	<1.00	0.54 J	<1.00

Well ID	AMW-15-D1		
Sample Date	5/9/2019	9/13/2019	12/5/2019
Benzene	6.3	6.2	6.6
Ethylbenzene	2.6	2.3	2.8
Methyl-t-butyl ether	120	100	120
trans-1,2-Dichloroethene	7.4	6.7	7.1
Vinyl chloride (Chloroethene)	1.1	2	2.2
Xylene (total)	6.3	5.1	5.8

Well ID	MW-28-D1		
Sample Date	5/9/2019	9/13/2019	12/5/2019
Benzene	2.4	9	11
Ethylbenzene	0.49 J	1.7	1.1
Methyl-t-butyl ether	7	22	21
trans-1,2-Dichloroethene	<1.0	<1.0	0.25 J
Vinyl chloride (Chloroethene)	<1.0	1	0.68 J
Xylene (total)	0.47 J	2.2	1.9 J

Well ID	AMW-27-D1R		
Sample Date	5/10/2019	9/14/2019	12/5/2019
Benzene	2.4	4.8	6.4
Ethylbenzene	<1.0	0.40 J	0.48 J
Methyl-t-butyl ether	18	33	39
trans-1,2-Dichloroethene	0.96 J	2.3	3.6
Trichloroethene (Trichloroethylene)	<1.0	<1.0	0.37 J
Vinyl chloride (Chloroethene)	17	25	61
Xylene (total)	<2.0	1.2 J	1.6 J

Well ID	MW-28-D2R		
Sample Date	5/9/2019	9/13/2019	12/6/2019
Benzene	0.50 J	<1.0	<1.0

Well ID	MW-27-D2		
Sample Date	5/10/2019	9/14/2019	12/5/2019
Methyl-t-butyl ether	7.9	9	4.9

Well ID	MW-29-D1		
Sample Date	5/10/2019	9/14/2019	12/6/2019
Benzene	9.8	0.67 J	<1.0
Ethylbenzene	0.34 J	<1.0	<1.0
Methyl-t-butyl ether	51	18	12
Xylene (total)	3.3	<2.0	<2.0

Well ID	AMW-7R		
Sample Date	5/10/2019	9/14/2019	12/6/2019
Benzene	0.69 J	0.39 J	0.89 J
Ethylbenzene	0.39 J	<1.0	0.49 J
Xylene (total)	1.3 J	<2.0	0.73 J

LEGEND:

- SHALLOW FILL UNIT MONITORING WELLS
- D1 HORIZON MONITORING WELLS
- D2 HORIZON MONITORING WELLS
- D3 HORIZON MONITORING WELLS
- VD HORIZON MONITORING WELLS

Parameter Name	NYDEC TOGS 1.1.1
Benzene	1 ug/L
Ethylbenzene	5 ug/L
Methyl-t-butyl ether	10 ug/L
trans-1,2-Dichloroethene	5 ug/L
Vinyl chloride (Chloroethene)	2 ug/L
Xylene (total)	5 ug/L

0 70 140 Feet

GRAPHIC SCALE

NOTES:

2017 IMAGERY OBTAINED FROM GOOGLE EARTH.
CONCENTRATIONS ARE IN MICROGRAMS PER LITER (UG/L)
ID = IDENTIFICATION
NYSDEC = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
TOGS = NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES OF JUNE 1998
BOLDED VALUES = COMPOUND DETECTED
GREY SHADED CELLS = CONCENTRATION ABOVE THE TOGS
J = ANALYTE DETECTED AT A LEVEL LESS THAN THE REPORTING LIMIT (RL) AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL). CONCENTRATIONS WITHIN THIS RANGE ARE ESTIMATED.
[ ] = DUPLICATE ANALYSIS RESULTS
< = LESS THAN INDICATED REPORTING LIMIT
B = THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK
C3 = THE REPORTED CONCENTRATION IS AN ESTIMATE. THE CONTINUING CALLIBRATION STANDARD ASSOCIATED WITH THIS DATA RESPONDED LOW. METHOD SENSTIVITY CHECK IS ACCEPTABLE

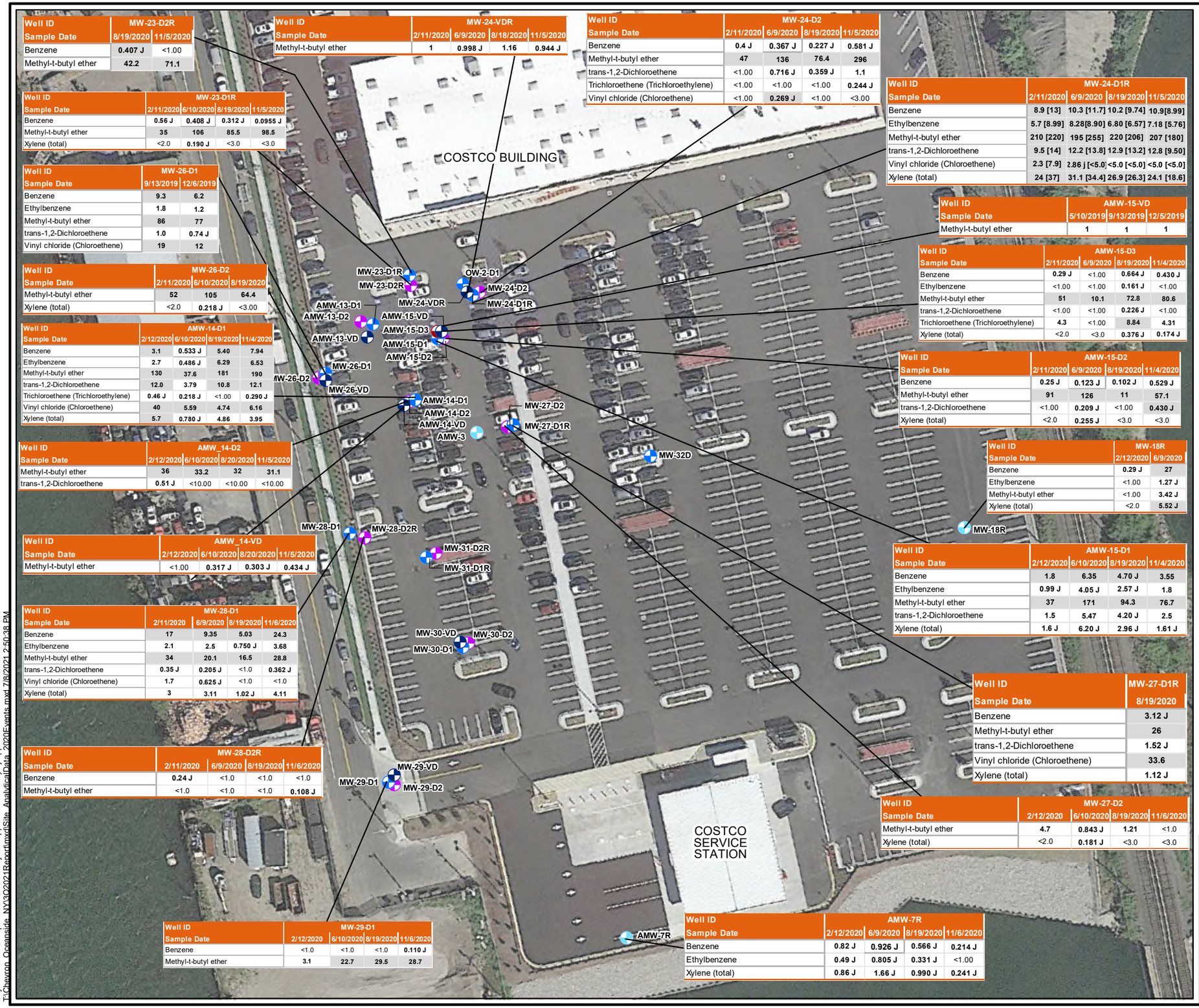
CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY
SITE MANAGEMENT PLAN

GROUNDWATER ANALYTICAL MAP 2019

ARCADIS

FIGURE 7A

City: SYR Div/Group: IMDV Created By: J.Rapp Last Saved By: jrapp
T:\Chevron_Oceanside_NY\2021Report\mxd\Site_Analytical\Data_2019Events.mxd 7/8/2021 2:25:35 PM



Well ID	MW-23-D2R	
Sample Date	8/19/2020	11/5/2020
Benzene	0.407 J	<1.00
Methyl-t-butyl ether	42.2	71.1

Well ID	MW-24-VDR			
Sample Date	2/11/2020	6/9/2020	8/18/2020	11/5/2020
Methyl-t-butyl ether	1	0.998 J	1.16	0.944 J

Well ID	MW-24-D2			
Sample Date	2/11/2020	6/9/2020	8/19/2020	11/5/2020
Benzene	0.4 J	0.367 J	0.227 J	0.581 J
Methyl-t-butyl ether	47	136	76.4	296
trans-1,2-Dichloroethene	<1.00	0.716 J	0.359 J	1.1
Trichloroethene (Trichloroethylene)	<1.00	<1.00	<1.00	0.244 J
Vinyl chloride (Chloroethene)	<1.00	0.269 J	<1.00	<3.00

Well ID	MW-24-D1R			
Sample Date	2/11/2020	6/9/2020	8/19/2020	11/5/2020
Benzene	8.9 [13]	10.3 [11.7]	10.2 [9.74]	10.9[8.99]
Ethylbenzene	5.7 [8.99]	8.28[8.90]	6.80 [6.57]	7.18 [5.76]
Methyl-t-butyl ether	210 [220]	195 [255]	220 [206]	207 [180]
trans-1,2-Dichloroethene	9.5 [14]	12.2 [13.8]	12.9 [13.2]	12.8 [9.50]
Vinyl chloride (Chloroethene)	2.3 [7.9]	2.86 j [<5.0]	<5.0 [<5.0]	<5.0 [<5.0]
Xylene (total)	24 [37]	31.1 [34.4]	26.9 [26.3]	24.1 [18.6]

Well ID	MW-23-D1R			
Sample Date	2/11/2020	6/10/2020	8/19/2020	11/5/2020
Benzene	0.56 J	0.408 J	0.312 J	0.0955 J
Methyl-t-butyl ether	35	106	85.5	98.5
Xylene (total)	<2.0	0.190 J	<3.0	<3.0

Well ID	MW-26-D1	
Sample Date	9/13/2019	12/6/2019
Benzene	9.3	6.2
Ethylbenzene	1.8	1.2
Methyl-t-butyl ether	86	77
trans-1,2-Dichloroethene	1.0	0.74 J
Vinyl chloride (Chloroethene)	19	12

Well ID	MW-26-D2		
Sample Date	2/11/2020	6/10/2020	8/19/2020
Methyl-t-butyl ether	52	105	64.4
Xylene (total)	<2.0	0.218 J	<3.00

Well ID	AMW-15-VD		
Sample Date	5/10/2019	9/13/2019	12/5/2019
Methyl-t-butyl ether	1	1	1

Well ID	AMW-15-D3			
Sample Date	2/11/2020	6/9/2020	8/19/2020	11/4/2020
Benzene	0.29 J	<1.00	0.664 J	0.430 J
Ethylbenzene	<1.00	<1.00	0.161 J	<1.00
Methyl-t-butyl ether	51	10.1	72.8	80.6
trans-1,2-Dichloroethene	<1.00	<1.00	0.226 J	<1.00
Trichloroethene (Trichloroethylene)	4.3	<1.00	8.84	4.31
Xylene (total)	<2.0	<3.0	0.376 J	0.174 J

Well ID	AMW-14-D1			
Sample Date	2/12/2020	6/10/2020	8/19/2020	11/4/2020
Benzene	3.1	0.533 J	5.40	7.94
Ethylbenzene	2.7	0.486 J	6.29	6.53
Methyl-t-butyl ether	130	37.6	181	190
trans-1,2-Dichloroethene	12.0	3.79	10.8	12.1
Trichloroethene (Trichloroethylene)	0.46 J	0.218 J	<1.00	0.290 J
Vinyl chloride (Chloroethene)	40	5.59	4.74	6.16
Xylene (total)	5.7	0.780 J	4.86	3.95

Well ID	AMW-15-D2			
Sample Date	2/11/2020	6/9/2020	8/19/2020	11/4/2020
Benzene	0.25 J	0.123 J	0.102 J	0.529 J
Methyl-t-butyl ether	91	126	11	57.1
trans-1,2-Dichloroethene	<1.00	0.209 J	<1.00	0.430 J
Xylene (total)	<2.0	0.255 J	<3.0	<3.0

Well ID	MW-18R	
Sample Date	2/12/2020	6/9/2020
Benzene	0.29 J	27
Ethylbenzene	<1.00	1.27 J
Methyl-t-butyl ether	<1.00	3.42 J
Xylene (total)	<2.0	5.52 J

Well ID	AMW_14-D2			
Sample Date	2/12/2020	6/10/2020	8/20/2020	11/5/2020
Methyl-t-butyl ether	36	33.2	32	31.1
trans-1,2-Dichloroethene	0.51 J	<10.00	<10.00	<10.00

Well ID	AMW-15-D1			
Sample Date	2/12/2020	6/10/2020	8/19/2020	11/4/2020
Benzene	1.8	6.35	4.70 J	3.55
Ethylbenzene	0.99 J	4.05 J	2.57 J	1.8
Methyl-t-butyl ether	37	171	94.3	76.7
trans-1,2-Dichloroethene	1.5	5.47	4.20 J	2.5
Xylene (total)	1.6 J	6.20 J	2.96 J	1.61 J

Well ID	AMW_14-VD			
Sample Date	2/12/2020	6/10/2020	8/20/2020	11/5/2020
Methyl-t-butyl ether	<1.00	0.317 J	0.303 J	0.434 J

Well ID	MW-28-D1			
Sample Date	2/11/2020	6/9/2020	8/19/2020	11/6/2020
Benzene	17	9.35	5.03	24.3
Ethylbenzene	2.1	2.5	0.750 J	3.68
Methyl-t-butyl ether	34	20.1	16.5	28.8
trans-1,2-Dichloroethene	0.35 J	0.205 J	<1.0	0.362 J
Vinyl chloride (Chloroethene)	1.7	0.625 J	<1.0	<1.0
Xylene (total)	3	3.11	1.02 J	4.11

Well ID	MW-27-D1R
Sample Date	8/19/2020
Benzene	3.12 J
Methyl-t-butyl ether	26
trans-1,2-Dichloroethene	1.52 J
Vinyl chloride (Chloroethene)	33.6
Xylene (total)	1.12 J

Well ID	MW-28-D2R			
Sample Date	2/11/2020	6/9/2020	8/19/2020	11/6/2020
Benzene	0.24 J	<1.0	<1.0	<1.0
Methyl-t-butyl ether	<1.0	<1.0	<1.0	0.108 J

Well ID	MW-27-D2			
Sample Date	2/12/2020	6/10/2020	8/19/2020	11/6/2020
Methyl-t-butyl ether	4.7	0.843 J	1.21	<1.0
Xylene (total)	<2.0	0.181 J	<3.0	<3.0

Well ID	MW-29-D1			
Sample Date	2/12/2020	6/10/2020	8/19/2020	11/6/2020
Benzene	<1.0	<1.0	<1.0	0.110 J
Methyl-t-butyl ether	3.1	22.7	29.5	28.7

Well ID	AMW-7R			
Sample Date	2/12/2020	6/9/2020	8/19/2020	11/6/2020
Benzene	0.82 J	0.926 J	0.566 J	0.214 J
Ethylbenzene	0.49 J	0.805 J	0.331 J	<1.00
Xylene (total)	0.86 J	1.66 J	0.990 J	0.241 J

LEGEND:

- SHALLOW FILL UNIT MONITORING WELLS
- D1 HORIZON MONITORING WELLS
- D2 HORIZON MONITORING WELLS
- D3 HORIZON MONITORING WELLS
- VD HORIZON MONITORING WELLS

Parameter Name	NYDEC TOGS 1.1.1
Benzene	1 ug/L
Ethylbenzene	5 ug/L
Methyl-t-butyl ether	10 ug/L
trans-1,2-Dichloroethene	5 ug/L
Vinyl chloride (Chloroethene)	2 ug/L
Xylene (total)	5 ug/L

0 70 140 Feet

GRAPHIC SCALE

NOTES:

2017 IMAGERY OBTAINED FROM GOOGLE EARTH.
CONCENTRATIONS ARE IN MICROGRAMS PER LITER (UG/L)
ID = IDENTIFICATION
NYSDEC = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
TOGS = NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES OF JUNE 1998
BOLDED VALUES = COMPOUND DETECTED
GREY SHADED CELLS = CONCENTRATION ABOVE THE TOGS
J = ANALYTE DETECTED AT A LEVEL LESS THAN THE REPORTING LIMIT (RL) AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL). CONCENTRATIONS WITHIN THIS RANGE ARE ESTIMATED.
[ ] = DUPLICATE ANALYSIS RESULTS
< = LESS THAN INDICATED REPORTING LIMIT
B = THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK
C3 = THE REPORTED CONCENTRATION IS AN ESTIMATE. THE CONTINUING CALLIBRATION STANDARD ASSOCIATED WITH THIS DATA RESPONDED LOW. METHOD SENSTIVITY CHECK IS ACCEPTABLE

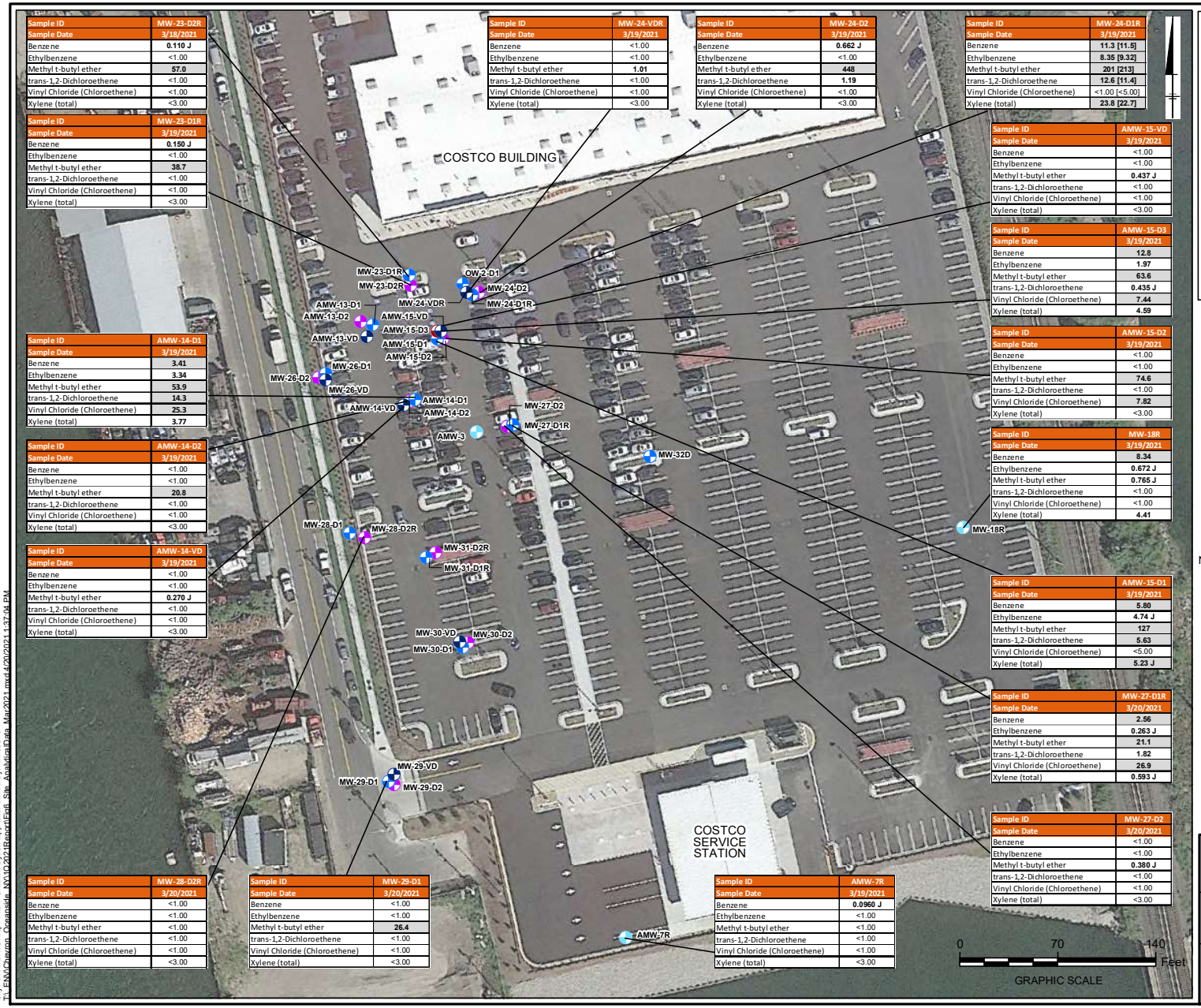
CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY
SITE MANAGEMENT PLAN

GROUNDWATER ANALYTICAL MAP 2020

ARCADIS

FIGURE 7B

City: SYR Div/Group: IMDV Created By: J.Rapp Last Saved By: jrapp
T:\Chevron_Oceanside_NY\3Q2021Report\mxd\Site_AnalyticalData_2020Events.mxd 7/8/2021 2:50:38 PM



Sample ID	MW-23-D2R
Sample Date	3/18/2021
Benzene	0.110 J
Ethylbenzene	<1.00
Methyl t-butyl ether	57.0
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	MW-23-D1R
Sample Date	3/19/2021
Benzene	0.150 J
Ethylbenzene	<1.00
Methyl t-butyl ether	38.7
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	AMW-14-D1
Sample Date	3/19/2021
Benzene	3.41
Ethylbenzene	3.34
Methyl t-butyl ether	53.9
trans-1,2-Dichloroethene	14.3
Vinyl Chloride (Chloroethene)	25.3
Xylene (total)	3.77

Sample ID	AMW-14-D2
Sample Date	3/19/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	20.8
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	AMW-14-VD
Sample Date	3/19/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	0.270 J
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	MW-28-D2R
Sample Date	3/20/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	<1.00
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	MW-29-D1
Sample Date	3/20/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	26.4
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	MW-24-VDR
Sample Date	3/19/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	1.01
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	MW-24-D2
Sample Date	3/19/2021
Benzene	0.662 J
Ethylbenzene	<1.00
Methyl t-butyl ether	448
trans-1,2-Dichloroethene	1.19
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	AMW-7R
Sample Date	3/19/2021
Benzene	0.0960 J
Ethylbenzene	<1.00
Methyl t-butyl ether	<1.00
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	MW-24-D1R
Sample Date	3/19/2021
Benzene	11.3 [11.5]
Ethylbenzene	8.35 [9.32]
Methyl t-butyl ether	201 [213]
trans-1,2-Dichloroethene	12.6 [11.4]
Vinyl Chloride (Chloroethene)	<1.00 [<5.00]
Xylene (total)	23.8 [22.7]

Sample ID	AMW-15-VD
Sample Date	3/19/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	0.437 J
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00

Sample ID	AMW-15-D3
Sample Date	3/19/2021
Benzene	12.8
Ethylbenzene	1.97
Methyl t-butyl ether	63.6
trans-1,2-Dichloroethene	0.435 J
Vinyl Chloride (Chloroethene)	7.44
Xylene (total)	4.59

Sample ID	AMW-15-D2
Sample Date	3/19/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	74.6
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	7.82
Xylene (total)	<3.00

Sample ID	MW-18R
Sample Date	3/19/2021
Benzene	8.34
Ethylbenzene	0.672 J
Methyl t-butyl ether	0.765 J
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	4.41

Sample ID	AMW-15-D1
Sample Date	3/19/2021
Benzene	5.80
Ethylbenzene	4.74 J
Methyl t-butyl ether	127
trans-1,2-Dichloroethene	5.63
Vinyl Chloride (Chloroethene)	<5.00
Xylene (total)	5.23 J

Sample ID	MW-27-D1R
Sample Date	3/20/2021
Benzene	2.56
Ethylbenzene	0.263 J
Methyl t-butyl ether	21.1
trans-1,2-Dichloroethene	1.82
Vinyl Chloride (Chloroethene)	26.9
Xylene (total)	0.593 J

Sample ID	MW-27-D2
Sample Date	3/20/2021
Benzene	<1.00
Ethylbenzene	<1.00
Methyl t-butyl ether	0.380 J
trans-1,2-Dichloroethene	<1.00
Vinyl Chloride (Chloroethene)	<1.00
Xylene (total)	<3.00



SITE LOCATION

LEGEND:

- SHALLOW FILL UNIT MONITORING WELLS
- D1 HORIZON MONITORING WELLS
- D2 HORIZON MONITORING WELLS
- D3 HORIZON MONITORING WELLS
- VD HORIZON MONITORING WELLS

Parameter Name	NYDEC TOGS 1.1.1
Benzene	1 ug/L
Ethylbenzene	5 ug/L
Methyl-t-butyl ether	10 ug/L
trans-1,2-Dichloroethene	5 ug/L
Vinyl chloride (Chloroethene)	2 ug/L
Xylene (total)	5 ug/L

NOTES:
2017 IMAGERY OBTAINED FROM GOOGLE EARTH.
CONCENTRATIONS ARE IN MICROGRAMS PER LITER (UG/L)
ID = IDENTIFICATION
NYSDEC = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
TOGS = NYSDEC TECHNICAL AND OPERATIONAL GUIDANCE SERIES AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES OF JUNE 1998
BOLDED VALUES = COMPOUND DETECTED
GREY SHADED CELLS = CONCENTRATION ABOVE THE TOGS
J = ANALYTE DETECTED AT A LEVEL LESS THAN THE REPORTING LIMIT (RL) AND GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT (MDL). CONCENTRATIONS WITHIN THIS RANGE ARE ESTIMATED.
[ ] = DUPLICATE ANALYSIS RESULTS
< = LESS THAN INDICATED REPORTING LIMIT

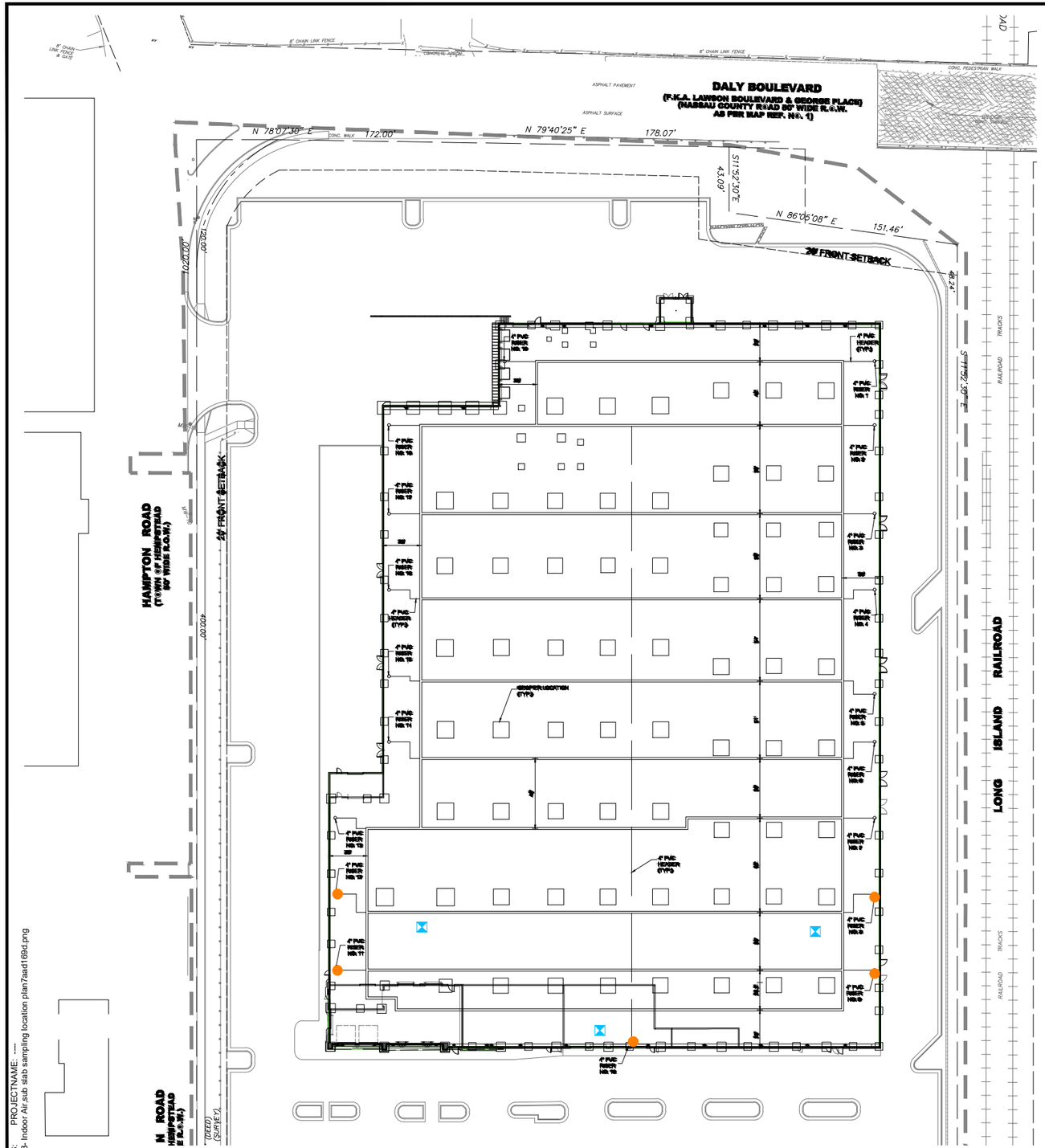
CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY
SITE MANAGEMENT PLAN

GROUNDWATER ANALYTICAL MAP 2021

ARCADIS

FIGURE 7C

City: SYR DivGroup: IMDV Created By: J.Rapp Last Saved By: avl00976
T:\Projects\Chevron Oceanside, NY\GIS\2021\Groundwater Site Analytical Maps\Mar2021 mxd 4/20/2021 1:37:04 PM



LEGEND

- 6" PVC RISER LOCATIONS
- CETCO GEOVENT LOCATIONS
- SOLID 4" PVC PIPE LOCATIONS
- SUB-SLAB SAMPLING LOCATION
- INDOOR AIR SAMPLING LOCATION

NOTES:

1. UTILIZE ONLY MANUFACTURER SPECIFIED PRODUCTS AND PARTS INDICATED OR BETTER THAN APPROVED EQUAL.
2. ULTIMATE OPERATION AND MAINTENANCE IS THE OWNER'S RESPONSIBILITY UNDER THE DIRECTION AND GUIDELINES OF THE ENGINEER
3. ALL PIPING-SUBGRADE SOILS SHALL BE A STRUCTURAL FILL WITH 95% RELATIVE COMPACTION AND FREE OF STANDING WATER.
4. ALL LATERAL PIPING IS TO BE INSTALLED LEVEL AND WITH NO SAGGING.
5. REFER TO THE PROJECT SPECIFICATIONS FOR ALL SYSTEM SPECIFICATIONS AND REQUIREMENTS DURING CONSTRUCTION.
6. REFER TO PROJECT SPECIFICATIONS FOR ALL STORAGE HANDLING, COLOR, SIZE, TYPE, JOINING AND CONSTRUCTION REQUIREMENTS OF ALL INDICATED PIPING.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXPOSED CABLES, CONDUITS, PIPING AND THE LIKE UNDERGROUND UTILITIES AND STRUCTURES WHICH MAY BE ENCOUNTERED EITHER ABOVE OR UNDERGROUND. ALL NECESSARY PRECAUTIONS MUST BE TAKEN BY THE CONTRACTOR TO PREVENT DAMAGE TO THEIR EXISTING/PROPOSED IMPROVEMENTS. IN THE EVENT THAT SUCH DAMAGE SHOULD OCCUR FROM THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL REPAIR, REPLACE OR BRING THE ORIGINAL CONDITION TO THE DAMAGED UTILITIES OR IMPROVEMENTS AT THE CONTRACTOR'S EXPENSE.
8. ALL PIPE LENGTHS INDICATED ON THIS PLAN ARE APPROXIMATE AND WILL VARY DURING CONSTRUCTION. HENCE, THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND VERIFYING ACTUAL LENGTHS AND SHALL NOT BID BASED ON THE VALUES PROVIDED ON THIS PLAN.
9. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP.
10. ALL PVC PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE MANUFACTURER'S NAME OR TRADE MARK, SIZE SCHEDULE, TYPE, WORKING PRESSURE AT 73 DEGREES F., SDR NUMBER, PRODUCTS STANDARD NUMBER AND NATIONAL SANITATION FOUNDATION (NSF) APPROVAL.
11. ALL PVC PIPES SHALL BE SOLVENT WELDED. SOLVENT WELDED PIPE FITTINGS SHALL BE MOLDED FITTINGS, SCHEDULE 40, MANUFACTURED OF THE SAME MATERIAL AS THE PIPE, AND SHALL BE SUITABLE FOR SOLVENT WELD SLIP JOINT RING, TIGHT SEAL OR THREADED CONNECTION.
12. CEMENT SHALL BE CLEAR PLASTIC, NON-CRACKING PIPE CEMENT FOR USE ON ALL SIZES AND SCHEDULES OF PVC PIPE AND FITTINGS. CEMENT MUST BE NSF APPROVED AND MEET AST, D2564 SPECIFICATIONS. NO BLUE GLUE IS TO BE USED FOR ANY REASON.
13. CLEANER/PRIMER MUST BE ANY COLOR OTHER THAN CLEAR.
14. REFER TO ORIGINAL PROJECT SPECIFICATIONS AS WELL AS SPECIFICATIONS, DETAILS AND INSTALLATION GUIDE PROVIDED BY LIQUID BOOT AS REFERENCE.
15. THE CONTRACTOR IS TO INSTALL THE INDICATED LATERALS AS SHOWN, ANY RELOCATION OF PROPOSED LATERALS, HEADERS OR RISERS IS TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
16. ALL VERTICAL RISERS WILL BE LABELED "GAS COLLECTION SYSTEM DO NOT ALTER". CAST IRON PIPING MAY BE REQUIRED FOR VERTICAL RISERS PER FIRE CODE. (TO BE DETERMINED BY ARCHITECT)
17. LIQUID BOOT VAPOR BARRIER SYSTEM WILL BE INSTALLED UNDER THE COMPLETE BUILDING SLAB AND ALONG EXTERIOR WALLS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
18. ANCHORS AND/OR ANY OTHER PENETRATIONS THROUGH LIQUID BOOT MUST BE RESEALED AS PER LIQUID BOOT SPECIFICATIONS.
19. SEALING AROUND PENETRATIONS PER LIQUID BOOT BROWNFIELD / MEMBRANE LINER SPECIFICATIONS:
    - A. CLEAN ALL PENETRATIONS. ALL METAL PENETRATIONS SHALL BE SANDED CLEAN WITH EMERY CLOTH.
    - B. FOR APPLICATIONS REQUIRING LIQUID BOOT R BASEFABRIC GEOTEXTILE, ROLL OUT GEOTEXTILE ON SUB-GRADE WITH THE HEAT-ROLLED SIDE FACING UP, OVERLAPPING SEAMS A MINIMUM OF SIX INCHES (6"). CUT THE GEOTEXTILE AROUND PENETRATIONS SO THAT IT LAYS FLAT ON THE SUB-GRADE. LAY GEOTEXTILE TIGHT AT ALL INSIDE CORNERS. APPLY A THIN (10 MIL) TACK COAT OF LIQUID BOOT R "A" SIDE WITHOUT CATALYST WITHIN THE SEAM OVERLAP.
    - C. AT THE BASE OF PENETRATION INSTALL A MINIMUM 3/4 INCH THICK MEMBRANE CANT OF LIQUID BOOT R , OR OTHER SUITABLE MATERIAL AS APPROVED BY THE MANUFACTURER. EXTEND THE MEMBRANE AT A 60 MIL THICKNESS THREE INCHES (3") AROUND THE BASE OF PENETRATION AND UP THE PENETRATION A MINIMUM OF THREE INCHES (3"). **ALLOW TO CURE OVERNIGHT BEFORE THE APPLICATION OF LIQUID BOOT R MEMBRANE. (SEE ATTACHED MANUFACTURER'S STANDARD DETAIL.)**
    - D. SPRAY APPLY LIQUID BOOT R TO A 60 MILS MINIMUM DRY THICKNESS AROUND THE PENETRATION, COMPLETELY ENCAPSULATING THE COLLAR ASSEMBLY AND TO A HEIGHT OF ONE AND ONE HALF INCHES (1 1/2") MINIMUM ABOVE THE MEMBRANE IN THE LIQUID BOOT BROWNFIELD / MEMBRANE LINER SPECIFICATIONS. SPRAY LIQUID BOOT R TO SURROUNDING AREAS AS SPECIFIED FOR THE PARTICULAR APPLICATION. (SEE MANUFACTURER'S STANDARD DETAIL)
    - E. ALLOW LIQUID BOOT R TO CURE COMPLETELY BEFORE PROCEEDING TO STEP "F".
    - F. WRAP PENETRATION WITH POLYPROPYLENE CABLE TIE AT A POINT TWO INCHES (2") ABOVE THE BASE OF PENETRATION. TIGHTEN THE CABLE TIE FIRMLY SO AS TO SQUEEZE, BUT NOT CUT, THE CURED MEMBRANE COLLAR.

PASSIVE/ACTIVE SUB-SLAB DEPRESSURIZATION SYSTEM NOTES:

1. IF A FAN IS REQUIRED TO CHANGE THE SYSTEM FROM PASSIVE TO ACTIVE, A CERTIFIED RADON MITIGATOR MUST INSTALL THE FAN.
2. THE CONSTRUCTION TECHNIQUES UTILIZED IN THE CONSTRUCTION ARE IN COMPLIANCE WITH THE MINIMAL SYSTEM-SPECIFIC RECOMMENDATIONS REQUIRED BY THE "FINAL NYSDOH CEH BEEI SOIL VAPOR INTRUSION GUIDANCE", DATED OCTOBER 2006.
3. ALL PENETRATIONS OF CONDITIONED ENVELOPE SHALL BE SEALED TO PREVENT AIR PASSAGE.
4. VAPOR MITIGATION SYSTEM VENT PIPES SHALL BE IDENTIFIED AND CLEARLY LABELED AT INTERVALS OF NOT MORE THAN 25' IN CONCEALED LOCATIONS, NOT MORE THAN 50' IN EXPOSED LOCATIONS, AND NOT LESS THAN ONCE IN ANY ROOM OR SPACE.
5. ELECTRICAL JUNCTION SHALL BE INSTALLED NEAR WHERE FUTURE INLINE VENT PIPE FAN AND SYSTEM FAILURE ALARMS MAY BE INSTALLED.
6. TO AVOID ENTRY OF EXTRACTED SUBSURFACE VAPORS INTO THE BUILDING, THE VENT PIPE'S EXHAUST SHOULD BE
    - i. ABOVE THE EAVE OF THE ROOF (PREFERABLY, ABOVE THE HIGHEST EAVE OF THE BUILDING AT LEAST12 INCHES ABOVE THE SURFACE OF THE ROOF),
    - ii. AT LEAST 10 FEET ABOVE GROUND LEVEL.
    - iii. AT LEAST 10 FEET AWAY FROM ANY OPENING THAT IS LESS THAN 2 FEET BELOW THE EXHAUST POINT.
    - iv. 10 FEET FROM ANY ADJOINING OR ADJACENT BUILDINGS, OR HVAC INTAKES OR SUPPLY REGISTERS.
7. MONITORING PORTS TO BE INSTALLED AT ALL RISER LOCATIONS PER RISER DETAILS.

0 40' 80'
GRAPHIC SCALE

SOURCE:

BASEMAP FROM PDF FILE CREATED BY MASER CONSULTING P.A.
DRAWING NAME: SUBSLAB VAPOR MITIGATION SYSTEM FOR COSTCO WHOLESALE, OCEANSIDE, NEW YORK,
SHEET NUMBER: VBD-1, LAST REVISED: 5/22/15

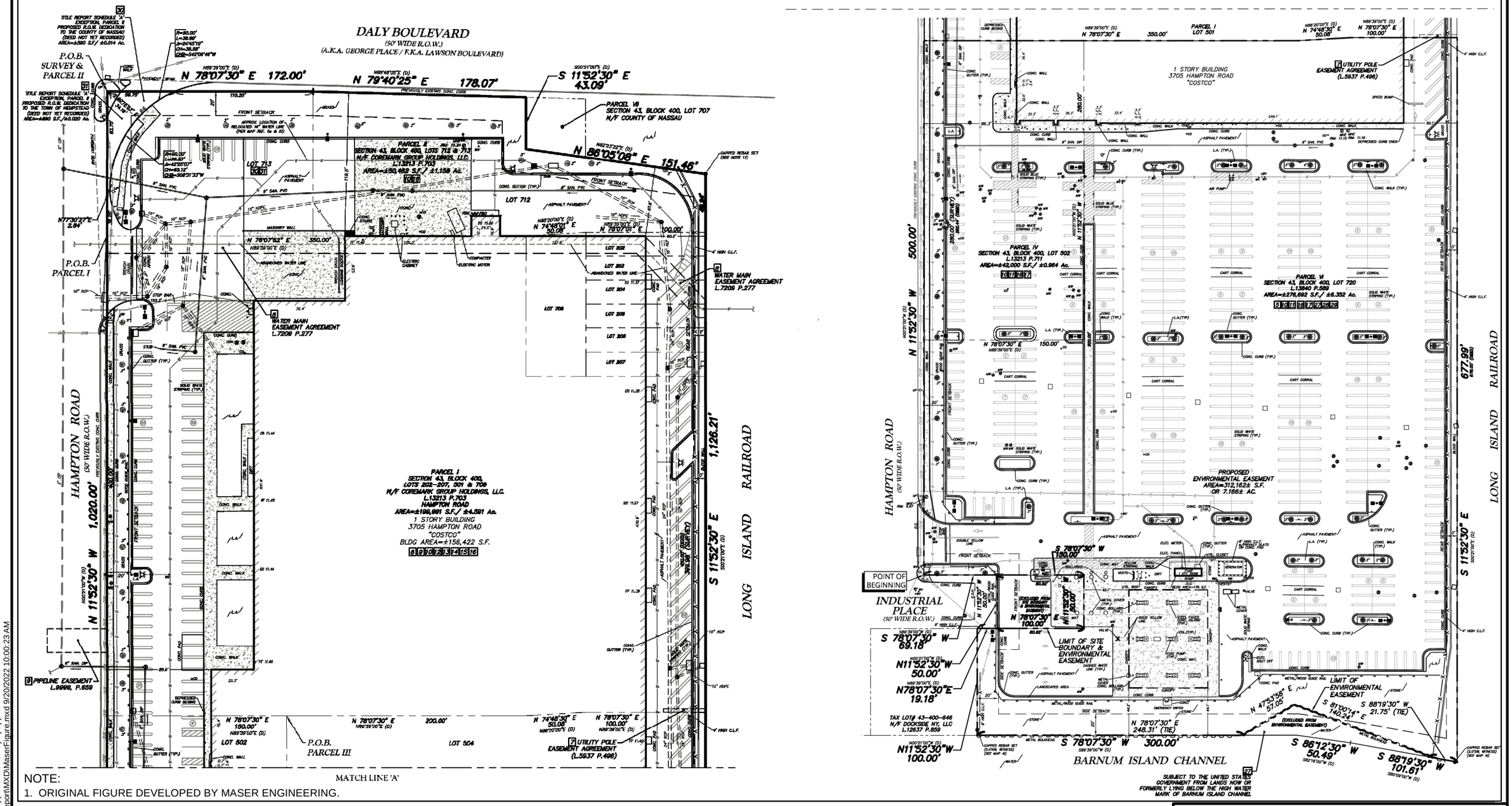
CHEVRON CORPORATIONOCEA
NSIDE, NEW YORK
SITE MANAGEMENT PLAN

SUB-SLAB AND INDOOR AIR SAMPLE LOCATION MAP

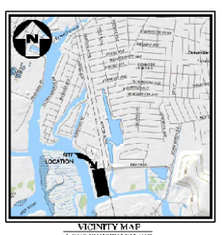
ARCADIS

FIGURE
8

C:\Users\tfatto\ACCDocs\Arcadis\ANA - CHEVRON CORPORATION\Project Files\Oceanside NY\01-DWG\GEN-IA SS SAMPLING.dwg LAYOUT: 8 SAVED: 6/29/2021 9:52 AM ACADVER: 23.1S (LMS TECH) PAGESETUP: C-LD2B-PDF-GMS PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 6/29/2021 9:55 AM
BY: FATTO, TRACEY
XREFS: IMAGES: PROJECTNAME: ---
Figure 8- Indoor Air sub slab sampling location plan7aad169d.png



NOTE:
1. ORIGINAL FIGURE DEVELOPED BY MASER ENGINEERING.



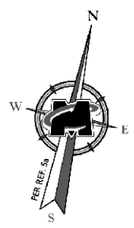
LEGEND

TRAVERSE LINE, CENTER LINE OR BASELINE	TELEPHONE MANHOLE	U/G ELECTRIC LINE	TRAFFIC SIGNAL POLE
RIGHT OF WAY LINE	UNMARKED MANHOLE	OVERHEAD WIRE	POLE MOUNTED LIGHT
PROPERTY LINE	SANITARY MANHOLE	WATER MAIN	UTILITY POLE
EDGE OF PAVEMENT	DRAINAGE MANHOLE	GAS MAIN	GUY WIRE
CURB LINE	MAJOR CONTOUR	SAN. SEWER LATERAL	TRANSFORMER
DEPRESSED CURB	MINOR CONTOUR	SAN. SEWER MAIN	FIRE DEPT. CONNECTION
CHAIN FENCE	SPOT ELEVATION	STORM PIPE	FIRE HYDRANT
WETLAND LINE	TOP OF CURB ELEV.	WETLAND MARKER	WATER VALVE
MUNICIPAL BOUNDARY	BOTTOM OF CURB ELEV.	TREE	GAS VALVE
TREELINE	U/G CABLE TV LINE	ROADWAY SIGNS	SANITARY CLEANOUT
ELECTRICAL MANHOLE	U/G FIBER OPTIC LINE	TRAFFIC FLOW	CONCRETE MONUMENT
WATER MANHOLE	U/G TELEPHONE LINE	MONITORING WELL	CAPPED REBAR/IRON PIPE

STORM INLET TYPE 'A'			
STORM INLET TYPE 'B'			
STM. DBL. INLET TYPE 'B'			
STORM INLET TYPE 'E'			
STM. DBL. INLET TYPE 'E'			
FLARED END SECTION			
HEADWALL			

ABBREVIATIONS

D.C. = DEPRESSED CURB	BOL = BOLLARD	FF = FINISH FLOOR	DEP. = DEPRESSED	MHWL = MEAN HIGH WATERLINE	BW = BOTTOM WALL	CONC. = CONCRETE	(12) PARKING SPACE COUNT
BC = BOTTOM OF CURB	GRT. = GRATE	UV = UNKNOWN VALVE	CL = CENTERLINE	MLWL = MEAN LOW WATERLINE	INV. = INVERT ELEV.		(9) SCHEDULE 'B' EXCEPTION
TC = TOP OF CURB	MB = MAILBOX	MH = MANHOLE	PM = PARKING METER	TW = TOP OF WALL	DS = DOOR SILL ELEV.		



CHEVRON FACILITY 6518040
3705 HAMPTON RD
OCEANSIDE, NY
SITE MANAGEMENT PLAN

SITE SURVEY AND DRAINAGE FEATURES

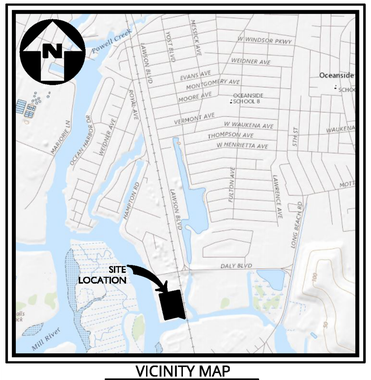
ARCADIS

FIGURE 9

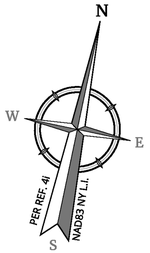
City: SYR Div/Group: IMDV Created By: J.Rapp Last Saved By: jrapp
T:_ENV\Chevron_Oceanside_NY\3Q2022Report\MXD\MaserFigure.mxd 9/20/2022 10:00:23 AM

APPENDICES

APPENDIX A
SITE BOUNDARY SURVEY AND METES AND BOUNDS



VICINITY MAP
U.S.G.S. QUANDRANGLE MAP
LAWRENCE, NY - PANEL
SCALE: N.T.S.



INFORMATION OF FACT

1. THIS SURVEY AND PLAN IS BASED UPON THE FOLLOWING DATA AND/OR EXCEPTIONS:

	YES	NO	ITEM
a.) OWNER	X		KLEIN COSTCO, LLC; LANDMARK OCEANSIDE, LLC; GATE OCEANSIDE, LLC; 2066 EAST-WEST, LLC; 330 OCEANSIDE, LLC; DA OCEANSIDE, LLC;
b.) DEED OF RECORD	X		DB 13883, PG 743, recorded 12/5/2019 DB 13213, PG 711, recorded 5/28/2015 DB 13840, PG 589, recorded 7/19/2019
c.) FIELD SURVEY	X		JUNE SEPT. 2017, UPDATED APRIL 4, 2023
d.) FILED MAP	X		SEE REFERENCE NOTE 4g & 4h.
e.) TAX MAP	X		SHEET 1 OF 1, SECTION 43, BLOCK 400, LAST REVISED 10/6/2020
f.) TITLE REPORT	X		SEE NOTE #5
g.) OTHER (SEE REFERENCES)	X		SEE NOTE #4

CERTIFIED TO : ARCADIS

2. PROPERTY BEING KNOWN AND DESIGNATED AS TAX LOT 502 & A PORTION OF TAX LOT 720 IN BLOCK 400 IN SECTION 43 AS SHOWN ON SHEET No. 1 OF 1 OF THE CURRENT OFFICIAL LAND & TAX MAP OF NASSAU COUNTY DEPARTMENT OF ASSESSMENT, DATED OCTOBER 6, 2020. PROPERTY BEING LOCATED AT 3705 HAMPTON ROAD, TOWN OF HEMPSTEAD, NASSAU COUNTY, STATE OF NEW YORK.

AREAS:
PARCEL IV (TAX LOT 502) = 42,000 S.F., 0.964 AC.
PARCEL V (TAX LOT 720) = 276,692 S.F., 6.352 AC.
TOTAL AREA= 318,692 S.F., 7.316 AC.

3. THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THOSE FACTS OR FINDINGS WHICH ARE THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE, INFORMATION, AND BELIEF, AND IN ACCORDANCE WITH THE COMMONLY ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE EITHER EXPRESSED OR IMPLIED.

4. REFERENCES
a. A MAP ENTITLED: "EXISTING CONDITIONS SURVEY, HAMPTON ROAD & DALY BOULEVARD OCEANSIDE SITE, COSTCO WHOLESALE CORP. HEMPSTEAD TAX ID: 43-400-202 THRU 207 43-400-709 / 43-400-712 & 713 43-400-501 THRU 504 / 43-400-646, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING, P.A., DATED DEC. 19, 2014 AND REVISED THROUGH APRIL 15, 2015.
b. A MAP ENTITLED: "FINAL AS-BUILT HAMPTON ROAD & DALY BOULEVARD- OCEANSIDE SITE, COSTCO WHOLESALE CORP. HEMPSTEAD TAX ID: 43-400-202 THRU 207 43-400-709 / 43-400-712 & 713 43-400-501 THRU 504 / 43-400-646, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING, P.A., DATED AUGUST 4, 2017 AND REVISED THROUGH SEPT. 15, 2017.
c. A MAP ENTITLED, "R.O.W. DEDICATION EXHIBIT FOR COSTCO WHOLESALE CORP., HEMPSTEAD TAX ID: 43-400 713, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK" PREPARED BY MASER CONSULTING, P.A. DATED MARCH 25, 2015 & REVISED THROUGH JUNE 29, 2015.
d. A MAP ENTITLED, "PROPOSED PORTION OF INDUSTRIAL PLACE TO BE VACATED EXHIBIT, COSTCO WHOLESALE, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING, P.A., DATED MARCH 17, 2014.
e. A MAP ENTITLED, "UTILITY PLAN FOR COSTCO WHOLESALE, OCEANSIDE NEW YORK, TOWN OF HEMPSTEAD" PREPARED BY MASER CONSULTING, P.A. DATED MARCH 18, 2014.
f. A MAP ENTITLED, "COSTCO HAMPTON ROAD, OCEANSIDE NY, EXHIBIT A, PROPOSED 16" MAIN INSTALLATION" PREPARED BY NEW YORK AMERICAN WATER.
g. A MAP ENTITLED, "MAP SHOWING PROPERTY OF OCEANSIDE INVESTING AND INDUSTRIAL CORP., OCEANSIDE, NASSAU CO., N.Y." PREPARED BY LEROY A. BEACH, DATED FEBRUARY 4, 1929.
h. MAP No. 18 OF OCEANSIDE BEACH, OCEANSIDE, NASSAU, N.Y. CONTROLLING REALTY CORP., PREPARED BY LEROY A. BEACH, DATED OCTOBER 22, 1927 AND FILED IN THE NASSAU COUNTY CLERK'S OFFICE AS MAP No. 915.
i. A MAP ENTITLED, "ALTA/NSPS LAND TITLE SURVEY, SECTION 43, BLOCK 400, TAX LOTS 202-207, 501-504, 709, 712, 713 & 720, TOWN OF HEMPSTEAD, NASSAU COUNTY, NEW YORK", PREPARED BY MASER CONSULTING P.A., DATED OCTOBER 14, 2019 AND REVISED THROUGH OCTOBER 31, 2019.

5. SCHEDULE BII - EXCEPTIONS (PREVIOUSLY SHOWN ON MAP REF 4I AS PER TITLE COMMITMENT FILE NO. FN-13467-NY, EFFECTIVE JULY 22, 2019, AMEDED 8/7/19):

5 TERMS, COVENANTS, RESTRICTIONS AND RESERVATIONS OF UTILITY EASEMENTS RECITED IN DEEDS MADE BY OCEANSIDE INVESTING AND INDUSTRIAL CORP. TO MARIA C. BALDWIN, DATED 2/18/1930 RECORDED 2/27/1930 IN LIBER 1493 CP. 450. (AFFECTS P/O PARCEL V AND IS BLANKET IN NATURE, UNPLOTTABLE)

7 UTILITY POLE EASEMENT AGREEMENT MADE BETWEEN ESSO STANDARD OIL COMPANY AND LONG ISLAND LIGHTING COMPANY, DATED 8/8/1955 AND RECORDED ON 12/20/1955 IN LIBER 5937 CP. (AFFECTS P/O PARCEL I, SHOWN)

10 DECLARATION OF RESTRICTIVE COVENANTS BY COREMARK GROUP HOLDINGS, LLC AND COSTCO WHOLESALE CORPORATION, DATED 12/10/2014 AND RECORDED ON 2/4/2015 IN LIBER 13174 CP. 775. (REFERS TO A SPECIAL USE PERMIT AND ASSOCIATE RESTRICTIONS. (AFFECTS PARCELS I - V (LOTS 202 - 207, 709, 712, 713, 501 - 504) AND 646; HOWEVER, IT IS ONLY INDEXED AGAINST PARCEL III AND PARCEL V & IS BLANKET IN NATURE)

11 TERMS, COVENANTS, CONDITIONS AND RESTRICTIONS RECITED IN DEED FROM GULF OIL LIMITED PARTNERSHIP TO COREMARK GROUP HOLDINGS, LLC, DATED 5/11/2015 AND RECORDED ON 5/28/2015 IN LIBER 13213 PAGE 711. (AFFECTS PARCELS III, IV & V & IS BLANKET IN NATURE)

16 TERMS, COVENANTS, CONDITIONS AND AGREEMENTS CONTAINED IN A LEASE MADE BY AND BETWEEN COREMARK GROUP HOLDINGS, LLC, LESSOR, AND COSTCO WHOLESALE CORPORATION, LESSEE. A MEMORANDUM OF WHICH DATED AS OF 5/11/2015 WAS RECORDED ON 5/28/2015 IN (AS) LIBER 13213 PAGE 721. (AFFECTS PARCELS I, II, III, IV & V & IS BLANKET IN NATURE)

17 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NOTICE, DATED SEPTEMBER 9, 2008, AFFECTING LOTS 502 THROUGH 504 (PARCELS III, IV AND V), CONTROL NUMBER 1168. (AFFECTS PARCELS III, IV & V & IS BLANKET IN NATURE)

27 RIGHTS OF THE UNITED STATES GOVERNMENT TO ESTABLISH HARBOR, BULKHEAD OR PIERHEAD LINES OR TO CHANGE OR ALTER ANY SUCH EXISTING LINES AND TO REMOVE OR COMPEL THE REMOVAL OF FILL AND IMPROVEMENTS THEREON INCLUDING BUILDINGS OR OTHER STRUCTURES, FROM LAND NOW OR FORMERLY LYING BELOW THE HIGH WATER MARK OF BARNUM ISLAND CHANNEL WITHOUT COMPENSATION TO THE INSURED. (AFFECTS PARCEL VI (LOT 720).)

28 RIGHTS OF THE UNITED STATES GOVERNMENT, THE STATE OF NEW YORK AND TOWN OF HEMPSTEAD, OR ANY OF THEIR DEPARTMENTS OR AGENCIES TO REGULATE AND CONTROL THE USE OF THE PIERS, BULKHEADS, LAND UNDER WATER AND LAND ADJACENT THERETO. (AFFECTS PARCEL VI (LOT 720).)

29 RIPARIAN RIGHTS AND EASEMENTS OF OTHERS OVER THE WATER OF BARNUM ISLAND CHANNEL. HOWEVER, THE POLICY DOES NOT INSURE ANY RIPARIAN RIGHTS OR EASEMENTS IN FAVOR OF THE OWNER OF THE PREMISES HEREIN. (AFFECTS PARCEL VI (LOT 720).)

6. THE LOCATION OF SITE FEATURES & UTILITIES AS SHOWN HEREON ARE BASED ON MAP REFERENCE 4I. PER CONTRACTUAL AGREEMENT, NO ADDITIONAL FIELD INVESTIGATION WAS PERFORMED REGARDING UNDERGROUND UTILITIES AS PART OF THIS SURVEY.

7. THE HORIZONTAL POSITION OF THIS SURVEY IS BASED ON MAP REFERENCED IN NOTE 4I.

8. WETLANDS / TOXIC WASTE:
THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OR NONEXISTENCE OF WETLANDS AND/OR TOXIC WASTES. THEREFORE IT SHOULD NOT BE ASSUMED OR CONSTRUED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EVIDENCE OF WETLANDS OR TOXIC WASTES IS PORTRAYED HEREON. IT IS IN THE BEST INTEREST OF THE CLIENT TO PURSUE THESE MATTERS AS SEPARATE CONCERNS APART FROM THIS SURVEY.

9. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT, THEREFORE THIS SURVEY IS SUBJECT TO ANY RIGHTS, RESTRICTIONS, EASEMENTS OR COVENANTS WHICH A CURRENT OR ACCURATE TITLE REPORT WOULD DISCLOSE.

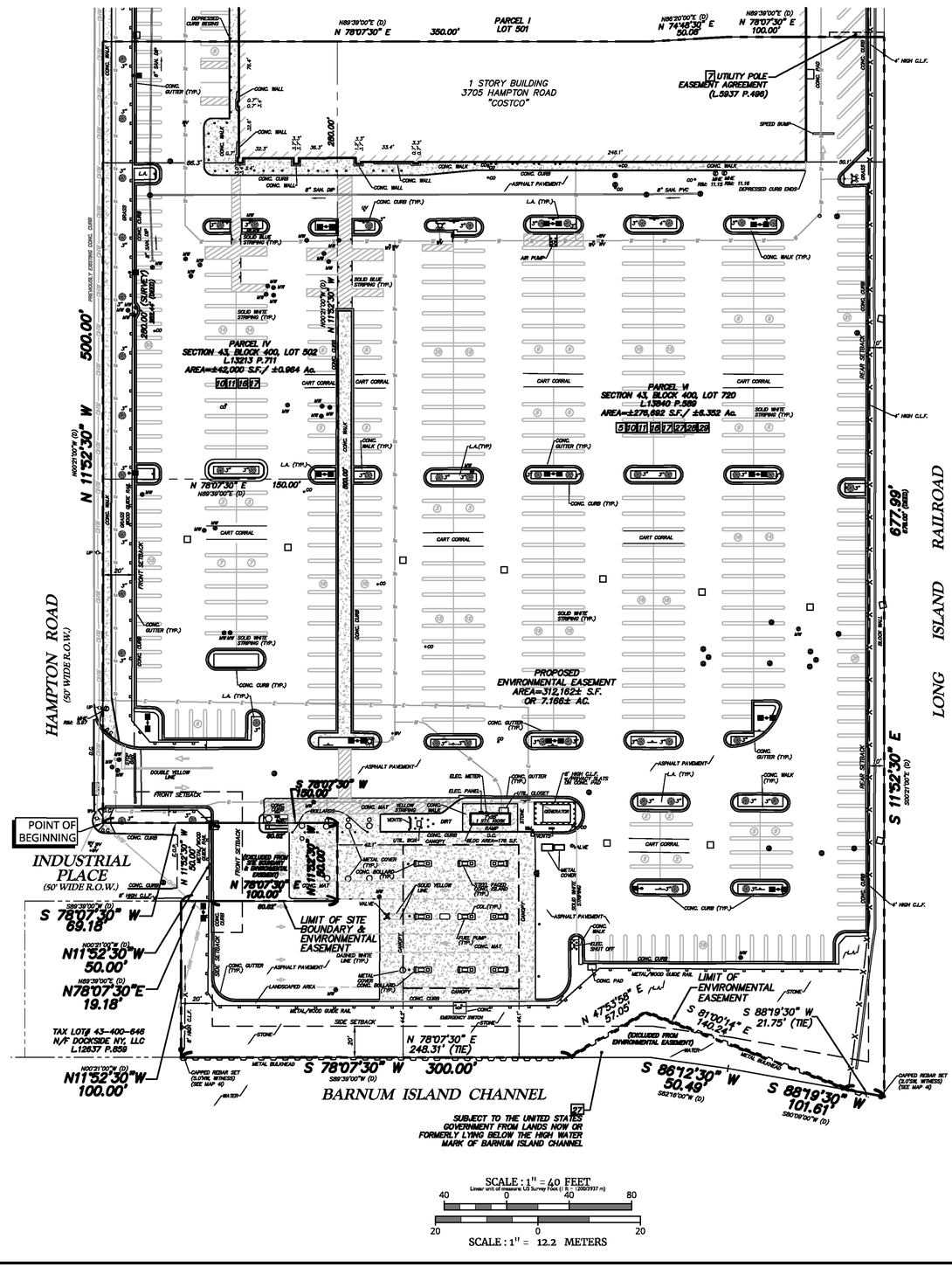
10. DO NOT USE DISTANCES TO FOUNDATION TO ESTABLISH PROPERTY LINES.

11. FLOOD ZONE:
THE SITE IS LOCATED WITHIN ZONES AE (ELEV 9) & AE (ELEV 10) - BASE FLOOD ELEVATIONS DETERMINED, AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR THE TOWN OF HEMPSTEAD, NASSAU COUNTY, NY, COMMUNITY PANEL NUMBER 36059C0307G, EFFECTIVE DATE SEPTEMBER 11, 2009, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
NOTE: PER LETTER OF MAP REVISION BASED ON FILE LOMR-FI DETERMINATION DOCUMENT, CASE NO. 17 02-2146A, DATED 11/08/17, IT WAS DETERMINED THAT THE FUEL KIOSK AT THE GAS STATION AREA HAS BEEN REMOVED FROM FLOOD ZONE AE, BFE = 9 FT., AND MOVE TO FLOOD ZONE X.
IN ADDITION, THE FINISH FLOOR FOR THE WAREHOUSE WAS OBSERVED AT ELEVATION ±11.5, WHICH IS FOUND TO BE ABOVE THE BFE OF 10'.

PARCEL ID NOTE:

PARCEL I = LOTS 202 207, 501 & 709
PARCEL II = LOTS 712& 713
PARCEL III = LOT 504
PARCEL IV = LOT 502
PARCEL V = LOT 503
PARCEL VI = VACATED PORTION OF INDUSTRIAL PLACE & LOT 720

PARCEL NUMBERS LISTED ABOVE ARE BASED ON "SOURCE OF TITLE" INFORMATION PER SCHEDULE A OF TITLE REPORT FN-13467-NY, EFFECTIVE DATE 7/22/2019.



SITE BOUNDARY DESCRIPTION:

ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN THE TOWN OF HEMPSTEAD, THE COUNTY OF NASSAU, AND THE STATE OF NEW YORK, AND BEING ALL OF LOT 502, BLOCK 400 AND A PORTION OF LOT 720, IN BLOCK 400, SECTION 43 AS SHOWN ON THE CURRENT OFFICIAL TAX MAP OF THE TOWN OF HEMPSTEAD, NASSAU COUNTY, LAST REVISED OCTOBER 6, 2020, AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT OF INTERSECTION FORMED BY THE NORTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.) WITH THE EASTERLY LINE OF HAMPTON ROAD (50' WIDE R.O.W.), AND FROM SAID POINT OF BEGINNING, RUNNING, THENCE -

1. N 11°52'30" W 500.00 FEET, ALONG THE EASTERLY LINE OF HAMPTON ROAD TO A POINT WHERE THE SAME IS INTERSECTED BY THE NORTHERLY LINE OF LOT 502, BLOCK 400; THENCE -

ALONG THE SAID NORTHERLY LINE OF LOTS 502 AND 720, BLOCK 400 THE FOLLOWING THREE (3) COURSES;

2. N 78°07'30" E 350.00 FEET, THENCE -
3. N 74°48'30" E 50.08 FEET, THENCE -
4. N 78°07'30" E 100.00 FEET, TO THE EASTERLY LINE OF SAID LOT 720, THENCE -
5. S 11°52'30" E 677.99 FEET, ALONG SAID EASTERLY LINE OF SAID LOT 720, TO THE SOUTHERLY LINE OF SAID LOT 720, THENCE -

RUNNING ALONG THE SOUTHERLY LINE OF SAID LOT 720 THE FOLLOWING THREE (3) COURSES:

6. S 88° 19' 30" W 101.61 FEET, THENCE -
7. S 86° 12' 30" W 50.49 FEET, THENCE -
8. S 78° 07' 30" W 300.00 FEET, TO A POINT ON THE LINE DIVIDING LOTS 646 AND 720, BLOCK 400, THENCE -
9. N 11°52'30" W 100.00 FEET, ALONG THE SAID DIVIDING LINE, TO A POINT ON THE SOUTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.), THENCE -
10. N 78° 07' 30" E, 100.00 FEET, ALONG THE SAID SOUTHERLY LINE OF INDUSTRIAL PLACE AND BEYOND, THROUGH A PORTION OF LOT 720, BLOCK 400, THENCE -
11. N 11° 52' 30" W, 50.00 FEET, TO THE NORTHEASTWARD EXTENSION OF THE NORTHERLY LINE OF SAID INDUSTRIAL PLACE, THENCE -
12. S 78° 07' 30" W, 150.00 FEET, ALONG THE SAID NORTHEASTWARD EXTENSION, AND BEYOND, ALONG THE SAID NORTHERLY LINE OF INDUSTRIAL PLACE TO THE POINT AND PLACE OF BEGINNING.

CONTAINING: ±314,651 SQUARE FEET OF LAND MORE OR LESS OR ±7.223 ACRES OF LAND MORE OR LESS.

ENVIRONMENTAL EASEMENT DESCRIPTION (CONTROLLED PROPERTY):

ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN THE TOWN OF HEMPSTEAD, THE COUNTY OF NASSAU, AND THE STATE OF NEW YORK, AND BEING AN ENVIRONMENTAL EASEMENT ENCOMPASSING ALL OF LOT 502, BLOCK 400 AND A PORTION OF LOT 720, IN BLOCK 400, SECTION 43 AS SHOWN ON THE CURRENT OFFICIAL TAX MAP OF THE TOWN OF HEMPSTEAD, NASSAU COUNTY, LAST REVISED OCTOBER 6, 2020, AND BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT OF INTERSECTION FORMED BY THE NORTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.) WITH THE EASTERLY LINE OF HAMPTON ROAD (50' WIDE R.O.W.), AND FROM SAID POINT OF BEGINNING, RUNNING, THENCE -

1. N 11°52'30" W 500.00 FEET, ALONG THE EASTERLY LINE OF HAMPTON ROAD TO A POINT WHERE THE SAME IS INTERSECTED BY THE NORTHERLY LINE OF LOT 502, BLOCK 400; THENCE -

ALONG THE SAID NORTHERLY LINE OF LOTS 502 AND 720, BLOCK 400 THE FOLLOWING THREE (3) COURSES;

2. N 78°07'30" E 350.00 FEET, THENCE -
3. N 74°48'30" E 50.08 FEET, THENCE -
4. N 78°07'30" E 100.00 FEET, TO THE EASTERLY LINE OF SAID LOT 720, THENCE -
5. S 11°52'30" E 677.99 FEET, ALONG SAID EASTERLY LINE OF SAID LOT 720, TO THE SOUTHERLY LINE OF SAID LOT 720, THENCE -
6. S 88° 19' 30" W 21.75 FEET, ALONG THE SOUTHERLY LINE OF SAID LOT 720, THENCE -

RUNNING THROUGH SAID LOT 720, AND ALONG A METAL BULKHEAD THE FOLLOWING TWO (2) COURSES:

7. S 81° 00' 14" E 140.24 FEET, THENCE -
8. N 47° 53' 58" E 57.05 FEET, TO THE AFORESAID SOUTHERLY LINE OF LOT 720, THENCE -
9. S 78° 07' 30" W 248.31 FEET, TO A POINT ON THE LINE DIVIDING LOTS 646 AND 720, BLOCK 400, THENCE -
10. N 11°52'30" W 100.00 FEET, ALONG THE SAID DIVIDING LINE, TO A POINT ON THE SOUTHERLY LINE OF INDUSTRIAL PLACE (50' WIDE R.O.W.), THENCE -
11. N 78° 07' 30" E, 100.00 FEET, ALONG THE SAID SOUTHERLY LINE OF INDUSTRIAL PLACE AND BEYOND, THROUGH A PORTION OF LOT 720, BLOCK 400, THENCE -
12. N 11° 52' 30" W, 50.00 FEET, TO THE NORTHEASTWARD EXTENSION OF THE NORTHERLY LINE OF SAID INDUSTRIAL PLACE, THENCE -
13. S 78° 07' 30" W, 150.00 FEET, ALONG THE SAID NORTHEASTWARD EXTENSION, AND BEYOND, ALONG THE SAID NORTHERLY LINE OF INDUSTRIAL PLACE TO THE POINT AND PLACE OF BEGINNING.

CONTAINING: ±312,162 SQUARE FEET OF LAND MORE OR LESS OR ±7.166 ACRES OF LAND MORE OR LESS.

LEGEND

- TRAVERSE LINE, CENTER LINE OR BASELINE (12+00 TL PI 13+00)
- RIGHT OF WAY LINE
- SITE BOUNDARY LINE
- ENVIRONMENTAL EASEMENT LINE
- SITE BOUNDARY LINE AND ENVIRONMENTAL EASEMENT LINE
- EDGE OF PAVEMENT
- CURB LINE (FACE / BACK)
- DEPRESSED CURB
- CHAIN FENCE
- WETLAND LINE
- MUNICIPAL BOUNDARY
- TREELINE
- ELECTRICAL MANHOLE
- WATER MANHOLE
- TELEPHONE MANHOLE
- UNMARKED MANHOLE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- U/G CABLE TV LINE
- U/G FIBER OPTIC LINE
- U/G TELEPHONE LINE
- U/G ELECTRIC LINE
- OVERHEAD WIRE
- WATER MAIN
- GAS MAIN
- SAN. SEWER LATERAL
- SAN. SEWER MAIN
- STORM PIPE
- WETLAND MARKER
- TREE
- ROADWAY SIGNS
- TRAFFIC FLOW
- MAILBOX
- TRAFFIC SIGNAL POLE
- POLE MOUNTED LIGHT
- UTILITY POLE
- GUY WIRE
- TRANSFORMER
- FIRE DEPT. CONNECTION
- FIRE HYDRANT
- WATER VALVE
- GAS VALVE
- SANITARY CLEANOUT
- CONCRETE MONUMENT
- CAPPED REBAR/IRON PIPE
- STORM INLET TYPE 'A'
- STORM INLET TYPE 'B'
- STM. DBL. INLET TYPE 'B'
- STORM INLET TYPE 'E'
- STM. DBL. INLET TYPE 'E'
- FLARED END SECTION
- HEADWALL

ABBREVIATIONS

D.C. = DEPRESSED CURB
BC = BOTTOM OF CURB
TC = TOP OF CURB
BOL = BOLLARD
GRT = GRATE
MB = MAILBOX
FF = FINISH FLOOR
UV = UNKNOWN VALVE
MH = MANHOLE
DEP. = DEPRESSED
CL = CENTERLINE
PM = PARKING METER
MHWL = MEAN HIGH WATERLINE
MLWL= MEAN LOW WATERLINE
TW = TOP OF WALL
BW = BOTTOM WALL

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

Colliers Engineering & Design
www.colliersengineering.com

Copyright © 2026, Colliers Engineering & Design A! Rights Reserved. This drawing and all the information contained herein is authorized for use only by the party for whom the services were contracted or to whom it is certified. This drawing may not be copied, reused, disclosed, distributed or relied upon for any other purpose without the express written consent of Colliers Engineering & Design.

Doing Business as MASER CONSULTING

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE.
Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
1	01/08/25	R.M.P.	REVISED TO ADD PROPOSED ENVIRONMENTAL EASEMENT.
2	01/14/25	R.M.P.	REVISED PER CLIENT'S COMMENTS.
3	01/29/25	B.S.B.	REVISED TO ADD METRIC SCALE BAR.
4	03/13/25	B.S.B.	REVERSED INDUSTRIAL PL. BEARINGS ON PLAN, ADDED PARCEL ID NOTE.
5	11/18/25	B.S.B.	TURNED OFF UNDERGROUND STORM LINES.
6	05/28/26	R.M.P.	REVISED PER CLIENT COMMENTS.
7	07/10/26	R.M.P.	REVISED PER ADDITIONAL CLIENT COMMENTS.
8	07/14/26	R.M.P.	REVISED PER ADDITIONAL CLIENT COMMENTS.
-	-	-	-
-	-	-	-

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.

ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

Digitally signed by Glenn Lloyd
Date: 2026.07.14 09:39:15 -04'00'

GLENN T. LLOYD
NEW YORK LICENSED
LAND SURVEYOR - LICENSE NUMBER: 050492-1

BOUNDARY SURVEY
FOR
ARCADIS
"Chevron Facility 6518040"
SECTION 43
BLOCK 400
TAX LOT 502 &
A PORTION OF TAX LOT 720

TOWN OF HEMPSTEAD
NASSAU COUNTY
NEW YORK

Colliers Engineering & Design
HOLMDEL (Headquarters)
101 Crawfords Corner Road, Suite 3400
Holmdel, NJ 07733
Phone: 732.383.1950
COLLIERS ENGINEERING & DESIGN, INC. DOING BUSINESS AS MASER CONSULTING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	4/14/23	TNM	BSB
PROJECT NUMBER:		DRAWING NAME:	
12000271D		V SURV ESMT 2	

SHEET TITLE:
BOUNDARY SURVEY

SHEET NUMBER:
1 of 1

2012\12000271D\5-survey\9-revit\V SURV ESMT 2.dwg(EASEMENT EXH-1) By: BPONZO

101 Crawfords Corner Road
Suite 3400
Holmdel, NJ 07733
Main: 877 627 3772

Colliers
Engineering & Design

DESCRIPTION OF PROPERTY
TOWN OF HEMPSTEAD
CITY OF LONG ISLAND
COUNTY OF NASSAU
STATE OF NEW YORK

BLOCK 400
LOT 502 AND PORTION OF LOT 720
PROJECT NO. 12000271D
SEPTEMBER 2, 2026

All that certain lot, tract or parcel of land situate, lying and being in the Town of Hempstead, the County of Nassau, and the State of New York, and being all of Lot 502, Block 400 and a portion of Lot 720, in Block 400, Section 43 as shown on the current official tax map of the Town of Hempstead, Nassau county, last revised October 6, 2020, and being more particularly bounded and described as follows:

BEGINNING at a point of intersection formed by the northerly line of Industrial Place (50' wide R.O.W.) with the easterly line of Hampton Road (50' wide R.O.W.), and from said point of beginning, running, thence -

1. **N 11°52'30" W 500.00 feet**, along the easterly line of Hampton Road to a point where the same is intersected by the northerly line of Lot 502, Block 400; thence -

Along the said northerly line of Lots 502 and 720, Block 400 the following three (3) courses;

2. **N 78°07'30" E 350.00 feet**, thence –
3. **N 74°48'30" E 50.08 feet**, thence –
4. **N 78°07'30" E 100.00 feet**, to the easterly line of said Lot 720, thence –
5. **S 11°52'30" E 677.99 feet**, along said easterly line of said Lot 720, to the southerly line of said Lot 720, thence -

Running along the southerly line of said lot 720 the following three (3) courses:

6. **S 88° 19' 30" W 101.61 feet**, thence –
7. **S 86° 12' 30" W 50.49 feet**, thence –
8. **S 78° 07' 30" W 300.00 feet**, to a point on the line dividing Lots 646 and 720, Block 400, thence –
9. **N 11°52'30" W 100.00 feet**, along the said dividing line, to a point on the southerly line of Industrial Place (50' wide R.O.W.), thence –
10. **N 78° 07' 30" E, 100.00 feet**, along the said southerly line of Industrial Place and beyond, through a portion of Lot 720, Block 400, thence –

11. **N 11° 52' 30" W, 50.00 feet**, to the northeastward extension of the northerly line of said Industrial Place, thence –

12. **S 78° 07' 30" W, 150.00 feet**, along the said northeastward extension, and beyond, along the said northerly line of Industrial Place to the point and place of **BEGINNING**.

CONTAINING: ±314,651 square feet of land more or less or ±7.223 acres of land more or less.

SUBJECT TO: all easements, restrictions, reservations, agreements, covenants, and rights of way of record.

The foregoing description was prepared by the undersigned surveyor for the firm of Colliers Engineering & Design and is based on a certain map or plan entitled, "Boundary Survey For Arcadis, 'Chevron Facility 6518040', Section 43, Block 400, Tax Lot 502 & A Portion of Tax Lot 720, Town of Hempstead, Nassau County, New York," dated 4/14/2023 & revised through 07/14/2026.

Glen Lloyd
2026.09.02 10:53:51-04'00'

Glen J. Lloyd, P.L.S.
New York Professional Land Surveyor
License Number 050492

Date:

R:\Projects\2012\12000271D\Survey\Description\Site Boundary Description_260902.docx.

APPENDIX B
ENVIRONMENTAL EASEMENT



Nassau County
Maureen OConnell
County Clerk
Mineola, NY 11501

Instrument Number: 2025- 00043097
As
D06 - AGREEMENT

Recorded On: July 11, 2025
Parties: TO KLEIN COSTCO LLC

Billable Pages: 14
Num Of Pages: 15

Recorded By: JANE PERDUE ADAMS
Comment:

**** Examined and Charged as Follows: ****

D06 - AGREEMENT	115.00	Blocks - Deeds - $300	300.00	Tax Affidavit TP 584	5.00
Recording Charge:	**420.00**				

	Amount	Consideration Amount	RS#/CS#				
Tax-Transfer	0.00	0.00	RE 23216	Basic	0.00	Spec ASST	0.00
HEMPSTEAD				Local NY CITY	0.00	Spec ADDL SONYMA	0.00
				Additional MTA	0.00	Transfer	0.00
Tax Charge:	**0.00**						

Property Description:

Line	Section	Block	Lot	Unit	Town Name
1	43	400	502		HEMPSTEAD
2	43	400	720		HEMPSTEAD

**** THIS PAGE IS PART OF THE INSTRUMENT ****

I hereby certify that the within and foregoing was recorded in the Clerk's Office For: Nassau County, NY

File Information:
Document Number: 2025- 00043097
Receipt Number: 3559121
Recorded Date/Time: July 11, 2025 10:55:45A
Book-Vol/Pg: Bk-D Vl-14642 Pg-655
Cashier / Station: 0 CMC / NCCL-CDMG243

Record and Return To:
LANGDON TITLE AGENCY
132 WEST 36TH STREET SUITE 500
NEW YORK NY 10018

NASSAU COUNTY · STATE OF NEW YORK ·

Maureen O'Connell

County Clerk Maureen O'Connell

UNOFFICIAL COPY

DOb
14

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 14 day of May, 2025, between Owners in common Klein-Costco, LLC, 2066 East-West, LLC, Gate Oceanside LLC, Landmark Oceanside LLC, DA Oceanside LLC and 330 Oceanside LLC, collectively having an office c/o Nike Equities, 25A Hanover Road, Suite 350, Florham Park, NJ 07932 (collectively, the "Grantor"), Chevron U.S.A. Inc.* being a former property owner and responsible party related to NYSDEC Site #130165 ("Chevron"), and The People of the State of New York (the "Grantee"), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233; and

*having an address at 5001 Executive Parkway, Suite 200, San Ramon, CA 94583

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

Sec 43
Block 400
Lot 502
P/o 720

WHEREAS, Grantor is the owner of real property located at 1 Industrial Place, Oceanside, County of Nassau and State of New York, known and designated on the tax map of the County Clerk of Nassau County as tax map parcel numbers Section 43, Block 400, Lot 502 and part of Lot 720 being the same as that property conveyed to Grantor by deed dated November 14, 2019 and recorded in the Nassau County Clerk's Office on December 5, 2019 in Bk-D, VI-13883, Pg-743, Document No. 2019 - 00107346. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 7.166 +/- acres, and is hereinafter more fully described in the Land Title Survey dated March 12, 2025, prepared by Colliers Engineering and Design, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, Chevron, and/or its predecessors or affiliates, is the former owner of the Former Gulf Oil Terminal, located at 1 Industrial Place, Oceanside, Town of Hempstead, Nassau County, New York. The Controlled Property is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 130165. An Order on Consent and Administrative Settlement was entered into between Chevron and NYSDEC on December 23, 2009 (Index # W3-1142-09-08, Site #130165). The Order obligates Chevron to implement a remedial program for the contamination associated with its previous petroleum storage terminal operations.

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of an Order on Consent and Administrative Settlement, Index Number, W3-1142-09-08, Grantor conveys to Grantee a recorded Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor, Chevron, and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36, in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose; and by specifying Grantor's obligation to provide access and comply with the use restrictions set forth below.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") to be developed by Chevron, approved by the Department and consented to by the Grantor, including any and all amendments to the SMP approved by the Department and consented to by the Grantor are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and Chevron and the Grantor's and Chevron's successors and assigns, and are enforceable in law or equity against Chevron or any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv). Commercial uses shall include, but not be limited to, office uses and retail uses such as grocery store, pharmacy, liquor store, restaurant, vehicle fueling facility, car wash, specialty retail store, department store, wholesale or retail general merchandise facility;

(2) The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6 NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

(3) All Engineering Controls must be operated and maintained by Chevron as specified in the Site Management Plan (SMP) developed by Chevron, approved by the Department and consented to by the Grantor;

(4) All Engineering Controls must be inspected by Chevron at a frequency and in a manner defined in the SMP;

(5) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Nassau County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(6) Groundwater and other environmental or public health monitoring must be performed by Chevron as defined in the SMP. Community air monitoring is required to be performed by Chevron or Grantor, as applicable, for soil disturbances within areas of residual soil impacts as defined in Appendix B, Excavation Work Plan, and Appendix F, Generic Community Air Monitoring Plan, of the SMP;

(7) Data and information pertinent to Site Management of the Controlled Property must be reported by Chevron to Grantee and Grantor at the frequency and in a manner defined in the SMP;

(8) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(9) Monitoring to assess the performance and effectiveness of the remedy must be performed by Chevron as defined in the SMP;

(10) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed by Chevron as defined in the SMP;

(11) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The SMP describes obligations that Chevron has agreed to undertake, as the Responsible Party or its successor and assign. Chevron's assumption of the obligations contained in the SMP, which include, but are not limited to, sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of (i) the Department's determination that the Controlled Property is safe for a specific

UNOFFICIAL COPY

use, but not all uses, and (ii) Grantor's consent to this Environmental Easement and the SMP. The SMP may be modified in accordance with the Department's statutory and regulatory authority upon notice to, and with the consent of, Grantor. The Grantor is obligated only to provide access to the Controlled Property, to comply with the use limitations outlined in this Environmental Easement, and to comply with the restrictions in and requirements of the SMP as they apply to Grantor's activities on the Controlled Property. Grantor shall provide 30-days' notice to Chevron of any material redevelopment of and/or modifications to the Controlled Property that is inconsistent with the uses authorized by this Environmental Easement.

C. Grantor must provide all persons who acquire any interest in the Controlled Property from Grantor a true and complete copy of the approved SMP for the Controlled Property and all approved amendments to that SMP.

D. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance granted by Grantor relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property issued after the date of this Environmental Easement.

G. Chevron covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC, with a simultaneous copy to Grantor, a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

H. Within ten (10) business days of any reasonable request by Chevron for available information necessary for Chevron to comply with its obligations under this Environmental Easement, including but not limited to Chevron's SMP obligations under Section 2(B) and its reporting obligations under Section 2(G), Grantor shall provide any non-privileged information in its custody and control to Chevron.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. Subject to the Grantor's reserved rights, this Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Chevron, and Grantee, or any affected local government, as defined in ECL Section 71-3603, against, as applicable, Chevron, the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor and Chevron of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor or Chevron can cure such breach or suspected breach and give Grantor and Chevron a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure,

or any extensions granted by Grantee, the Grantee shall notify Grantor and Chevron of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: 130165
Office of General Counsel
NYSDEC
625 Broadway
Albany, NY 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233-5500

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or

counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Obligations Several Not Joint and Several. The obligations imposed by this instrument upon Grantor and Chevron shall be several and not joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in their names.

Klein-Costco, LLC

By: _____

Print Name: JACOB KLEIN 4/9/2025

Title: MANAGER Date:

Grantor's Acknowledgment

STATE OF NJ)
) ss:
COUNTY OF B Morris)

On the 9th day of April in the year 2025, before me, the undersigned, personally appeared JACOB KLEIN, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New Jersey

BENJAMIN J. KLIBANOFF
Notary Public, State of New Jersey
Comm. # 50206641
My Commission Expires 2/8/2028

UNOFFICIAL COPY

2066 East-West, LLC

By: _____
Print Name: LOUIS LAGIOS
Title: MANAGER Date: 4/9/25

Grantor's Acknowledgment

STATE OF New Jersey)
) ss:
COUNTY OF Monmouth)

On the 9th day of April, in the year 2025, before me, the undersigned, personally appeared LOUIS LAGIOS, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New Jersey

BENJAMIN J. KLIBANOFF
Notary Public, State of New Jersey
Comm. # 50206641
My Commission Expires 2/8/2028

Gate Oceanside LLC

By: _____
Print Name: Laurence J. Liebowitz
Title: Manager Date: 4/9/25

Grantor's Acknowledgment

STATE OF New Jersey)
) ss:
COUNTY OF Union)

On the 9th day of April, in the year 2025, before me, the undersigned, personally appeared LAWRENCE J. LIEBOWITZ, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

#Laurence J. Liebowitz

Notary Public - State of New Jersey

KYLE C. STAR
Notary Public, State of New Jersey
Commission # 50055456
My Commission Expires 2/23/2027

UNOFFICIAL COPY

Landmark Oceanside LLC

By: Laurence Lubartz

Print Name: Laurence J. Liebowitz

Title: Manager Date: 4/9/25

Grantor's Acknowledgment

STATE OF New Jersey)
) ss:
COUNTY OF Union)

On the 9th day of April in the year 2025, before me, the undersigned, personally appeared [redacted], personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Laurence J. Liebowitz

Notary Public - State of New Jersey

KYLE C. STAR
Notary Public, State of New Jersey
Commission # 50055456
My Commission Expires 2/23/2027

DA Oceanside LLC

By:

Print Name: P. Tom Tocco

Title: manager Date: 4/9/25

BPA 6/25/25

Grantor's Acknowledgment

STATE OF New Jersey)
) ss:
COUNTY OF Union)

On the 9th day of April in the year 2025, before me, the undersigned, personally appeared P. Tom Tocco, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New Jersey

KYLE C. STAR
Notary Public, State of New Jersey
Commission # 50055456
My Commission Expires 2/23/2027

UNOFFICIAL COPY

330 Oceanside LLC

By: [signature]
Print Name: ELLIOT JACOBY
Title: MANAGER Date: 2/19/2025

Grantor's Acknowledgment

STATE OF FLORIDA)
) ss:
COUNTY OF Palm Bch)

On the 19 day of Feb, in the year 2025, before me, the undersigned, personally appeared Elliot Jacoby, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of Florida

[signature]
Print Name: Andrea Phillips

Notary Public Serial No: HH536305

Commission Expiry Date : 6/8/2028

Notary Public State of Florida
Andrea Phillips
My Commission HH 536305
Expires 6/8/2028

UNOFFICIAL COPY

IN WITNESS WHEREOF, Chevron has caused this instrument to be signed in its name.

Chevron U.S.A. Inc.:

By: _____

Print Name: Scott M. Banks

Title: Assistant Secretary Date: May 1, 2025

Chevron's Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF CONTRA COSTA

On the 1st day of May, in the year 2025, before me, A. Freschi, Notary Public, personally appeared Scott M. Banks, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Notary Public - State of California

WITNESS my hand and official seal

A. FRESCHI
Notary Public - California
San Joaquin County
Commission # 2470107
My Comm. Expires Nov 7, 2027

Signature _____ **(Seal)**

UNOFFICIAL COPY

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: Andrew Guglielmi

Andrew Guglielmi, Director

Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)

) ss:

COUNTY OF ALBANY)

On the 14th day of May, in the year 2025, before me, the undersigned, personally appeared Andrew Guglielmi, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

Cheryl A. Salem

Cheryl A. Salem
Notary Public State of New York
Registration No. 01SA0002177
Qualified in Albany County
My Commission Expires March 3, 2027

UNOFFICIAL COPY

SCHEDULE "A" PROPERTY DESCRIPTION

All that certain lot, tract or parcel of land situate, lying and being in the Town of Hempstead, the County of Nassau, and the State of New York, and being an environmental easement encompassing all of Lot 502, Block 400 and a portion of Lot 720, in Block 400, Section 43 as shown on the plan entitled, "Boundary Survey for Arcadis 'Chevron facility 6518040', Section 43, Block 400, Tax Lots 502 & A Portion of Tax Lot 720, Town of Hempstead, Nassau County, New York," prepared by Colliers Engineering & Design, dated 04/14/2023, last revised on 03/12/2025, and being more particularly bounded and described as follows:

BEGINNING at a point of intersection formed by the northerly line of Industrial Place (50' wide R.O.W.) With the easterly line of Hampton Road (50' wide R.O.W.), and from said point of beginning, running, thence -

1. **N 11°52'30" W 500.00 feet,** along the easterly line of Hampton Road to a point where the same is intersected by the northerly line of Lot 502, Block 400; thence –

Along the said northerly line of Lots 502 and 720, Block 400 the following three (3) courses;

2. **N 78°07'30" E 350.00 feet,** thence -
3. **N 74°48'30" E 50.08 feet,** thence -
4. **N 78°07'30" E 100.00 feet,** to the easterly line of said Lot 720, thence -
5. **S 11°52'30" E 677.99 feet,** along said easterly line of said Lot 720, to the southerly line of said Lot 720, thence -
6. **S 88° 19' 30" W 21.75 feet,** along the southerly line of said Lot 720, thence - Running through said Lot 720, and along a metal bulkhead the following **two (2)** courses:
7. **S 81° 00' 14" E 140.24 feet,** thence -
8. **N 47° 53' 58" E 57.05 feet,** to the aforesaid southerly line of lot 720, thence -
9. **S 78° 07' 30" W 248.31 feet,** to a point on the line dividing Lots 646 and 720, Block 400, thence -
10. **N 11°52'30" W 100.00 feet,** along the said dividing line, to a point on the southerly line of Industrial Place (50' wide R.O.W.), thence -
11. **N 78° 07' 30" E, 100.00 feet,** along the said southerly line of Industrial Place and beyond, through a portion of Lot 720, Block 400, thence -

UNOFFICIAL COPY

12. **N 11° 52' 30" W, 50.00 feet,** to the northeastward extension of the northerly line of said Industrial Place, thence -

13. **S 78° 07' 30" W, 150.00 feet,** along the said northeastward extension, and beyond, along the said northerly line of industrial place to the point and place of **BEGINNING**.

Containing: ±312,162 square feet of land more or less or ±7.166 acres of land more or less.

Record + Return:
Langdon Title Agency
132 West 36th Street
Suite 500
New York, NY 10018

UNOFFICIAL COPY

APPENDIX C
EXCAVATION WORK PLAN

Chevron Environmental Management Company

Appendix C
Excavation Work Plan

Former Gulf Oil Terminal
Nassau County
Oceanside, New York
NYDEC Site Number: 130165

September 2022

Appendix C

Excavation Work Plan

Former Gulf Oil Terminal
Nassau County
Oceanside, New York
NYDEC Site Number: 130165

September 2022

Prepared By:
Arcadis U.S., Inc.
6041 Wallace Rd Ext, Suite 300
Wexford
Pennsylvania 15090
Phone: 724 742 9180
Fax: 724 742 9189

Prepared For:
Chevron Environmental Management Company

Our Ref:
30062947

_____
Alexandria Newbrough
Certified Project Manager

_____
Manan Dalal
Assistant Project Manager

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Contents

Acronyms and Abbreviations iii

1 NOTIFICATION 1

2 SOIL SCREENING METHODS 2

3 STOCKPILE METHODS 2

4 MATERIALS EXCAVATION AND LOAD OUT 2

5 MATERIALS TRANSPORTED OFF-SITE 3

6 MATERIALS DISPOSED OFF-SITE 3

7 MATERIALS REUSED ON-SITE 4

8 FLUIDS MANAGEMENT 4

9 COVER SYSTEM RESTORATION 4

10 BACKFILL FROM OFF-SITE SOURCES 5

11 STORMWATER POLLUTION PREVENTION 5

12 CONTINGENCY PLAN 6

13 COMMUNITY AIR MONITORING 6

14 ODOR CONTROL PLAN 6

15 DUST CONTROL PLAN 7

Tables

Table C-1 Criteria for On-site Reuse of Excavated Materials or Imported Soils

Acronyms and Abbreviations

bgs	below ground surface
CAMP	Community Air Monitoring Plan
CEMC	Chevron Environmental Management Company
COC	Contaminants of Concern
EWP	Excavation Work Plan
HASP	Health and Safety Plan
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
PCB	Polychlorinated Biphenyl
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SPDES	State Pollution Discharge Elimination System
SVOC	Semi volatile Organic Compound
TAL	Target Analyte List
TCL	Target Compound List
VOC	Volatile Organic Compound
VRU	Vapor Recovery Unit

1 NOTIFICATION

At least 15 days prior to the start of any non-emergency excavation activity that is anticipated to encounter remaining soil within the established areas of remaining soil impacts (Figure 6C) or groundwater contamination, the owner of the property, or their representative will notify Chevron Environment Management Company (CEMC) and the New York State Department of Environmental Conservation (NYSDEC). Areas where remaining contamination may be potentially encountered:

- Shallow fill unit exhibits remaining impacts at various depths ranging from 4 to 12 feet below ground surface (bgs) based on the former surface grade elevations prior to fill import and existing final design grade. Thickness of imported fill is on average 4 feet. These areas of residual impacted soil are based on sample locations that exceed the protection of groundwater and/or the commercial soil cleanup objectives that have not been excavated or remediated (Figure 6C)
- Meadow mat and lower sand unit exhibit remaining impacts at depths ranging from 20 to 30 feet bgs based on the former surface grade elevations. These areas are based on soil samples that exceed the protection of groundwater and/or commercial soil cleanup objectives that have not been excavated or remediated (Figure 6C).

Section 2.5 in the Site Management Plan (SMP) describes in more detail the remaining impacts at the site.

Currently, this notification will be made to:

R. Scott Deyette
Chief, Inspection Unit
NYSDEC
Division of Environmental Remediation
Remedial Bureau C
625 Broadway, 11th Floor
Albany, New York 12233-7014
518.402.9794

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the site cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control.
- A summary of environmental conditions anticipated in the work areas that contain remaining soil impacts (Figure 6C) or groundwater contamination, including the nature and concentration levels of contaminants of concern (COCs) of potential remaining contamination and plans for any pre-construction sampling.
- A schedule for the work, detailing the start and completion of all intrusive work.
- A summary of the applicable components of this *Excavation Work Plan* (EWP).
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120.
- A copy of the contractor's Health and Safety Plan (HASP), in electronic format.
- Identification of disposal facilities for potential waste streams.
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the Certificate of Completion.

Soils will be segregated (based on previous environmental data and screening results) into material that requires off-site disposal, material that requires testing, material that can potentially be returned to the subsurface, and material that can be used as cover soil. Soil/fill potential suitable for reuse shall be sampled and analyzed (as described in Section 7 of this EWP) to evaluate whether material can be reused or transported off-site for treatment and/or disposal.

3 STOCKPILE METHODS

Stockpiles of excavated material will, at minimum, be placed on top of polyethylene sheeting. If required by NYSDEC, stockpiles of excavated material shall be placed within an engineering staging area. Stockpiles will be covered using polyethylene sheeting to reduce potential infiltration of precipitation, migration of wind-blown dust, and direct contact exposures. Damaged polyethylene sheeting will be promptly replaced. Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work in the potentially contaminated areas (Section 1), and the excavation and load-out of all excavated material. The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this EWP.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under the Site Management Plan (SMP) is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements).

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. To the extent any trucks are operating in areas of exposed residual contamination, the qualified environmental professional will monitor all outbound trucks for cleanliness and have equipment on hand to wash down trucks (as necessary) or as required by local construction permitting or compliance requirements. Any wash waters will be collected and disposed off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

5 MATERIALS TRANSPORTED OFF-SITE

All transportation of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used. As necessary, all trucks will be washed prior to leaving the site. As indicated above, truck wash waters will be collected and disposed off-site in an appropriate manner.

The truck transport route for all vehicles leaving the site with material destined for off-site treatment and/or disposal should be reviewed and approved by the Nassau County Police Department (Fourth Precinct) prior to implementation.

All trucks loaded with site materials will exit the vicinity of the site using only the approved truck route. The most appropriate route would also take into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and, (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the site. Queuing of trucks will be performed on-site, to minimize off-site disturbance. Off-site queuing will be prohibited.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during excavation activities.

6 MATERIALS DISPOSED OFF-SITE

All soil/fill/solid waste excavated and removed from potentially contaminated area of the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from potentially contaminated areas of this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials excavated from potentially contaminated areas of this site will not occur without formal NYSDEC approval.

Off-site treatment and/or disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate (e.g. waste disposal facility, treatment facility, C/D recycling facility, etc.). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Project Reports (described in Section 5.0 of the SMP). This documentation will include waste profiles, laboratory analytical test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted Soil Cleanup Objectives (SCO) is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

7 MATERIALS REUSED ON-SITE

Material used for on-site reuse must meet NYSDEC 6NYCRR 375-6.7(d) Restricted Commercial SCOs. Chemical criteria for on-site reuse of material in the areas of residual impacts (Figure 6C) are provided in Table B-1. The qualified environmental professional will ensure that procedures defined for materials reuse in the SMP are followed and that unacceptable material does not remain on-site. On-site material, including historic fill and impacted soil, that is acceptable for re-use on-site will be placed below a demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Concrete crushing or processing on site and will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including excavation dewatering and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. At a minimum, water encountered in excavations shall be sampled and analyzed for the target compound list (TCL) volatile organic compound (VOCs), SVOCs (semivolatile organic compound), and Target Analyte List (TAL) metals as well as analytes required by potential off-site treatment/disposal facilities. Water shall be transported off-site for proper disposal or treated on-site via a treatment system that has been approved by the NYSDEC, as appropriate.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river), if feasible, will be performed under a State Pollution Discharge Elimination System (SPDES) permit. Runoff from surface discharges (if any) shall be controlled. No discharges shall enter a surface water body without proper permits. Dewatering and development fluids will not be recharged back to the land surface or subsurface of the site but will be managed off-site.

9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities on site, the cover system will be restored in a manner that complies with the December 10, 2021 NYSDEC Record of Decision. The demarcation layer, or equivalent material, will be replaced to provide a visual reference to the top of the areas of remaining soil impacts, the zone that requires adherence to special conditions for disturbance of remaining impacted soils defined in this Site Management Plan**.**

If the type of cover system changes on site from that which exists prior to the excavation (e.g., a soil or stone cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contaminated areas. A figure showing the modified surface will be included in the subsequent Periodic Project Report and in any updates to the SMP.

10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site for backfill use in areas of residual contamination (Figure 6c) ("Imported Material") will be approved by the qualified environmental professional and will be in compliance with provisions in the SMP prior to receipt.

Such Imported Material shall be sampled in accordance with the frequency requirements presented in Table 5.4(e) 10 of NYSDEC *DER-10: Technical Guidance for Site Investigation and Remediation* (DER-10 and meet the commercial/industrial use levels presented in Appendix 5 of DER-10, with the exception that any fill to be placed within the Ecological Buffer Zones located within 50 feet of the shoreline as identified on Figure 2 of the SMP must meet the unrestricted use levels presented in Appendix 5 of DER-10.

Topsoil used for the final cover shall be fertile, friable, natural loam surface soil, capable of sustaining plant growth, and free of clods or hard earth, plants or roots, sticks or other extraneous material that could discourage plant growth. Topsoil shall be seeded with a sustainable perennial mixture and appropriate erosion control measures shall be taken until the perennial grass is established.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site. All Imported Material will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with Imported Materials will be securely covered with tight fitting covers. Imported Materials will be stockpiled separately from excavated materials and covered to prevent dust releases.

11 STORMWATER POLLUTION PREVENTION

General stormwater pollution prevention activities to be conducted in support of site excavation activities including the following:

- Silt fence (e.g., synthetic, hay bales, etc.) will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.
- Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.
- All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.
- Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

- Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.
- Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminated materials are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product surrounding soils as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL VOCs and SVOCs, TCL pesticides and Polychlorinated biphenyls [PCBs]), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive work will be promptly communicated by phone to NYSDEC's Project Manager (identified in Section 1). Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 6 of the SMP.

13 COMMUNITY AIR MONITORING

Community air monitoring for volatile organic compounds (VOCs) and particulates will be conducted for soil disturbance activities (including roll-off and truck loading) conducted within established areas of residual soil impacts (Figure 6c), in accordance with the New York State Department of Health (NYSDOH) Community Air Monitory Plan (CAMP) included as Appendix F to SMP. The quantity and locations of community air monitoring stations will be determined in conjunction with the NYSDOH, based on the size and location of the proposed excavation; however, at a minimum there will be one upwind and one downwind monitoring location. CAMP monitoring results will be included in the following project report. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers on a weekly basis. Historically, the CAMP data has been provided to the Nassau County Environmental Health Office as per their request.

14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors on-site and off-site. Specific odor control methods to be used on a routine basis are discussed below and in the NYSDOH CAMP included as Appendix F to the SMP. If nuisance odors are identified at the site boundary, or if odor complaints are received, in connection with work done in the established areas of remaining soil impacts (Figure 6c), work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's

Remediation Engineer, and any measures that are implemented will be discussed in the subsequent Periodic Project Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (a) direct load-out of soils to trucks for off-site disposal; (b) use of chemical odorants in spray or misting systems; and (c) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

15 DUST CONTROL PLAN

In connection with work done in the established areas of remaining soil impacts (Figure 6c), dust (i.e., particulate) monitoring will be performed in accordance with the CAMP included as Appendix F to the SMP. A dust suppression plan that addresses dust management during invasive work within areas identified as potentially containing contaminated will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, un-vegetated soils vulnerable to dust production.

Table

Table C-1
Criteria for On-site Reuse of Excavated Materials or Imported Soils
Excavation Work Plan
Former Gulf Oil Terminal
Oceanside, New York

Location	Criteria
Within 6 inches of grade; and within 50 horizontal feet from shore	SCOs for Commercial Site Use; SCOs for Protection of Ecological Resources; and Plantable Soil (6-20% by weight of fine textured stable organic material)
Within 6 inches of grade; and greater than 50 horizontal feet from shore	SCOs for Commercial Site Use; SCOs for Protection of Ecological Resources; and Plantable Soil (6-20% by weight of fine textured stable organic material)
Within 6 to 24 inches below grade; and within 50 horizontal feet from shore	SCOs for Commercial Site Use; SCOs for Protection of Ecological Resources; and Plantable Soil (6-20% by weight of fine textured stable organic material)
Within 6 to 24 inches below grade; and greater than 50 horizontal feet from shore	SCOs for Commercial Site Use
Greater than 24 inches below grade	Soil is not Grossly Impacted; Total SVOCs are less than 500 ppm; and covered by a demarcation warning layer

Legend:
ppm : parts per million
SCOs: Soil Cleanup Objectives per 8 NYCRR Subpart 375-6
SVOC: Semivolatile Organic Compound

Documentation of the fill source will be provided to the NYSDEC for approval before use onsite in accordance with DER-10 Technical Guidance for Site Investigation and Remediation Sections 5.4(e)5-6 and Table 5.4(e)10. All fill material brought to the Site will meet the requirements for the identified Site use as set forth in 6 NYCRR Part 375-6.7(d). Imported soil (sand, stone, and topsoil) must be free of odors and sheens.

Arcadis U.S., Inc.
6041 Wallace Road Extension, Suite 300
Wexford
Pennsylvania 15090
Phone: 724 742 9180
Fax: 724 742 9189
www.arcadis.com

APPENDIX D

SITE RELATED CONTACT INFORMATION

APPENDIX D – SITE RELATED CONTACT INFORMATION

Name	Phone/Email Address
Property Onwer/Facility Owner: Klein Costco, LLC, 2066 East-West, LLC, Gate Oceanside, LLC, Landmark Oceanside, LLC and 330 Oceanside, LLC , collectively a successor to Coremark Group Holdings, DST, and Coremark Group Holdings, LLC. Contact: Louis Lagios – Facilities/Office Manager, Nike Equities, LLC	O: 973-845-6444 C: 973-670-9901 Email: lpl@nikeequities.com
Responsible Party: Chevron Environmental Management Company Contact: Rob Speer - Portfolio Manager East	O: 932-854-5648 C: 713-301-7274 Email: RSpeer@chevron.com
Responsible Party Environmental Consultant: Arcadis Contact: Alex Newbrough – Project Manager	O: 724-934-9532 Email: alex.newbrough@arcadis.com
NYSDEC DER Project Manager Contact: Steven Scharf	O: 518-402-9702 Email: steven.scharf@dec.ny.gov
NYSDOH Project Manager Contact: Jacquelyn Nealon	Email: jacquelyn.nealon@health.ny

APPENDIX E

MONITORING WELL CONSTRUCTION LOGS

Date Start/Finish: 11/30/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164690.55
Easting: 1080941.49
Casing Elevation: 7.53

Borehole Depth: 10' bgs
Surface Elevation: 5.41

Descriptions By: MWE

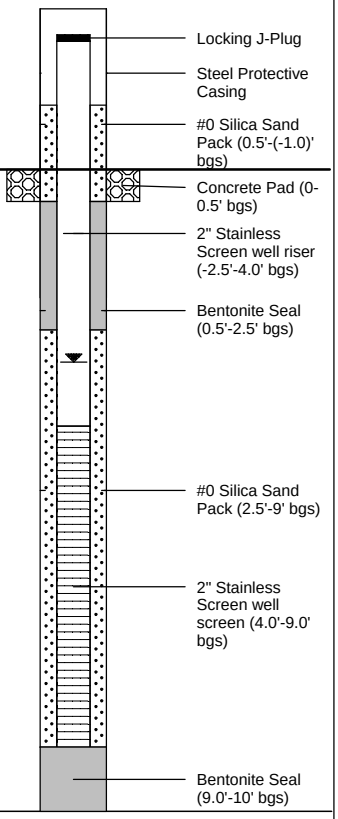
Well/Boring ID: **AMW-3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0 / 5	1	0-2	Grab	273		Brown to grey fine to coarse SAND and fine to coarse GRAVEL, trace Silt, Organics (M,NP)
	2	2-4	Grab	384		moderate petroleum-like odor, increase with depth
5 / 0	3	4-6	Grab	339		heavy petroleum-like odor
	4	6-8	Grab	211		Grey fine to medium SAND, little fine to medium Gravel (S,NP)
	5	8-10	1.0	67.8		Grey SILT and CLAY, little Peat, trace Organics, fine Sand (S,P) moderate petroleum-like odor, decrease with depth
10 / -5						End of boring at 10' bgs
15 / -10						

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-3 (0-2'), (2-4'), (4-6') & Dup-2-113010 @ (2-4') / MS/MSD @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/18/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164369.13
Easting: 1081225.55
Casing Elevation: 6.36

Borehole Depth: 12' bgs
Surface Elevation: 6.60

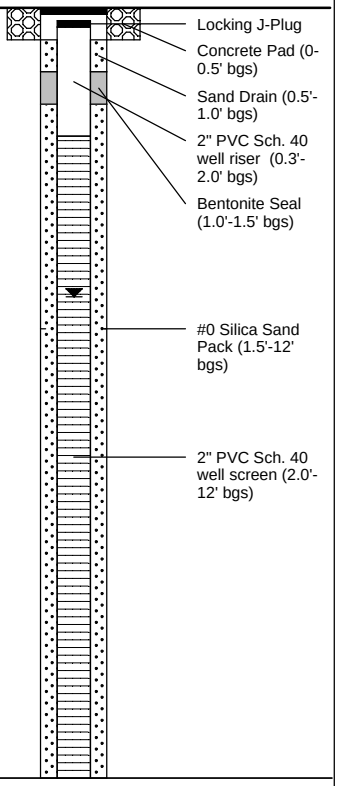
Descriptions By: MWE

Well/Boring ID: **AMW-4**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.2		Red to brown fine to medium SAND, little subangular Gravel, Silt, and trace Organics (M,NP)
5	2	2-4	Grab	0.0		
0	3	4-6	Grab	455		Grey to brown fine to coarse SAND, little Silt, Clay, and fine to medium Gravel (S,NP) moderate petroleum-like odor, decreses with depth
5	4	6-8	Grab	155		
10	5	8-10	0.3	27.8		
-5	6	10-12	2.0	11.7		increase Silt and Clay with depth Grey SILT and CLAY, trace fine Sand, Organics (S,MP)
15						End of boring at 12' bgs



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-4 (2-4'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11/2910
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164319.6
Easting: 1081050.81
Casing Elevation: 6.43

Borehole Depth: 12' bgs
Surface Elevation: 6.74

Descriptions By: MWE

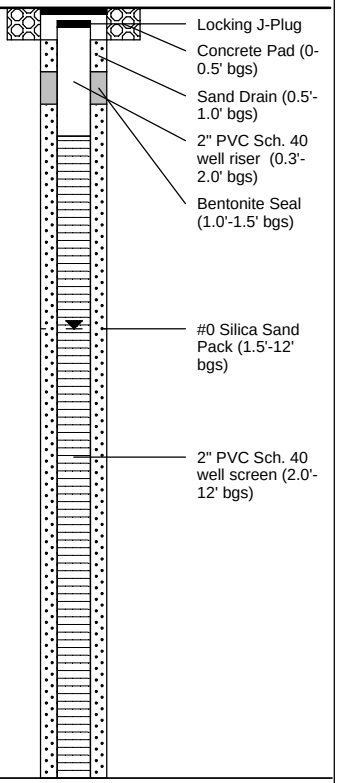
Well/Boring ID: **AMW-7**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt (M,NP)
5	2	2-4	Grab	0.0		
	3	4-6	Grab	0.0		
0	4	6-8	Grab	0.4		faint petroleum-like odor
	5	8-10	2.0	18.9		
10	6	10-12	2.0	1.7		Brown fine to medium SAND, little grey fine Sand, trace fine Gravel (S,NP) odor
-5						Grey to brown fine SAND, little to some Silt, trace Clay (layered between sand seams (1-2 mm))
15						End of boring at 12' bgs

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-7 (4-6'), (8-10'), (10-12') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 11-30-10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164748.61
Easting: 1080920.06
Casing Elevation: 7.90

Borehole Depth: 16' bgs
Surface Elevation: 5.41

Descriptions By: MWE

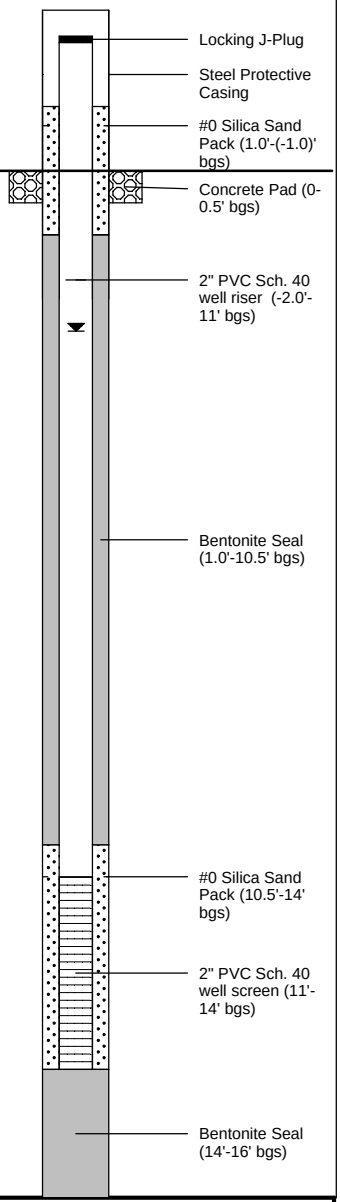
Well/Boring ID: **AMW-8**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	10.0		Brown fine to coarse SAND, some fine to medium subangular Gravel, trace Silt, Organics (M,NP) faint petroleum-like odor, increase with depth
		2	2-4	Grab	43.8		Grey to brown fine to coarse SAND, little fine to medium Gravel (S,NP) moderate petroleum-like odor, trace sheen in water at water table
5	0	3	4-6	Grab	6.9		
		4	6-8	Grab	3.9		
		5	8-10	0.2	18.9		No Recovery
10	-5	6	10-12	1.0	4.7		Grey SILT and CLAY, some Peat, little fine Sand (S,MP) moderate sulfur-like odor, trace petroleum-like odor
		7	12-14	2.0	18.7		
15	-10	8	14-16	2.0	8.6		Grey to brown fine to medium SAND, little Silt, Organics, Peat, Clay (S,NP) End of boring at 16' bgs

Well/Boring Construction

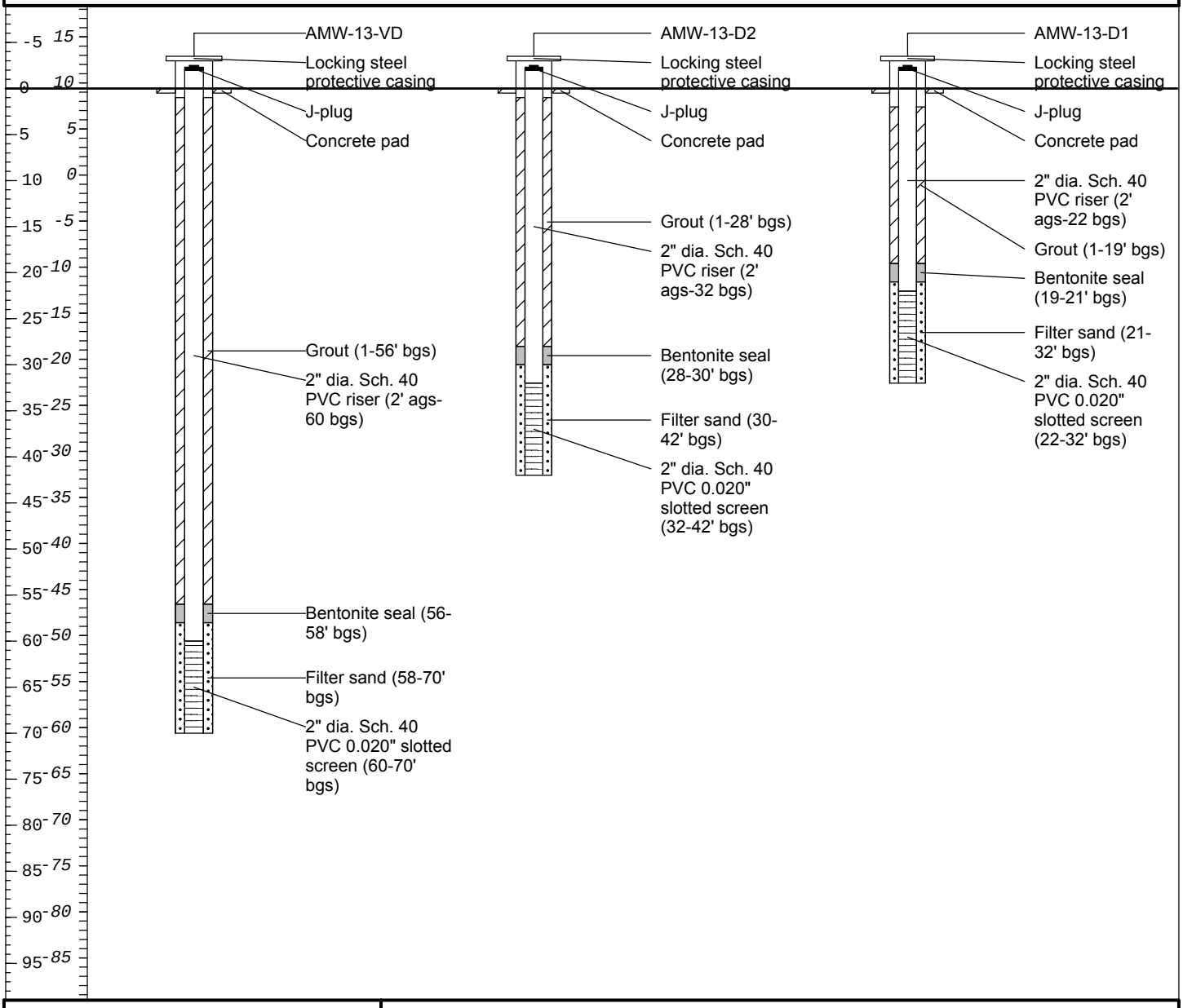


ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ AMW-8 (10-11'), (12-14'), (14-15') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 6/14 - 6/15/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 70' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-13 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

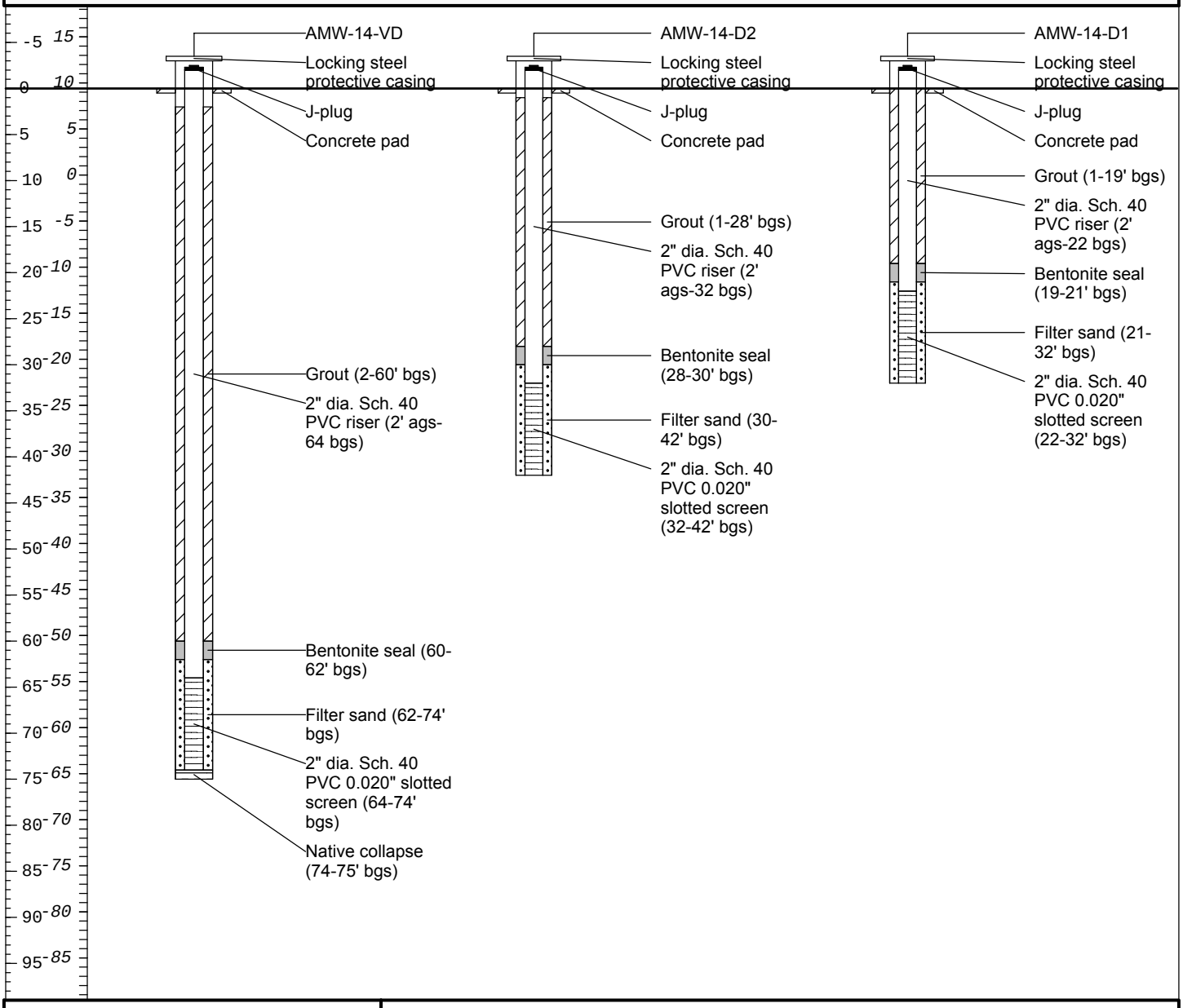
Ground surface elevation is approximate.

Well construction logs for AMW-13-VD, AMW-13-D1, and AMW-13-D2.
For soil descriptions and drilling notes, see boring log for ASB-8.

ARCADIS Design & Consultancy for natural and built assets

Date Start/Finish: 6/15 - 6/16/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 75' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-14 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



ARCADIS Design & Consultancy for natural and built assets

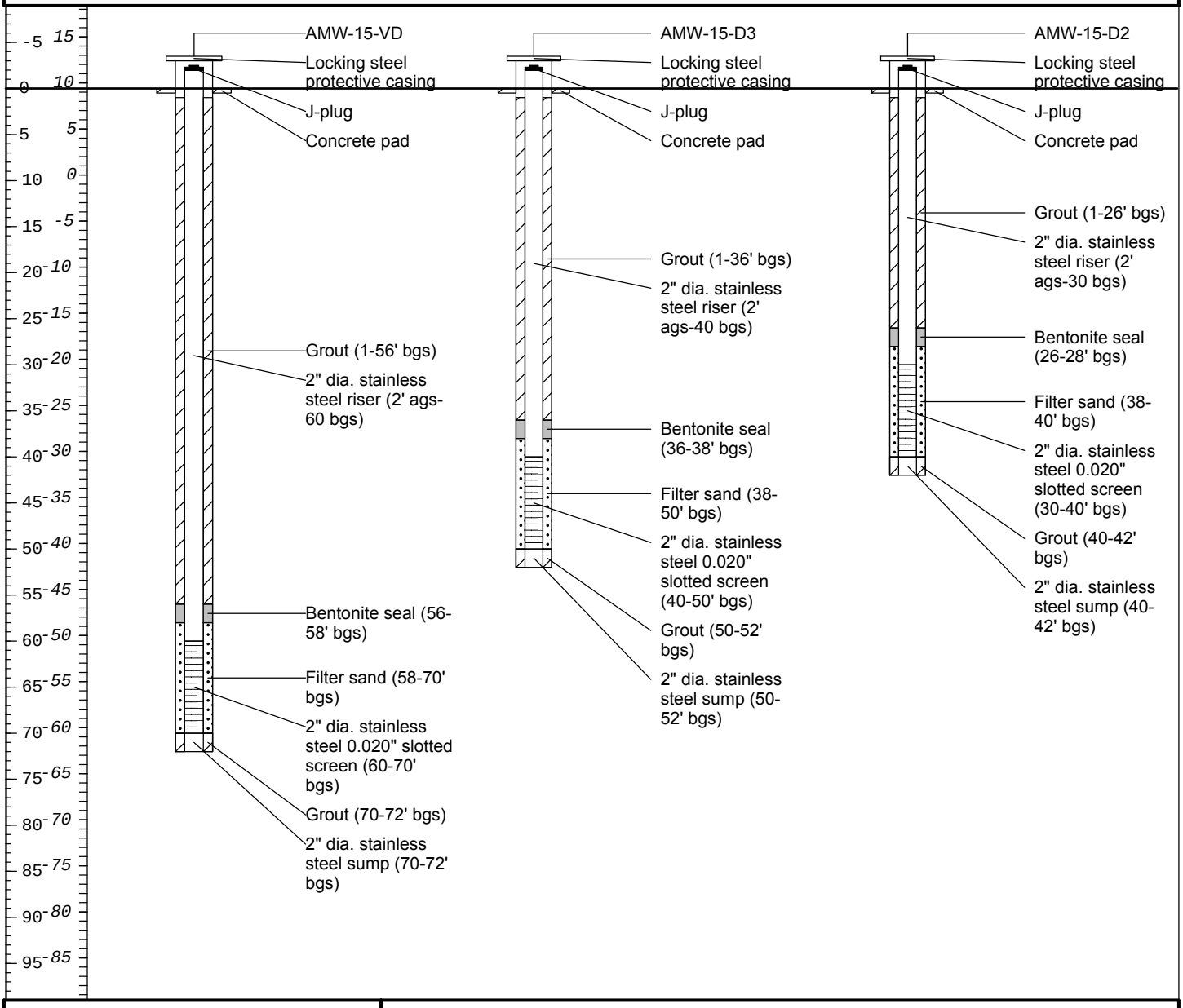
Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-14-VD, AMW-14-D1, and AMW-14-D2.
For soil descriptions and drilling notes, see boring log for ASB-6.

Date Start/Finish: 6/9 - 6/13/2016 **Drilling Company:** Summit Drilling **Driller's Name:** Ninevski, Mobus, Crandall **Drilling Method:** Rotary Sonic **Bit Size:** NA **Auger Size:** NA **Rig Type:** Track-mounted Fraste Rotary Sonic **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 72' bgs **Surface Elevation:** 9.40' AMSL **Descriptions By:** Levia Terrell	**Well ID:** **AMW-15 well cluster** **Client:** Chevron Environmental Management Company **Location:** Former Gulf Oil Terminal Oceanside, New York

Well Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available;

Ground surface elevation is approximate.

Well construction logs for AMW-15-VD, AMW-15-D1, AMW-15-D2, and AMW-15-D3. For soil descriptions and drilling notes, see boring log for ASB-1.

Date Start/Finish: 1/29/2013-2/13/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 3" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164800.4100
Easting: 1080951.5500
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 7.88' AMSL

Descriptions By: J.Oliver

Well/Boring ID: **IW-02-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
	1	0-1	NA	0.0		Light brown fine to medium SAND, trace coarse Sand and fine Gravel, moist to wet.
	2	1-2	NA	0.4		
	3	2-3	NA	0.4		Gray/brown fine to coarse SAND, trace fine Gravel, wet.
	4	3-4	NA	0.9		
	NA	NA	NA	NA		Unable to collect samples due to borehole collapse.
	5	8-10	1.0	23.9		Gray SILT and CLAY, trace Peat and fine Sand, plastic, wet, odor.
	6	10-12	1.0	17.0		Little to trace fine Sand.
	7	12-14	2.0	5.1		Gray SILT and CLAY, trace to llittle fine Sand, plastic, trace.
	8	14-16	1.3	32.7		Trace fine Sand, Shell fragments at 15' bgs, wet, odor.

Well/Boring Construction:
- Locking J-Plug
- Steel Protective Casing
- Concrete Pad (0-0.5' bgs)
- Cement/Grout (0-16.3' bgs)
- 4" Sch. 40 PVC Riser (1.5' ags-19' bgs)

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron EMC

Well/Boring ID: **IW-02-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				27.3		Trace Shell fragments, wet, odor.	
-10	9	16-18	1.6			Gray fine to medium SAND, moderately dense, odor, wet. [Trace coarse Sand and Gravel in tip of spoon.] Trace coarse Sand.	#00 Silica Sand Pack (16.3-17.5' bgs)
	10	18-20	1.3	110		Brown to light brown fine to medium SAND, trace coarse Sand, trace Organics at 18.9' bgs, odor, wet.	
20	11	20-22	1.4	130 125		Light brown fine to medium SAND, trace coarse Sand, odor, wet.	
-15	12	22-24	1.9	101 97.9		Light brown/very light gray fine to medium SAND, odor, wet.	#1 Silica Sand Pack (17.5-29' bgs)
25	13	24-26	1.6	15.7 45.1		Light brown/light gray fine to medium SAND, little coarse Sand after 24.7' bgs, wet, odor.	4" Stainless Steel 304 Vee-wire 30 Slot Screen (19-29' bgs)
-20	14	26-28	0.9	10.1		Light gray fine to coarse SAND, fine Gravel lamination at 26.7' bgs, wet, dense from 26-26.5' bgs.	
	15	28-29	0.5	11.2		Very light gray fine to medium SAND, trace coarse Sand, wet, grain size decreasing with depth.	
30						End of boring at 29' bgs.	
-25							
35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Langan
Engineering and Environmental Services, Inc.

LOG OF BORING LB-6/TW-6 SHEET 1 OF 2

PROJECT FMR GOLF FACILITY	PROJECT NO. 1836704
LOCATION OCEANSIDE, NY	ELEVATION AND DATUM
DRILLING AGENCY ZEBRA	DATE STARTED 3/11/04 — DATE FINISHED 3/11/04
DRILLING EQUIPMENT GEOPROBE 6600 w/ HSA	COMPLETION DEPTH 20-FT — ROCK DEPTH —
SIZE AND TYPE OF BIT —	NO. SAMPLES — DIST. — UNDIST. 2 CORE —
CASING 3-IN OD STEEL CASING	WATER LEVEL FIRST 1.6' COMPL.— 24 HR. —
CASING HAMMER — WEIGHT — DROP —	FOREMAN CHARLES GREGN
SAMPLER 2-IN MACROCORE	INSPECTOR MARSHALL KING
SAMPLER HAMMER — WEIGHT — DROP —	

UNIT	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES NO./LOC.	TYPE	RECOV. FT.	PENETR. RESIST BLWS.	PID ppm	W/C	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
FILL	CONCRETE DEBRIS	1							START 13:15
	LIGHT BROWN M-F SAND	2	S-1	MC	2.8	—	0	moist	PID = OVM 19.8V
	Brown-Black f-SAND, to silt	3					0	wet	MC'S COLLECTED USING DISCRETE SAMPLING METHOD
SAND	Brown-Grey M-F SAND, tr F gravel	4							
	SAME	5	S-2	MC	1.5	—	0	wet	
		6					0		
		7					0		
		8					0		SAMPLE 1024: 7.5-8'
ORGANIC	Grey SILT, sm. to fibrous organics, tr clay	9							
		10	S-3	MC	1.9	—	1.3	wet	
		11					1.2		
	SAME	12					0.5		
		13	S-4	MC	2.4	—	2.4	wet	
		14					3.2		

Langan
Engineering and Environmental Services, Inc.

JOB NO. 1836704
DATE 3/11/04

LOG OF BORING NO. LB-6/TW-6.
SHEET 2 OF 2

UNIT	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES NO./LOC.	SAMPLES TYPE	SAMPLES RECOV. FT.	SAMPLES PENETR. RESIST BLWS/FT.	PID ppm	W/C	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
ORGANIC	Grey SILT, sm tr fibrous organics, tr clay	15	S-4 (Grab)	MC	2Y	1	32	wet	STEEL CASING POSHED TO 16-FT
		16					8.1		
SAND	Brown MF SAND, tr silt	17					12.3		
		18	S-5	MC	3.3'	1	17.1	wet	SAMPLE #025 18-18.5
	Tan MF SAND	19					23		
		20							END BORING 20-FT @ 1430 BORING GROUTED TO SURFACE AS CASING WAS PULLED
		21							
		22							
		23							
		24							
		25							
		26							
		27							
		28							
		29							
		30							
		31							

086100

Date Start/Finish: 1/30/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: DT22 Geoprobe System

Northing: 164617.4000
Easting: 1081290.4300
Casing Elevation: NA

Borehole Depth: 7' bgs
Surface Elevation: 8.85' AMSL

Descriptions By: JRO

Well/Boring ID: **MW-18R**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10 / 0							Locking J-Plug; Steel Protective Casing; 2" Sch 40 PVC Riser (1.5' ags-2' bgs)
	1	0-1	NA	374.8		Dark gray fine to medium SAND, trace fine Gravel and Debris (Wood and Concrete), moist, strong odor.	Concrete Pad (0-0.5' bgs); Drainage Sand
	2	1-2	NA	448.1		Moist-wet.	Bentonite Seal (1-2' bgs)
5 / 5	3	2-5	NA	450.7		COBBLES and fine to medium GRAVEL, some to little fine to coarse Sand and debris, wet.	2" Sch 40 PVC 0.010" Slot Screen (2-7' bgs)
	4	5-7	NA	NA			#0 Silica Sand Pack (2-7' bgs)
0 / -5						Blind drilled to 7' bgs. End of boring at 7' bgs.	
10 / 15							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Borehole hand-cleared to 8.0' bgs.

Ground water sampling interval, 20.0' - 25.0' bgs.

Date Start/Finish: 9/23/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 26.5 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-23D-1
Client: CEMC

MW-23D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.3 / 4	NA		0		Dark to light brown coarse to fine SAND and GRAVEL, moist.		Cap
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Cement Pad
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Bentonite (1 - 3 feet bgs)
5		3.0 / 4			0				Sand Pack (3 - 9 feet bgs)
					0.6				
		2.6 / 4			1.1		Dark grey coarse to fine SAND and GRAVEL, some silt moist.		2 inch PVC Casing (0.5 - 16.5 feet bgs)
					1.0		Dark grey SILT, some clay, trace organics, wet.		
10		4.0 / 4			5.7				
					5.2				
					0		Dark grey SILT, some clay, trace organics, wet.		Bentonite (9 - 13 feet bgs)
					10.3				00 Sand Pack (13 - 14 feet bgs)
15		2.0 / 4			26.1		Dark grey SILT and coarse to fine SAND, little clay, wet.		
							Light grey to brown coarse to fine SAND and GRAVEL, wet.		#2 Filter Sand (14 - 26.5 feet bgs)
					25.9				
20							GRAVEL and SAND.		
25									0.02 inch slotted PVC Screen (16.5 - 26.5 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/23/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morafis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 41 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW23D-2
Client: CEMC

MW-23D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.3/4	NA		0		Dark to light brown coarse to fine SAND and GRAVEL, moist.		Cap Cement Pad
					0		Dark grey coarse to fine SAND and GRAVEL, moist.		Bentonite (1 - 3 feet bgs)
5		3.0/4			0		Dark grey coarse to fine SAND and GRAVEL, moist.		Sand Pack (3 - 8.5 feet bgs)
					0.6		Dark grey coarse to fine SAND and GRAVEL, some silt moist.		
		2.6/4			1.1 1.0		Dark grey SILT, some clay, trace organics, wet.		2 inch PVC Casing (0.5 - 31 feet bgs)
10					5.7 5.2				
		4.0/4			0		Dark grey SILT, some clay, trace organics, wet.		Bentonite (8.5 - 28 feet bgs)
					10.3				
15					26.1		Dark grey SILT and coarse to fine SAND, little clay, wet.		
		2.0/4			25.9		Light grey to brown coarse to fine SAND and GRAVEL, wet.		
20							GRAVEL and SAND.		00 Sand Pack (28 - 29 feet bgs)
25									
30									#2 Filter Sand (29 - 41 feet bgs)
35									0.02 inch slotted PVC Screen (31 - 41 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morallis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-24D-1
Client: CEMC

MW-24D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							Brown fine to coarse SAND, some fine gravel, trace concrete.		Cap Cement Pad
		2.5 / 4			28.3		Brown coarse SAND and coarse to fine GRAVEL, trace quartz pieces, wet.		
					27.7		Dark green coarse to fine SAND, some gravel, wet.		Bentonite (1 - 3 feet bgs)
5					31.2		Dark green coarse to fine SAND, some gravel, wet.		
		3.8 / 4			30.8		Dark grey fine SAND, some silt, trace gravel, wet.		Sand Pack (3 - 5 feet bgs)
					22.2		Dark green coarse to fine SAND, some gravel, wet.		
		3.0 / 4	NA		20.7		Dark grey SILT, some clay, trace organices, sulfur odor, wet.		2 inch PVC Casing (0.5 - 17 feet bgs)
10					16.4				
					16.2				
					19.2				
		1.7 / 4			2.1		Dark grey SILT, some clay, trace organices, sulfur odor, wet.		Bentonite (8 - 14 feet bgs)
					10.7				
15					13.8				00 Sand Pack (14 - 15 feet bgs)
					2.0		Light grey fine to coarse SAND, some silt, trace fine gravel, wet.		
					16.1		Brown fine to coarse SAND and GRAVEL, wet.		
		1.5 / 4			2.1				#2 Filter Sand (15 - 27 feet bgs)
20							SAND and GRAVEL.		
25									0.02 inch slotted PVC Screen (17 - 27 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct-Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-24D-2
Client: CEMC

MW-24D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0									Cap
		2.5 / 4			28.3		Brown fine to coarse SAND, some fine gravel, trace concrete.		Cement Pad
					27.7		Brown coarse SAND and coarse to fine GRAVEL, trace quartz pieces, wet.		Bentonite (1 - 3 feet bgs)
5					31.2		Dark green coarse to fine SAND, some gravel, wet.		
		3.8 / 4			30.8		Dark green coarse to fine SAND, some gravel, wet.		Sand Pack (3 - 8 feet bgs)
					22.2		Dark grey fine SAND, some silt, trace gravel, wet.		
		3.0 / 4	NA		20.7		Dark green coarse to fine SAND, some gravel, wet.		2 inch PVC Casing (0.5 - 32 feet bgs)
10					16.4				
					16.2		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
					19.2				
		1.7 / 4			2.1		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (8 - 29 feet bgs)
15					10.7				
					13.8		Light grey fine to coarse SAND, some silt, trace fine gravel, wet.		
					2.0		Brown fine to coarse SAND and GRAVEL, wet.		
		1.5 / 4			16.1				
20					2.1		SAND and GRAVEL.		00 Sand Pack (29 - 30 feet bgs)
25									
30									#2 Filter Sand (30 - 42 feet bgs)
35									0.02 inch slotted PVC Screen (32 - 42 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/7/06 — Date Finished: 12/22/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 75 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 19 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 9'/63'	Water Level (ft.): First ▽ 4 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light Brown coarse to fine SAND, some coarse to fine gravel		0						1015 - Begin drilling from 0'-5' bgs using hollow-stem auger.
		Brown coarse to fine SAND, little coarse to fine gravel		1						
				2						
				3						
				4						
		Brown coarse SAND, some medium sand, little coarse to fine gravel (wet)		5						1023 - Drilling complete to 5' bgs. Begin split-spoon sampling.
		Grey coarse SAND little coarse to fine gravel (Wet)		6	1	SS	12	4 3 4 4	7	Auger to 7ft bgs
		Grey coarse SAND, little medium to fine sand, trace coarse to fine gravel (Wet, Petroleum Odor)		7						
		Dark Grey CLAY, some peat, trace of silt (Organic and Petroleum Odor)		8	2	SS	17	4 2 1 1	3	Auger to 9 ft bgs
		Dark Grey CLAY, some peat, trace of silt (Organic and Petroleum Odor)		9						8" casing installed at 9 ft bgs
		Brown coarse to fine SAND, some coarse to fine gravel		10	3	SS	3	1 1/12" 1		
		Dark grey CLAY, some shells and silt, soft (Wet, Strong Petroleum Odor)		11	4	SS	24	1/12"	Refusal	1040 - Stop Drilling
				27.2 12				1/12"		Resume drilling at 1045 on 12/20/2006
		Dark grey CLAY, some silt, soft (Wet, Strong Sulfur Odor)		13					Refusal	
				25.5 14	5	SS	24	1 1 1 3	2	Auger to 15 ft bgs
				15						
				45.5 16	6	SS	20	1 1 1 1	2	
				17						
				34.9 18	7	SS	24	3 6 6 7	12	Auger to 19 ft bgs
				19						
		Grey fine to medium SAND, trace silt and clay (Wet, strong petroleum odor) Brown fine to medium SAND, trace coarse sand (Wet, strong petroleum odor)		20	8	SS	10	8 16	31	

G:\DATA\718\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W JGS.GPJ ... 5/23/2007 3:44:18 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 2 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20	8	SS	10	15 20	31	
				21						
				22						
				23				6		Auger to 23 ft bgs Begin sampling at 5ft intervals
			55.9	24	9	SS	10	5 6 6	11	
				25						
				26						
				27						
				28						Auger to 28 ft bgs
		Fine rounded GRAVEL gray, white yellow and clear								
		White coarse to fine SAND, some fine rounded gravel (Wet, Petroleum Odor)	61.5	29	10	SS	10	10 15 17 15	32	
		White coarse to medium SAND		30						
				31						
				32						
				33						Auger to 33 ft bgs
			67.6	34	11	SS	10	6 8 10 12	18	
		White coarse to medium SAND, some fine sand (Wet, Petroleu Odor)		35						
				36						
				37						
				38						Auger to 38 ft bgs
			44	39	12	SS	8	5 10 14 14	24	
		White Coarse to Medium SAND, soem f gravel and fine sand (Wet, very slight odor)		40						
				41						
				42						
				43						Auger to 43 ft bgs
			0	44	13	SS	10	6 7 8 8	15	
				45						

N-Value (Blows/ft) scale: 10 20 30 40

G:\DATA7\182 ...NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W ...GS.GPJ ... 5/23/2007 3:44:18 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 3 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White Coarse to Medium SAND, some f gravel and fine sand (Wet)		45						
				46						
				47						
				48				5		Auger to 48 ft bgs
			0	49	14	SS	8	10 12 12	22	Stop Drilling
		White medium to fine SAND, trace f gravel (Wet, slight odor)		50						
				51						
				52						
				53				15		Resume Drilling at 0800 on 12/21/2006
			0.8	54	15	SS	5	25 30 30	55	Auger to 53 ft bgs
		Light Brown medium-fine SAND, trace f gravel (Wet, very slight odor)		55						
				56						
				57						
				58				4		Auger to 58 ft bgs
			0	59	16	SS	10	20 38 37	58	
		Light Brown to white fine to medium SAND, trace fine gravel (Wet)		60						
				61						
				62						
				63				5		Auger to 63 ft bgs
			0	64	17	SS	10	16 18 30	34	
		Light Brown fine to medium SAND (Wet)		65						
				66						
				67						
				68				9		Auger to 68 ft bgs
			0	69	18	SS	10	9 16 16	25	
				70						

G:\DATA7\1836\ GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... JS.GPJ ... 5/23/2007 3:44:19 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-24VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark grey-green silty CLAY, very stiff, moist (no odor)		70						
				71						
				72						
				73				3		Auger to 73 ft bgs
				74	19	SS	16	3 6	9	
				75				9		End of Boring at 75 ft bgs Remove temporary 4" steel casing Drill with 6" roller bit from 0 to 63 ft bgs 4" permanent steel casing installed from 0 to 63 ft bgs (grout in place) Monitoring well installed at 73 ft bgs
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

Report: Log - LANGAN ...Template TEMPLATE.GDT ... 5/23/2007 3:44:20 PM ... 3S.GPJ

G:\DATA7\183 \GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct-Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-25D-1
Client: CEMC

MW-25D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/.6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE and REBAR.		Cap; Cement Pad
					0		Lightbrown coarse to fine SAND and GRAVEL, wet.		
		2.0 / 4			0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Bentonite (1 - 3 feet bgs)
5					0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Sand Pack (3 - 9 feet bgs)
		3.8 / 4			0				
		1.5 / 4	NA		25.5		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		2 inch PVC Casing (0.5 - 16 feet bgs)
					24.7		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
10					228		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
					48.3				
		4.0 / 4			9.7		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (9 - 13 feet bgs)
					8.0				00 Sand Pack (13 - 14 feet bgs)
15					28.1		Dark brown coarse to fine SAND, some fine gravel, trace silt, wet.		
							GRAVEL and SAND.		#2 Filter Sand (14 - 26 feet bgs)
20									
25									0.02 inch slotted PVC Screen (16 - 26 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/25/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morales
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 41 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-25D-2
Client: CEMC

MW-25D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.0 / 4	NA		0		CONCRETE and REBAR.		Cap Cement Pad
					0		Lightbrown coarse to fine SAND and GRAVEL, wet.		
					0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Bentonite (1 - 3 feet bgs)
5		3.8 / 4			0		Brown coarse to fine GRAVEL, some coarse to fine sand, wet.		Sand Pack (3 - 9 feet bgs)
					0		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		
		1.5 / 4			25.5 24.7		Dark grey coarse to fine SAND, some coarse gravel, some silt, wet.		2 inch PVC Casing (0.5 - 31 feet bgs)
10					228		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		
		4.0 / 4			48.3		Dark grey SILT, some clay, trace organics, sulfur odor, wet.		Bentonite (9 - 28 feet bgs)
					9.7				
15					8		Dark brown coarse to fine SAND, some fine gravel, trace silt, wet.		
					28.1		GRAVEL and SAND.		
20									
25									
30									00 Sand Pack (28 - 29 feet bgs)
35									#2 Filter Sand (29 - 41 feet bgs)
									0.02 inch slotted PVC Screen (31 - 41 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

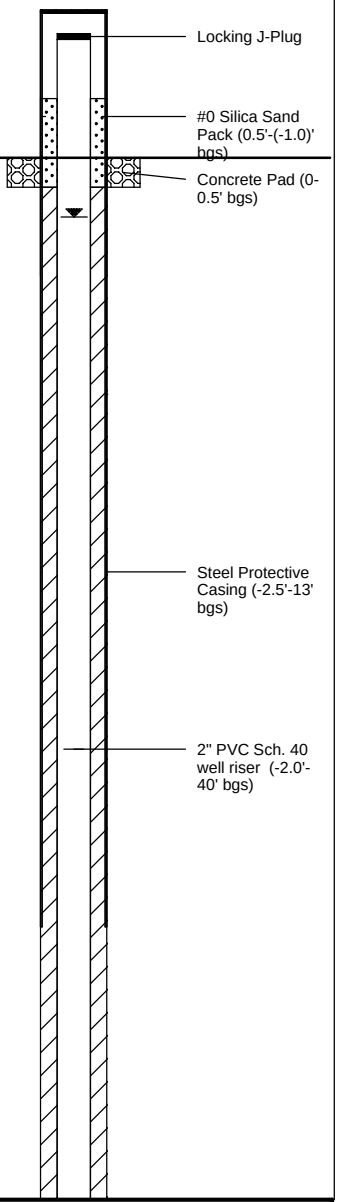
Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to medium Gravel, Organics (roots), Silt (M,NP)
		2	2-4	Grab	1,031		moderate to heavy petroleum-like odor
5	0	3	4-6	Grab	82.6		Grey to brown fine to medium SAND, some fine to medium Gravel, little Silt (S,NP)
		4	6-8	Grab	45.6		moderate petroleum-like odor
		5	8-10	2.0	27.8		Grey SILT and CLAY, little Organics (peat, roots), trace fine Sand (S,P)
10	-5	6	10-12	2.0	38.3		
		7	12-13	1.0	17.2		set 4" steel casing and switched to Mud-Rotary at 13' bgs
		8	13-15	2.0	23.2		
15	-10	9	15-17	2.0	17.8		
		9	15-17	2.0	17.8		Brown to grey fine to medium SAND, little Peat, Silt, trace Clay (S,NP) faint odor
							Brown fine to medium SAND, trace fine Gravel (S,NP)

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164759.23
Easting: 1080931.65
Casing Elevation: 5.66

Borehole Depth: 50' bgs
Surface Elevation: 5.49

Descriptions By: MWE

Well/Boring ID: **MW-25-D3**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		10	17-19	2.0	17.9		faint petroleum-like odor (possibly drawdown)
20	-15	11	19-21	2.0	23.7		
		12	21-23	2.0	39.8		
		13	23-25	2.0	3.2		
25	-20	14	25-27	2.0	0.3		Brown fine to coarse SAND, trace fine Gravel (S,NP)
		15	27-29	2.0	0.3		
30	-25	16	29-31	2.0	0.0		
		17	31-33	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 38' bgs
35	-30						

Well/Boring Construction

Cement/Bentonite Grout (0.5'-35' bgs)

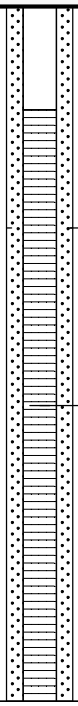
Bentonite Seal (35'-38' bgs)

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 12/2/10 & 12/9/10 **Drilling Company:** Parratt Wolff **Driller's Name:** J. Price **Drilling Method:** 4.24" HSA **Sampling Method:** 2" x 2' Split Spoon **Rig Type:** Vac Unit/IR 466	**Northing:** 164759.23 **Easting:** 1080931.65 **Casing Elevation:** 5.66 **Borehole Depth:** 50' bgs **Surface Elevation:** 5.49 **Descriptions By:** MWE	**Well/Boring ID:** **MW-25-D3** **Client:** Chevron **Location:** Oceanside Former Gulf Terminal Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		18	38-40	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 43' bgs	
40	-35							
		19	43-45	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP) drilled to 48' bgs	
45	-40							
		20	48-50	2.0	0.0		Brown medium to coarse SAND, little fine Sand, trace fine Gravel (S,NP)	
50	-45						End of boring at 50' bgs	



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-25-D3 (21-23') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/6/06 — Date Finished: 12/19/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 75 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 21 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 14'/63'	Water Level (ft.): First ▽ 5 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light Brown medium to fine SAND, some coarse to fine gravel		0						1330 - Begin drilling with a hollow-stem auger
		Black coarse SAND, some medium sand, little coarse to fine gravel (Petroleum Smell)	0.8	1	1	SS	10	8 12 8 8	20+	
			30	2	2	SS	10	6 5 8 6	13+	
		Black coarse SAND, some medium sand, some coarse to fine gravel (Wet, Petroleum odor) ▽		3						Auger to 4 ft bgs
			20.5	4	3	SS	12	5 5 7 7	12+	
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)	34	5	4	SS	22	7 4 3 4	7+	
				6						Auger to 8 ft bgs
		(No Recovery)		7	5	SS	0	2 1/12" 1		
				8	6	SS	0	WH/2"	Refusal+ Refusal+	
				9						
		Dark gray CLAY, trace of peat, trace of silt (Wet,Petroleum and organic smell)		10	7	SS	24	1/12" 1/12"		
			47.5	11						
		Dark brown CLAY, some coarse to fine gravel, little peat (Petroleum and organic smell)		12	8	SS	3	WH/12" 1 1	Refusal+ Refusal+	Auger to 14 ft bgs 8" Casing Placed at 14 ft bgs
			20	13						
				14						Stop Drilling at 1430 on 12/06/2006
		Dark brown CLAY, some coarse to fine gravel, little peat (Petroleum and organic smell)		15						
		Brown fine to medium SAND, trace coarse sand and fine white quartz gravel (Wet, organic and chemical odor)	21.5	16	9	SS	14	3 5 12 20	17	Resume drilling at 0915 on 12/14/2007
		Brown to gray fine to medium SAND (Wet, strong chemical odor)		17						
			33	18	10	SS	15	10 15 20 22	35+	
				19						
				20						

G:\DATA7\183\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... 5/23/2007 3:44:26 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 2 of 4

oject	Former Chevron/Gulf Petroleum Oil Terminal	Project No. 1836740
Location	Oceanside, NY	Elevation and Datum Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown fine to medium SAND, trace fine white quartz gravel (Wet, strong chemical odor)		20 21 22 23						
			16.7	24	11	SS	8	5 6 7 10	13	Auger to 23 ft bgs Start sampling at 5 ft intervals
		Gray to white medium to coarse SAND, trace fine sand (Wet, chemical odor)		25 26 27						
			16.1	28 29	12	SS	8	10 17 18 13	35	Auger to 28 ft bgs
		White fine to medium SAND (Wet, organic/chemical odor)		30 31 32						
			3.4	33						Auger to 33 ft bgs Sand is caving need a larger bit of casing (break down for the day) Resume Drilling on 12/15/2006 at 1015 Install temporary 4" casing from 0-14 ft bgs Drill from 0 to 33 ft using 4" mud rodary Borehole filling in with Sand, installa additional temporary 4" steel casing to 29 ft bgs Drill to 38 ft bgs Too much sand in mud stop to change mud
		White medium to coarse SAND, some fine sand (Wet, slight organnc chemical odor)		34 35 36	13	SS	10	13 19 22 22	41	
			0.0	37						
				38				9		
				39	14	SS	12	12 14 12	26	
		Fine gravel (gray, white and yellow)		40						
			0.0	41						
				42						Drill to 43 ft bgs
				43				6		
		Medium to coarse gray to yellow SAND, some fine sand and fine gravel (Wet)		44	15	SS	10	7 9 10	16	
				45						

G:\DATA7\183.
IGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\V.
3S.GPJ ... 5/23/2007 3:44:27 PM ... Report Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown and gray medium coarse SAND and fine rounded gravel, trace fine sand (Wet)	0.0	45						
				46						
				47						
				48						Drill to 48 ft bgs
			0.0	49	16	SS	16	7 3 7 20	10	
		White fine to medium SAND (Wet)		50						
				51						
				52						
				53						Drill to 53 ft bgs
			0.0	54	17	SS	14	19 20 30 35	50	
		White fine to medium SAND, some coarse sand, trace fine gravel (Wet)		55						Mud pad empty, mud is being quickly sucked up by the gravel layer. Stop to mix new mud
				56						
				57						
				58						Drill to 58 ft bgs
			0.0	59	18	SS	10	15 22 24 28	46	
		White to light brown fine to medium SAND, trace fine rounded gravel (Wet)		60						
				61						
				62						
				63						Drill to 63 ft bgs
			0.0	64	19	SS	10	12 20 22 25	42	
		Light brown fine to medium SAND, trace coarse sand (Wet)		65						
				66						
				67						
				68						Drill to 68 ft bgs
			0.0	69	20	SS	10	12 15 15 17	30	
				70						

10 20 30 40

G:\DATA\7183\...ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...S.GPJ ... 5/23/2007 3:44:28 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-25VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Darg gray-green silty CLAY, very dense moist		70						
				71						
				72						
				73				10		Dril to 73 ft bgs
				74	21	SS	24	10 17 20	27	
				75						End of boring at 75 ft bgs Install 4" steel inner casing from 0 to 63 ft bgs 2" PVC Monitoring well installed at 73 ft bgs
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

G:\DATA7\183...IGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...3S.GPJ ... 5/23/2007 3:44:28 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

Date Start/Finish: 9/24/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2-inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 25 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-26D-1
Client: CEMC

MW-26D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		0		Dark grey coarse to medium SAND and coarse to fine GRAVEL, wet.		Cap; Cement Pad
					0				
					0		Dark brown coarse to fine SAND and coarse GRAVEL, trace silt, wet.		Bentonite (1 - 3 feet bgs)
5		0.9 / 4			0				Sand Pack (5 - 8.5 feet bgs)
					0				
		2.3 / 4			25.5		Dark grey SAND, some silt, moist to wet.		
					24.7		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		2 inch PVC Casing (0.5 - 15 feet bgs)
10					228				Bentonite (8.5 - 12 feet bgs)
					48.3				
		1.4 / 4			9.7		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		00 Sand Pack (12 - 13 feet bgs)
					8.0		Brown coarse to fine SAND, trace shells and gravel, wet.		
15					28.1		GRAVEL and SAND.		#2 Filter Sand (13 - 25 feet bgs)
20									0.02 inch slotted PVC Screen (15 - 25 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Started/Finished: 9/24/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 40 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-26D-2
Client: CEMC

MW-26D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4			1.0		Dark grey coarse to medium SAND and coarse to fine GRAVEL, wet.		Cap Cement Pad
					0				
5		0.9 / 4			1.3		Dark brown coarse to fine SAND and coarse GRAVEL, trace silt, wet.		Bentonite (1 - 3 feet bgs)
					1.9				Sand Pack (3 - 8.5 feet bgs)
		2.3 / 4	NA		8.4		Dark grey SAND, some silt, moist to wet.		
10					20.5		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		2 inch PVC Casing (0.5 - 31 feet bgs)
					21.9				
		1.4 / 4			16.8		Dark grey SILT, some clay, trace organics and wood, sulfur odor, wet.		Bentonite (8.5 - 27 feet bgs)
15					9.8		Brown coarse to fine SAND, trace shells and gravel, wet.		
					12.3		GRAVEL and SAND.		
20									
25									00 Sand Pack (28 - 29 feet bgs)
30									
35									#2 Filter Sand (29 - 41 feet bgs)
									0.02 inch slotted PVC Screen (30 - 40 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 1 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/5/06
Date Finished	12/28/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	70 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 18 / Undisturbed 0 / Core 0
Casing Diameter (in)	8"/4"
Casing Depth (ft)	16'/60'
Water Level (ft.)	First ▽ 3 / Completion ▼ / 24 HR. ▼
Casing Hammer	Weight (lbs) NA / Drop (in) NA
Drilling Foreman	Chris Stratton/Chris Nigliore
Sampler	2" O.D. Split Spoon
Inspecting Engineer	Anthony Sfeir/Andrew Racz
Sampler Hammer	Weight (lbs) 140 / Drop (in) 30

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Blac coarse to fine SAND, some coarse to fine gravel (Petroleum Odor)		0						1420 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
				5						Auger to 5 ft bgs
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel (Wet)		6	1	SS	1.5	1 1/12"		
		Black coarse to fine SAND, some coarse to fine gravel (Wet)		7	2	SS	0	WH/24"	Refusal Refusal	
				8						
				9						Auger to 9 ft bgs
				10	3	SS	1	WH/18"	Refusal	
		Black coarse SAND, some medium to fine sand, some fine gravel (Wet)		11	4	SS	0.5	WH/12"		
				12				1	Refusal	Auger to 13 ft bgs
		Black coarse SAND, little medium sand, little fine gravel (Wet)		13	5	SS	2	2 1 2 2 5	3	
		Dark brown CLAY, some peat some silt (organic and petroleum odor)		14						
		Light brown medium SAND, some fine sand		15						
				16	6	SS	14	2 4 4 5	8	Auger to 17 ft bgs 8" Casing installed at 16 ft Stop Drilling at 1600 on 12/5/2006 Resume Drilling on 12/28/2006 Install temporary 4" steel casing from 0 to 15 ft bgs Drill to 19 ft bgs
		Brown medium SAND, some fine sand, trace silt (Petroleum odor, wet)		17						
				18	7	SS	24	7 8 9 10	17	
		Brown medium to fine SAND, some fine rounded gravel, trace mica flakes (Wet, strong chemical odor)		19	8	SS	6	8 11	24	
				20						

G:\DATA\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\MW-26VD GS.GPJ... 5/23/2007 3:44:34 PM... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 2 of 4

oject	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown coarse to medium SAND, some fine rounded gravel (Wet, Strong chemical odor)	10.1	20	8	SS	6	13 17		
				21						
				22						
				23						Drill to 23 ft bgs
				24	9	SS	7	21 31 57 50/3"	88	
			5.2	25						
		Whte fine to medium SAND (Wet, faint chemical odor)		26						Gravel is clogging the hole, drive additional temporary 4 " steel casing to 25 ft bgs
				27						
				28						Drill to 28 ft bgs
				29	10	SS	6	21 47 38 42	85	
		Whte fine to medium SAND, some coarse sand (Wet, slight chemical odor)		30						
				31						
				32						
				33						Resume Drilling on 12/29/2006 Drill to 33 ft bgs
			2.4	34	11	SS	6	20 18 22 25	40	
		White coarse to fine SAND (Wet)		35						
				36						
				37						
				38						Drill to 38 ft bgs
				39	12	SS	6	22 27 23 40	50	
		Light Brown to white Coarse SAND and fine GRAVEL, some medium to fine sand (Wet)		40						
				41						
				42						
				43						Drill to 43 ft bgs
				44	13	SS	6	19 22 30 38	52	
				45						

G:\DATA7\1836\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\WE ...S.GPJ ... 5/23/2007 3:44:35 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White fine to medium SAND, trace coarse sand (Wet)		45						
				46						
				47						
				48						Drill to 48 ft bgs
				49	14	SS	6	27 26 33 38	59	
		Light brown medium to fine SAND, some coarse sand (Wet, very faint odor)		50						
				51						
				52						
				53						Drill to 53 ft bgs
			9.7	54	15	SS	6	28 33 40 50/3"	73	
		Light Brown to white medium to fine SAND, trace fine gravel (Wet)		55						
				56						
				57						
				58						Drill to 58 ft bgs
			0	59	16	SS	6	34 36 35 55	71	
		Darg grey medium to fine SAND, some silt and clay, some fine gravel (Wet)		60						
				61						
				62						
				63						Drill to 63 ft bgs
			0	64	17	SS	10	43 50 50 50	100	
		Dark grey SILT, some fine white shell fragments, moist		65						
				66						
				67						
				68	18	SS	6			
			0	69						
				70						

G:\DATA\1836 ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\WE S.GPJ ... 5/23/2007 3:44:36 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-26VD** Sheet 4 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				70						End of Boring at 70 ft bgs
				71						
				72						
				73						
				74						
				75						
				76						
				77						
				78						
				79						
				80						
				81						
				82						
				83						
				84						
				85						
				86						
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

G:\DATA7\1 NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\ GS.GPJ ... 5/23/2007 3:44:36 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

Date Start/Finish: 9/27/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore - 4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 28 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-27D-1
Client: CEMC

MW-27D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.7 / 4	NA		0 3.2 41.1		Brown fine to coarse SAND, trace organics. Grey coarse SAND, some coarse to fine gravel, odor, moist.		Cap Cement Pad
5		3.5 / 4			8.4 11.3		Grey coarse SAND, some coarse to fine gravel, odor, moist. Brown coarse to fine SAND, some gravel, little silt, no odor.		Bentonite (1 - 3 feet bgs) Sand Pack (3 - 12 feet bgs)
10		0.0 / 4			2.1		No recovery.		2 inch PVC Casing (0.5 - 18 feet bgs)
15		3.0 / 4			0 0 0 2.8		Dark grey SILT, some clay, trace organics, sulfur odor, moist. Dark grey SILT, some clay, trace organics, sulfur odor, moist.		Bentonite (12 - 15 feet bgs) 00 Sand Pack (15 - 16 feet bgs)
20		2.2 / 4			0 11.3		Brown fine to coarse SAND and GRAVEL, wet. SAND and GRAVEL.		#2 Filter Sand (16 - 28 feet bgs)
25									0.02 inch slotted PVC Screen (18 - 28 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/29/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Meratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 43 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-27D-2
Client: CEMC

MW-27D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		Brown fine to coarse SAND, trace organics.		Cap Cement Pad
		2.7 / 4			3.2		Grey coarse SAND, some coarse to fine gravel, odor, moist.		
5					41.1				Bentonite (1 - 3 feet bgs)
		3.5 / 4			8.4		Grey coarse SAND, some coarse to fine gravel, odor, moist.		Sand Pack (3 - 12 feet bgs)
					11.3		Brown coarse to fine SAND, some gravel, little silt, no odor.		
		0.0 / 4	NA		2.1 0		No recovery.		2 inch PVC Casing (0.5 - 33 feet bgs)
10					8.1				
					13.4				
		3.0 / 4			0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		
					0				
15					0		Dark grey SILT, some clay, trace organics, sulfur odor, moist.		Bentonite (12 - 30 feet bgs)
					2.8				
		2.2 / 4			0		Brown fine to coarse SAND and GRAVEL, wet.		
20					11.3				
							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 43 feet bgs)
									0.02 inch slotted PVC Screen (33 - 43 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 10/6/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-28D-1
Client: GEMC

MW-28D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap; Cement Pad
		1.8 / 4					Brown coarse to fine SAND, moist to wet.		
					7.5		Light grey coarse SAND and fine GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5							Light grey coarse SAND and fine GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			14.1				
		1.0 / 4	NA				Dark grey CLAY, some silt, trace organics and wood.		2 inch PVC Casing (0.5 - 17.5 feet bgs)
10					58.7				
		0.5 / 4					Dark grey CLAY, some silt, trace organics and wood.		Bentonite (8 - 15 feet bgs)
					3.5				
15							Dark grey CLAY, some silt, trace organics and wood.		00 Sand Pack (15 - 16 feet bgs)
					12.3		Brown to grey medium to fine SAND, trace coarse gravel, wet.		#2 Filter Sand (16 - 27.5 feet bgs)
		3.0 / 4			99.4				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (17.5 - 27.5 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 10/5/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-28D-2
Client: CEMC

MW-28D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows/6 Inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap Cement Pad
		1.8 / 4			7.5		Brown coarse to fine SAND, moist to wet.		
5							Light grey coarse SAND and fine GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
		2.0 / 4			14.1		Light grey coarse SAND and fine GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		1.0 / 4	NA				Dark grey CLAY, some silt, trace organics and wood.		2 inch PVC Casing (0.5 - 32.5 feet bgs)
10					58.7				
		0.5 / 4					Dark grey CLAY, some silt, trace organics and wood.		Bentonite (8 - 30 feet bgs)
					3.5				
15							Dark grey CLAY, some silt, trace organics and wood.		
					12.3		Brown to grey medium to fine SAND, trace coarse gravel, wet.		
		3.0 / 4			99.4				
20							SAND and GRAVEL.		
25									
30									00 Sand Pack (30 - 31 feet bgs)
35									#2 Filter Sand (31 - 42.5 feet bgs)
									0.02 inch slotted PVC Screen (32.5 - 42.5 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 6/17/2016
Drilling Company: Summit Drilling
Driller's Name: Ninevski, Mobus, Crandall
Drilling Method: Rotary Sonic
Sampling Method: 5'x3" Rotary Sonic Sampler
Rig Type: Track-mounted Fraste Rotary Sonic

Northing: 164618.6100
Easting: 1080862.1500
Casing Elevation: NA

Borehole Depth: 46' bgs
Surface Elevation: 9.00' AMSL

Descriptions By: Levia Terrell

Well/Boring ID: **MW-28-D2R**

Client: Chevron Environmental Management Company

Location: Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
10							J-plug; Locking steel protective casing
0							
				0.0		Hand-cleared by AirVac Truck to 8.0' bgs.	Concrete pad
				0.0			
				0.0			
5				0.0			
	1	0-8	NA	0.0			2" dia. Sch. 40 PVC riser (2' ags-37' bgs)
5				0.0			
				0.0			
				0.0			
				0.0		Dark Gray medium to fine SAND, some fine to coarse Gravel, rounded, wet. Water approximately at 9.0' bgs.	
0				0.0			
10				0.0		Dark Gray CLAY, some Organics (grass), little Silt. [Meadow Mat]	Grout (1-33' bgs)
	2	8-15	5.5	0.0			
				0.3		Dark Gray CLAY, little Organics (grass and shells), moist. [Meadow Mat]	
-5				0.2			
				1.3			
15				0.3			

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

ARCADIS Design & Consultancy for natural and built assets

Client: Chevron Environmental Management Company

Well/Boring ID: **MW-28-D2R**

Borehole Depth: 46' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				8.8			Grout (1-33' bgs)
	3	15-20	5.5	7.5			2" dia. Sch. 40 PVC riser (2' ags-37' bgs)
-10				14.0		Dark Gray medium to fine SAND and SILT, trace medium to fine Gravel, rounded, moist.	
20				45.0			
				2.6			
				7.5		Brown fine to medium SAND, trace medium to fine Gravel, round, mica.	
	4	20-25	5.0	0.0			
				0.3			
-15				14.0			
25				0.0			
				0.0			
	5	25-30	4.0	0.0		Some medium to fine, rounded Gravel. Wet.	
				0.0		Brown to light brown coarse to medium SAND, some coarse to fine Gravel.	
-20				0.0			
30				0.0		Light Gray coarse to medium SAND and fine Gravel, rounded.	
				0.0			
	6	30-35	2.0	0.0			
				0.0			
-25				0.0			Bentonite seal (33-35' bgs)
35				0.0			

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

Client: Chevron Environmental Management Company

Well/Boring ID: **MW-28-D2R**

Borehole Depth: 46' bgs

Site Location:
Former Gulf Oil Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
	7	35-40	4.5	0.0 0.0 0.0 0.0		Trace medium to coarse rounded Gravel. 1-inch color change to orange-brown. Light Gray medium to fine SAND, little medium to fine Gravel, rounded, mica present.	
40 / -30	8	40-46	NR	0.0 0.0 0.0 0.0 0.0		No Recovery. Overdrilled to 46.0' bgs for well placement. End of boring 46' bgs.	Filter sand (35-47' bgs) 2" dia. Sch. 40 PVC 0.020" slotted screen (37-47' bgs)
45 / -35							
50 / -40							
55 / -45							

ARCADIS Design & Consultancy for natural and built assets

Remarks: AMSL = above mean sea level; bgs = below ground surface; NA = not available; PID = photoionization detector; ppm = parts per million; NR = no recovery.

Ground surface elevation is approximate.

Date Start/Finish: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27 feet
Surface Elevation:
Geologist: Joel Lisi

Well/Boring ID: MW-29D-1
Client: CEMC

MW-29D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows /6 inches	N Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							GRAVEL and ASPHALT		Cap
					0		Light brown coarse to fine GRAVEL, little sand, moist.		Cement Pad
		3.5 / 4			61.2		Grey coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
					186				
5					20.6		Grey coarse to fine SAND and GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		4.0 / 4			20.3				
			NA		0		Grey coarse to fine SAND and GRAVEL, some silt, wet.		
		3.4 / 4			0		Grey SILT, trace clay and organics, wood, and shells, wet.		2 inch PVC Casing (0.5 - 17 feet bgs)
10					0				
					0				
		2.7 / 4			0		Grey SILT, trace clay and organics, wet.		Bentonite (8 - 14 feet bgs)
					0				
15					0		Dark grey to black SILT and fine SAND, trace fine gravel, wet.		00 Sand Pack (14 - 15 feet bgs)
					0		Brown coarse to fine SAND, some fine gravel, wet.		
		3.5 / 4			0				#2 Filter Sand (15 - 27 feet bgs)
					0				
20							SAND and GRAVEL		
									0.02 inch slotted PVC Screen (17 - 27 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 42 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-29D-2
Client: CEMC

MW-29D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows /6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0					0		GRAVEL and ASPHALT		Cap Cement Pad
		3.5 / 4			61.2		Light brown coarse to fine GRAVEL, little sand, moist.		
					186		Grey coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
5					20.6		Grey coarse to fine SAND and GRAVEL, wet.		Sand Pack (3 - 8 feet bgs)
		4.0 / 4			20.3				
		3.4 / 4	NA		0		Grey coarse to fine SAND and GRAVEL, some silt, wet.		2 inch PVC Casing (0.5 - 32 feet bgs)
					0		Grey SILT, trace clay and organics, wood chips, and shells, wet.		
10					0				
					0				
		2.7 / 4			0		Grey SILT, trace clay and organics, wet.		Bentonite (8 - 29 feet bgs)
					0				
15					0		Dark grey to black SILT and fine SAND, trace fine gravel, wet.		
					0		Brown coarse to fine SAND, some fine gravel, wet.		
		3.5 / 4			0				
					0				
20							SAND and GRAVEL.		
25									00 Sand Pack (29 - 30 feet bgs)
30									#2 Filter Sand (30 - 42 feet bgs)
35									0.02 inch slotted PVC Screen (32 - 42 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-29VD** Sheet 1 of 3

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/4/06 — Date Finished: 12/26/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 65 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 17 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 15'/54'	Water Level (ft.): First ▽ 3 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse to fine SAND, some coarse to fine gravel, tarce silt		0						0950 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Black coarse to fine SAND, some coarse to fine gravel (Wet, Petroleum odor)		5	1	SS	3	2 4 5	6	Auger to 5 ft bgs
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)		6						Auger to 7 ft bgs
				7	2	SS	2	WH 1 1	2	
			0.5	8						
		Black coarse to fine SAND, little coarse to fine gravel (Wet, Petroleum odor)		9	3	SS	0.25	WH/24"		Auger to 9 ft bgs
			0	10				1	Refusal	
		CLAY, some silt, trace fine sand		11	4	SS	3	WH/18"		Auger to 11 ft bgs
			0	12					Refusal	
				13	5	SS	0	2 WR/12"		Auger to 13 ft bgs
				14				WH/12"	Refusal	
		Black coarse to medium SAND, trace fine sand, trace gravel		15	6	SS	1.5	WH/18"		Auger to 15 ft bgs 8" Casing installed at 15 ft Stop Drilling at 1110 on 12/4/2006 Resume Drilling on 12/26/2006 at 0900 Install temporary 4" steel casing from 0 to 13 ft bgs Drill to 15 ft
			4.2	16					Refusal	
		Black to brown medium SAND, some fine sand, trace fine gravel (Petroleum Odor, wet)		17	7	SS	8	2 7 14		
			0.7	18				14 15	28	
		Brown medium to fine SAND (Petroleum odor, wet)		19	8	SS	14	12 29		Drill to 19 ft bgs Install 4" temporary casing to 19 ft bgs
				20					45	

G:\DATA\7\18.NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\'GS.GPJ ... 5/23/2007 3:44:42 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-29VD** Sheet 2 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown medium to fine SAND, trace medium to fine subangular beach gravel (wet)	0.4	20	8	SS	14	16 16		
				21						
				22						
				23						Drill to 23 ft bgs
		Brown coarse to fine SAND, trace medium to fine subangular gravel (strong petroleum odor, wet)	0.2	24	9	SS	10	8 14 17 18	31	
				25						
				26						
				27						
				28						
		Brown to white medium to fine SAND, trace medium to fine sub angular beach gravel (strong petroleum odor, wet)	6.9	29	10	SS	4	3 2 5 5	7	
				30						
				31						
				32						
				33						
		Brown to light gray medium to fine SAND, trace fine to medium sub angular beach gravel (slight petroleum odor, wet)	3.8	34	11	SS	10	3 2 2 3	4	
				35						
				36						
				37						
				38						
		Brown to gray coarse to medium SAND, trace fine to medium sub angular beach gravel (slight petroleum odor, wet)	0	39	12	SS	8	2 3 3 2	6	
				40						
				41						
				42						
				43						
			0	44	13	SS	12	3 3 5 5	8	
				45						

N-Value (Blows/ft) scale: 10 20 30 40 45

G:\DATA\7183\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\MW-29VD.GPJ ... 5/23/2007 3:44:43 PM ... Report Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-29VD** Sheet 3 of 3

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown to light gray coarse to medium SAND, trace fine to medium sub angular beach gravel		45						
				46						
				47						
				48						
				49	14	SS	6	2 3 2 3	5	
		Light gray mediu to fine SAND, trace medium to fine beach gravel (Wet)		50						
				51						
				52						
				53						
				54	15	SS	16	19 24 26 23	50	
		Light gray fine SAND, trace rock fragments, trace mediu to fine beach gravel (wet)		55						
				56						
				57						
				58						
				59	16	SS	12	13 21 28 40	49	
		Light Gray fine SAND, trace medium to fine beach gravel (wet)		60						
				61						
				62						
				63						
				64	17	SS	12	11 14 11 12	25	
		Gray silty CLAY		65						
				66						Drill to 54 ft bgs using a 6" bit Install Permanent 4" steel casing from 0 to 54 ft bgs Install 2" PVC Monitoring Well from at 63 ft bgs
				67						
				68						
				69						
				70						

G:\DATA7\18-ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...3S.GPJ ... 5/23/2007 3:44:43 PM ... Report Log - LANGAN ...Template TEMPLATE.GDT

Date Start/Finish: 10/1/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morals
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 28 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-30D-1
Client: CEMC

MW-30D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		0		Coarse SAND and GRAVEL (fill).		Cap
					30.8		Brown coarse to fine SAND and GRAVEL, wet.		Cement Pad
					64.1				Bentonite (1 - 3 feet bgs)
5		2.5 / 4			33		Grey brown coarse to fine SAND and GRAVEL, wet.		
					35.1		Grey coarse to fine SAND, some gravel, trace silt, wet.		Sand Pack (3 - 8 feet bgs)
		3.0 / 4			8.8				
					0		Grey SILT, some clay, trace fine sand and organics, wet.		2 inch PVC Casing (0.5 - 18 feet bgs)
10					8.1				
					13.4				
		1.5 / 4			0		Grey SILT, some clay, trace fine sand and organics, wet.		Bentonite (8 - 15 feet bgs)
					0				
15					0				00 Sand Pack (15 - 16 feet bgs)
					0		No recovery.		
		0.0 / 4			0				#2 Filter Sand (16 - 28 feet bgs)
					0				
20							SAND and GRAVEL.		
									0.02 inch slotted PVC Screen (18 - 28 feet bgs)
25									

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

Remarks: bgs - Below ground surface.

Date Started/Finished: 9/30/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moralis
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 43 feet
Surface Elevation:
Geologist: Joe Lisi

Well/Boring ID: MW-30D-2
Client: CEMC

MW-30D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

Depth (Feet bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0		2.5 / 4	NA		0		Coarse SAND and GRAVEL (fill).		Cap Cement Pad
					30.8		Brown coarse to fine SAND and GRAVEL, wet.		
5		2.5 / 4			64.1		Grey brown coarse to fine SAND and GRAVEL, wet.		Bentonite (1 - 3 feet bgs)
					33		Grey coarse to fine SAND, some gravel, trace silt, wet.		Sand Pack (3 - 8 feet bgs)
		3.0 / 4			35.1				
10					8.8		Grey SILT, some clay, trace fine sand and organics, wet.		2 inch PVC Casing (0.5 - 33 feet bgs)
					0				
		1.5 / 4			8.1				
					13.4		Grey SILT, some clay, trace fine sand and organics, wet.		Bentonite (8 - 30 feet bgs)
15					0				
					0				
					0		No recovery.		
		0.0 / 4							
20							SAND and GRAVEL.		
									00 Sand Pack (30 - 31 feet bgs)
25									
									#2 Filter Sand (31 - 43 feet bgs)
30									
									0.02 inch slotted PVC Screen (33 - 43 feet bgs)
35									
40									

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

Remarks: bgs - Below ground surface.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 1 of 4

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/5/06 — Date Finished: 12/27/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 86 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 21 — Undisturbed 0 — Core 0
Casing Diameter (in): 8"/4" — Casing Depth (ft): 10'/73'	Water Level (ft.): First ▽ 3 — Completion ▼ — 24 HR. ▽
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse to fine SAND, some coarse to fine gravel (Petroleum Odor)		0						1005 - Start drilling using a 10" hollow-stem auger
		Black coarse SAND and coarse to fine GRAVEL, little fine sand (Wet, Petroleum odor)		5	1	SS	3	5 4 6 4	10	Auger to 7 ft bgs
		Black coarse to fine SAND, some coarse to fine gravel	10.2	7	2	SS	18	WH/24"	Refusal	
		Dark brown CLAY, some silt, some peat (Strong petroleum and organic odor)	0.8	8						Auger to 9 ft bgs
		Dark brown CLAY, little peat, little coarse to fine gravel, little silt (organic smell)	1.0	10	3	SS	12	1 1 1 1	2	Auger to 10 ft bgs Place 8" casing at 10 ft bgs Stop drilling at 1145 Resume drilling on 12/27/2006 Install temporary 4" casing from 0 to 15 ft bgs. Drill to 13 ft bgs
		Soft gray CLAY, some silt, trace organic matter, moist strong sulfur odor		12						
		Soft gray CLAY, some silt amd organic matter, wet, sulfur odor	3.9	14	5	SS	24	5 5 6 4	11	
			3.2	16	6	SS	18	3 5 5 10	10	
		Brown medium to fine SAND, chemical odor (wet)	0	17						
		Coarse to medium SAND, and fine rounded GRAVEL some fine sand, (strong petroleum odor, wet)		18	7	SS	8	17 21 30 40	51	
				19						
				20						

G:\DATA\7183_IGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... 3S.GPJ ... 5/23/2007 3:44:50 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 2 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

MATERIAL SYMBOL	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				20						
				21						
				22						
				23						Drill to 23 ft bgs
				24	9	SS	5	18 23 29 35	52	
		Brown Coarse to fine SAND, some fine GRAVEL, trace silt wet strong chemical odor		25						
				26						
				27						Drill to 28 ft bgs
				28						
				29.3	10	SS	8	9 16 18 21	34	
		Brown to white coarse to fine SAND, wet Strong Chemical odor		30						
				31						
				32						Drill to 33 ft bgs
				33						
				34.6	11	SS	6	10 14 23 20	37	
		White coarse to medium SAND, some fine sand wet Strong Chemical odor		35						
				36						
				37						Drill to 38 ft bgs
				38						
				39	12	SS	7	4 26 19 24	45	
		Light Brown medium SAND, some coarse sand, trace fine sand (wet, slight odor)		40						
				41						
				42						
				43						Drill to 43 ft bgs
				44	13	SS	6	25 27 18 10	45	
				45						

G:\DATA\7183\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...3S.GPJ ... 5/23/2007 3:44:51 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 3 of 4

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist Bl./6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown to white medium SAND, some coarse to fine sand (wet, very slight odor)		45						
				46						
				47						
				48						Drill to 48 ft bgs
				49	14	SS	6	20 22 30 29	52	
		Light brown to white coarse to fine SAND, some fine rounded gravel (wet)		50						
				51						
				52						
				53						Drill to 53 ft bgs
				54	15	SS	8	30 58 65 74	123	
		White fine to medium SAND, wet		55						
				56						
				57						
				58						Drill to 58 ft bgs
				59	16	SS	4	50 50 50 50	100	
		White fine to medium SAND, some coarse sand, wet		60						
				61						
				62						
				63						Drill to 63 ft bgs
				64	17	SS	10	50 50 50 50	100	
		White fine to medium SAND, some coarse sand, wet		65						
				66						
				67						
				68						Drill to 68 ft bgs
				69	18	SS	12	16 29 41 58	70	
				70						

G:\DATA7\18;...\GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...38.GPJ ... 5/23/2007 3:44:52 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-30VD** Sheet 4 of 4

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown to white medium to fine SAND, some medium to fine rounded gravel, wet		70						
				71						
				72						Drill to 72 ft bgs
				73	19	SS	14	22 48 54 54	102	
		White fine SAND very dense, wet, trace mica flakes		74						Resume drilling on 12/28/2006 Drill to 74 ft bgs
				75	20	SS	10	22 48 54 54	102	
				76						
				77						
				78						Drill to 78 ft bgs
		White fine SAND very dense, wet, trace mica flakes		79	21	SS	10	38 52 35 50	87	
				80						
				81						
				82						
				83						Drill to 83 ft bgs
		Brown coarse to medium SAND, some fine sand, trace of silt Brown clayey SAND, some medium to fine rounded gravel White fine to medium SAND, some silt and fine gravel Gray sandy CLAY, some fine to medium rounded gravel		84	22	SS	16	26 22 26 32	48	
				85				8		
		Medium to coarse SAND, some silt and clay (greenish), some fine to medium rounded gravel. Lense f grey silty clay		86	23	SS	20	12 38 40	50	End of boring at 85 ft on ~~12/27/2006~~ Drill from 0 to 73 ft bgs with 6" bit Install 4" steel casingfrom 0 to 73 ft bgs Well installed at 83 ft bgs
				87						
				88						
				89						
				90						
				91						
				92						
				93						
				94						
				95						

N-Value (Blows/ft) scale: 10 20 30 40

GS.GPJ ... 5/23/2007 3:44:52 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

G:\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\

G:\DATA\118

Date Start/Finish: 10/7/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore; 4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:
Borehole Depth: 27.5 feet
Surface Elevation:
Geologist: Joe List

Well/Boring ID: MW-31D-1
Client: CEMC

MW-31D-1

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap
							Brown coarse to fine SAND, some fine gravel, moist.		Cement Pad
		1.2 / 4			4.0				Bentonite (1 - 3 feet bgs)
5							Brown coarse to fine SAND, some fine gravel, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			47.4				
			NA				Brown coarse to fine SAND, some fine gravel, moist.		
		3.1 / 4			34.6		Dark grey CLAY, some silt, trace organics, wet.		2 inch PVC Casing (0.5 - 17.5 feet bgs)
10					58.7				
					64.9				
		0.0 / 4					No recovery		Bentonite (8 - 15 feet bgs)
					3.5				
15									00 Sand Pack (15 - 16 feet bgs)
					440		Dark grey CLAY, some silt, trace organics, wet.		
		2.4 / 4					Dark brown coarse to fine SAND, little fine gravel, trace organics, wet.		#2 Filter Sand (16 - 27.5 feet bgs)
					460				
20							SAND and GRAVEL.		
25									0.02 inch slotted PVC Screen (17.5 - 27.5 feet bgs)

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 11/16/10 - 12/6/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164601.03
Easting: 1080906.14
Casing Elevation: 6.62

Borehole Depth: 27' bgs
Surface Elevation: 5.21

Descriptions By: MWE

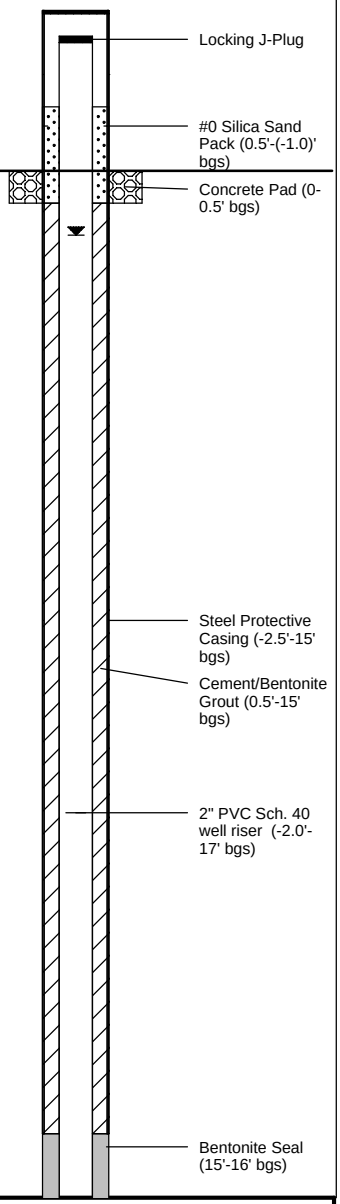
Well/Boring ID: **MW-31D-1R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.6		Brown fine to coarse SAND and GRAVEL (S,NP)
		2	2-4	Grab	21.8		moderate petroleum-like odor
5	0	3	4-6	Grab	0.8		Brown fine to coarse SAND, little fine to medium Gravel (S,NP)
		4	6-8	Grab	0.5		
		5	8-10	2.0	2.6		
10	-5	6	10-12	2.0	1.7		Grey SILT and CLAY, little Wood (fibrous), Organics, trace fine Sand (S,MP)
		7	12-14	2.0	0.8		faint sulfur and petroleum-like odor (9.5'-23' bgs)
							Drilled to 15' bgs to set 4" steel casing
15	-10	8	15-17	NR	NA		No Recovery

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-1R**

Borehole Depth: 27' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
		8	15-17	NR	NA			
		9	17-19	1.2	2.5		Brown to grey fine to medium SAND, trace fine to medium Gravel (S,NP)	
20	-15	10	19-21	1.0	8.6		faint sulfur and petroleum-like odor (9.5'-23' bgs)	#0 Silica Sand Pack (16'-27' bgs)
		11	21-23	2.0	0.0			2" PVC Sch. 40 well screen (17'-27' bgs)
		12	23-25	1.3	0.0			
25	-20	13	25-27	1.0	0.0			
							End of boring at 27' bgs	
30	-25							
35								

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-1R (0-2'), (2-4'), (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Date Start/Finish: 10/7/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Morais
Drilling Method: Direct Push Drilling
Sampling Method: Macrocore
4 feet by 2 inch diameter

Northing:
Easting:
Casing Elevation:

Borehole Depth: 42.5 feet
Surface Elevation:

Geologist: Joe Lisi

Well/Boring ID: MW-31D-2
Client: CEMC

MW-31D-2

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, NY

DEPTH (bgs)	Sample Run Number	Recovery (feet)	Blows / 6 inches	N - Value	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0							CONCRETE.		Cap Cement Pad
		1.2 / 4			4.0		Brown coarse to fine SAND, some fine gravel, moist.		Bentonite (1 - 3 feet bgs)
5							Brown coarse to fine SAND, some fine gravel, wet.		Sand Pack (3 - 8 feet bgs)
		2.0 / 4			47.4		Brown coarse to fine SAND, some fine gravel, moist.		
		3.1 / 4	NA		34.6		Dark grey CLAY, some silt, trace organics, wet.		2 inch PVC Casing (0.5 - 32.5 feet bgs)
10					64.9				
		0.0 / 4					No recovery		Bentonite (8 - 30 feet bgs)
15									
					440		Dark grey CLAY, some silt, trace organics, wet.		
		2.4 / 4					Dark brown coarse to fine SAND, little fine gravel, trace organics, wet.		
20					460				
							SAND and GRAVEL.		00 Sand Pack (30 - 31 feet bgs)
25									
30									#2 Filter Sand (31 - 42.5 feet bgs)
35									0.02 inch slotted PVC Screen (32.5 - 42.5 feet bgs)
40									

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

Remarks: bgs - Below ground surface.

Date Start/Finish: 11/17/10 - 12/7/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164603.76
Easting: 1080912.75
Casing Elevation: 6.11

Borehole Depth: 42' bgs
Surface Elevation: 5.41

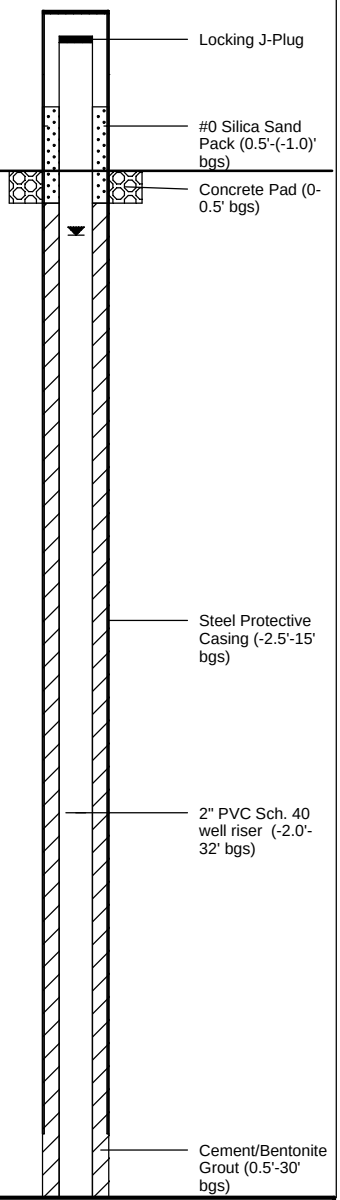
Descriptions By: MWE

Well/Boring ID: **MW-31D-2R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.2		Brown fine to coarse SAND and fine to medium subangular Gravel (S,NP)
		2	2-4	Grab	2.3		
5	0	3	4-6	Grab	78.4		Brown to grey fine to medium SAND, little to trace fine to medium Gravel (S,NP) heavy petroleum-like odor at water table
		4	6-8	Grab	11.7		
		5	8-10	2.0	6.8		
10	-5	6	10-12	2.0	3.4		Grey CLAY and SILT, little to trace fine Sand, Organics, trace fine to medium Gravel (S,MP) meadowmat material
		7	12-14	2.0	2.3		heavy sulfur-like odor
							Drilled from 14' to 15' before beginning mud rotary
15	-10	8	15-17	1.0	52.4		Grey to brown fine to medium SAND, trace fine to medium Gravel (S,NP)



Well/Boring Construction

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

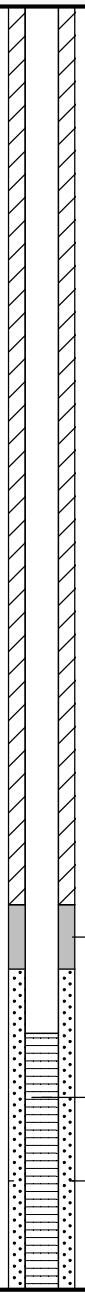
Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
		8	15-17	1.0	52.4		
		9	17-19	1.6	20.0		
20	-15	10	19-21	2.0	6.8		
		11	21-23	2.0	2.8		
		12	23-25	2.0	1.7		Brown fine to coarse SAND
25	-20	13	25-27	2.0	0.6		
		14	27-29	2.0	0.0		Brown medium to coarse SAND, little fine Sand (S,NP)
30	-25	15	29-31	2.0	0.0		
		16	31-33	2.0	0.0		
		17	33-35	2.0	0.0		Brown coarse SAND, trace fine to medium Sand (S,NP)
35	-30						Drilled to 42' bgs, unable to keep hole open for representative sample collection

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

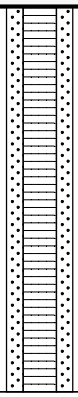
Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

Client: Chevron

Well/Boring ID: **MW-31D-2R**

Borehole Depth: 42' bgs

Site Location:
Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
40 / -35							
45 / -40						End of boring at 42' bgs	
50 / -45							

ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ MW-31D-2R (2-4'), (4-6'), (6-8'), (17-19') & Dup-111710 @ (4-6') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-32D** Sheet 1 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal
Project No.	1836740
Location	Oceanside, NY
Elevation and Datum	Not Surveyed
Drilling Agency	Advanced Drilling
Date Started	12/7/06
Date Finished	12/13/06
Drilling Equipment	Gefco F-10 Drill Rig
Completion Depth	35 ft
Rock Depth	NA
Size and Type of Bit	8" I.D. Hollow Stem Auger/Mud Rodary
Number of Samples	Disturbed 15 / Undisturbed 0 / Core 0
Casing Diameter (in) 8" / Casing Depth (ft) 17'	Water Level (ft.) First ▽ 9 / Completion ▼ / 24 HR. ▼
Casing Hammer / Weight (lbs) NA / Drop (in) NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer / Weight (lbs) 140 / Drop (in) 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist Bl./6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark gray coarse SAND, some medium to fine sand, some coarse to fine gravel		0						1315 - Start drilling using a 10" hollow-stem auger
				1						
				2						
				3						
				4						
		Light gray coarse SAND, some medium sand, trace coarse to fine grael	0.2	5	1	SS	10	2 4 4 5	8	Auger to 5 ft bgs
		Light gray coarse SAND, soe medium sand, moist	5.0	6						Auger to 7 ft bgs
				7	2	SS	24	3 2 2 2		
		Dark gray CLAY, some peat (organis smell, moist) ▽		8						Auger to 9 ft bgs
		Light gray coarse SAND, some medium to fine sand, trace of brick (wet)	0.0	9	3	SS	4	1/12" 1/12"		
				10						Auger to 11 ft bgs
		Light gray coarse SAND, some medium to fine sand, trace of brick (wet)	0.0	11	4	SS	0.5	WH/24"	Refusal Refusal	
				12						Auger to 13 ft bgs
				13	5	SS	0	WH/24"	Refusal	
				14						Auger to 15 ft bgs
		Light gray coarse SAND, some medium to fine sand, wet	12	15	6	SS	24	1/12" 1 1		
		Dark gray CLAY, some silt, little peat (organic smell)		16						
		Dark gray CLAY, trace peat, some silt (organic smell)	22	17	7	SS	1	WH/18"	Refusal	Auger to 17 ft bgs 8" casing installed at 17 ft bsg
				18					Refusal	Stop drilling at 1600 on 12/7/2006 Resume drilling at 1015 on 12/13/2006
		Dark gray CLAY, trace peat, some silt (organic smell)	0.0	19	8	SS	13	1 WOR/12"		Drill to 19 ft bgs
				20					Refusal	

G:\DATA\18:\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W GS.GPJ ... 5/23/2007 3:44:58 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-32D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		PEAT and organic matter some clay, sulfur odor		20				WH/12	10 20 30 40 Refusal	
		gray CLAY, some silt, wet, sulfr odor	0.0	21	9	SS	24	WH 2 2 5	4	
		CLAY and PEAT, brown some silt, sulfur odor		22						Drill to 23 ft bgs
		White medium to coarse SAND, trace fine sand, sulfur odor	7.8	23	10	SS	12	7 8 22 21	30	
			6.6	25						
				26	11	SS	12	12 22 19 19	41	
		Yellow coarse to medium SAND, trace fine sand White medium to coarse SAND, trace fine sand	10.3	27						Drill to 27 ft bgs
				28	12	SS	8	11 16 16 18	32	
		White medium to coarse SAND, trace fine sand	0.0	29						
				30	13	SS	18	17 18 19 18	37	
		Yellow to white coarse to fine SAND, trace fine sand and fine gravel, slight odor	0.0	31						
				32	14	SS	12	5 6 9 13	15	
			0.0	33						
				34	15	SS	12	11 19 17 22	36	
				35						Stop drilling at 1200 on ~~12/13/2006~~ 2" PVC Monitoring well installed at 34'
				36						
				37						
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						

G:\DATA7\18.
NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W
\GS.GPJ ... 5/23/2007 3:44:58 PM ... Report: Log - LANGAN ... Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-33D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/7/06 — Date Finished: 12/12/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 29 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 12 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 13'	Water Level (ft.): First ▽ 7 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse SAND, some medium sand, some coarse to fine gravel		0						1520 - Start drilling using a 10" hollow-stem auger on 12/7/2006
				1						
				2						
			209	3						
				4						
		Black coarse SAND, some medium sand, some coarse to fine gravel (petroleum smell)	22	5	1	SS	1	2 1 1	2	Auger to 5 ft bgs
		Black coarse SAND, some medium sand, some coarse to fine gravel (Petroleum smell) ▽		6						Auger to 7 ft bgs
				7	2	SS	1	1 WH/18"		
				8						Refusal
		Dark brown coarse SAND, some medium to fine sand, some coarse to fine garvel Petroleum odor)	35	9	3	SS	3	WH/24"		Auger to 9 ft bgs
				10						Refusal
		Meadow Mat (No Recovery)		11						Auger to 11 ft bgs
			25		4	SS	0	WH/24"		
				12						Refusal
				13						Cuttings consists of clay and peat
										Auger to 13 ft bgs 8" casing installed at 13 ft bgs
				14	5	SS	0	WH/12"		
								4		Refusal
				15				4		
				16	6	SS	0	3 2 3 4	5	
		Light brown medium SAND, some fine sand, trace of silt (Wet, organic smell)	4	17						Auger to 17 ft bgs Stop drilling at 1630 on 12/7/2006 Resume drilling at 1430 on 12/13/2006
				18	7	SS	18	3 3 8 12	11	
		Yellowish brown medium to fine SAND, some coarse sand (Wet, organic smell)	21	19						Drill to 19 ft bgs
					8	SS	11	4 6	14	
				20						

G:\DATA\718.GPJ ... 5/23/2007 3:45:03 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT
G:\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W-

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-33D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Light brown medium to fine SAND, some coarse sand, little fine gravel (Wet, organic odor)	8	20	8	SS	11	8 6		
				21	9	SS	18	5 10 17 12	27	
		Coarse to medium SAND (Wet , organic odor)	2.7	22 23	10	SS	12	6 8 10 10	18	Drill to 25 ft bgs
		Light brown coarse to medium SAND, trace of fine sand (Wet, organic odor)	6	24 25	11	SS	15	10 11 10 12	21	Drill to 27 ft bgs
		White medium SAND, little coarse sand (Wet, organic smell)	14	26 27	12	SS	12	10 12 11 7	23	
				28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45						Stop drilling at 1525 on 12/13/2006 End of boring at 29 ft bgs 2" PVC Monitoring well installed at 28 ft bgs

3S.GPJ ... 5/23/2007 3:45:03 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT
G:\DATA7\18\ ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\M

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-34D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/8/06 — Date Finished: 12/12/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 35 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 15 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 11'	Water Level (ft.): First ▽ 7 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel (moist, petroleum odor)		0						1045 - Start drilling using a 10" hollow-stem auger on 12/8/2006
			70	1						
				2						
				3						
				4						
		Black coarse SAND, some medium to fine sand, some coarse to fine gravel, trace of roots (moist, petroleum smell)	200	5	1	SS	15	3 4 5 4	9	Auger to 5 ft bgs
		Dark brown coarse SAND, some medium to fine sand, trace brick (wet, Petroleum smell) ▽	42	6						Auger to 7 ft bgs
				7	2	SS	15	5 4 2 2	6	
				8						Auger to 9 ft bgs
		Dark gray CLAY, some peat, trace fine gravel, some silt (organic and petroleum odor)	40	9						
				10	3	SS	20	4 1/12" 2		Auger to 11 ft bgs
		Dark gray CLAY, some silt, trace peat (organic and petroleum odor)	53	11					Refusal	8" Casing installed at 11 ft bgs
				12	4	SS	10	1 1 1 1	2	Stop drilling at 1130 on 12/8/2006
			33	13	5	SS	23	WH/24"	Refusal	Resume Drilling on 12/12/2006 at 0920 Drill to 13 ft bgs
				14						
			48	15				WH		
				16	6	SS	24	1 2 1	3	Drill to 17 ft bgs
			54	17	7	SS	20	WH/24"	Refusal	
				18						
			34	19	8	SS	20	WH 1 3		
				20						

G:\DATA7\16-...GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W...3S.GPJ ... 5/23/2007 3:45:09 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-34D** Sheet 2 of 2

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown PEAT, some clay, little silt (organic odor)	82	21	8	SS	20	2 2		Drill to 21 ft bgs
		Light brown coarse to medium SAND, little fine sand, trace peat (Wet)	6	22	9	SS	18	WH 1 4 9	5	
		Light gray medium SAND, some coarse sand, little fine sand, trace silt (Wet)		23	10	SS	18	13 17 14 15	31	
		White Coarse to medium SAND, trace fine sand (Wet)	20	25	11	SS	18	6 11 12 12	23	Drill to 25 ft bgs
			5.2	27	12	SS	16	11 16 18 18	34	
		White Coarse to medium SAND, little coarse to fine gravel, trace fine sand (Wet)	15.4	29	13	SS	10	2 5 6 7	11	Drill to 29 ft bgs
		White Coarse to medium SAND, little coarse to fine gravel (Wet)	4.2	31	14	SS	18	10 12 14 12	26	
		Coarse to Medium SAND, some fine sand (Wet)	0.0	33	15	SS	15	2 2 2 1	4	Drill to 33 ft bgs
		Dark grey CLAY, some silt		34						
				35						Stop drilling at1230 on 12/12/2006 End of boring at 35 ft bgs 2" PVC Monitoring well installed at 33 ft bgs

G:\DATA7\18\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... GS.GPJ ... 5/23/2007 3:45:09 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-35D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/8/06 — Date Finished: 12/11/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 27 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 11 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 11'	Water Level (ft.): First ▽ 6.8 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Reddish brown coarse to fine SAND, some coarse to fine gravel, trace balck coarse sand (moist)		0						1400 - Start drilling using a 10" hollow-stem auger on 12/8/2006
		Dark brown coarse to fine SAND, some coarse to fine gravel (moist)		5.0	1	SS	8	3 3 2 1	5	Auger to 5 ft bgs
		Grey coarse SAND, some medium to fine sand, trace fine gravel (wet, light petroleum odor)		7.0	2	SS	24	3 2 2 2	4	Auger to 7 ft bgs
		Dark brown coarse SAND, some medium to fine sand, little fine gravel (Wet)		9.0	3	SS	24	WH/24"	Refusal	Auger to 9 ft bgs
		Grey CLAY, trace peat, some silt		10						
		Grey CLAY, some silt, trace peat (Organic Odor)		11.0	4	SS	13	1 1 1 1	2	Auger to 11 ft bgs 8" Casing installed at 11 ft bgs Stop drilling at 1440 on 12/8/2006
		Grey CLAY, some peat, some silt (organic odor)		13.0	5	SS	20	WH/18"	Refusal	Auger to 13 ft bgs
		Dark brown coarse to medium SAND, some fine sand (Wet, petroleum odor)		15.0	6	SS	20	2 4 4 7 8	11	
				17.0	7	SS	20	9 15 21 20	36	
				19.0	8	SS	11	5 1	9	
				20						

G:\DATA\7185\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... Report: Log - LANGAN...Template TEMPLATE.GDT 5/23/2007 3:45:14 PM ... 3S.GPJ

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-35D** Sheet 2 of 2

Project	Former Chevron/Gulf Petroleum Oil Terminal	Project No.	1836740
Location	Oceanside, NY	Elevation and Datum	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dark brown coarse to medium SAND, some fine sand, trace coarse to fine fravel (Wet, petroleum odor)		20	8	SS	11	8 12	9	
				21 (5.0)	9	SS	18	10 15 18 14	33	Drill to 23 ft bgs
		Brown coarse to medium SAND, trace coarse to fine gravel (Wet, Petroleum Odor)		22 23 (8.8)	10	SS	10	4 5 9 12	14	
		Brown Coarse to medium SAND, trace coarse to fine gravel (Petroleum odor, Wet)		24 25 (4.4)	11	SS	18	16 16 16 12	32	Drill to 26 ft bgs
				26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45					Stop drilling at 1400 on 12/11/2006 End of boring at 27 ft bgs 2" PVC Monitoring well installed at 26 ft bgs

G:\DATA\18.
NGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W
GS.GPJ ... 5/23/2007 3:45:14 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-36D** Sheet 1 of 2

Project: Former Chevron/Gulf Petroleum Oil Terminal	Project No.: 1836740
Location: Oceanside, NY	Elevation and Datum: Not Surveyed
Drilling Agency: Advanced Drilling	Date Started: 12/14/06 — Date Finished: 12/20/06
Drilling Equipment: Gefco F-10 Drill Rig	Completion Depth: 33 ft — Rock Depth: NA
Size and Type of Bit: 8" I.D. Hollow Stem Auger/Mud Rodary	Number of Samples: Disturbed 14 — Undisturbed 0 — Core 0
Casing Diameter (in): 8" — Casing Depth (ft): 13'	Water Level (ft.): First ▽ 5 — Completion ▼ — 24 HR. ▼
Casing Hammer — Weight (lbs): NA — Drop (in): NA	Drilling Foreman: Chris Stratton/Chris Nigliore
Sampler: 2" O.D. Split Spoon	Inspecting Engineer: Anthony Sfeir/Andrew Racz
Sampler Hammer — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist Bl./6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Coarse angular gravel, concrete and brick fragments; some medium sand, some plant material, wet		0						1330 - Start drilling using a 10" hollow-stem auger on 12/14/2006
				5						Auger to 5 ft bgs
		coarse to fine SAND, wet petroleum odor		6	1	SS	18	6 6 6 3	12	
		Coarse to fine SAND, wet slight odor		7	2	SS	24	5 4 2 2	6	Auger to 7 ft bgs
		Dark gray CLAY, soft, wet, spme peat and plat material, trace silt, strong sulfur odor		9	3	SS	2	1 2 1/18"		Auger to 9 ft bgs
		Meadow Mat (No Recovery)		11	4	SS	0.0	WH/2"	Refusal	
				13	5	SS	0.0	WH/2"	Refusal	8" Steel casing installed at 13 ft bgs
				15	6	SS	0.0	WH/2"	Refusal	Auger to 15 ft bgs Stop drilling 1410 on 12/14/2006 Resume drilling on 12/19/2006 at 1400
				17	7	SS	0.0	WH/2"	Refusal	
		Dark gray CLAY and PEAT, soft, wet, organic sulfur odor		19	8	SS	16	WH/12"		Drill to 19 ft bgs
				20						

G:\DATA\118\ENGINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\W... Report: Log - LANGAN ... Template TEMPLATE.GDT ... 5/23/2007 3:45:19 PM ... GS.GPJ

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Log of Boring **MW-36D** Sheet 2 of 2

Project	Project No.
Former Chevron/Gulf Petroleum Oil Terminal	1836740
Location	**Elevation and Datum**
Oceanside, NY	Not Surveyed

Material Symbol	Elev. (ft)	Sample Description	PID Reading (ppm)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown PEAT, roots, decaying plant matter, some silt and clay		20				2 WH/6"	Refusal	Drill to 21 ft bgs
		Gray to white medium to fine SAND, trace fine gravel, wet, organic/chemical odor White coarse to fine SAND, some fine gravel, wet, organic/chemical odor		21 22 23	9	SS	20	25 30 35 40	65	
		gray to white coarse SAND and fine GRAVEL, some medium sand, trace fine sand, wet faint odor	0.0	24 25	10	SS	18	6 5 10 13	15	
		White medium to fine SAND, trace coarse sand, wet, faint odor	0.0	26 27	11	SS	10	15 20 33 35	53	
			0.0	28 29	12	SS	12	15 20 33 35	53	Drill to 29 ft bgs
		White coarse to fine SAND, wet very faint odor	0.0	30 31	13	SS	8	10 12 14 16	26	
				32	14	SS	16	15 15 16 22	31	
				33 34						End of boring at 34 ft bgs 2" PVC Monitoring well installed at 34 ft bgs
				35 36 37 38 39 40 41 42 43 44 45						

G:\DATA7183\GINEERING DATA\ENVIRONMENTAL\FIELD DATA\CHLORINATED VOC DUE DILIGENCE FIGURES\WL_IS.GPJ ... 5/23/2007 3:45:20 PM ... Report: Log - LANGAN ...Template TEMPLATE.GDT

Date Start/Finish: 1/29/2013-2/14/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/R.Navatka
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164794.2800
Easting: 1080954.7400
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 6.70' AMSL

Descriptions By: J.Oliver

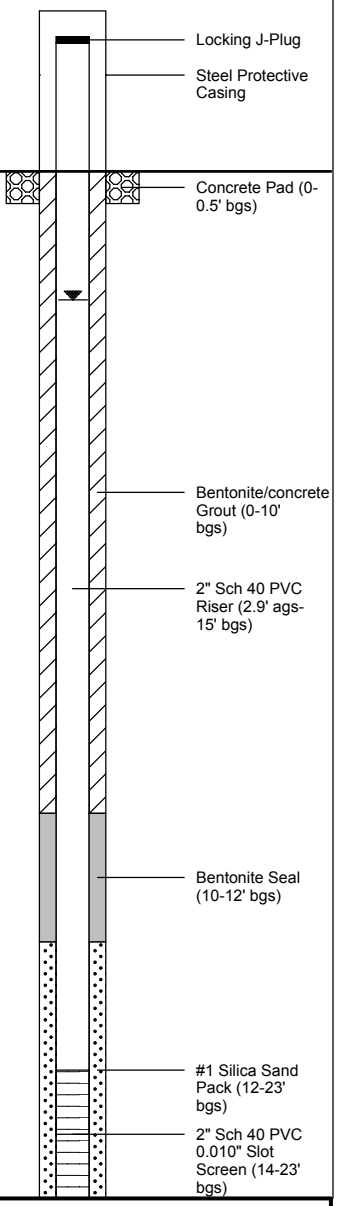
Well/Boring ID: **OW-01-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-1	NA	NA		CONCRETE pieces and fine to medium SAND, trace fine Gravel, Silt, Organics, odor, moist.
5	2	1-2	NA	15.1		Brown fine to medium SAND, little to trace Silt, trace fine Gravel, odor, moist to wet.
	3	2-3	NA	2.3		
0	NA	NA	NA	NA		Unable to collect samples due to borehole collapse.
5						Gray fine to medium SAND, trace Clay, odor, wet.
	4	8-10	0.9	11.9		Gray SILT and CLAY, little Peat, plastic, odor, wet.
10	5	10-12	0.9	11.3		
-5	6	12-14	1.0	6.0		Gray SILT and CLAY, trace fine to medium Sand, Organics, odor, wet.
15	7	14-16	1.2	6.1 23		Gray SILT and fine SAND, some to little Clay, odor, wet.

Well/Boring Construction



Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

ARCADIS Design & Consultancy for natural and built assets

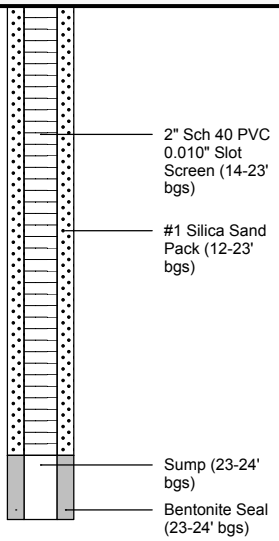
Client: Chevron EMC

Well/Boring ID: **OW-01-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
-10				10.4			
	8	16-18	1.4	29.1		Brown fine SAND, trace Silt, Organics, odor, wet.	
						Color becomes lighter with depth. Material coarsening with depth to [medium to fine Sand].	
	9	18-20	1.0	35 56		Light gray/light brown fine SAND, trace medium Sand, odor, wet.	
20							
	10	20-22	1.2	20 26		Brown/ light brown fine to medium SAND, trace coarse Sand, odor, wet.	
-15							
	11	22-24	1.4	19.3 43.7			
	12	24-26	0.8	11.4 4.6		Light brown/ light gray medium to fine SAND, trace coarse Sand, wet. Fine subrounded Gravel lamination at 24.5' bgs	
25							
-20				5.1			
	13	26-28	1.6	40.1		Light to very light gray medium to coarse SAND, little fine Sand (increasing with depth), wet.	
	14	28-29	0.4	18.4		Light fine SAND, little medium Sand, odor, wet.	
30						End of boring at 29' bgs.	
-25							
35							



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 1/29/2013-2/14/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/J. Cavelier
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164796.4600
Easting: 1080931.8600
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 7.00' AMSL

Descriptions By: J.Oliver

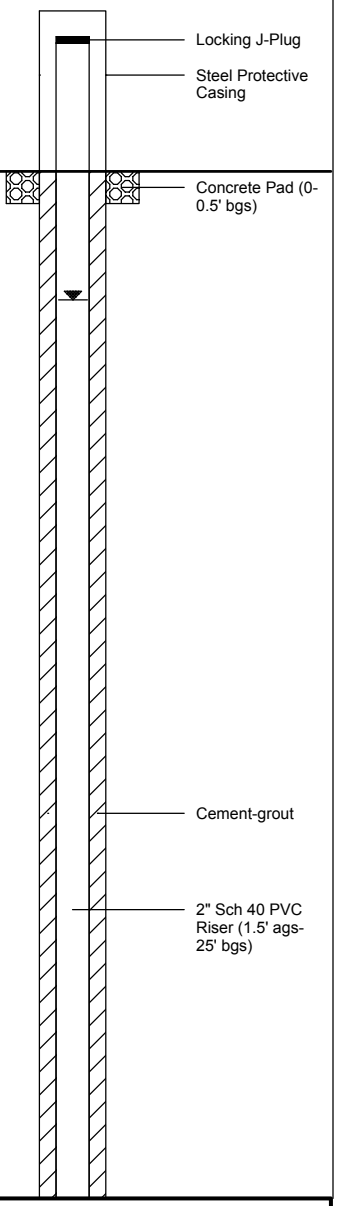
Well/Boring ID: **OW-02-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0		1	0-1	NA	0.0		Light brown medium to coarse SAND, some fine Sand, fine subrounded to subangular Gravel, trace Organics, moist.
							Gray-brown, wet.
5	5	2	1-3	NA	0.9		
		3	3-5	NA	90.3		Gray fine to medium SAND, trace fine Gravel, coarse Sand, wet, odor.
5		NA	5-8	NA	NA		Unable to collect samples due to borehole collapse.
	0						
		4	8-10	0.7	16.9		Gray CLAY and SILT, trace fine Sand and Peat, moderate plasticity, odor, wet.
10		5	10-12	0.9	10.8		Trace Shells.
	-5	6	12-14	0.7	17.3		Gray SILT and CLAY, trace fine Sand seam at 12.2' bgs, plastic, wet, odor.
15		7	14-16	2.0	12.1 18.4		

Well/Boring Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Client: Chevron EMC

Well/Boring ID: **OW-02-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
						Gray to dark brown fine SAND and SILT, some CLAY, wet, odor.	
-10	8	16-18	0.8	20.2 85		Brown to light brown fine to medium SAND, trace Organics, odor, wet.	Cement-grout
	9	18-20	1.4	22.1 35.7		Brown to light brownish gray fine to medium SAND, odor, wet.	2" Sch 40 PVC Riser (1.5' ags-25' bgs)
20	10	20-22	0.8	15.3 13.1		Faint odor.	
-15	11	22-24	1.6	18.7 13.3		Trace coarse Sand, faint odor.	Bentonite Seal (23-24' bgs)
25	12	24-26	1.0	14.1 15.3			
-20	13	26-28	2.0	5.7 17.1		Some laminations between 26.8-27.2' bgs. Light gray medium to coarse SAND, some fine subrounded Gravel, grain size increasing with depth, wet.	#1 Silica Sand Pack (24-29' bgs) 2" Sch 40 PVC 0.010" Slot Screen (25-29' bgs)
	14	28-29	0.5	4.3		Light gray fine SAND, some to little medium Sand.	
30						End of boring at 29' bgs.	
-25							
35							

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 1/29/2013-2/7/2013
Drilling Company: Parratt-Wolff Inc.
Driller's Name: J.Price/J. Cavelier
Drilling Method: 6 1/4" HSA / Mud Rotary
Sampling Method: 2" x 2' Split Spoon
Rig Type: IR A-300 Truck Mounted Rig

Northing: 164822.2500
Easting: 1080963.7000
Casing Elevation: NA

Borehole Depth: 29' bgs
Surface Elevation: 6.83' AMSL

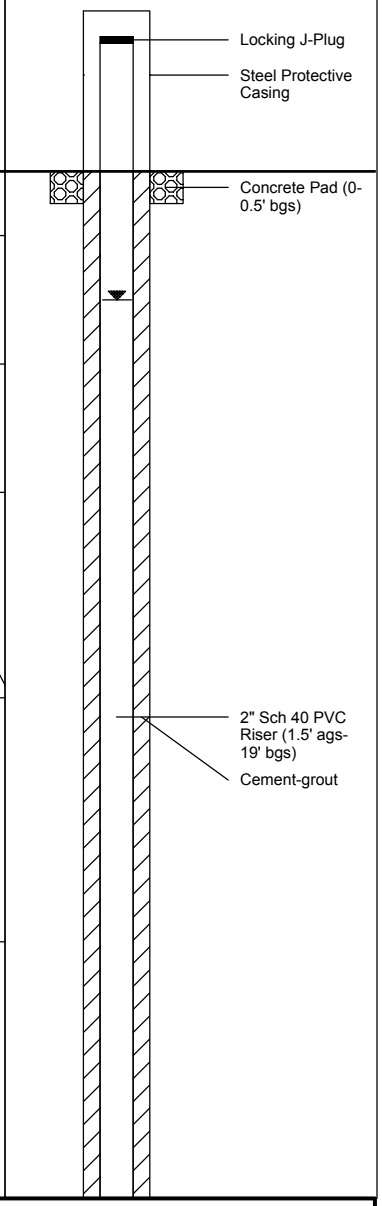
Descriptions By: J.Oliver

Well/Boring ID: **OW-03-D1**

Client: Chevron EMC

Location: Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	1	0-1	NA	0.0		Light brown fine to medium SAND, trace coarse Sand, fine Gravel, and Organics, moist.
5	2	1-3	NA	NA		COBBLES, trace fine to medium Gravel and fine Sand, wet.
	3	3-5	NA	20.5		Gray fine to medium SAND, trace Silt and fine Gravel, odor, wet.
0	NA	5-8	NA	NA		Unable to collect samples due to borehole collapse.
						Fine SAND.
	4	8-10	0.7	32 14.1		Gray SILT and CLAY, little to trace Peat, trace fine Sand, moist, plastic, odor, wet. [MEADOW MAT]
10	5	10-12	0.9	11.5		Trace Shell fragments.
-5	6	12-14	0.7	5.8		Gray SILT and CLAY, trace fine Sand, odor, wet.
15	7	14-16	2.0	10.9		Fine Sand at the end of sampler (last 0.1').



Well/Boring Construction

ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Client: Chevron EMC

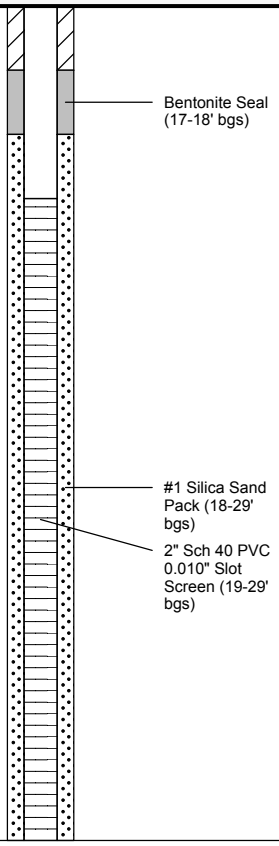
Well/Boring ID: **OW-03-D1**

Borehole Depth: 29' bgs

Site Location:
Oceanside Former Gulf Terminal
#6518040
Oceanside, New York

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
						Light gray fine to medium SAND, wet, odor.
-10	8	16-18	0.8	14.9		Brown fine SAND, some to little Organics, trace Silt, odor, wet.
	9	18-20	1.4	8.7		Brown to light brown fine to medium SAND, trace Organics and fine Gravel, coarsening with depth, odor, wet.
20	10	20-22	0.8	22.0		Light brown fine to medium SAND, laminations of fine to medium Sand and Silt at 20.5' bgs, odor, wet.
-15	11	22-24	1.6	7.9		Light brown to light gray fine to medium SAND, trace coarse Sand after 22.7' bgs, odor, wet.
25	12	24-26	1.0	1.1		Light gray coarse SAND, little to trace fine Sand, trace fine subrounded Gravel, wet.
-20	13	26-28	2.0	2.4		Light gray coarse SAND, little fine subrounded Gravel, trace fine to medium Sand, wet. Some laminations between 26.8-27.2' bgs.
	14	28-29	0.5	5.1		Light gray fine to medium SAND (fining with depth), trace coarse Sand, wet.
30						
-25						
35						

Well/Boring Construction



ARCADIS Design & Consultancy for natural and built assets

Remarks: ags = above ground surface; bgs = below ground surface; NA = Not Applicable/Available; AMSL = Above Mean Sea Level.

Ground surface elevation is approximate.

Date Start/Finish: 12/2/10
Drilling Company: Parratt Wolff
Driller's Name: J. Price
Drilling Method: 4.24" HSA
Sampling Method: 2" x 2' Split Spoon
Rig Type: Vac Unit/IR 466

Northing: 164635.52
Easting: 1080863.65
Casing Elevation: 4.64

Borehole Depth: 10' bgs
Surface Elevation: 5.07

Descriptions By: MWE

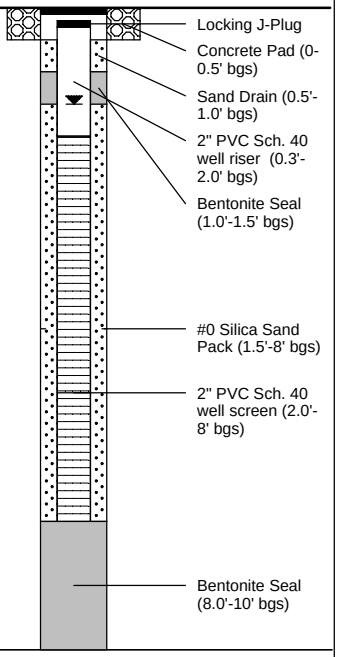
Well/Boring ID: **P-18R**

Client: Chevron

Location: Oceanside Former Gulf Terminal
Oceanside, New York

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description
0	5	1	0-2	Grab	0.0		Brown fine to medium SAND, little fine to coarse Gravel, trace Silt, Organics (M,NP)
		2	2-4	Grab	0.0		Brown fine to coarse SAND, some fine to medium Gravel, little Silt (S,NP)
5	0	3	4-6	Grab	1.9		Grey and brown fine to medium SAND, little fine Gravel, trace Silt (S,NP) moderate petroleum-like odor, decreses with depth
		4	6-8	Grab	0.8		
		5	8-10	Grab	27.2		Grey SILT and CLAY, little to trace Peat, fine Sand (S,P) moderate to heavy sulfur and petroleum-like odor
10	-5						End of boring at 10' bgs
15	-10						

Well/Boring Construction



ARCADIS
Infrastructure, environment, buildings

Remarks: bgs = below ground surface; NA = Not Available/Applicable; AMSL = Above Mean Sea Level; P = Plastic; NP = Non-Plastic; M = Moist; S = Saturated
Horizontal datum is the North American Datum of 1983 (NAD 83); New York State Plane Long Island coordinate system, in U.S. Survey feet. Vertical datum is the North American Vertical Datum of 1988 (NAVD 88).
Sample @ P-18R (0-2'), (4-6'), (6-8') for VOCs, SVOCs, TAL metals, ferrous iron, sulfate.

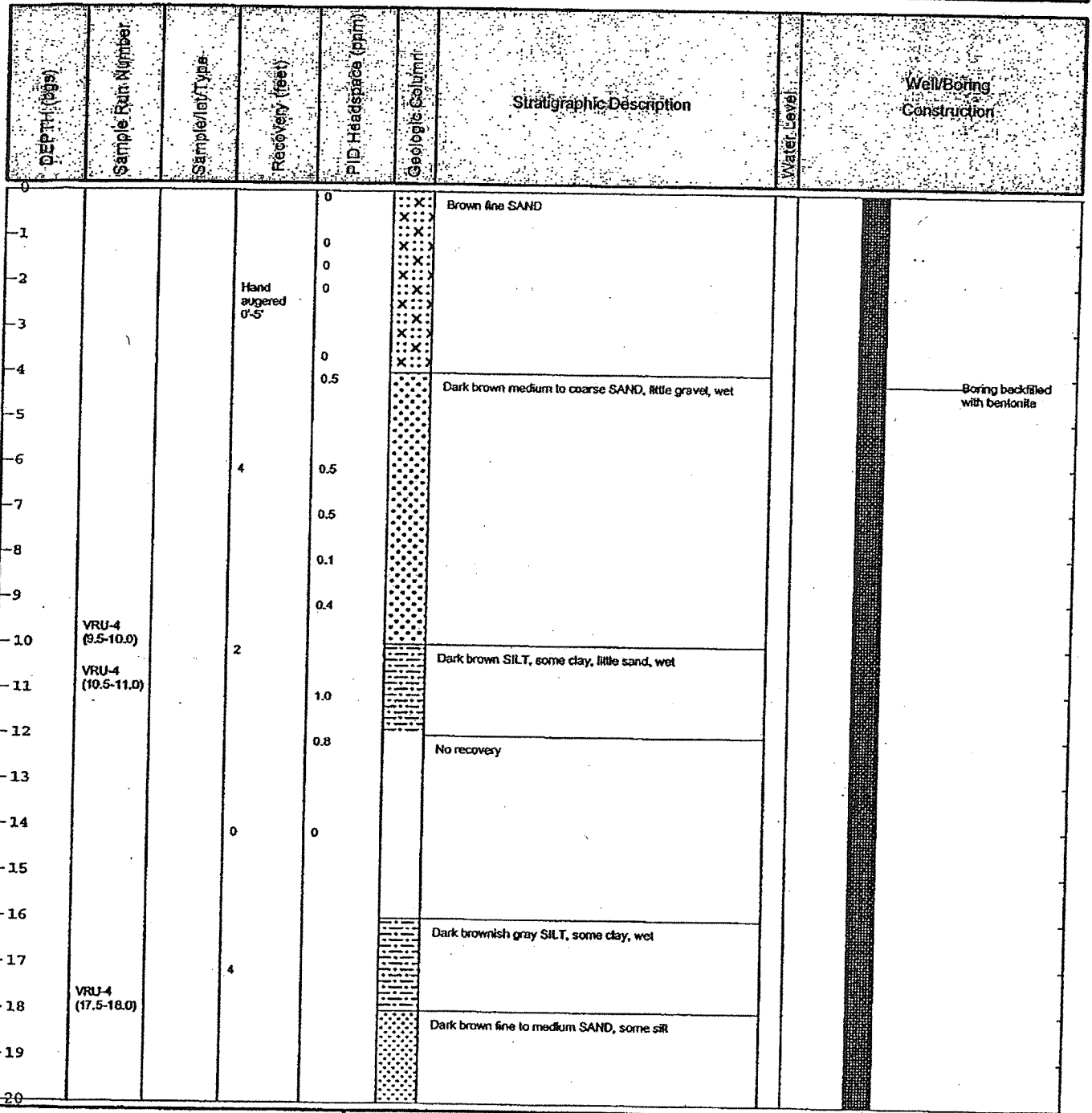
Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moraitis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:
Borehole Depth: 20
Surface Elevation:
Geologist: JDC

Well/Boring ID: VRU-4
Client: CEMC

VRU-4

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York



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

Remarks:

Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moratis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:

Borehole Depth: 16
Surface Elevation:

Geologist: JDC

Well/Boring ID: VRU-8

VRU-8

Client: CEMC

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York

DEPTH (bgs)	Sample Run Number	Sample Int/Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0				0		Brown fine SAND		
1				0				
2			Hand augered 0'-5'	0				
3								
4				0				
5				6.9		Dark Gray fine to coarse SAND, some gravel and clay, wet		Boring backfilled with bentonite
6			3					
7				9.9		Dark Gray and brown medium coarse SAND and GRAVEL, wet		
8	VRU-8 (8.0-8.5)			12.2				
9				6.4				
10	VRU-8 (10.0-10.5)		2.4	4.5		Dark Gray CLAY and SILT, trace organics and wood, moist		
11								
12				6.8				
13			2.4	8.6				
14	VRU-8 (14.0-14.5)			7.7				
15								
16								

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

Remarks:

Date Start/Finish: 09/22/04
Drilling Company: Zebra Drilling
Driller's Name: Evan Moralis
Drilling Method: Direct Push
Sampling Method: 4 foot Macrocore

Northing:
Easting:
Casing Elevation:

Borehole Depth: 16
Surface Elevation:

Geologist: JDC

Well/Boring ID: VRU-9

Client: CEMC

VRU-9

Location: Former Gulf Oil Terminal
Industrial Road and Hampton Road
Oceanside, New York

DEPTH (bgs)	Sample Run Number	Sampler/Int Type	Recovery (feet)	PID Headspace (ppm)	Geologic Column	Stratigraphic Description	Water Level	Well/Boring Construction
0				0		Brown fine SAND		Boring backfilled with bentonite
1				0				
2			Hand augered 0'-5'	0				
3								
4				0				
5				1.2		Light brown fine to coarse SAND and GRAVEL, wet		
6			2.9	2.0				
7				1.6				
8	VRU-9 (7.5-8.0)			16.6		Dark gray CLAY and SILT, trace organics, wet		
9								
10	VRU-9 (9.5-10.0)		3.8	44.9				
11								
12				51.8		Dark gray CLAY and SILT, trace organics and wood pieces		
13	VRU-9 (12.5-13.0)			13.5				
14				36.7		Dark brown fine to coarse SAND, some gravel and silt, moist		
15								
16								

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks:

Project: 43948.001
Data File:

Template: F:\PROJECTS\Chevron SAR\SAR NE\NY\Oceanside Terminal\Log Plot\VRU-9
Date:9/22/04

APPENDIX F

HEALTH AND SAFETY PLAN

Site Specific Health and Safety Plan

Revision 15a

Project Name:	Chevron - Oceanside No. 6518040, Portion of 3705 Hampton Road Oceanside, NY 11572
Project Number:	30044997
Client Name:	Chevron
Date:	7/27/2020
HASP Expires	7/27/2021
Revision:	

Approvals:

HASP Developer: Kyle Barber

Project Manager: Alex Newbrough

HASP Reviewer: Julianne Hagarty

Issued: 3/18/2010

Arcadis Field and Embedded Staff COVID-19 Guidance

Currently Arcadis is following CDC and Health Canada guidelines, as well as applicable government directives. The health and safety of our people is of utmost importance to us. During fieldwork, employees should complete the following:

Practice Good Hygiene

The best way to prevent illness is to avoid exposure to the virus. CDC and Health Canada recommend common flu and cold season preventative measures, including:

Prevent Illness Link

1) Get a flu vaccine.
2) Wash hands often with soap and water for at least 20 seconds. If soap and water are not readily available, use a hand sanitizer with at least 60% alcohol.
3) Avoid touching your eyes, nose and mouth.
4) Cover your nose and mouth with a tissue when sneezing or coughing.
5) Do not share Personal Protective Equipment (PPE).
6) Maintain and thoroughly clean PPE in accordance with manufacturer's instructions.

Frequently Touched Surfaces

Throughout the day you will likely touch surfaces that may have been touched by others. Clean and disinfect frequently touched surfaces and work areas both before start and after completion of work.

Clean and Disinfect Link

Practice Social Distancing

The CDC definition of social distancing means remaining out of congregate settings, not shaking hands, avoiding mass gatherings, and maintaining distance (approximately 6 feet or 2 meters) from others when possible. Field situations where social distancing should be practiced are tailgate and safety briefing meetings, work in field trailers or breaks.

Complete a Risk Assessment

1) If you are sick, stay home.
2) Observe others and if they show flu-like symptoms, use Stop Work and contact Project Manager. Complete a CDC Risk Assessment and implement what is appropriate, outside of formal direction from federal, state or local directives based on the documented health risks. The CDC risk assessment can be found here:

CDC Risk Assessment Guide

For work specific situations, also consider the following:

1) If you are working with little or no contact with others, follow the instructions above.
2) If you are working in close contact with other workers or clients:
a) If feasible, prior to visiting the site, have a H&S check in to confirm all attendees are complying with CDC or Health Canada guidelines, including:
i) Confirm understanding that workers or clients should not go to the job site if they have personally tested positive for COVID-19 or have been in close contact to anyone else who has tested positive for COVID-19.

b) Out of respect for all, ask everyone to self-disclose if they are not feeling well (exhibiting flu-like symptoms), and request that they should go home.
c) Observe person(s) for symptoms, and use Stop Work, as necessary, and contact Project Manager.
d) Determine if arrangements can be made to simplify our ability to social distance.
e) Set visual or physical barriers to keep the public away (caution tape and cones).
f) Consider if "split shifts" can be used to limit contact, or if work can be scheduled during hours of low to no facility operations.
g) If social distancing or other controls are not feasible discuss this with your supervisor and PM, discuss "Is the work necessary?" or "Can the work be rescheduled for a later date?"

3) If you are an embedded employee at a client facility:
a) Inquire whether working remotely is an option.
b) If not, and we must work at the client facility:
i) Ask if arrangements can be made to practice social distancing (e.g. split shift, separate workstation, etc.)
ii) Practice good hygiene, and if you do not feel the situation is safe, you can execute your stop work authority by having discussions with your Supervisor and Project Manager.
4) If you are working in contact with the public (mall areas, parks, outdoor residential settings, Set visual or physical barriers (caution tape and cones) to keep the public away and maintain social distancing.
5) If you are working at indoor residential settings, please consider whether the work can be rescheduled for a later date, and if not, then consider the following guidelines:
a) Call ahead to ask if the resident(s) is experiencing flu-like symptoms or if anyone in the house is in mandatory or precautionary self-quarantine, Also share your Arcadis work procedures and indicate that you will be practicing social distancing during the work.
b) Upon arrival, assess the residents for signs of flu-like symptoms. If observed, use Stop Work, exercise social distancing and contact your Project Manager.
c) Where feasible, wear gloves, wipe down surfaces prior to touching them and thoroughly wash hands after completing the work (do not touch your face).
d) Ask if arrangements can be made to practice social distancing (meaning stay 6 feet away).
e) Schedule your work when resident is not home, if your work area allows for access (e.g. a basement crawl space the doesn't require entry to the main living area of the home).
6) If you are working on projects involving drinking water systems, recreational water and/or wastewater:
a) The COVID-19 virus has not been detected in drinking water.
b) Conventional water treatment methods that use filtration and disinfection, such as those in most municipal drinking water systems, should remove or inactivate the virus that causes COVID-19.

c) At this time, the risk of transmission of the virus that causes COVID-19 through sewage systems is thought to be low.
d) Review the project Health & Safety Plan and task-specific Job Safety Analysis for required personal protective equipment and other controls.

Water Treatment Methods Link
Sewage Systems Link

Field Vehicles and Transportation

When using shared vehicles (fleet, rental, ride sharing services) follow the cleaning guidance above for frequently touched surfaces. Check with your rental agency before vehicle pick-up to understand their cleaning procedures, and supplement with your own as necessary. Note: if using wipes, make sure the wipe is compatible with the surface being cleaned.

If travelling with other employees, or other approved individuals in the same vehicle:
1) No more than 4 employees in a vehicle.
2) Maintain as much space between occupants, as practical, in the vehicle. If only two occupants, consider having one occupant in the back seat if vehicle is equipped with a back sets.
3) Do not share a vehicle with other employees or approved individuals if, after reviewing prevention and risk information described above, you are at risk of spreading COVID-19.

Lodging Considerations

Most hotel chains have implemented additional cleaning and disinfection procedures. Check with your hotel before check-in to understand their cleaning procedures. If there's still a concern, bring a surface cleaner and wipe down frequently touched surfaces such as doorknobs, tv remote, etc.

Rental Equipment and Sample Cooler Handling

Clean the exterior of rental equipment and sample coolers upon arrival at the job site using a cleaning product that will not impact data quality. Wear gloves and safety glasses when handling sample coolers to prevent contact with acid preservation of the bottles in coolers.

Client COVIS-19 Health Screening Forms

Some clients are requiring our employees to complete individual COVID-19 health screening forms.
These forms may include questions pertaining to your travel to certain countries, your contact with people diagnosed with COVID-19, and whether you have experienced flu-like symptoms in the last 14 days.
1) You are not required to share personal medical information with clients; therefore, Arcadis is not requiring you to complete any form requesting medical information. Your disclosure of personal medical information to clients is completely voluntary.
2) Please understand, if you do not complete the form, you will not be allowed on the client's sites and facilities, per the client's directive.
3) Also, if you complete the form, you have an ongoing duty to provide prompt notice of any changes to any of your responses. (Some clients may require periodically signing updated forms).

4) If you are restricted from a client site as a result of your answers to the COVID-19 health screening form, or because you have chosen not to complete the form, Arcadis will attempt to find you alternative work that does not involve access to the client's site or facility; although, Arcadis cannot guarantee that other work will be available.
If your Project Manager is not already aware of the client COVID-19 health screening form, please alert them when you receive one from a client.

Reporting a COVID-19 Exposure

If you learn you have been in close contact with a worker, client or member of the public who is COVID-19 positive:
1) Stop work.
2) Notify your Supervisor and Project Manager.
3) Self-isolate and contact your personal physician for additional direction.

COVID-19 Continuity Planning for Field Projects

If the project requires a COVID-19 continuity plan for the project or field portion of the project, any requirements in the Arcadis COVID-19 Continuity Plan template (or client approved equivalent) beyond the requirements of this guidance document must be followed.

Note: Close contact is defined as a) being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case

– or –
b) having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on).

Arcadis Culture of Caring

Arcadis is committed to a Culture of Caring that ensures each Arcadis employee and contractor goes home at the end of the day free from injury or illness. I certify that the following has been performed with all Arcadis field staff on this project either in person or by Skype:

☐ Reviewed the HASP including a discussion of hazard identification and controls.

- ☐ If conducting activities deemed by Arcadis to be "High Risk", frontline management has reviewed applicable H&S standards (Job Safety Analysis [JSA] when authorized by H&S) for these activities with field staff.
- ☐ If permit to work is required, frontline management has reviewed the permit(s) with field staff.

☐ Reviewed proactive H&S engagement expectations/injury prevention actions.
☐ Reviewed Stop Work Authority.
☐ Reviewed the incident reporting process and expectations including when WorkCare should be contacted by staff (WorkCare incident intervention for all minor, non-emergency injuries) and that the WorkCare phone number is programmed into field team cell phone.

For short service employees (SSE) (0-1 years with Arcadis):

☐ Provided coaching and mentoring on Arcadis H&S expectations during project work. Reviewed in detail specific hazards and controls and provided a resource who can be contacted if SSE has questions regarding planned or unplanned work tasks.

Mentor/Resource # _____ _____
Name Phone Number

Signed:

_____ Select

Emergency Information

Site Address: Former Gulf Terminal
1 Industrial Place
Oceanside, NY 11572

Emergency Phone Numbers:

Emergency (fire, police, ambulance)		911
Emergency (facility specific, if applicable):		
South Nassau Community Hospital		516-632-3000
Emergency Other (specify)		
Client Contact	Robert Speer	
WorkCare (non-life-threatening injury/illness)		1-888-449-7787
Project Manager/H&S	Alex Newbrough	724-448-6218
Task Manager	Renee Parisi	(908) 616-4848
Corporate H&S Specialist	Aaron Svitana	(925) 360-2313
Corporate H&S Director	Denis Balcer	614-778-9171

Hospital Name and Address: Mount Sinai South Nassau
1 Healthy Way, Oceanside, NY 11572

Hospital Phone Number: 516-632-3000

Incident Notification Process

1 Dial 911/Facility Emergency Number/WorkCare as applicable
2 Contact PM/Supervisor — Alex Newbrough
3 Contact Corporate H&S — Denis Balcer
4 Contact Client — Robert Speer

Complete below, as applicable, or clear cell contents:

Location of Assembly Area(s): End of Hampton Road at intersection with industrial Place

Nearest AED location:
Nearest Storm Shelter:

Route to the Hospital

Hospital: Mount Sinai South Nassau

Address: One Healthy Way, Oceanside, NY 11572

Emergency Room Number: (516) 632-3000

Hours of Operation: 24/7

3705 Hampton Rd
Oceanside, NY 11572

Continue to Daly Blvd — 49 s (463 ft)

1. Head north toward Hampton Rd — 348 ft
2. Turn left toward Hampton Rd — 72 ft
3. Turn right onto Hampton Rd — 43 ft

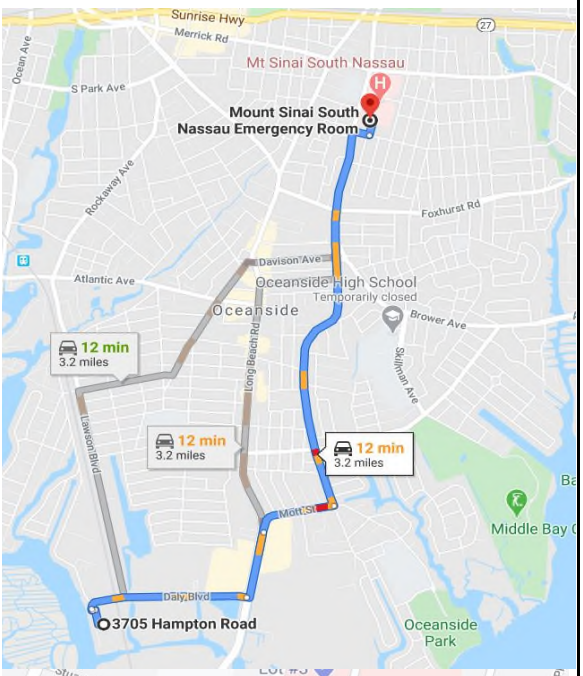
Take Oceanside Rd to Nassau Pkwy — 9 min (3.0 mi)

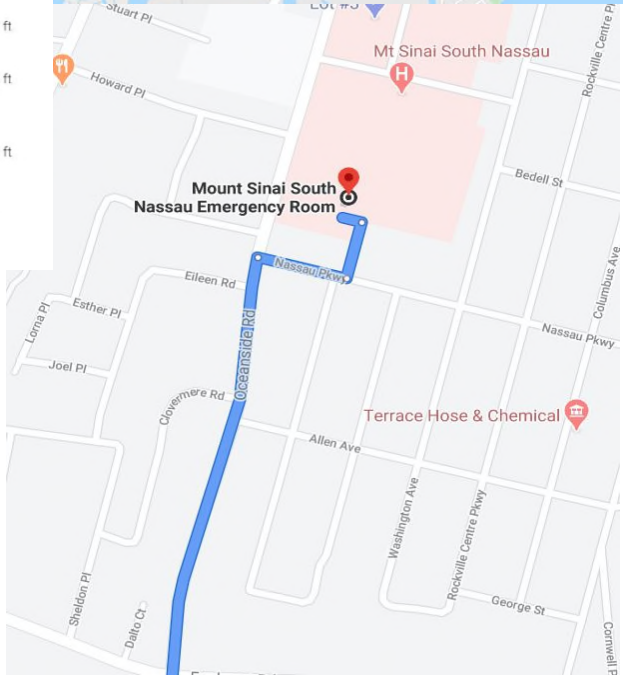
4. Turn right onto Daly Blvd — 0.6 mi
5. Use the right lane to turn left onto Long Beach Rd — 0.3 mi
6. Turn right onto Mott St — 0.3 mi
7. Turn left onto Oceanside Rd — 1.7 mi

Continue on Nassau Pkwy to your destination — 1 min (0.1 mi)

8. Turn right onto Nassau Pkwy — 367 ft
9. Turn left — 253 ft
10. Turn left
    Destination will be on the right — 79 ft

Mount Sinai South Nassau Emergency Room
1 Healthy Way, Oceanside, NY 11572





Site Type

The project site is an active facility with the following attributes:

Retail	
Commercial	

Surrounding Land Use and Topography

The Site is bound to the south by Barnum's Channel, to the east by the Long Island Railroad, to the north by the former Exxon Petroleum Terminal, and to the west by Hampton Road. A junk yard and office buildings are located west of Hampton Road fronting Hog Island Channel. Daly Boulevard is located north of the former Exxon Petroleum Terminal and another petroleum terminal (Sprague) is located north of Daly Boulevard. Long Island Topsoil Supplier is located immediately east of Long Island Railroad.

Simultaneous Operations (SimOps)

SimOps is expected or will be conducted in proximity to Arcadis work activities on the project site. SimOps creates unique hazards that could affect Arcadis employees and subcontractors and SimOps hazards identified on site will be addressed in the JSA or similar governing document (i.e. permit) for affected Arcadis work tasks. If the SimOps work activities create a high hazard to Arcadis staff or subcontractors, Arcadis will utilize stop work until the SimOps activity is complete or will coordinate work activities with SimOps workers and/or the client to ensure SimOps work hazards are mitigated.

Site Background

The former Chevron/Gulf Petroleum Terminal is located on a portion of 3705 Hampton Road, Oceanside, Town of Hempstead, Nassau County, New York hereafter referred to as “the site”. The site is listed under the New York State Department of Environmental Conservation (NYSDEC) State Superfund program No. C130165 and consists of a 7.223-acre property. The site has been developed as a Costco Retail Store and all former buildings have been demolished. The site is owned by CoreMark and under an assess agreement. The site is bound to the south by Barnum’s Channel, to the east by the Long Island Railroad, to the north by the former Exxon Petroleum Terminal, and to the west by Hampton Road. A junk yard and office buildings are located west of Hampton Road fronting Hog Island Channel. Daly Boulevard is located north of the former Exxon Petroleum Terminal and another petroleum terminal (Sprague) is located north of Daly Boulevard.

Project Tasks
The following tasks are identified for this project:

1	Monitor well - Well installation
2	Sampling - Well sampling using peristaltic pumps
3	Sampling - Sediment sampling using mechanical methods
4	Sampling - Well sampling using diffusive samplers
5	Utilities - Clearance
6	Survey - Land surveying
7	Select
8	Select
9	Select
10	Select
11	Select
12	Select
13	Select
14	Select
15	Select
16	Select
17	Select
18	Select
19	Select
20	Select

Supplemental documents associated with the above task(s):
Client H&S information is attached.

A Journey Management Plan is required and is attached.

The Arcadis Utility Clearance Checklist must be used for utility clearance activities.

[X] Required Checklists/Work Forms
Tailgate Safety Briefing Form
Vehicle Inspection Checklist
Utility and Structures Checklist

[ ] Required Permits
Not Applicable

[ ] Required H&S Standards
Not applicable

Short Service Employees (SSEs)
SSEs (employees who are employed with Arcadis for less than 1 year) have the potential to work on this project. If SSEs are utilized, the project team working in conjunction with the SSE's administrative supervisor will ensure requirements of ARC HSGE019 "Short Service Employees" are completed. SSE's will be identified on the project Tailgate Safety Meeting Form.

Roles and Responsibilities

	Name	Role	Short Service Employee
1	Ed Ptak	Project Manager (PM)	
2	Renee Parisi	Associate Project Manager (APM)	
3		Task Manager	
4		Field Technical Lead	
5		Site Safety Officer (SSO)	
6			
7			
8			
9			
10			

Training

All Arcadis employees are required to have the following training to be on site:

- Hazwoper 40-Hour
- Hazwoper 8-Hour Annual Refresher
- Benzene - General Awareness
- DOT HazMat #1
- PPE (non-certificate)
- None
- None
- None
- None
- None
- None
- None
- None
- None

Client specific:

- Chevron 101

Other:

Selected Arcadis employees are required to have the following additional training:

	Names or Numbers from above
Hazwoper 8-Hour Supervisor	SHSO
First Aid/CPR	SHSO
BBP (Bloodborne Pathogens)	SHSO
Fire Extinguisher (non-certificate)	SHSO
None	
None	
None	
None	
None	
None	
None	
None	
None	
None	
None	

Other:

The Arcadis Fundamental H&S Principles

Staff working on any of the task(s) listed above must utilize the six Arcadis Fundamental H&S Principles to ensure work is conducted safely. These principles include: 1) Use of TRACK, 2) H&S Planning, 3) Stop Work Authority, 4) "If Not Me Then Who", 5) Stewardship, and 6) Incident Reporting. Every project team member plays an important role in project health and safety. This is more than just having a HASP, training, or PPE. Proactive staff engagement with these principles is critical to a safe work environment.



General Task Hazard Assessment and Risk Control (HARC)

General:	Hazards Applicable to All Project Tasks

The 12 hazard category HARC ratings are not available in this General THA. The mitigated and unmitigated ratings for the hazards presented are based on the Risk Assessment Matrix below. Modify hazards and ratings as necessary to meet project needs.

Risk Assessment Matrix		Likelihood Ratings			
Consequences Ratings		A	B	C	D
People	Property	0 Almost Impossible	1 Possible but Unlikely	2 Likely to Happen	3 Almost Certain to Happen
1-Slight or No Health Effect	Slight or No Damage	0-Low	1-Low	2-Low	3-Low
2-Minor Health Effect	Minor Damage	0-Low	2-Low	4-Medium	6-Medium
3-Major Health Effect	Local Damage	0-Low	3-Low	6-Medium	9-High
4-Fatalities	Major Damage	0-Low	4-Medium	8-High	12-High

Hazard #1

Driving - Driver - Injury, death or property damage due to driver distraction, fatigue, etc.

Suggested FHSHB Ref:	III V, AO	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	HIGH	Smith System (on line)
Mitigated Risk:	LOW	JSAs
Comments:	Use Smith System "5-Keys" when driving. See Driving JSA for details.	

Hazard #2

Gravity - Falls - Injury due to slips and trips

Suggested FHSHB Ref:	III F	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Job Briefing/Site Awareness
Mitigated Risk:	LOW	Housekeeping
Comments:	Ensure footwear is appropriate for surface conditions. See HASP PPE section.	

Hazard #3

Biological - skin/eye irritation or damage from poisonous plants

Suggested FHSHB Ref:	III N, AE	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	LOW	Job Briefing/Site Awareness
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:	Use skin pre-treatment lotions when available.	

Hazard #4

Biological - bites or stings from exposure to insects or arachnids

Suggested FHSHB Ref:	III N	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	LOW	Job Briefing/Site Awareness
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:	Do body check daily.	

Hazard #5

Biological - cuts, scrapes, skin/eye puncture from exposure to physically damaging plants

Suggested FHSHB Ref:	III N, AE	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Job Briefing/Site Awareness
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:		

General Task HARC (continued)

Hazard #6		
Environmental - Thermal stress - Injury or illness from heat or cold		
Suggested FHSHB Ref:	III M	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Field H&S Handbook (see ref. above)
Mitigated Risk:	LOW	JSAs
Comments:	Use job rotation or rest breaks. Stay hydrated and eat regularly.	
Hazard #7		
Environmental - Inclement weather -Injury or equipment damage from inclement weather		
Suggested FHSHB Ref:	III I	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Weather Monitoring
Mitigated Risk:	LOW	Cont./Emerg. Planning
Comments:	Use 30/30 rule for lightning. See FHSHB for details.	
Hazard #8		
Motion - Musculoskeletal - Injury from lifting, twisting , stooping, or awkward body positions		
Suggested FHSHB Ref:	III AF	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Engineering Controls (specify in comments)
Mitigated Risk:	LOW	Admin. Controls (specify in comments)
Comments:	Use proper lifting techniques. Use job rotation when applicable. See FHSHB for details.	
Hazard #9		
Motion - Musculoskeletal - Injury from repeated work activity or body motion		
Suggested FHSHB Ref:	III AF	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Engineering Controls (specify in comments)
Mitigated Risk:	LOW	Admin. Controls (specify in comments)
Comments:	Use proper lifting techniques. Use job rotation when applicable. See FHSHB for details.	
Hazard #10		
Sound - Noise - Injury or illness due to noise exposure		
Suggested FHSHB Ref:	III L	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Engineering Controls (specify in comments)
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:	Increase distance from source if possible. Maintain equipment.	
Hazard #11		
None		
Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		
Hazard #12		
None		
Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC

Task 1:	Monitor well - Well installation

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	L	Driving	-	Electrical	-
Environmental	M	Gravity	M	Mechanical	-	Motion	M
Personal Safety	L	Pressure	L	Radiation	-	Sound	M

Hazard #1

Environmental - Wind -Skin injury from sun or wind exposure

Suggested FHSHB Ref:	III M	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Job Briefing/Site Awareness
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:		

Hazard #2

Motion - Struck by - Bodily injury from impact with moving object

Suggested FHSHB Ref:	III S	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Site Awareness
Mitigated Risk:	LOW	JSAs
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:	Maintain ergonomics and safe lift practices	

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:	Avoid or minimize exposure to noise whenever possible	

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 2:	Sampling - Well sampling using peristaltic pumps

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	M	Driving	-	Electrical	L
Environmental	L	Gravity	L	Mechanical	-	Motion	L
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

Chemical - liquids - injury or illness from vapor inhalation

Suggested FHSHB Ref:	III C, F, G, K, S, AG	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	See HASP "Monitoring" section
Mitigated Risk:	LOW	JSAs
Comments:	Preform air monitoring in the breathing zone and breathing directly over the well opening	

Hazard #2

Chemical- liquids - injury or illness from skin absorption

Suggested FHSHB Ref:	III C, F, G, K, S, AG	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	JSAs
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:		

Hazard #3

Chemical - liquids, skin or eye irritation/damage/allergy

Suggested FHSHB Ref:	III C, F, G, K, S, AG	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	JSAs
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 3:	Sampling - Sediment sampling using mechanical methods

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	L	Driving	-	Electrical	M
Environmental	L	Gravity	M	Mechanical	M	Motion	M
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

Electrical - Electrocution or arc flash - Injury or death from electrocution or arc flash from electrical

Suggested FHSHB Ref:	III AA, AB	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Lockout/Tagout
Mitigated Risk:	MEDIUM	PPE (see HASP "PPE" section)
Comments:		

Hazard #2

Gravity - Struck by - Injury from falling object

Suggested FHSHB Ref:	III AC, IV A	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	H&S Standards
Mitigated Risk:	LOW	Job Briefing/Site Awareness
Comments:		

Hazard #3

Mechanical - Pinch point - Injury by pinching of body part in mechanical process

Suggested FHSHB Ref:	III S IV, E, F, G, O	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Site Awareness
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:		

Hazard #4

Motion - Struck by - Bodily injury from impact with moving object

Suggested FHSHB Ref:	III S	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	JSAs
Mitigated Risk:	LOW	Site Awareness
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 4:	Sampling - Well sampling using diffusive samplers

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	L	Driving	-	Electrical	-
Environmental	L	Gravity	L	Mechanical	-	Motion	L
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #2

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 5:	Utilities - Clearance

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III AN

Biological	L	Chemical	L	Driving	-	Electrical	L
Environmental	L	Gravity	L	Mechanical	L	Motion	M
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

Motion - Struck by - Bodily injury from impact with moving object

Suggested FHSHB Ref:	III S	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Site Awareness
Mitigated Risk:	LOW	JSAs
Comments:		

Hazard #2

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 6:	Survey - Land surveying

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	L	Driving	-	Electrical	-
Environmental	M	Gravity	L	Mechanical	-	Motion	M
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

Environmental - Wind -Skin injury from sun or wind exposure

Suggested FHSHB Ref:	III M	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	JSAs
Mitigated Risk:	LOW	PPE (see HASP "PPE" section)
Comments:		

Hazard #2

Motion - Struck by - Bodily injury from impact with moving object

Suggested FHSHB Ref:	III S	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	MEDIUM	Site Awareness
Mitigated Risk:	LOW	JSAs
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 7:	Select

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	M	Driving	-	Electrical	L
Environmental	L	Gravity	L	Mechanical	-	Motion	L
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #2

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 8:	Select

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III F

Biological	L	Chemical	L	Driving	-	Electrical	M
Environmental	L	Gravity	M	Mechanical	M	Motion	M
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #2

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 9:	Select							
HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low):						FHSHB Ref:	III F	
Biological	L	Chemical	L	Driving	-	Electrical	-	
Environmental	L	Gravity	L	Mechanical	-	Motion	L	
Personal Safety	L	Pressure	L	Radiation	-	Sound	L	

Hazard #1

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #2

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Task Specific HARC (continued)

Task 10:	Select

HARC Unmitigated Hazard Types (H-High, M-Medium, L-Low): FHSHB Ref: III AN

Biological	L	Chemical	L	Driving	-	Electrical	M
Environmental	L	Gravity	L	Mechanical	M	Motion	M
Personal Safety	L	Pressure	L	Radiation	-	Sound	L

Hazard #1

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #2

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #3

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #4

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #5

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard #6

None

Suggested FHSHB Ref:	None	To mitigate this hazard, use TRACK and the following:
Overall Unmitigated Risk:	Not Ranked	Select
Mitigated Risk:	Not Ranked	Select
Comments:		

Hazard Communication (HAZCOM)/Global Harmonization System (GHS)

[ ] HAZCOM/GHS for this project is managed by the client or general contractor

List the chemicals anticipated to be used by Arcadis on this project per HAZCOM/GHS requirements.
(Modify quantities as needed)

	Preservatives	Qty
[ ]	Not applicable	
[X]	Hydrochloric acid	<500 ml
[ ]	Nitric acid	<500 ml
[ ]	Sulfuric acid	<500 ml
[ ]	Sodium hydroxide	<500 ml
[ ]	Zinc acetate	<500 ml
[ ]	Ascorbic acid	<500 ml
[ ]	Acetic acid	<500 ml
[ ]	Isopropyl alcohol	< 4 gal.
[ ]	Formalin (<10%)	< 4 gal.
[ ]	Methanol	<500 ml
[ ]	Sodium bisulfate	<500 ml

	Decontamination	Qty
[ ]	Not applicable	
[X]	Alconox	≤ 5 lbs
[ ]	Liquinox	≤ 1 gal
[ ]	Acetone	≤ 1 gal
[ ]	Methanol	≤ 1 gal
[ ]	Hexane	≤ 1 gal
[ ]	Isopropyl alcohol	≤ 4 gal
[ ]	Nitric acid	≤ 1 L
[ ]	Other:	

	Calibration	Qty.
[X]	Not applicable	
[X]	Isobutylene/air	1 cyl
[ ]	Methane/air	1 cyl
[ ]	Pentane/air	1 cyl
[ ]	Hydrogen/air	1 cyl
[ ]	Propane/air	1 cyl
[ ]	Hydrogen sulfide/air	1 cyl
[ ]	Carbon monoxide/air	1 cyl
[X]	pH standards (4,7,10)	≤ 1 gal
[X]	Conductivity standards	≤ 1 gal
[ ]	Other:	

	Fuels	Qty.
[X]	Not applicable	
[ ]	Gasoline	≤ 5 gal
[ ]	Diesel	≤ 5 gal
[ ]	Kerosene	≤ 5 gal
[ ]	Propane	1 cyl
[ ]	Other:	

	Kits	
[X]	Not applicable	
[ ]	Hach (specify):	
[ ]	DTECH (specify):	
[ ]	Other:	

		Qty.
		1 kit
		1 kit
		1 kit

	Remediation	Qty.
[X]	Not applicable	
[ ]		
[ ]		
[ ]		
[ ]		
[ ]		

	Other:	Qty.
[X]	Not applicable	
[X]	Spray paint	≤ 6 cans
[ ]	WD-40	≤ 1 can
[ ]	Pipe cement	≤ 1 can
[ ]	Pipe primer	≤ 1 can
[ ]	Mineral spirits	≤ 1 gal

	DOT(1):	Qty.
[X]	MOT eligible soils	
[X]	MOT eligible water	
[ ]	MOT eligible solids	
[ ]	MOT eligible liquids	
[ ]		
[ ]		
[ ]		

(1) Attach applicable Materials of Trade (MOT) generic shipping determination. SDS not generally applicable to this category.

SDSs for this project will be available electronically on a designated project field computer. All project workers will be notified of the SDS location in their initial safety briefing.

Contractor SDSs will be submitted to Arcadis in advance of work and will be filed with Arcadis SDSs as indicated above.

This project will store materials subject to the HAZCOM Standard in bulk storage. Storage requirements and limitations for this this material is addressed in a supplement attached to the this HASP.

Air Monitoring

☐ There are no atmospheric chemical, radiological, or particulate hazards on this project requiring air monitoring.

☐ Air monitoring is the responsibility of the client or subcontractor.

Constituents of Interest:

Time Weighted Averages (TWAs) are ACGIH 8-Hr Threshold Limit Values (TLVs) unless noted.

Methane			
TWA	NA See Notes, LAMP NOTICE See Notes	LEL/UEL (%):	5.0/15
STEL	NA	VD (Air = 1):	0.6
IDLH	NA	VP (mmHg):	NA
Hydrogen sulfide			
TWA	1 ppm	LEL/UEL (%):	4.0/44.0
STEL	5 ppm	VD (Air = 1):	1.19
IDLH	100 ppm, NIOSH	VP (mmHg):	13376
Carbon dioxide			
TWA	5000 ppm, LAMP NOTICE See Notes	LEL/UEL (%):	NA/NA
STEL	30000 ppm	VD (Air = 1):	1.53
IDLH	40000 ppm, NIOSH	VP (mmHg):	42940
Carbon monoxide			
TWA	25 ppm, LAMP NOTICE See Notes	LEL/UEL (%):	12.5/74
STEL	200 ppm, ceiling, NIOSH	VD (Air = 1):	0.97
IDLH	1200 ppm, NIOSH	VP (mmHg):	26600
None			
TWA	NA	LEL/UEL (%):	NA
STEL	NA	VD (Air = 1):	NA
IDLH	NA	VP (mmHg):	NA
None			
TWA	NA	LEL/UEL (%):	NA
STEL	NA	RGD (Air = 1):	NA
IDLH	NA	VP (mmHg):	NA

TWA - Time Weighted Average (ACGIH TLV unless noted)
STEL - Short Term Exposure Limit
IDLH - Immediately Dangerous to Life and Health
LEL/UEL - Lower /Upper Explosive Limit
RGD - Relative Gas Density
VP - Vapor Pressure

Notes:

The lamp you selected does not have a correction factor for one or more constituents listed above. Action levels may require manual adjustment or, if required, select PID with different eV rating.

For methane, if O2 readings in the methane atmosphere are or anticipated to be below 19.5% and/or the LEL is a concern, contact a CIH or CSP for assistance.

Required Monitoring Instruments, Action Levels and Monitoring Frequency

Air monitoring for volatile organics is not required. 11.7 ^See Notes^

<	NA	Continue working
	NA - NA	Levels sustained > 5 minutes, monitor continuously and review engineering controls and PPE. Proceed with caution.
>	NA	Stop work and contact SSO

Particulate monitoring is not required. Re-evaluate need for monitoring if visible dusts cannot be controlled.

Action levels are in mg/m3		
<	NA	Continue working
	NA	Levels sustained > 5 minutes, monitor continuously and review engineering controls and PPE. Proceed with caution.
>	NA	Stop work and contact SSO

LEL/O2 monitoring is not required. Reevaluate need for monitoring if high PID/FID readings are encountered.

LEL/O2 Meter		
NA	0-5% LEL	Continue work
	>5-10% LEL	Continually monitor, review engineering controls, proceed with caution
	>10% LEL	Stop work, evacuate, contact SSO
	19.5%-23.5% O2	Normal, continue work
	<19.5% O2	O2 deficient, stop work, evacuate, contact SSO
	>23.5% O2	O2 enriched, stop work, evacuate, contact SSO

All air-monitoring instruments must be calibration checked daily, if used, per manufacturer's instructions. Calibration checks, including calibration gases used, must be documented.

Breathing zone air monitoring using the above instruments will be performed at the following frequency:
Select

Compound specific monitoring is not required.

Indicator:		
☐ Tube ☐ Chip	≤TWA	Continue work
	>TWA	Stop work, review engineering controls and PPE, contact SSO
Compound(s):		

Indicator tube/chip monitoring frequency: Not applicable

Personal Protective Equipment (PPE)

See JSA or Permit for the task being performed for required PPE. If work is not conducted under a JSA or Permit, refer to the governing document for PPE requirements. At a minimum, the following checked PPE is required for all tasks during field work (outside of field office trailers and vehicles) not covered by a JSA or Permit on this project:

Minimum PPE required to be worn by all staff on project:						Specify Type:
X	Hard hat		Snake chaps/guards		Coveralls:	
X	Safety glasses		Briar chaps		Apron:	
	Safety goggles		Chainsaw chaps		Chem. resistant gloves:	
	Face shield		Sturdy boot		Gloves other:	
	Hearing protection	X	Steel or comp. toe boot		Chemical boot:	
	Rain suit		Metatarsal boot		Boot other:	
	Other:			X	Traffic vest, shirt or coat:	Class II
					Life vest:	

Task specific PPE: Hearing protection. Work gloves. Nitrile gloves.
Comments:

Medical Surveillance

All Arcadis employees and subcontractors performing field work will be required to be current in HAZWOPER medical surveillance.

Client drug and/or alcohol testing will be required for all workers on this project. The project or task manager will instruct project participants on testing protocols.

Hazardous Materials Shipping and Transportation

A shipping determination package has been prepared, reviewed and provided to Arcadis field staff for this project.

Traffic Safety and Traffic Safety Plans (TSPs)

All or portions of the project work will be conducted in a parking lot and/or private roadway. A Non-ROW TSP addressing this work is attached to this HASP.

Arcadis Commercial Motor Vehicles (CMVs)

CMVs operated by Arcadis employees on public roadways will not be utilized on this project. Arcadis defines a CMV as any single vehicle with a gross vehicle weight rating (GVWR) ≥10,001 pounds or a truck and trailer combination with a combined GVWR ≥10,001 pounds (GVWR of truck + GVWR of trailer = ≥10,001 pounds).

Site Control

Site control requirements are integrated into the TSP for this project.

Decontamination

Decontamination protocols are addressed in the applicable task JSA(s) for this project. The applicable JSAs are attached to this HASP.

Sanitation

The project scope is a mobile work operation. The project field team will have reasonable access to restroom facilities within 10 minutes of the work area where the mobile work activity is actively taking place. Potable water will be carried by the field team in the vehicle used for the project. Unless alternate requirements are stipulated in a plan supplement (i.e. Heat Injury and Illness Prevention Plan), permit or JSA, bottled or water coolers with potable water will be provided to project workers at 1 gallon/worker/day.

Safety Briefings

Arcadis will lead all safety briefings on this project and will document the safety briefing on a Tailgate Safety Briefing form or logbook. Safety briefings will be conducted once at the beginning of each work day unless the Site Safety Officer deems more frequent safety briefings will be required based on work being conducted. All project workers, including Arcadis subcontractors, will be required to attend the safety briefing. Site visitors and project workers not on duty during the morning safety briefing will receive the safety briefing upon their arrival onto the project site for the day.

Behavior Based Safety (BBS) Program

The CPM or APM is responsible for reviewing and establishing BBS goals for the project. These goals are summarized below.

TIP required at the following frequency on this project:

TIPs should be performed ata frequency of 1/400 hours for low risk work and 1/200 hours for high risk work.

Near Miss reporting goals for this project:

In the event of a near miss, it should be reported to project/field teams and Arcadis PMs immediately.

Other (specify):

Safety Equipment and Supplies

Safety equipment/supply requirements are addressed in the JSA or Permit for the task being performed. If work is not performed under a JSA or Permit, the following safety equipment is required to be present on site in good condition (Check all that apply):

X	First aid kit	X	Insect repellent:
	Bloodborne pathogens kit	X	High Visibility Vest
X	Long shirts and pants	X	Hard hat
X	Fire extinguisher	X	Hearing Protection
	Eyewash (ANSI compliant)	X	Traffic cones
X	Eyewash (bottle)	X	Safety boots
X	Drinking water		Heat stress monitor
X	Other:		Poisonous plant pre/post exposure lotion/soap
	Nitrile Gloves		

Control of Ticks and Poisonous Plants

Work on this project has a low tick exposure hazard. Use of inspect repellent (DEET and/or permethrin) is recommended. Wear light colored clothing to help identify presence of ticks on staff. Keep shirt tails inside pants.

Work on this project has a low poisonous plant exposure hazard. First aid kits should be equipped with post exposure soap as a precaution. Inspect work area for presence of hazard prior to initiating work at the location. Wear disposable gloves during work and while removing outer footwear.

International Travel

International travel is not required for this project.

Signatures

I have read, understand and agree to abide by the requirements presented in this health and safety plan. I understand that I have the absolute right to stop work if I recognize an unsafe condition affecting my work until corrected.

Printed Name	Signature	Date

Add additional sheets if necessary

You have an absolute right to STOP WORK if unsafe conditions exist!

Job Safety Analysis

General

JSA ID	HASP 1	**Status**	Complete
Job Name	General Industry-Driving - passenger vehicles	**Created Date**	7/27/2020
Task Description	Driving a car, van, or truck on public roadways.	**Completed Date**	07/27/2020

Client / Project

Client	Chevron
Project Number	30044997
Project Name	Chevron - Oceanside No. 6518040, Portion of 3705 Hampton Road
Project Manager	#REF!

User Roles

Role	Employee	Due Date	Completed Date
Developer	Kyle Barber	7/27/2020	7/27/2020
HASP Reviewer	Select Reviewer	7/27/2020	7/27/2020
Quality Reviewer			

Job Steps

Job Step No.	Job Step Description		Potential Hazard	Critical Action	H&S Reference
1	Pre-Trip Inspection	1	Failing to perform pre-trip inspections may cause mechanical failure, accident or injury.	Perform walk around of vehicle with particular attention to tire inflation and condition. Check lights, wipers, seatbelts for proper operating condition. Properly adjust seat and mirrors prior to vehicle operation. Use or review vehicle inspection checklist as required under the MVSP.	ARC HSGE024 Motor Vehicle Safety Standard (MVSP)
		2	Scrapes, cuts, burns to hand if inspecting engine fluids and/or tires. Eye splash hazard if inspecting engine fluids. Pinch or crush hazards when opening or closing hood, trunk, or tailgate.	Wear protective gloves and safety glasses as described below when checking under hood or tires. Use TRACK and keep hands clear when opening/closing hood, trunk, or tailgate to avoid crush or pinch hazard.	
		3	Struck by other vehicles while walking around vehicle performing inspections.	Wear high visibility vest, shirt, or coat while performing inspections in parking lots or other areas with a traffic hazard. Remain vigilant of moving vehicles or equipment in area, face oncoming vehicles to extent practical.	
		4	Improperly secured cargo may dislodge creating injury, property damage, or road hazard.	Ensure all cargo is properly secured to prevent movement while the vehicle is in operation. This includes cargo in the cab of the vehicle.	
2	Driving a motor vehicle on public streets	1	Failing to observe traffic flow ahead increases risk of hard braking resulting in potential impact of vehicle ahead, being struck by another vehicle from behind, and decreases decision making time.	Use Smith System Key #1, "Aim High in Steering". **Look ahead (15 seconds if possible) to observe traffic flow and traffic signals.** Adjust speed accordingly to keep vehicle moving and avoid frequent braking. Select lane of least traffic and adjust speed based on observed signal timing when possible. Avoid following directly behind large vehicles that obscure view ahead.	Smith System "5-Keys" is a registered trademark of Smith System Driver Improvement Institute, Inc.

		2	Failing to observe vehicles, pedestrians, bicyclists, and other relevant objects in vicinity of your vehicle increases risk of side swipes, rear ending, and third party injury.	Use Smith System Key #2, "Get the Big Picture". **Maintain 360 degrees of awareness around vehicle.** Check a mirror every 6-8 seconds, maintain space around the vehicle, choose a lane that avoids being boxed in. Look for pedestrian activity ahead in crosswalks or sidewalks. Watch for construction zone approach signs and act early by executing lane changes and reducing speed.	
		3	Failing to keep your eyes moving increases risk of not seeing relevant vehicles, pedestrians, and objects in your vicinity that may impair your ability to make timely and appropriate driving decisions and also increases risk of accident.	Use Smith System Key #3, "Keep Your Eyes Moving". **Move your eyes every 2 seconds and avoid staring while evaluating relevant objects.** Scan major and minor intersections prior to entering them. Check mirrors.	
		4	Failing to maintain space around and in front of your vehicle increases risk of striking another vehicle or being struck by another vehicle. Insufficient space shortens time for effective driving decision making resulting in increased accident risk.	Use Smith System #4, "Leave Yourself an Out". **Use 4 second rule when following a vehicle.** Avoid driving in vehicle clusters by adjusting speed and using lanes that permit maximum space and visibility. When stopped, keep one car length space in front of vehicle ahead or white line.	
		5	Failing to communicate with other drivers and pedestrians increases risk of striking vehicles, pedestrians, or being struck by other vehicles, especially from the rear.	Use Smith System Key #5, "Make Sure They See You". **Brake early and gradually when stopping to reduce potential of being rear ended.** Keep foot on brake while stopped. Use turn signals and horn effectively. Establish eye contact with other drivers and pedestrians to extent practical. Use vehicle positioning that promotes being seen.	
		6	Distractions within the vehicle takes focus off driving, increases risk of accident decreases time for making effective driving decisions.	**Cell phone use (any type or configuration) is prohibited while the vehicle is in motion.** Familiarize yourself with vehicle layout and controls (radio, temperature controls, etc.) prior to operating unfamiliar vehicles. Set controls prior to operating vehicle. Use GPS in unfamiliar areas to avoid use of paper maps/directions while driving. Set GPS prior to vehicle operation. Pull over and stop to modify GPS functions. Avoid consuming food or drink while driving.	
3	Parking	1	Parking vehicle in areas of clustered parked vehicles or near facility entrance may impair visibility to oncoming traffic in lot and increase exposure to pedestrian traffic.	**Use pull through parking or back into parking space when permitted or practical.** When practical and safe to do so, park away from other vehicles and avoid parking near the facility entrance or loading docks. If available, use a spotter to aid in backing activity. Back no further than necessary and back slowly. Get out and look (GOAL) if uncertain of immediate surroundings. Tap horn prior to backing.	

PPE Personal Protective Equipment

Type	Personal Protective Equipment	Description	Required
Eye Protection	safety glasses	While checking engine or tires	Required
Hand Protection	work gloves (specify type)	Leather or equivalent checking engine or	Required

Supplies

Type	Supply	Description	Required
Communication Devices	mobile phone		Required
	other	Vehicle kit (applies to company trucks)	Required
Miscellaneous	fire extinguisher	Applies to company trucks	Required
	first aid kit	Applies to company trucks	Required

Task Improvement Process

General

Observed Company:

Observation Type:

TIP Form: H&S Field Multi-Task (General)

Task Observed:

Observee Name:

Observer Name:

Observation Date:

Project Number: 30044997

Project Name: Chevron - Oceanside No. 6518040, Portion of 3705 Hampton Road, Oceanside, NY 11572

Supervisor:

Equipment On Site:

Pertinent Information:

Observation

Task	Correct	Questionable	Comments
General			
PPE worn according to HASP/JLA specifications and inspected before use?			
STOP work authority used where appropriate?			
Body Use/Positioning			
Proper lifting/pushing/pulling techniques used (no awkward positions/posture; no twisting or excessive reaching; no straining; no excessive weight; load under control/stable; etc.)?			
Body parts away from pinch points (clear or protected from being caught between objects/equipment or from contacting sharp objects/edges, etc.)?			
Body parts not in the Line of Fire (protected from being struck by traffic, equipment, falling/flying objects, etc.)?			
Work Procedures/Environment			
Correct type and number of barricades/warning devices/cones?			

Communication with others when necessary (hand signals, flags, etc.)?			
Right tools and equipment selected for the job and inspected before use?			
Tools and equipment used properly?			
Housekeeping performed (work areas and pathways clear of hazards, uneven surfaces addressed, etc.)?			
Slip/trip/fall hazards addressed (path selected and cleared, eyes on path, speed footing, etc.)?			
Proper energy control (electrical systems grounded, lock out/tag out performed, isolated, cords/fixtures in good condition, GFCI inspected and utilized when appropriate and used properly, etc.)?			
Protected from overhead/underground utilities (proper clearance, properly marked, spotters as necessary, etc.)?			
Safe work on/near water (appropriate flotation device, appropriate boat for body of water and operation of boat, etc.)?			
Chemical/Radiation protection (decontamination zones set up properly, air monitoring, completed, and logged, etc.)?			
Fall from elevated height prevention (maintains 3-points of contact, appropriate ladder, mounting/dismounting vehicle/equipment, fall arrest system, etc.)?			
Any additional safety issues identified:			

Tip Summary **Enter details of the TIP and follow up discussion provide details on how any questionable items were resolved.**

Discussion following the TIP led by: _____

Date of follow-up discussion: _____

Positive Comments:

Discussion Summary Completed:

- ☐ Supervisor Led
- ☐ Peer to Peer
- ☐ Arcadis Employee to Subcontractor

Summary of Questionable Items

Action Items (Optional) Assign appropriate action items based on the observations made. You can add more than one action item if needed.

Item #	Action Item	Responsible Person	Due Date	Comp. Date
1				
2				
3				

Standard Review

Reviews to be performed after entry of this TIP into 4-Sight.

Quality Review

Quality Reviews to be performed after entry of this TIP into 4-Sight.

Field Validation and Verification

Use the 4-Sight generated copy of this TIP to perform field V&V activities.

Air Monitoring Documentation Form

PID Model: _____ Monitor Frequency: _____

LEL/O_2 Model: _____

CIT Model: _____

Dust Mon. Model: _____

Air Monitoring Results

Date	Time	PID (units)	O_2 (%)	LEL (% LEL)	CIT (ppm)	Dusts (mg/m^3)	Location

CIT = Colorimetric Indicator Tube
LEL = Lower Explosive Limit
mg/m3 = Milligram per cubic meter
O2 = Oxygen
ppm = Part per million
% = Percent
PID = Photoionization Detector

PID Calibration Log

ARCADIS Design & Consultancy for natural and built assets

Zero Gas Source: ____________________ Instrument Type: ____________________ PAGE ____ of ____

Lot Number/Expiration Date: ____________________ Serial Number: ____________________

Calibration Gas Source: ____________________ Instrument Type: ____________________

Lot Number/Expiration Date: ____________________ Serial Number: ____________________

Concentration: ____________________ ____________________

Instrument Number	Date	Time	Zero Cal. OK (Y/N)	Calibration Gas Reading	Comments	Calibration w/in 2% (Y/N)?	Alarms Set (Yes/No)?	User Initials

Traffic Safety Plan (TSP)

Notes: ROW - Right of Way (Public) formerly known as "TCP"
Non-ROW - Not in the ROW (parking lots, etc.) formerly known as "STAR"

1.0 General

Plan type	Non-Right of Way (Non-ROW)
Project Name:	Chevron Oceanside (Former Gulf Terminal)
Project Number:	30010967 FN: 6518040
Developer Name:	Melissa Weaver
Duration of Project (in hours or days):	8-10 Hours per day
Time Restrictions (Y/N, if Y describe below):	None
Not Applicable	MW-29-VD, MW-29-D1, MW-29-D2
Not Applicable	MW-29-VD, MW-29-D1, MW-29-D2
Not Applicable	15
Not Applicable	1
Not Applicable	Urban (≤40 mph)

☐ Working on multiple roads?

Comments:

2.0 Work Description

Provide a brief description of scope of work:
Groundwater sampling from existing monitoring wells. Well inspections and Repairs as needed.

3.0 Type and Duration

Work locations on this project will be: Intermediate work (1-8 hours per location)

Non-ROW work will be performed in: Intersection and sidewalk

Special traffic conditions may include (select most prevalent): Large vehicles backing

4.0 Traffic Control Layout, Number of Devices Required, and Phasing

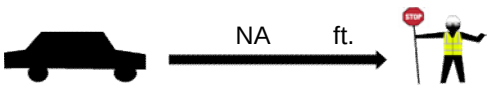
The following Non-ROW requirements in the Traffic Safety Handbook applies:

The menu below will be blank and is not applicable.

The menu below will be blank and is not applicable.

Non-ROW configuration:

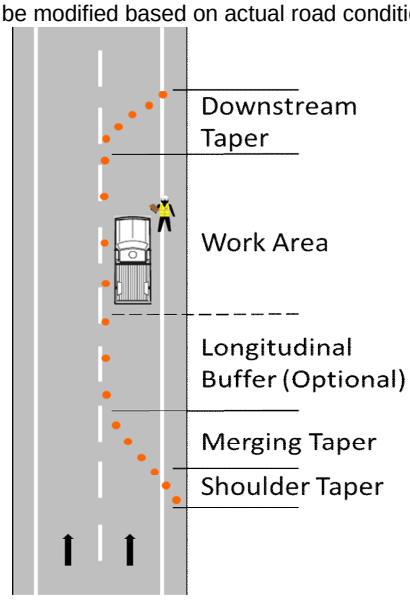
An example non-ROW traffic control configuration for this project is illustrated below. The actual type and number of devices required are specified below. Don't leave vehicle doors open. Don't establish controls within 25 ft of the front or rear of parked large vehicles/rolling equipment without coordinating with the vehicle/equipment operator.

ROW minimum sign spacing distances for "A", "B" and "C" (as applicable) in referenced DOT Facts.		ROW oncoming traffic minimum site distance required to see Flagger and properly decelerate and stop.
A	100 ft.	
B	100 ft.	
C	100 ft.	

ROW Cone Calculation (Values are default. Light grey fields may be modified based on actual road conditions)

	Active work area length (feet)	200
X	Apply Optional Longitudinal Buffer (ft)?	60
	Lane width of offset (feet)	12
	Shoulder width of offset (feet)	8
	Posted speed limit	15

X	**Shoulder Taper**	
	Taper Length (feet)	10
	Cones Required	1
	Cones Spacing (max., ft)	15
X	**Merging Taper**	
	Taper Length (feet)	45
	Cones Required	3
	Cones Spacing (max., ft)	15



X	**Work Area/Longitudinal Buffer**		
	Cone Spacing (max., ft)	30	
	Cones Required	9	Note: Review taper configuration and cone spacing after ROW implementation to ensure traffic is moving efficiently without motorist confusion in the RWZ.
X	**Downstream Taper**		
	Taper Length (feet)	100	
	Cones Required	5	
	Cone Spacing (max., ft)	20	
	Cones Required (minimum)	17	

Select the traffic control devices to be used and enter number each required:

Check all that apply:		*Wording or Pictogram*	*Number:*
X	Warning signs	Caution	2
X	Warning signs	Work Zone	2
	Warning signs		
	Stop/Slow paddle		
	Red flag		
	Drums		
X	Channelizer cone (42 inch height, 10 lb base)		
	Channelizer cone (42 inch height, 30 lb base)		
	Traffic cones (≥ 18 inches tall)		17
	Barricade:		
X	Flags for cones		17
	Lights (for night work)		
	Plastic fencing (rolls)		
X	Caution tape (rolls)		
	Other (specify):		

Non-ROW Phasing:

1) Position truck as shield, if practical

2) Deploy traffic control devices

3) Affix flags, caution tape or fencing

4) Unload project equipment

5) Commence work

6) SSO to maintain controls

7) Remove controls in reverse order

Reviewed By:

HASP Reviewer: _____

ARCADIS Design & Consultancy for natural and built assets

THIS FORM MUST BE COMPLETED IN ENTIRETY PRIOR TO BEGINNING ANY INTRUSIVE WORK

Project: Chevron - Oceanside No. 6518040
Project Number: 30044997
Form Completion Date: _____ Form Expiration Date: _____
(15 business days post form completion date)

Pre-Field Work

Required: One Call or "811" notified 48-72 hours in advance of work? #: _____
Ticket Expiration Date _____ (Review State Requirements)
Utility companies notified during the One Call process ☐ See attached ticket

_____ _____ _____ _____
_____ _____ _____ _____

List any other utilities requiring notification:
☐ None
_____ _____ _____

Private Locator Contacted ☐ Yes ☐ No
Plan private utility clearance subcontractor assignments, areas, required clearance equipment, depth of clearance needed, types of utilities. When possible re-clear 811 markings to confirm utility locations.

Client provided utility maps or "as built" drawings showing utilities? ☐ Yes ☐ No

Field Work - This must be completed on site, by staff who have a minimum of one year of field experience in identifying utilities. Review check list with PM or designee prior to beginning intrusive work.

List Soil Boring / Well IDs or Excavation Locations applicable to this clearance checklist:

3 Reliable Lines of Evidence Required Prior to Starting any Subsurface Intrusive Work

☐ One Call/"811" (Reliable as a line of evidence when working in public right of way or easement)
Utility Markings Present: ☐ Paint ☐ Pin flags/stakes ☐ Other ☐ None

☐ Client Provided Maps/Drawings **OR** ☐ Maps/Drawings requested but not provided
☐ Client Clearance Name(s)/Affiliation(s) _____
☐ Interview(s): Name(s)/Affiliation(s) _____
_____

Did person(s) interviewed indicate depths of any utilities in the subsurface?
☐ Yes, depths provided: ☐ Did not know or refused to answer
Additional Comments:

☐ Site Inspection (**Complete Page 2 & Photo Document Marked Utilities & Utility Structures**)
☐ Public Records / Maps / Asbuilts
☐ Private Locator: (Name and Company) _____
☐ Ground Penetrating Radar (GPR)
☐ Radiofrequency (RFLoc)
☐ Electromagnetic (EM)
☐ Metal Detector

Soft Dig Methods
☐ Termination Depth _____ft. bgs
☐ Potholing / Vacuum Extraction
☐ Air-Knife or Hydro-Knife
☐ Probing
☐ Hand Auguring

Tips for Successful Utility Location:
1. Don't forget to look up
2. Be on site with Private Utility Locators
3. Ask Private Locators to "confirm" other's markings
4. Select alternate/backup locations during clearance process
5. Mark out all known utilities. Leave nothing to question
6. No hammering - no pickaxes - no digging bars - no shortcutting
7. No excessive turning or downward force of hand augers/shovels
8. Utilities may run in or directly under asphalt/concrete

☐ Other: _____
☐ Marine Locator: (Name and Company) _____

During the site inspection look for the following: **("YES" requires additional investigation and the utility must be marked properly prior to beginning subsurface intrusive work)**:

Site Inspection	**Utility Color Codes**	**Present**	
a) Natural gas line present (evidence of a gas meter)?	Yellow	☐ Yes	☐ No
i) Feeder Lines to buildings or homes?		☐ Yes	☐ No
b) Evidence of electric lines:	Red		
i) Conduits to ground from electric meter or along wall?		☐ Yes	☐ No
iii) Conduits from power poles running into ground?		☐ Yes	☐ No
ii) Light poles, electric devices with no overhead lines?		☐ Yes	☐ No
iii) Overhead electric lines present? (See Section l)		☐ Yes	☐ No
c) Evidence of sewer drains:	Green		
i) Restrooms or kitchen on site?		☐ Yes	☐ No
ii) Sewer cleanouts present?		☐ Yes	☐ No
iii) Combined sewer/storm lines or multiple sewer lines?		☐ Yes	☐ No
d) Evidence of water lines:	Blue		
i) Water meter on site or multiple water lines?		☐ Yes	☐ No
ii) Fire hydrants in vicinity of work?		☐ Yes	☐ No
iii) Irrigation systems? (Sprinkler heads, valve boxes, controls in building)		☐ Yes	☐ No
e) Evidence of storm drains:	Green		
i) Open curbside or slotted grate storm drains		☐ Yes	☐ No
ii) Gutter down spouts going into ground		☐ Yes	☐ No
f) Evidence of telecommunication lines:	Orange		
i) Fiber optic warning signs in areas?		☐ Yes	☐ No
iv) Aboveground cable boxes or housings or wires in work area?		☐ Yes	☐ No
g) Underground storage tanks:			
i) Tank pit present, tank vent present?		☐ Yes	☐ No
ii) Product lines running to dispensers/buildings?		☐ Yes	☐ No
h) Do utilities enter or exit existing structures/buildings?			
If Yes, confirm the utility markings outside of structure/building match up.		☐ Yes	☐ No
i) Proposed excavation marked in white?	White	☐ Yes	☐ No
j) Unclassed utilities / anomalies marked in pink?	Pink	☐ Yes	☐ No
k) **Overhead** Utilities/Communication Lines - **Look Up**:			
i) Overhead electrical conduit, pipe chases, cable trays, product lines?		☐ Yes	☐ No
ii) Overhead fire sprinkler system?		☐ Yes	☐ No
l) **Overhead** Power lines in or near the work area:			
i) < 50 kV within 10 ft. of work area?		☐ Yes	☐ No
ii) >50 - 200 kV within 15 ft. of work area?		☐ Yes	☐ No
iii) >200-350 kV within 20 ft. of work area?		☐ Yes	☐ No
iv) >350-500 kV within 25 ft. of work area?		☐ Yes	☐ No
v) >500-750 kV within 35 ft. or work area?		☐ Yes	☐ No
vi) >750-1000 kV within 45 ft. of work area?		☐ Yes	☐ No
m) Other:			
i) Evidence of linear asphalt or concrete repair?		☐ Yes	☐ No
ii) Evidence of linear ground subsidence or change in vegetation?		☐ Yes	☐ No
iii) Unmarked manholes or valve covers in work area?		☐ Yes	☐ No
iv) Warning signs ("Call Before you Dig", etc.) on or adjacent to site?		☐ Yes	☐ No
v) Utility color markings not illustrated in this checklist?	Purple	☐ Yes	☐ No
n) Has the Utilities & Structures Checklist been reviewed by the PM or Designee		☐ Yes	☐ No

PM or Designee Name: _____

Name and Signature of person completing the checklist: _____

Date: _____

Do not perform **mechanized** intrusive work within 30 inches of a utility marking without receiving pre-approval by Corporate H&S .

ARCADIS Design & Consultancy for natural and built assets

Arcadis Weekly Vehicle Inspection Form

Vehicle # / License Plate # _____ **Lease Plan # / Last 6 of Vin #** _____

	Inspection Date												
	Odometer reading												
	Driver / Inspector Name												
	Check the appropriate box and enter repair date for identified repairs:	OK	Needs Repair	Repair Date	OK	Needs Repair	Repair Date	OK	Needs Repair	Repair Date	OK	Needs Repair	Repair Date
Interior	Horn operational												
	Door Locks operational												
	Seat Belts in good repair												
	Seats and Seating Controls												
	Steering Wheel - No Excessive Play												
	Interior Lights and Light Controls												
	Instrument Panel/Gauges												
	Wiper Controls operational												
	Heat/Defrost/Air Conditioning working												
	Rear View Mirror present												
	Backup Camera/Sensors working												
	Jack and Lug Wrench present												
Exterior[1]	Lights and Signals operational												
	Tires properly inflated/good tread depth												
	Spare Tire properly inflated												
	Doors operational												
	Windows Not Cracked/Damaged												
	Side View Mirrors												
	Body Panels and Bumpers												
Engine & Brakes	Engine Start & Running Smoothly												
	Fluid Levels, No Noticeable Leaks												
	Belts tight, no cracks												
	Brakes operational, no squeaking												
Emergency Equipment[2]	First Aid Kit, inspected weekly												
	Fire Extinguisher properly secured												
	Fire Extinguisher inspected weekly												
	Orange/Yellow emergency warning light												
	Roadside Assistance Information												
	Recommend spotter cones available												
Cargo	Cargo Secure and Properly Distributed												
	Securing Devices in Good Condition												
Registration	License Plate /Tags												
	Registration and Insurance												
	City/State Inspection Decal												
	Lease Plan information/Fuel Card												

[1] **Note all damages to the vehicle on the back of this page**

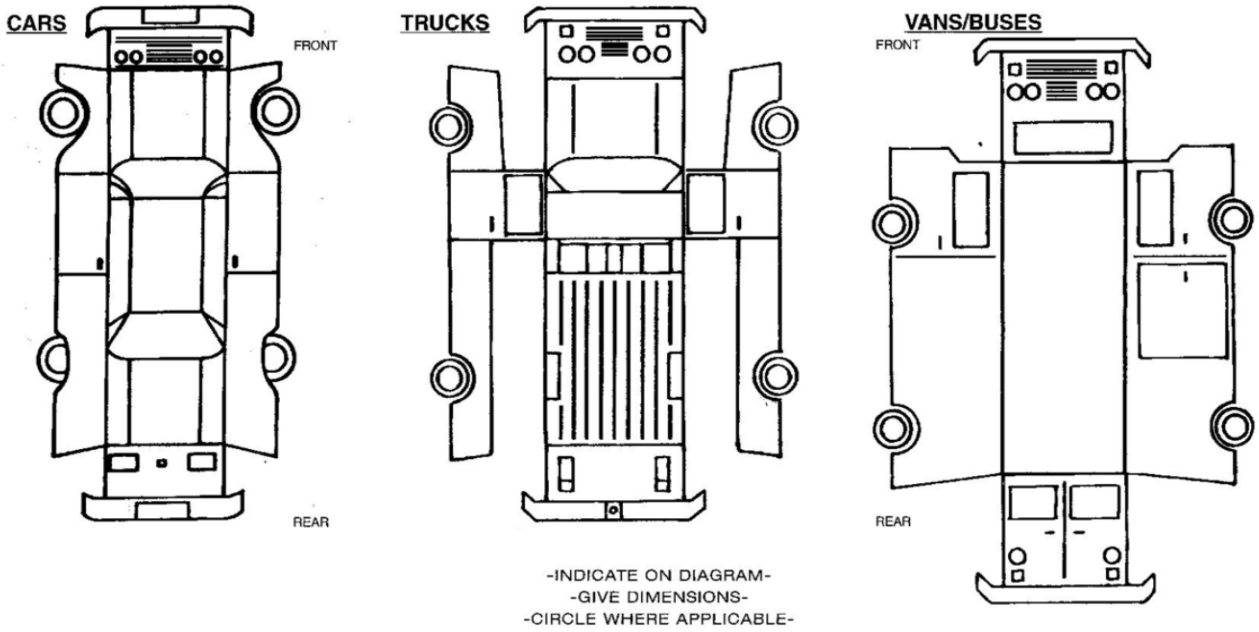
[2] **Emergency Equipment required per Motor Vehicle Standard ARC HSGE024**

Note All Vehicle Damage Below

All Vehicle Damage must be reported to Sue Berndt (Corporate Legal), Andrew McDonald (Corporate H&S), and Roger Elliot (Corporate Fleet Manger)

CODES:

B-BENT
BR-BROKEN
BU-BULGE
C-CHAFED
CH-CHIPPED
CPM-COVERED WITH PROTECTIVE MATERIAL-UNABLE TO DETERMINE DEFECTS IF ANY
CSA-CHAFED AND SCRATCHED ALL OVER
CR-CRACKED
D-DENTED
DMC-DUST AND MUD COVERED UNABLE TO DETERMINE OTHER DEFECTS IF ANY
G-GOUGED OR CUT
GC-GLASS CRACKED
HS-HAIRLINE SCRATCH
M-MISSING
P-PUNCTURED
R-RUSTY
S-SCRATCHED
SC-SCRAPED
SM-SMASHED
ST-STAINED AND/OR SOILED
T-TORN



Notes:

Tread guide: If a tread gauge is not available coins may be used to determine remaining tread. 2/32” is the minimum by law in most states (top of Lincoln’s head on penny), 4/32” is minimum recommended for wet surfaces (top of Washington’s head on quarter), 6/32” is minimum recommended for snowy surfaces (top of Lincoln Memorial on penny).Vehicle tires should be replaced if the tread depth is less than 6/32”.



2/32” remaining 4/32” remaining 6/32” remaining

Reference JSA 10907 For Weekly Vehicle Inspection

Arcadis Visitor Acknowledgement and Acceptance of HASP Signature Form

By signing below, I waive, release, and discharge the owner of the site and Arcadis and their employees from any future claims for bodily and personal injuries which may result from my presence at, entering, or leaving the site and in any way arising from or related to any and all known and unknown conditions on the site.

Printed Name	Signature	Company	Date/Time On Site	Date/Time Off Site

APPENDIX G

GENERIC COMMUNITY AIR MONITORYING PLAN

Appendix G
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-sire receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical-specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. As stated in the NYSDOH letter dated August 16, 2022, the “Special Requirements” CAMP would apply at this site if any ground-intrusive activities occur below the 8-foot demarcation layer within 20 feet of the Costco Service Station.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminates or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity

of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public parking, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone on half the distance to the nearest potential receptor or residential/commercial structure, whichever is less- but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

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

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposed should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped, and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

Special Requirements

The "Special Requirements" CAMP will be followed if any ground-intrusive activities occur below the 8-foot demarcation layer within 20 feet of the Costco Service Station.

A. *Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures*:

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels. Background readings in the occupied spaces must be taken prior to commencement of the planned activities. Any unusual background readings should be discussed with NYSDOH prior to commencement of work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/kg or less at the monitoring point.

B. *Special Requirements for Indoor Work with Co-Located Residences or Facilities:*

Unless a self-contained, negative-pressure enclosure with proper emission controls encompasses the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial

activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g., weekends or evenings) when building occupancy is at a minimum.

APPENDIX H

SSD O&M PLAN AND AS-BUILT

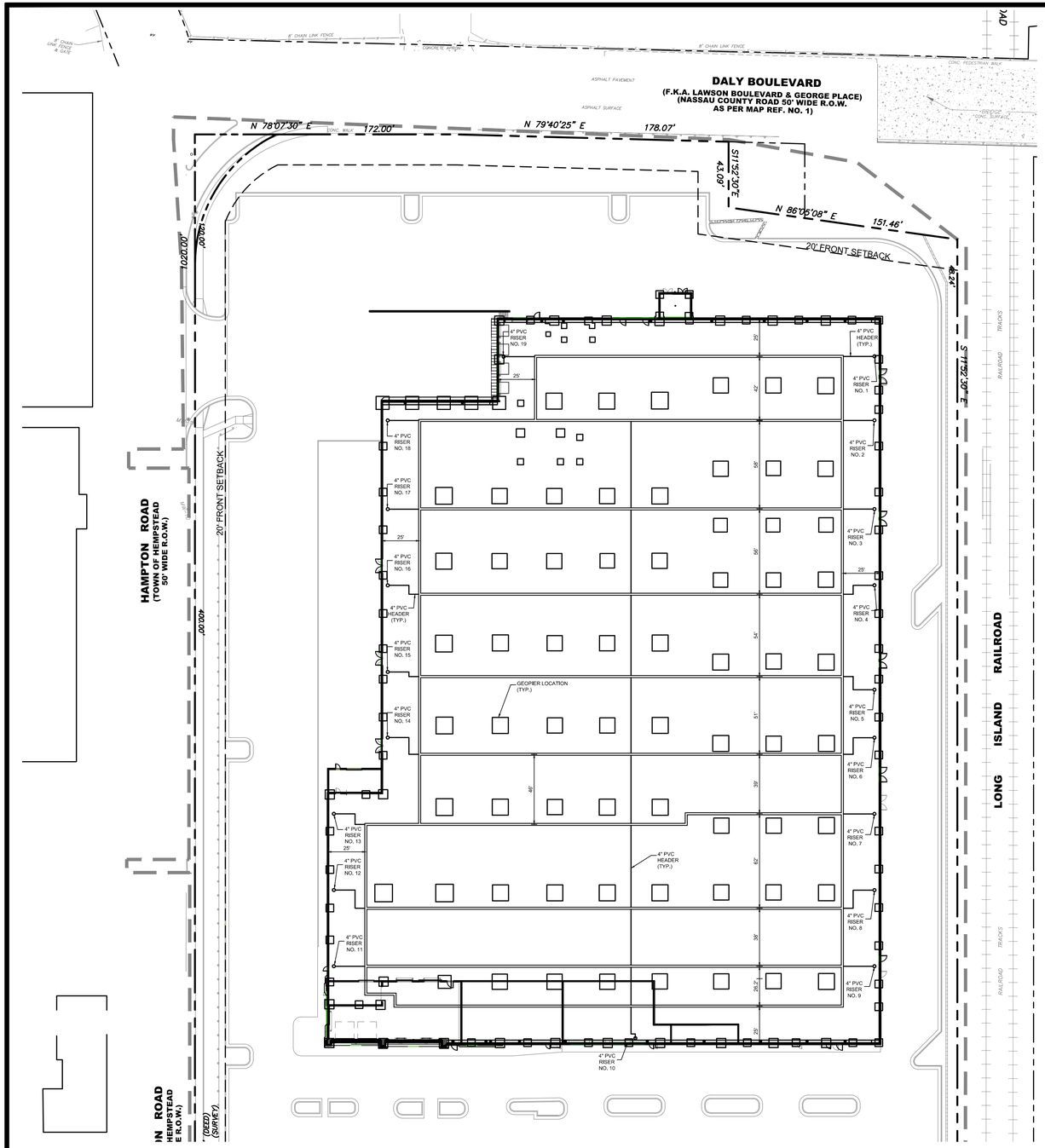
Sub-Slab Depressurization System Operation and Maintenance Plan

This Site Management Plan (SMP) describes the existing Passive Sub-Slab Depressurization (SSD) System and provides as-built design details and the system location. The SSD is a Engineering Control for the Site. The potential for soil vapor intrusion within the Costco warehouse building is mitigated through the use of a Liquid Boot® vapor intrusion barrier installed across the warehouse floor, and existing passive SSD venting system installed as part of the Site IRMs. The SSD system will be inspected, monitored, and its performance certified at specified frequency defined in this SMP.

The system will be inspected using existing sub-slab monitoring points beneath the occupied onsite Costco building. Additionally, the SSD piping and existing Costco building slab will be inspected annually as part of the SMP. Any damaged piping, pipe supports, or piping labels will be repaired or replaced. Each SSD piping discharge will be inspected to verify that no air intakes into the building have been located nearby. A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix K Monitoring and Sampling Protocol. The inspection of the SSD will be conducted by a qualified environmental professional, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

Sub-slab vapor sampling will be conducted bi-annually, followed by an annual sampling the following year if required by the NYSDEC. Sub-slab samples will be analyzed for United States Environmental Protection Agency (USEPA) Method Toxic Organic (TO)-15. The purpose of the vapor sampling is to determine if the SSD system needs to remain in passive operation or be upgraded to an active system or removed as an engineering control. Indoor air monitoring will be performed only if needed and contingent on the results of sub-slab monitoring, as identified in Table 4-2 of this SMP. If results of the initial sub-slab monitoring and sampling indicates that there is no potential for vapor intrusion and that the passive SSD (and existing Liquid Boot® vapor intrusion barrier and concrete slab) is adequately mitigating vapor intrusion, a proposal will be submitted to the NYSDEC and NYDOH to remove the SSD as an engineering control and no additional monitoring or inspection of the SSD will be needed. Alternatively, based on sub-slab and indoor air sampling results, if site-related vapors are impacting the indoor air at the Costco facility, then the passive SSD will be modified to an active SSD. Modification to the frequency

for sampling requirements will require approval from the NYSDEC project manager. Should the sub-slab vapor sample results determine the SSD must be operated as an active system, a revision to this SMP and O&M plan will be submitted to the NYSDEC.



RADON AND SUBSLAB VAPOR GAS COLLECTION SYSTEM

SCALE: 1"=40'

40 0 40 80

SCALE IN FEET
(1"=40')

NOTE:

GEOPIER LAYOUT TAKEN FROM A PLAN ENTITLED "GROUTED IMPACT PIER ELEMENT LAYOUT, COSTCO WHOLESALE, OCEANSIDE, NEW YORK", PREPARED BY GEOSTRUCTURES, DATED MAY 18, 2015.

LEGEND

- 6" PVC RISER LOCATIONS
- CETCO GEOVENT LOCATIONS
- SOLID 4" PVC PIPE LOCATIONS

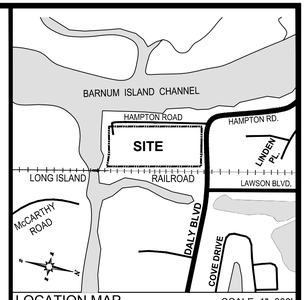
NOTES:

1. UTILIZE ONLY MANUFACTURER SPECIFIED PRODUCTS AND PARTS INDICATED OR BETTER THAN APPROVED EQUAL.
2. ULTIMATE OPERATION AND MAINTENANCE IS THE OWNER'S RESPONSIBILITY UNDER THE DIRECTION AND GUIDELINES OF THE ENGINEER
3. ALL PIPING-SUBGRADE SOILS SHALL BE A STRUCTURAL FILL WITH 95% RELATIVE COMPACTION AND FREE OF STANDING WATER.
4. ALL LATERAL PIPING IS TO BE INSTALLED LEVEL AND WITH NO SAGGING.
5. REFER TO THE PROJECT SPECIFICATIONS FOR ALL SYSTEM SPECIFICATIONS AND REQUIREMENTS DURING CONSTRUCTION.
6. REFER TO PROJECT SPECIFICATIONS FOR ALL STORAGE HANDLING, COLOR, SIZE, TYPE, JOINING AND CONSTRUCTION REQUIREMENTS OF ALL INDICATED PIPING.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXPOSED CABLES, CONDUITS, PIPING AND THE LIKE UNDERGROUND UTILITIES AND STRUCTURES WHICH MAY BE ENCOUNTERED EITHER ABOVE OR UNDERGROUND. ALL NECESSARY PRECAUTIONS MUST BE TAKEN BY THE CONTRACTOR TO PREVENT DAMAGE TO THEIR EXISTING/PROPOSED IMPROVEMENTS. IN THE EVENT THAT SUCH DAMAGE SHOULD OCCUR FROM THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL REPAIR, REPLACE OR BRING THE ORIGINAL CONDITION TO THE DAMAGED UTILITIES OR IMPROVEMENTS AT THE CONTRACTOR'S EXPENSE.
8. ALL PIPE LENGTHS INDICATED ON THIS PLAN ARE APPROXIMATE AND WILL VARY DURING CONSTRUCTION. HENCE, THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND VERIFYING ACTUAL LENGTHS AND SHALL NOT BID BASED ON THE VALUES PROVIDED ON THIS PLAN.
9. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP.
10. ALL PVC PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE MANUFACTURER'S NAME OR TRADE MARK, SIZE SCHEDULE, TYPE, WORKING PRESSURE AT 73 DEGREES F., SDR NUMBER, PRODUCTS STANDARD NUMBER AND NATIONAL SANITATION FOUNDATION (NSF) APPROVAL.
11. ALL PVC PIPES SHALL BE SOLVENT WELDED. SOLVENT WELDED PIPE FITTINGS SHALL BE MOLDED FITTINGS, SCHEDULE 40, MANUFACTURED OF THE SAME MATERIAL AS THE PIPE, AND SHALL BE SUITABLE FOR SOLVENT WELD SLIP JOINT RING, TIGHT SEAL OR THREADED CONNECTION.
12. CEMENT SHALL BE CLEAR PLASTIC, NON-CRACKING PIPE CEMENT FOR USE ON ALL SIZES AND SCHEDULES OF PVC PIPE AND FITTINGS. CEMENT MUST BE NSF APPROVED AND MEET AST, D2564 SPECIFICATIONS. NO BLUE GLUE IS TO BE USED FOR ANY REASON.
13. CLEANER/PRIMER MUST BE ANY COLOR OTHER THAN CLEAR.
14. REFER TO ORIGINAL PROJECT SPECIFICATIONS AS WELL AS SPECIFICATIONS, DETAILS AND INSTALLATION GUIDE PROVIDED BY LIQUID BOOT AS REFERENCE.
15. THE CONTRACTOR IS TO INSTALL THE INDICATED LATERALS AS SHOWN, ANY RELOCATION OF PROPOSED LATERALS, HEADERS OR RISERS IS TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
16. ALL VERTICAL RISERS WILL BE LABELED "GAS COLLECTION SYSTEM DO NOT ALTER". CAST IRON PIPING MAY BE REQUIRED FOR VERTICAL RISERS PER FIRE CODE. (TO BE DETERMINED BY ARCHITECT)
17. LIQUID BOOT VAPOR BARRIER SYSTEM WILL BE INSTALLED UNDER THE COMPLETE BUILDING SLAB AND ALONG EXTERIOR WALLS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
18. ANCHORS AND/OR ANY OTHER PENETRATIONS THROUGH LIQUID BOOT MUST BE RESEALED AS PER LIQUID BOOT SPECIFICATIONS.
19. SEALING AROUND PENETRATIONS PER LIQUID BOOT BROWNFIELD / MEMBRANE LINER SPECIFICATIONS:
    - A. CLEAN ALL PENETRATIONS. ALL METAL PENETRATIONS SHALL BE SANDED CLEAN WITH EMERY CLOTH.
    - B. FOR APPLICATIONS REQUIRING LIQUID BOOT ❷BASEFABRIC GEOTEXTILE, ROLL OUT GEOTEXTILE ON SUB-GRADE WITH THE HEAT-ROLLED SIDE FACING UP, OVERLAPPING SEAMS A MINIMUM OF SIX INCHES (6"). CUT THE GEOTEXTILE AROUND PENETRATIONS SO THAT IT LAYS FLAT ON THE SUB-GRADE. LAY GEOTEXTILE TIGHT AT ALL INSIDE CORNERS. APPLY A THIN (10 MIL) TACK COAT OF LIQUID BOOT ❶"A" SIDE WITHOUT CATALYST WITHIN THE SEAM OVERLAP.
    - C. AT THE BASE OF PENETRATION INSTALL A MINIMUM 3/4 INCH THICK MEMBRANE CANT OF LIQUID BOOT ❹, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE MANUFACTURER. EXTEND THE MEMBRANE AT A 60 MIL THICKNESS THREE INCHES (3") AROUND THE BASE OF PENETRATION AND UP THE PENETRATION A MINIMUM OF THREE INCHES (3"). **ALLOW TO CURE OVERNIGHT BEFORE THE APPLICATION OF LIQUID BOOT ❸MEMBRANE. (SEE ATTACHED MANUFACTURER'S STANDARD DETAIL.)**
    - D. SPRAY APPLY LIQUID BOOT ❶TO A 60 MILS MINIMUM DRY THICKNESS AROUND THE PENETRATION. COMPLETELY ENCAPSULATING THE COLLAR ASSEMBLY AND TO A HEIGHT OF ONE AND ONE HALF INCHES (1 1/2") MINIMUM ABOVE THE MEMBRANE IN THE LIQUID BOOT BROWNFIELD / MEMBRANE LINER SPECIFICATIONS. SPRAY LIQUID BOOT ❶TO SURROUNDING AREAS AS SPECIFIED FOR THE PARTICULAR APPLICATION. **(SEE MANUFACTURER'S STANDARD DETAIL)**
    - E. ALLOW LIQUID BOOT ❶TO CURE COMPLETELY BEFORE PROCEEDING TO STEP "F".
    - F. WRAP PENETRATION WITH POLYPROPYLENE CABLE TIE AT A POINT TWO INCHES (2") ABOVE THE BASE OF PENETRATION. TIGHTEN THE CABLE TIE FIRMLY SO AS TO SQUEEZE, BUT NOT CUT, THE CURED MEMBRANE COLLAR.

PASSIVE/ACTIVE SUB-SLAB DEPRESSURIZATION SYSTEM NOTES:

1. IF A FAN IS REQUIRED TO CHANGE THE SYSTEM FROM PASSIVE TO ACTIVE, A CERTIFIED RADON MITIGATOR MUST INSTALL THE FAN.
2. THE CONSTRUCTION TECHNIQUES UTILIZED IN THE CONSTRUCTION ARE IN COMPLIANCE WITH THE MINIMAL SYSTEM-SPECIFIC RECOMMENDATIONS REQUIRED BY THE "FINAL NYSDOH CEH BEEI SOIL VAPOR INTRUSION GUIDANCE", DATED OCTOBER 2006.
3. ALL PENETRATIONS OF CONDITIONED ENVELOPE SHALL BE SEALED TO PREVENT AIR PASSAGE.
4. VAPOR MITIGATION SYSTEM VENT PIPES SHALL BE IDENTIFIED AND CLEARLY LABELED AT INTERVALS OF NOT MORE THAN 25' IN CONCEALED LOCATIONS, NOT MORE THAN 50' IN EXPOSED LOCATIONS, AND NOT LESS THAN ONCE IN ANY ROOM OR SPACE.
5. ELECTRICAL JUNCTION SHALL BE INSTALLED NEAR WHERE FUTURE INLINE VENT PIPE FAN AND SYSTEM FAILURE ALARMS MAY BE INSTALLED.
6. TO AVOID ENTRY OF EXTRACTED SUBSURFACE VAPORS INTO THE BUILDING, THE VENT PIPE'S EXHAUST SHOULD BE
   - i. ABOVE THE EAVE OF THE ROOF (PREFERABLY, ABOVE THE HIGHEST EAVE OF THE BUILDING AT LEAST12 INCHES ABOVE THE SURFACE OF THE ROOF),
   - ii. AT LEAST 10 FEET ABOVE GROUND LEVEL.
   - iii. AT LEAST 10 FEET AWAY FROM ANY OPENING THAT IS LESS THAN 2 FEET BELOW THE EXHAUST POINT.
   - iv. 10 FEET FROM ANY ADJOINING OR ADJACENT BUILDINGS, OR HVAC INTAKES OR SUPPLY REGISTERS.
7. MONITORING PORTS TO BE INSTALLED AT ALL RISER LOCATIONS PER RISER DETAILS.

CONSTRUCTION SITE RUNOFF IS CONTRIBUTING TO THE BARNUM ISLAND CHANNEL.

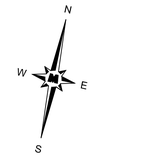


LOCATION MAP SCALE: 1"=800'

	EXISTING	PROPOSED
CONCRETE CURB		
TRAFFIC MARKING		
SIGN		
POLE MOUNTED LIGHT		
UTILITY POLE		
TRANSFORMER		
CHAIN FENCE		
WALL		
BUILDING ENTRANCE		
FIRE HYDRANT		
WATER VALVE		
GAS VALVE		
CONTOUR		
SPOT ELEVATION	BC-10.85	

	EXISTING	PROPOSED
ELECTRICAL MANHOLE		
DRAINAGE MANHOLE		
SANITARY MANHOLE		
MONITORING WELL	MW	
CURB INLET		
DROP INLET		
ROOF LEADER W/C.O.		
WATER MAIN	W	W
GAS MAIN	G	G
SANITARY LATERAL	S	S
ELECTRIC	E	E
TELEPHONE	T	T
UNDER GROUND FIBER OPTIC LINE	FO	FO

DRAWING LEGEND



40 0 40 80

SCALE IN FEET
(1"=40')

REV.	DATE	DRAWN BY	DESCRIPTION
2	5/22/15	PCS	REVISED PER ARCHITECTURAL CHANGES
1	4/29/15	PCS	REVISED PER EXXON COMMENTS

RUSSELL T. McFALL II
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 90030

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects
State of N.J. Certificate of Authorization: 24GA27986500
New Jersey New York Pennsylvania Virginia
Customer Loyalty *through* Client Satisfaction

COPYRIGHT ©2014, MASER CONSULTING P.A
ALL RIGHTS RESERVED
THIS DRAWING AND ALL THE INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF MASER CONSULTING, P.A.

RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701
Phone: 732.383.1950
Fax: 732.383.1964
email: solutions @ maserconsulting.com

SUBSLAB VAPOR MITIGATION SYSTEM DESIGN FOR COSTCO WHOLESALE

OCEANSIDE, NEW YORK
TOWN OF HEMPSTEAD
NASSAU COUNTY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
1"=40'	9-30-2014	PCS	RS

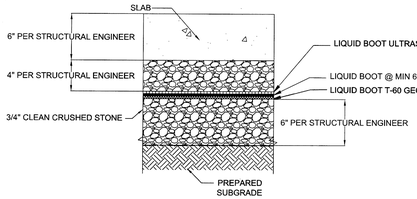
PROJECT NUMBER: 12000271A

SHEET NUMBER: VBD-1

N.J.S.A. ONE CALL SYSTEM INC. 1-800-272-1000 STOP! CALL BEFORE YOU DIG

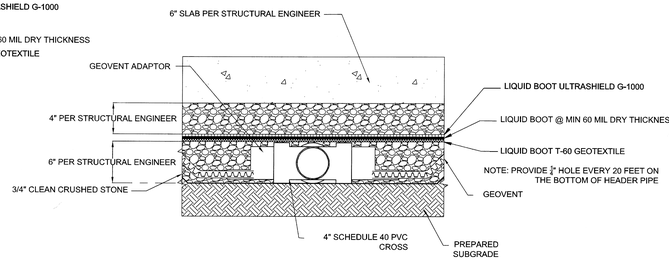
NOTE:

DETAILS MAY BE REVISED UPON RECEIPT OF FINAL ARCHITECTURAL AND STRUCTURAL PLANS.



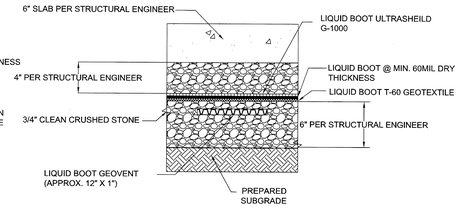
TYPICAL LIQUID BOOT DETAIL

NTS



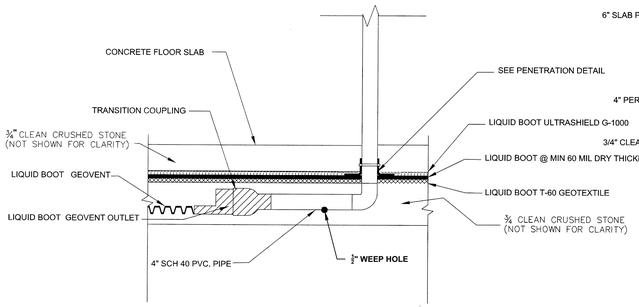
TYPICAL HEADER PIPE TO GEOVENT TRANSITION DETAIL

NTS



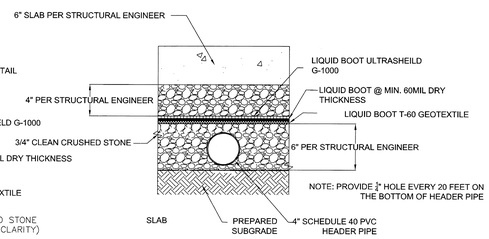
GEOVENT CROSS SECTION DETAIL(TYP.)

NTS



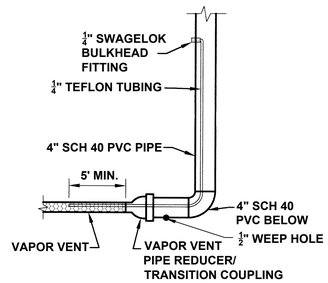
GEOVENT TRANSITION TO RISER DETAIL (TYP)

NOTE: SUBGRADE NOT SHOWN



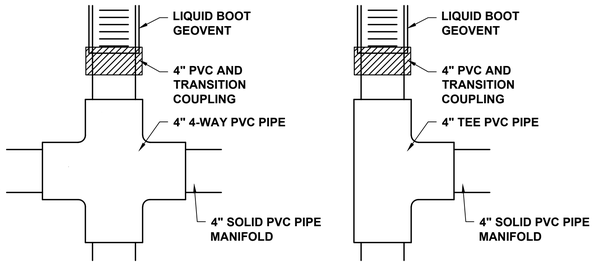
TYPICAL HEADER PIPE DETAIL

NTS



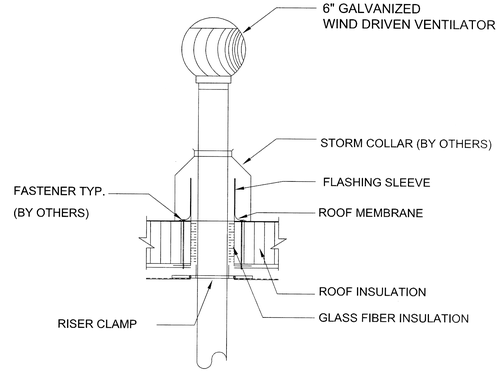
TYPICAL SOIL GAS SAMPLE PORT DETAIL

NOT TO SCALE



GEOVENT TO PVC MANIFOLD CONNECTION DETAIL (TYP.)

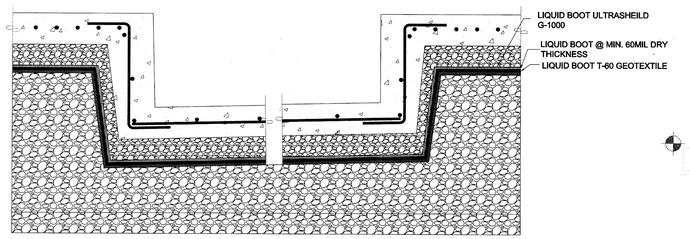
N.T.S.



TYPICAL VENT RISER PENETRATING ROOF

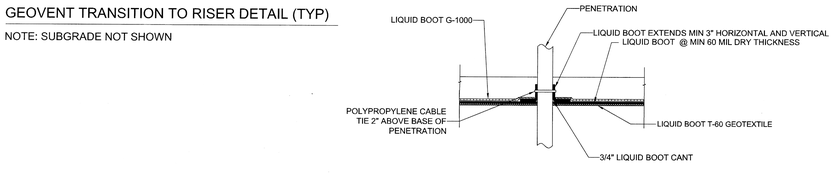
NTS

NOTE: 1. PROVIDE A 3/4" EMPTY CONDUCT TO ELECTRICAL PANEL FOR OPTIONAL BLOWER
2. RISER LOCATED TWO FEET AWAY FROM INSIDE PARAPET WALLS



PAN WASHER PIT DETAIL

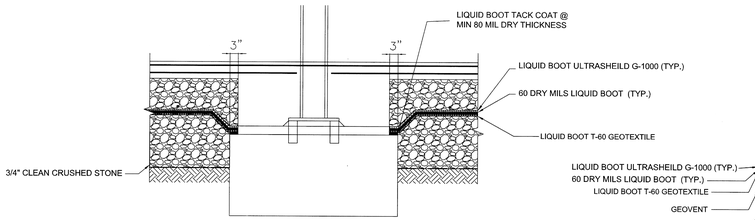
NOTE: LOCATE PIT PER ARCH. DWGS.



VAPOR BARRIER MEMBRANE PENETRATION DETAIL (TYP.)

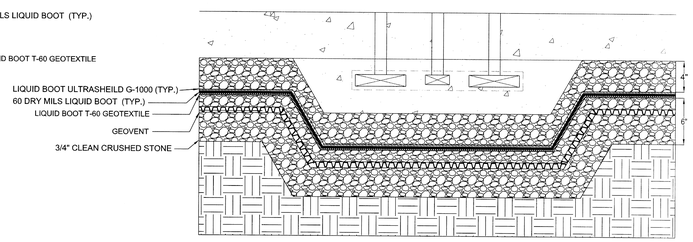
NOTE: SUBGRADE NOT SHOWN

NTS



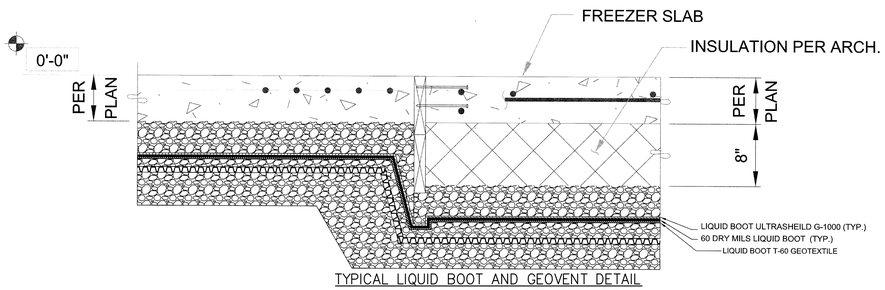
GAS VAPOR BARRIER ON TYPICAL PILE CAP DETAIL(TYP.)

NTS



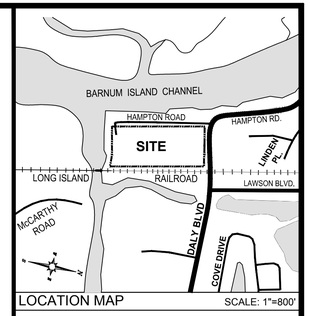
LIQUID BOOT AND GEOVENT DETAIL AT CHECKSTAND UNDER-FLOOR DUCT

NTS



TYPICAL LIQUID BOOT AND GEOVENT DETAIL AT FREEZER PIT / REFRIGERATOR AREA

NTS



LOCATION MAP SCALE: 1"=800'

REV.	DATE	DRAWN BY	DESCRIPTION
2	5/22/15	PCS	REVISED PER UPDATED DETAILS
1	4/28/15	PCS	REVISED PER EXXON COMMENTS

RUSSELL T. McFALL II
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 90030

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ■ Surveyors ■ Landscape Architects
State of N.J. Certificate of Authorization: 24GA27986500
New Jersey New York Pennsylvania Virginia
Customer Loyalty *through* Client Satisfaction

COPYRIGHT ©2014, MASER CONSULTING P.A
ALL RIGHTS RESERVED
THIS DRAWING AND ALL THE INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF MASER CONSULTING, P.A.

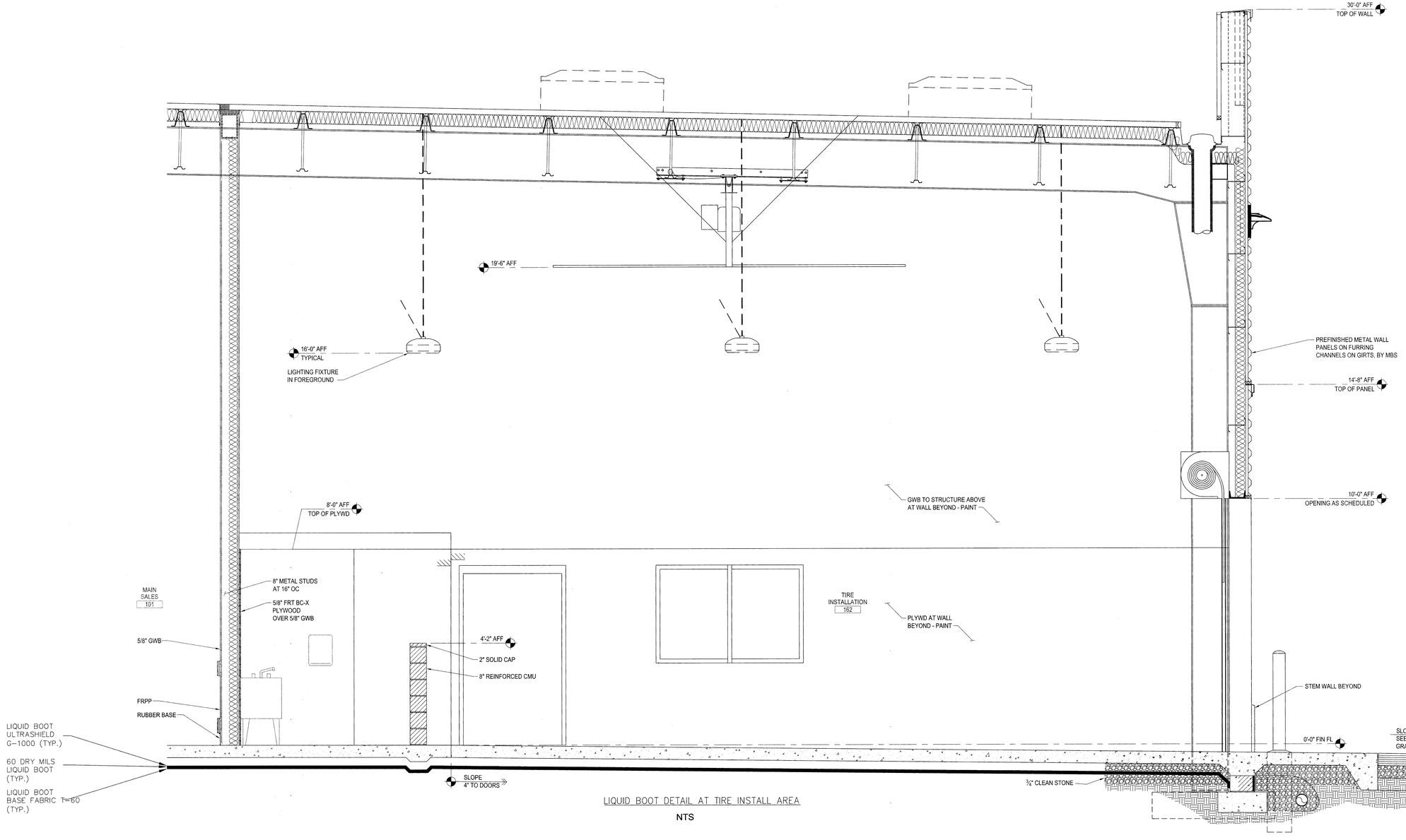
RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions @ maserconsulting.com

SUBSLAB VAPOR MITIGATION SYSTEM DETAILS
FOR
COSTCO WHOLESALE
OCEANSIDE, NEW YORK
TOWN OF HEMPSTEAD
NASSAU COUNTY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	9-30-2014	PCS	RS

PROJECT NUMBER: 12000271A

SHEET NUMBER: VBD-2

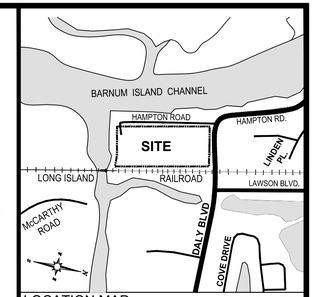


LIQUID BOOT DETAIL AT TIRE INSTALL AREA

NTS

NOTE:

DETAILS MAY BE REVISED UPON RECEIPT OF FINAL ARCHITECTURAL AND STRUCTURAL PLANS.



LOCATION MAP SCALE: 1"=800'

REV.	DATE	DRAWN BY	DESCRIPTION

STATE OF NEW YORK
RUSSELL T. McFALL II
LICENSED PROFESSIONAL ENGINEER

RUSSELL T. McFALL II
NEW YORK LICENSED PROFESSIONAL ENGINEER - LICENSE NUMBER: 90030

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ■ Surveyors ■ Landscape Architects
State of N.J. Certificate of Authorization: 24GA27986500
New Jersey New York Pennsylvania Virginia
Customer Loyalty *through* Client Satisfaction

COPYRIGHT ©2014, MASER CONSULTING P.A
ALL RIGHTS RESERVED
THIS DRAWING AND ALL THE INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF MASER CONSULTING, P.A.

RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions @ maserconsulting.com

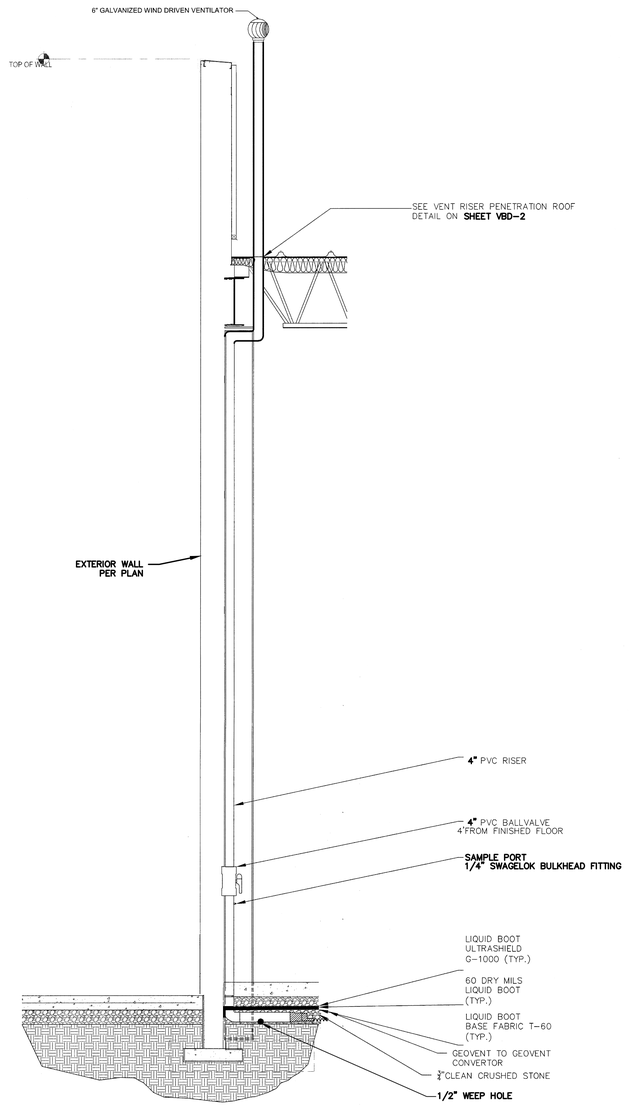
SUBSLAB VAPOR MITIGATION
SYSTEM DETAILS
FOR
COSTCO WHOLESALE
OCEANSIDE, NEW YORK
TOWN OF HEMPSTEAD
NASSAU COUNTY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	9-30-2014	PCS	RS

PROJECT NUMBER: 12000271A

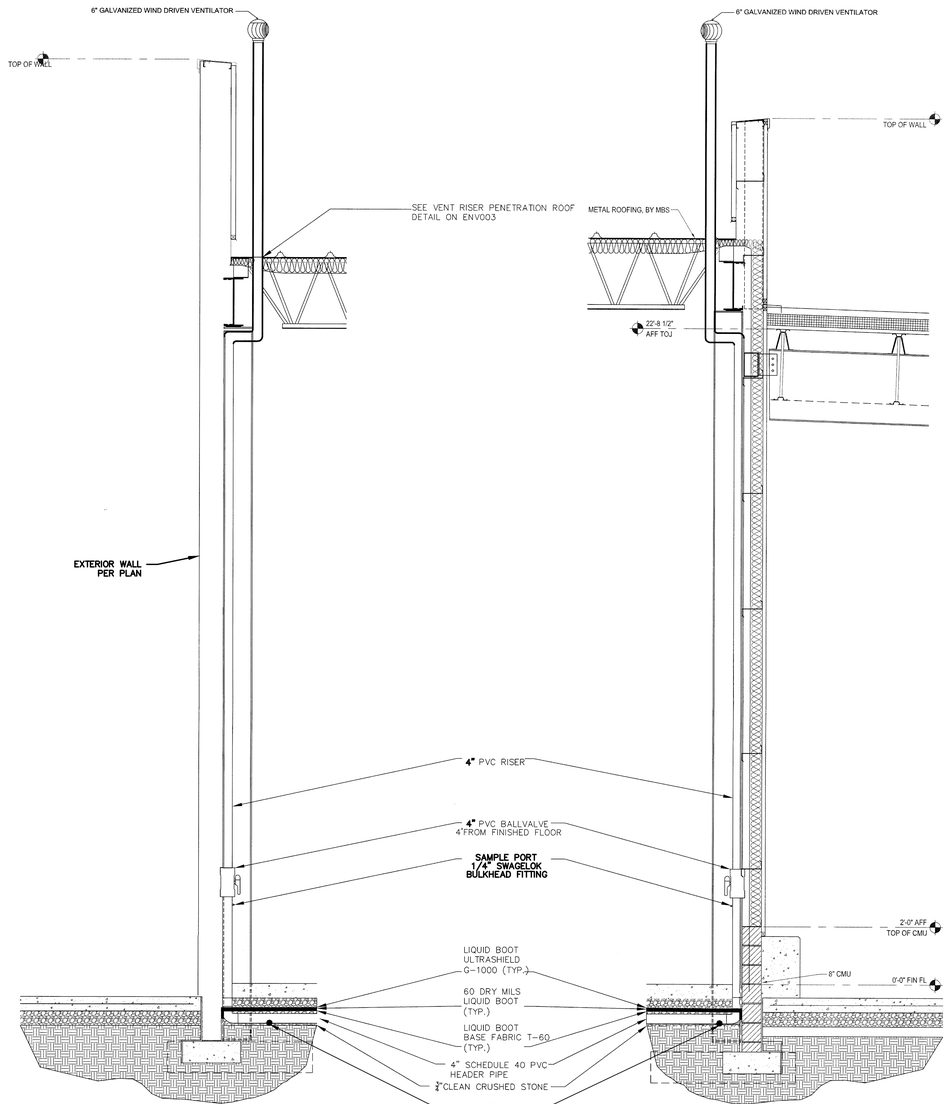
SHEET NUMBER: VBD-3

N.J.A.C. 14:2-1.5 ONE CALL SYSTEM INC. IT'S THE LAW! DIGGERS MUST CALL BEFORE YOU DIG



TYPICAL GEOVENT TO RISER DETAIL

NTS

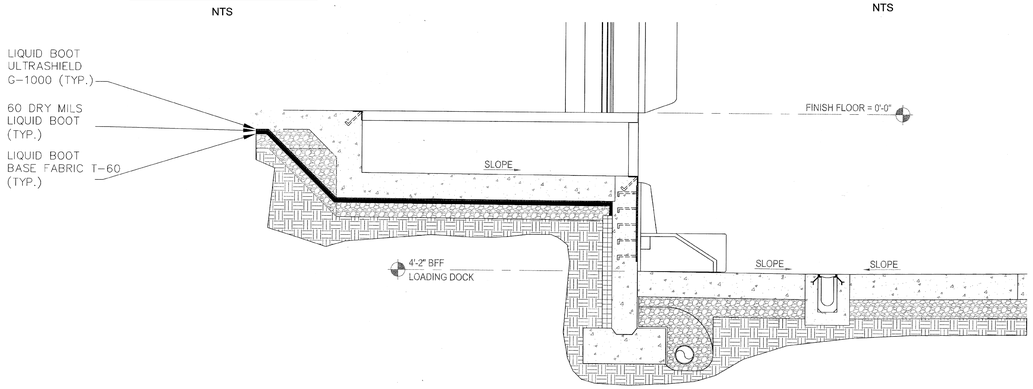


TYPICAL HEADER PIPE TO RISER DETAIL

NTS

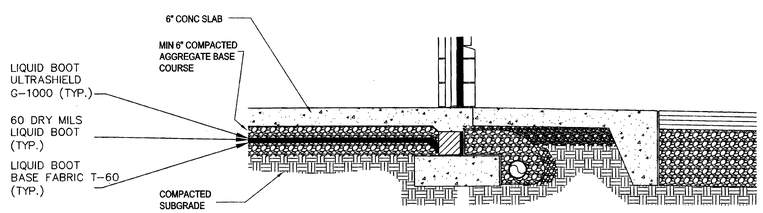
TYPICAL HEADER PIPE TO RISER DETAIL

NTS



LIQUID BOOT DETAIL AT LOADING DOCK

NTS

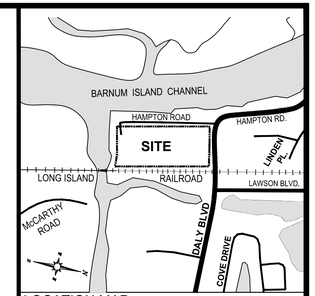


TYPICAL LIQUID BOOT DETAIL AT EGRESS DOOR

NTS

NOTE:

DETAILS MAY BE REVISED UPON RECEIPT OF FINAL ARCHITECTURAL AND STRUCTURAL PLANS.



LOCATION MAP SCALE: 1"=800'

REV.	DATE	DRAWN BY	DESCRIPTION
1	5/22/15	PCS	REVISED PER UPDATED DETAILS

STATE OF NEW YORK — RUSSELL T. McFALL II — LICENSED PROFESSIONAL ENGINEER

RUSSELL T. McFALL II
NEW YORK LICENSED PROFESSIONAL ENGINEER - LIC. NO. / NUMBER: 90030

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ■ Surveyors ■ Landscape Architects
State of N.J. Certificate of Authorization: 24GA27986500

New Jersey New York Pennsylvania Virginia
Customer Loyalty *through* Client Satisfaction

COPYRIGHT ©2014, MASER CONSULTING P.A
ALL RIGHTS RESERVED
THIS DRAWING AND ALL THE INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR USE ONLY BY THE PARTY FOR WHOM THE WORK WAS CONTRACTED OR TO WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF MASER CONSULTING, P.A.

RED BANK OFFICE
331 Newman Springs Road
Suite 203
Red Bank, NJ 07701
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions @ maserconsulting.com

SUBSLAB VAPOR MITIGATION SYSTEM DETAILS
FOR
COSTCO WHOLESALE
OCEANSIDE, NEW YORK
TOWN OF HEMPSTEAD
NASSAU COUNTY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	9-30-2014	PCS	RS

PROJECT NUMBER: 12000271A

SHEET NUMBER: VBD-4

N.J.A.C. 48:2 ONE CALL SYSTEM INC. STOP! CALL BEFORE YOU DIG 1-800-272-1000

APPENDIX I

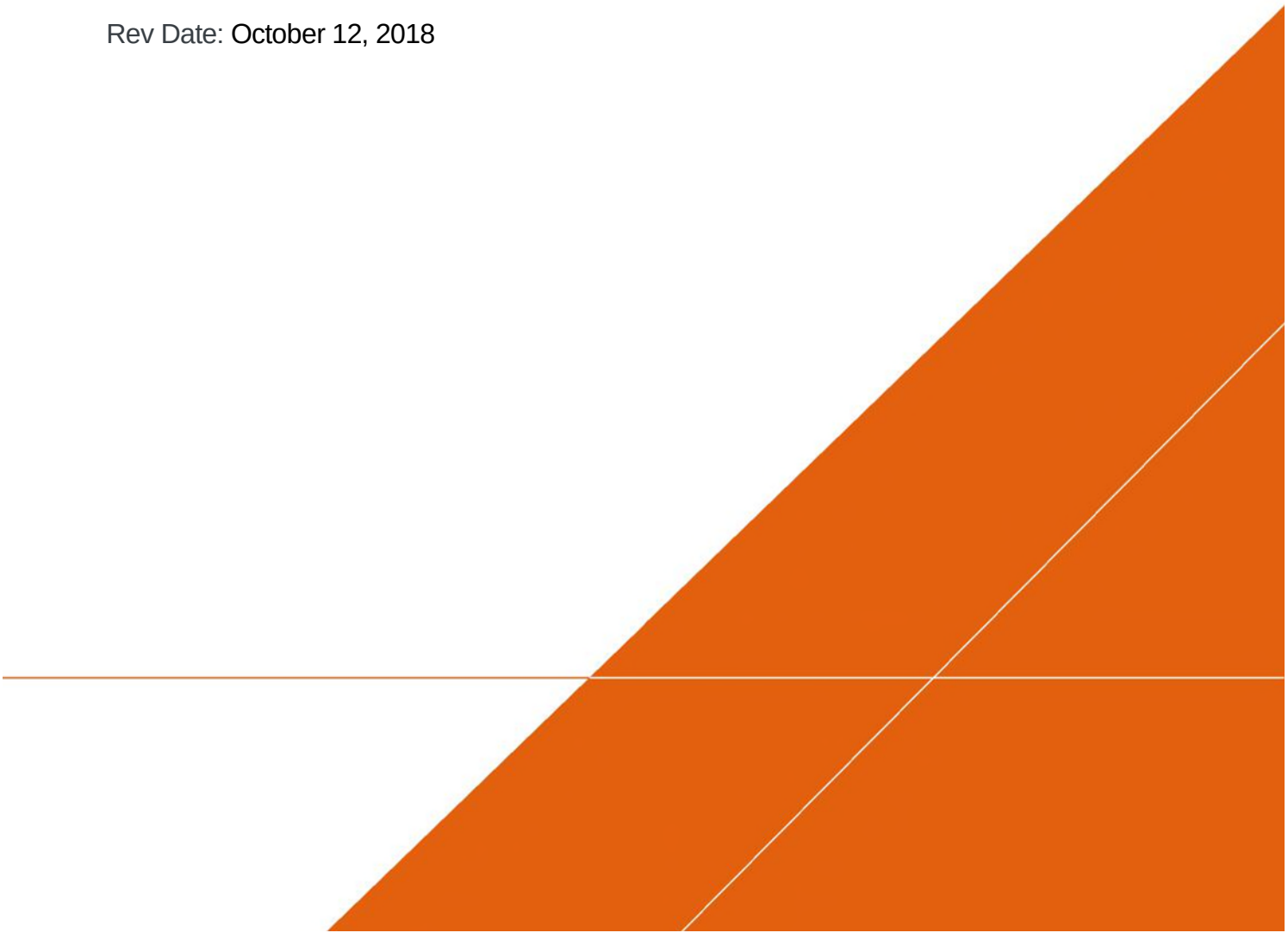
FIELD SAMPLING PLAN

ARCADIS Design & Consultancy for natural and built assets

TGI - GROUNDWATER SAMPLING WITH HYDRASLEEVESTM

Rev: 0

Rev Date: October 12, 2018



VERSION CONTROL

Revision No	Revision Date	Page No(s)	Description	Reviewed by
0	October 12, 2018	All	Updated and re-written as TGI	Marc Killingstad

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPROVAL SIGNATURES

Prepared by:		10/12/2018
	Christian Seidel	Date:
Technical Expert Reviewed by:		10/12/2018
	Marc Killingstad (Technical Expert)	Date:

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

1 INTRODUCTION

This document describes general and/or specific procedures, methods, actions, steps, and considerations to be used and observed by Arcadis staff when performing work, tasks, or actions under the scope and relevancy of this document. This document may describe expectations, requirements, guidance, recommendations, and/or instructions pertinent to the service, work task, or activity it covers.

It is the responsibility of the Arcadis Certified Project Manager (CPM) to provide this document to the persons conducting services that fall under the scope and purpose of this procedure, instruction, and/or guidance. The Arcadis CPM will also ensure that the persons conducting the work falling under this document are appropriately trained and familiar with its content. The persons conducting the work under this document are required to meet the minimum competency requirements outlined herein, and inquire to the CPM regarding any questions, misunderstanding, or discrepancy related to the work under this document.

This document is not considered to be all inclusive nor does it apply to any and all projects. It is the **CPM's** responsibility to determine the proper scope and personnel required for each project. There may be project- and/or client- and/or state-specific requirements that may be more or less stringent than what is described herein. The CPM is responsible for informing Arcadis and/or Subcontractor personnel of omissions and/or deviations from this document that may be required for the project. In turn, project staff are required to inform the CPM if or when there is a deviation or omission from work performed as compared to what is described herein.

In following this document to execute the scope of work for a project, it may be necessary for staff to make professional judgment de**cisions to meet the project's scope of work based upon site conditions,** staffing expertise, state-specific requirements, health and safety concerns, etc. Staff are required to consult with the CPM when or if a deviation or omission from this document is required that has not already been previously approved by the CPM. Upon approval by the CPM, the staff can perform the deviation or omission as confirmed by the CPM.

2 SCOPE AND APPLICATION

This Technical Guidance Instruction (TGI) establishes guidelines for use by field personnel in the deployment and subsequent retrieval **of HydraSleevesTM** for collection and documentation of groundwater samples for chemical analysis. Proper collection procedures are necessary to assure the quality and integrity of collected groundwater samples.

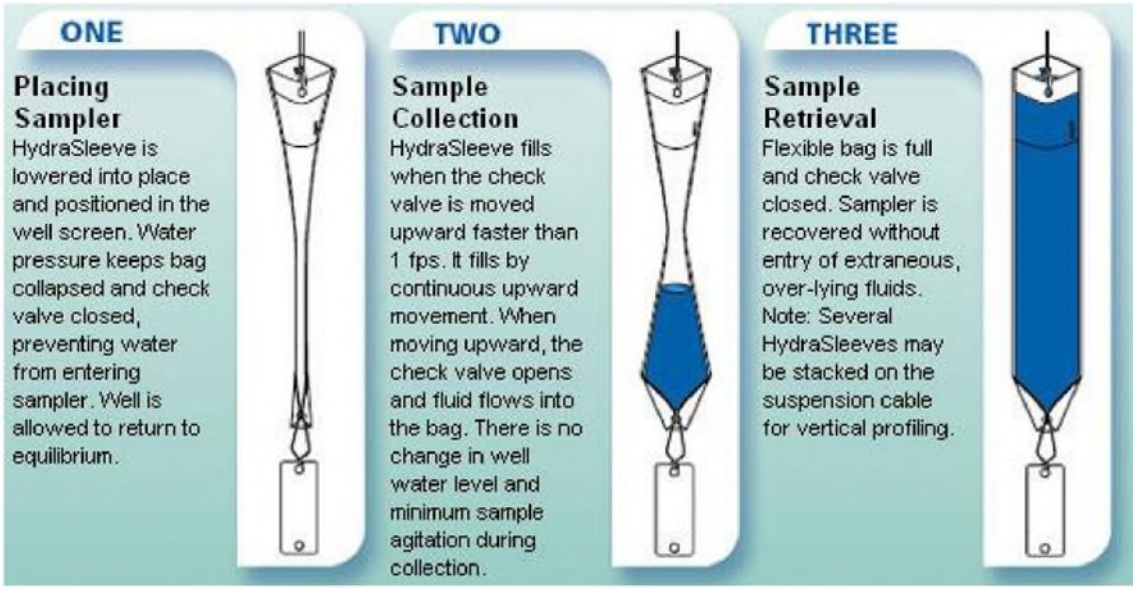
Details within this TGI are to be used in conjunction with/to assist in the development of site-specific work plans (e.g., Field Implementation Plans [FIP]).

HydraSleeve**TM** groundwater samplers can be used to collect a representative sample for most physical and chemical parameters without purging of a well. It collects a groundwater sample from a user-defined interval while limiting mixing fluid from other intervals. The HydraSleeve**TM** is deployed to a depth within the screened interval of the monitoring well and time is allowed for the well to re-equilibrate following deployment. The sealed HydraSleeve**TM** can be activated and removed for sample collection within several hours to several months. When activated, the HydraSleeve**TM** collects a sample with minimal drawdown and agitation of the water column. Once the sampler is full, a one-way reed valve at the top of

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

the sleeve collapses, preventing mixing of extraneous, non-representative fluid during HydraSleeveTM recovery from the well.

HydraSleeveTM samplers can provide groundwater samples for site characterization, evaluation of remediation alternatives, long-term monitoring, Level III and Level IV analytical data for use in risk assessments, and a number of other applications.



3 PERSONNEL QUALIFICATIONS

Arcadis field sampling personnel will have completed or are in the process of completing site-specific training as well as having current health and safety training as required by Arcadis, client, or regulations, such as 40-hour HAZWOPER training and/or OSHA HAZWOPER site supervisor training. Arcadis personnel will also have current training as specified in the Health and Safety Plan (HASP) which may include first aid, cardiopulmonary resuscitation (CPR), Blood Borne Pathogens (BBP) as needed. In addition, Arcadis field sampling personnel will be knowledgeable in the relevant processes, procedures, and TGIs and possess the demonstrated required skills and experience necessary to successfully complete the desired field work. The HASP and other documents will identify other training requirements or access control requirements.

The designated Field Manager is responsible for periodic observation of field activities and review of field generated documentation associated with this TGI. The Field Manager is also responsible for implementation of corrective action if problems occur (e.g., retraining personnel, additional review of work plans and TGIs, variances to QC sampling requirements, issuing non-conformances, etc.).

Field personnel assigned to collect groundwater samples are responsible for completing their tasks in accordance with the specifications outlined in this TGI and other appropriate and relevant guidelines. Field staff will have prior experience in groundwater sampling.

The determination of placement depth of the HydraSleeveTM in the monitoring well will be made by a qualified geoscientist/engineer prior to field mobilization and will be outlined in the work plan/field

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

implementation plan (FIP). Any changes in field conditions (typically due to fluctuations in water table elevation) will require discussion between field personnel and the technical lead for the project. All staff are responsible for reporting deviations from procedures in the Field Activity Daily Log, and to the designated Field Manager and/or Project Manager.

4 EQUIPMENT LIST

There are three (3) main steps for collecting groundwater samples with the HydraSleeveTM: 1) assembly and deployment, 2) retrieval of the sleeve after the equilibration period, and 3) transferring collected groundwater sample into the appropriate sampling containers while minimizing disturbance to the sample. The equipment needed for HydraSleeveTM sampling is listed below.

Equipment needed throughout the scope for both deployment and retrieval of HydraSleeve™:

- Approved site-specific Health and Safety Plan (HASP)
- Approved site-specific work plan/FIP and/or Field Sampling Plan (FSP) which will include:
    - Well location map
    - Planned Sample Table (PST) identifying
        - Type of HydraSleeveTM samplers (size and material)
        - Deployment locations/depths
        - Well construction details (including well screen intervals)
        - Sample analyses, sample volume required, and sample holding time
- Field notebook and/or smart device (phone or tablet)
- HydraSleeveTM specific field forms (**Attachment A**)
- Appropriate personal protective equipment (PPE) (e.g., latex or nitrile gloves, safety glasses, etc.) as specified in the HASP
- Well keys and other tools to remove manhole covers (manual torque wrench with 9/16" socket and flat head screwdriver typical)
- Photoionization detector (PID) or Flame ionization detector (FID) (as appropriate, depending on site-specific constituents of concern)
- Electronic water-level indicator or oil/water interface probe with 0.01-foot accuracy (oil/water as appropriate, note that sampling will not be performed when sheen or light non-aqueous phase liquid [LNAPL] is present)
- Down-hole multiparameter sonde (e.g., YSI)
- Plastic sheeting (e.g., Weatherall Visqueen) to protect all down-hole sampling equipment from contact with potential sources of contamination.
- Decontamination equipment

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

  - Non-phosphate laboratory soap (Alconox or equivalent), brushes, clean buckets or clean wash tubs—new buckets or tubs will be purchased if it cannot be determined if the present items are clean
  - Distilled or de-ionized water for equipment decontamination
- Indelible ink pen
- 150-foot measuring tape (or sufficient length for the maximum site depth

requirement) **Equipment needed for assembly and deployment of the HydraSleeve™**:

- Appropriate HydraSleeveTM (size and material) for the wells being sampled (NOTE: Sampling protocols and materials for sites with Per- and Polyfluoroalkyl Substances [PFAS] concerns are not discussed in detail in this TGI, but if there is a concern that PFAS may be present at the site and/or if PFAS is being analyzed, there are specific HydraSleeveTM samplers that will be used.
- Some examples of sleeves are provided below—check with the manufacturer for additional options
  - 2-L 2” HydraSleeveTM SuperSleeve (SS) (1.9” OD, 60” long; volume of 2 liters; requires special 2-piece top weight) for 2” diameter Schedule 40 wells
  - 1-L 2” HydraSleeveTM (1.75” OD, 36” long; volume of 1 liter) for 2” diameter wells
  - 1.5” HydraSleeveTM (1.5” OD, 30” long; volume of 625 milliliters [mL]) for 2” diameter wells
  - 1” HydraSleeveTM (1” OD, 48” long; volume of 325 mL) for wells less than 1.5” diameter
- J-plug style cap to hold sleeve tether either supplied by HydraSleeveTM manufacturer or modified by Arcadis
- 1/8-inch diameter braided polypropylene rope (for tethers)
- Weights (stainless steel or other inert material) to anchor the HydraSleeveTM in the well (NOTE: special weights are required for the SuperSleeve-style HydraSleeveTM)
- Cable ties to anchor HydraSleeveTM to tether
- 150-foot measuring tape (or sufficient length for the maximum site depth requirement)
- Safety cutting tool (e.g., self-retracting safety knife)

Equipment needed for retrieval of HydraSleeve™ and collection of groundwater samples:

- Sample labels and Chain-of-Custody forms (COC).
- Appropriate sampling containers (sample bottles, coolers, and ice).
- 5-gallon bucket or other container to hold extra groundwater.
- If field filtering of samples is required: Hand pump for transfer vessel (Pine part ID 71631), individually wrapped transfer vessels (Pine part 71628), and appropriately sized filters. Only one

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

hand pump is needed to apply pressure, but each sample will require its own transfer vessel and filter.

- Additional HydraSleeveTM samplers and zip ties to deploy for the next sampling event, as required.

Unless otherwise specified in the site-specific work plan/FIP, it is advisable to establish a sampling order starting with the least contaminated well and progressing to the most contaminated well last.

5 CAUTIONS

Selection of the appropriate size HydraSleeveTM depends on sample volume requirements, well diameter, and the length of the saturated screened interval, which dictates the maximum distance allowed over which to pull and fill the HydraSleeve. The largest HydraSleeveTM available (60-inch) holds 2 liters (L) of groundwater while the smallest holds 325 mL of groundwater. Sample volume requirements must be outlined in the FIP and verified with the laboratory before ordering and deploying the HydraSleeveTM samplers.

The HydraSleeveTM sampler is designed for single use (deployment and sample collection) only; tethers and weights can only be reused after proper decontamination.

According to the manufacturer, HydraSleeveTM has been used successfully with no equilibration period at some sites for some analytical parameters. HydraSleeveTM does not require dissolved compounds to diffuse across a membrane as in the case of polyethylene diffusion bag (PDB) samplers (ITRC, 2004). Because the HydraSleeveTM mechanically obtains a “core” of the water column, rather than relying on diffusion through a membrane, the sampler can be retrieved shortly after deployment in many cases.

One way to conservatively estimate the maximum required equilibration period is to estimate the time to ‘flush’ the well based on the Darcy velocity within the formation (hydraulic conductivity times gradient) (see **Attachment B**). Some project teams have adopted a minimum 24-hour undisturbed deployment time or other rules of thumb to use prior to sleeve retrieval.

Note that representative groundwater sampling may occur with a shorter flushing period, or no flushing period at all, if the well contains minimal accumulated silt and care is taken to minimize disturbance in the well during HydraSleeveTM deployment.

If sampling for turbidity-sensitive analytes (e.g., metals), waiting some time prior to retrieval is recommended.

Site-specific testing versus another accepted groundwater sampling method (i.e., side-by-side testing) can be performed at a subset of wells—preferably spanning a range of hydraulic conductivity, geologic materials, and chemical concentrations—to verify that the HydraSleeveTM device produces samples similar to those obtained from the other accepted method.

A study conducted by (McHugh et al, 2016) indicated that analytical results for samples collected with HydraSleeveTM were biased low when sampling volatile organic compounds (VOCs) relative to samples collected from the same wells using purge sampling methods and when monitoring wells had more than 10 feet of water above the well screen. The difference was attributed to filling errors that resulted in samples collected from a contaminant depleted water column above the well screen. This type of error

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

could occur if the HydraSleeveTM was pulled too slowly through the screened interval and did not close properly or when other factors interfered with the opening or closing of the check valve of the sampler.

6 HEALTH AND SAFETY CONSIDERATIONS

The HASP will be followed, as appropriate, to ensure the safety of field personnel.

Appropriate personal protective equipment (PPE) will be worn at all times in line with the task and the site-specific HASP.

Access to wells may expose field personnel to hazardous materials such as contaminated groundwater or non-aqueous phase liquid (NAPL) (e.g., oil). Other potential hazards include pressurized wells, stinging insects that may inhabit well heads, other biologic hazards (e.g. ticks in long grass/weeds around well head), and potentially the use of sharp cutting tools (scissors, knife)—open well caps slowly and keep face and body away to allow to vent any built-up pressure; only use non-toxic peppermint oil spray for stinging insect nests; review client-specific health and safety requirements, which may preclude the use of fixed/folding-blade knives, and use appropriate hand protection.

Deploying and retrieving HydraSleeveTM samplers requires staff to lower and raise materials into and out of the monitoring well. Be sure to use proper bending and lifting techniques to avoid muscle strain and other potential injuries.

7 PROCEDURE

Field personnel will set up, deploy, and retrieve HydraSleeveTM samplers in accordance with the following procedures.

Preliminary Tasks

1. Prior to any round of sampling, the consultant will confirm all analytical methods, methodology, current detection limits, and protocols are the most up to date version in the sampling protocol.

2. Visually inspect the well to ensure that it is undamaged, properly labeled and secured

    a. Damage or other conditions that may affect the integrity of the well will be recorded in the Field Activity Daily Log and brought to the attention of the designated Field Manager and/or Project Manager

    b. Note well construction and conditions on the HydraSleeveTM Field Form (**Attachment A**)

3. All equipment will either be new or decontaminated in accordance with appropriate guidance document (*TGI – Groundwater and Soil Sampling Equipment Decontamination)* prior to use

4. Calibrate all field equipment (e.g., water-level meter and down-hole sonde [pH, temperature, conductivity, ORP, turbidity, and DO]) according to the instrument manufacturer's specifications

    a. Daily calibration results will be recorded on the appropriate form(s) as specified by the FIP/PST

    b. Instruments that cannot be calibrated according to the manufacturer's specifications will be removed from service and tagged.

5. Don appropriate PPE

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

6. Lay out plastic sheeting to create a clean work area and set up monitoring and sampling equipment
7. Observe if any air is flowing into or out of the casing (e.g., bubbles, hissing sounds); if so, note accordingly on the HydraSleeveTM Field Form (**Attachment A**).
8. Safely (slowly) remove the well cap
9. If specified in the site-specific workplan/FIP, measure VOCs at the rim of the well with a PID and FID instrument record the reading in the field logbook
    a. Also measure the breathing space adjacent to the well and check any measurements against the HASP guidelines to be sure conditions are safe to work
10. If the well casing does not have a reference point to measure from, usually a V-cut or indelible mark in the well casing, create one and perform/record all measurements from this mark
11. If specified in the site-specific workplan/FIP, determine if non-aqueous phase liquid (NAPL) is present in the well using an oil/water interface probe in accordance with appropriate TGI
    a. If NAPL is present, record the depth to NAPL and static water level on the HydraSleeveTM Field Form
    b. Sleeves will not be deployed, and samples will not be collected from wells where NAPL is present
12. Measure and record the depth to water and the total depth of the groundwater monitoring well (to 0.01 ft) on the HydraSleeveTM Field Form—care will be taken to minimize disturbance of the water column and to any particulates attached to the sides or at the bottom of the well
13. Compare the measurement of the total depth of the well with the previous measurement and check against the well screen details provided in the FIP and/or PST to determine the percent of screen occluded by sediment (if any)
    a. If more than 20 percent of a well screen is occluded by sediment, the well will not be sampled until it is re-developed
14. Collect and record field parameters using a multiparameter down-hole sonde (e.g., YSI)

Assembly and Deployment of Standard HydraSleeve™

Assemble the HydraSleeve™ sampler

1. Remove the HydraSleeveTM from the package and grasp top to “pop” open (Figure 1)
2. Squeeze side fins together at top to bend reinforcing strips outward (Figure 2)
3. Attach either a tethered spring clip to both holes (preferred) or attached rope to the hole on one side at the top of the HydraSleeveTM (using cable ties) (Figure 3)
4. Fold to align the two holes at bottom of HydraSleeveTM together and attach the weight using a zip tie or weight clip (Figure 4)
5. The sampler is ready to insert into the well at the pre-determined depth specified in the FIP/PST (Figure 5)

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

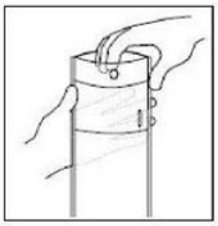


Figure 1

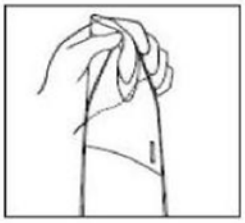


Figure 2

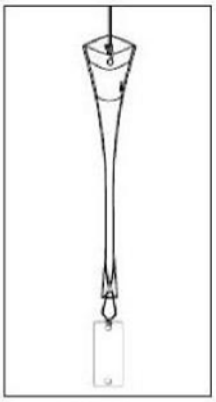


Figure 5

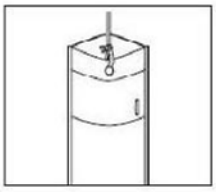


Figure 3

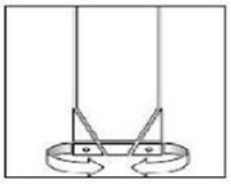


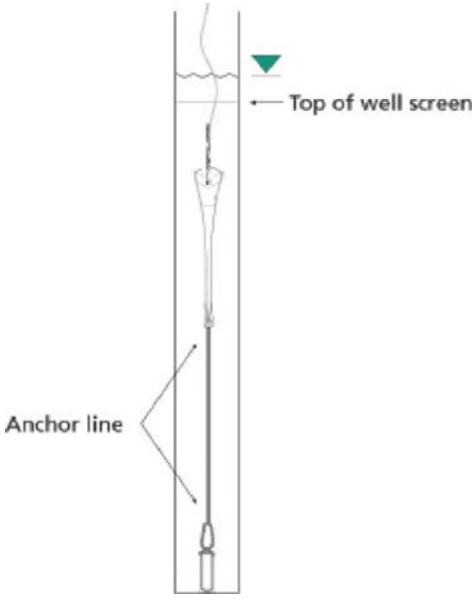
Figure 4

Deploy HydraSleeveTM sampler

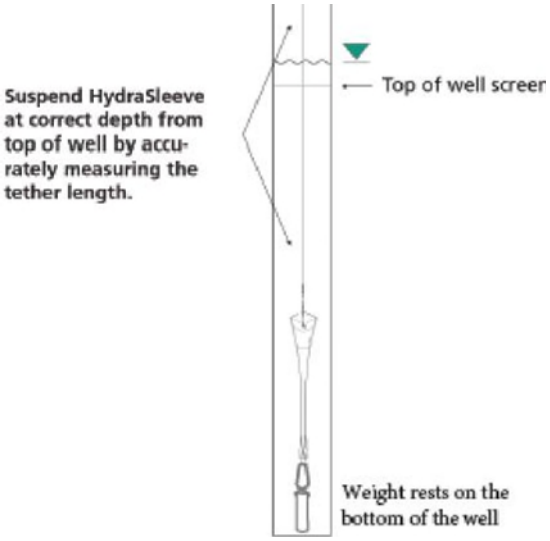
- Once assembled, two (2) methods of deployment can be used—note that both options require the top of the HydraSleeveTM to be positioned below the midpoint of the saturated screened interval by a distance approximately equal to 0.75 times the full length of the sleeve (e.g., a 36-inch HydraSleeveTM will be lowered so that the top of the sleeve is approximately 27 inches below the midpoint of the saturated screened interval which is the appropriate position to collect the groundwater sample from approximately the middle of the saturated screened interval when the sleeve is pulled upward)

    1. *Bottom Anchor Deployment* (preferred). Bottom down deployment is preferred because there is less of a potential margin for error in measuring and correcting for the distance between the bottom of the well and the bottom of the HydraSleeveTM, versus measuring and correcting for the distance between the top of well casing and the top of the HydraSleeveTM. Using the determined well depth, calculate the distance from the bottom of the well to the desired sampling depth (specified in the FIP/PST and HydraSleeveTM Field Form). Attach an appropriate length anchor line between the weight and the bottom of the sampler and *slowly* lower the assembly until the weight rests on the bottom of the well, allowing the top of the sampler to float at the correct sampling depth. Attach the suspension line to the well cap to suspend the HydraSleeveTM at the correct depth until activated for sampling.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.



2. *Top-Down Deployment*. Measure and assemble the correct amount of suspension line needed to "hang" the top of the HydraSleeveTM at the desired sampling depth (specified in the FIP and on the HydraSleeveTM Field Form). Once constructed, *slowly* lower the assembly in the well and attach the suspension line to the well cap to suspend the HydraSleeveTM at the correct depth until activated for sampling.



- For wells in which more than one sampling device will be used, please refer to the configurations shown on pages 5 and 6 of **Attachment C** (Eon Products Inc. *Interim Field Manual*)

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

- If more samplers are needed due to sample volume requirements, it is recommended to increase HydraSleeveTM size rather than to use multiple samplers.
- Top weights on samplers may be required to ensure the targeted sample interval will be sampled by the HydraSleeveTM
- For wells with screen lengths less than 10 feet (as indicated in the FIP and on the HydraSleeveTM Field Form) or where the saturated screen length is less than 10 feet (determined during initial water-level gauging), top-down deployment will be used as described above with the exception of the placement of a top weight:
    1. The weight for these wells will be placed on the top of the HydraSleeveTM as shown in the figure below (**Photo 1**)
    2. The hanging clip is inserted locking the top of the HydraSleeveTM and the weight together, and the tether will be attached to the apex of the clip, as shown below (**Photo 2**)
    3. Addition of a top weight is necessary to compress the sampler so it will fill at a lower depth than it would if it were merely suspended in the well



Photo 1

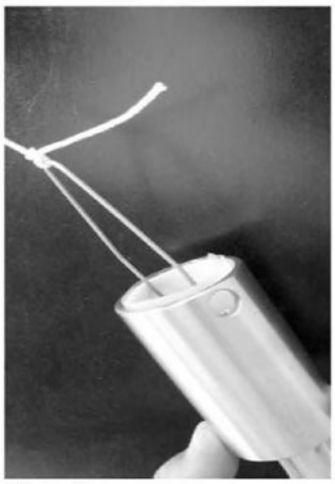


Photo 2

- At this point deployment is complete; allow time for stabilization following any disturbance caused by the sampler deployment prior to collecting groundwater samples
    - The manufacturer's recommended deployment time is hours to months
    - The time prior to sampler retrieval will be considered in the context of both groundwater flow velocity at the site and the potential for turbidity to affect sample quality
    - The time will be specified in the FIP/PST
    - The maximum deployment time at the site will be one year.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

- After the stabilization/equilibration period, groundwater samples can be collected for analysis

Assembly and Deployment of SuperSleeve-style HydraSleeve™ SS

Assemble the HydraSleeveTM SS

1. Remove sampler from the package and attach the bottom weight (Photos 3 and 4).
2. Fold the two holes at bottom of HydraSleeveTM SS together
3. Open prongs of bottom weight clip by squeezing
4. Insert reusable weight clip through holes and attach the bottom weight



Photo 3



Photo 4

5. Attach the top weight as follows: Insert the open (check valve) end of the HydraSleeveTM SS through the bottom of the stainless-steel portion of top weight until about 1/2 inch of the open sleeve protrudes above the female threads
6. Thread stainless steel weight (female thread) onto PVC top piece (male thread) locking the top of the HydraSleeveTM SS between the threads (Photo 5)



Photo 5

7. Attach rope to top weight (using cable ties).
8. The sampler is ready to insert into the well at the pre-determined depth specified in the FIP/PST

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

Deploy the HydraSleeveTM SS

1. Lower the HydraSleeveTM SS into the well slowly until the bottom weight touches the bottom
2. Provide enough slack in the tether to allow the top weight to fully compress the sampler into the bottom of the well
    a. For example: a 2-liter HydraSleeveTM SS [5-feet long] will compress to within 2 feet of bottom of a 2-inch well screen in about 4 hours; a 2-liter HydraSleeveTM SS requires about 5 feet of water on top of the sampler to completely fill, so it cannot be used in wells with shorter than a 10-ft saturated screen length

Collecting Groundwater Samples from HydraSleevesTM

1.

Perform *Preliminary Tasks* detailed above; *however, measure depth to groundwater prior to retrieval of the HydraSleeveTM while total well depth will be collected after the HydraSleeveTM has been retrieved from the well*

2. All groundwater samples, including QA/QC samples for a given well will be collected with one HydraSleeveTM
    a. If the volume requirement for sample analysis exceeds the capacity of the sleeve, it is not acceptable to redeploy the same or a second HydraSleeveTM to fill additional bottles.
    b. Instead, the sampling process will be repeated using a larger size HydraSleeveTM or another approved sampling method (e.g., low-flow) will be performed

3. Fill out sample documentation on the HydraSleeveTM Field Form (**Attachment A**).

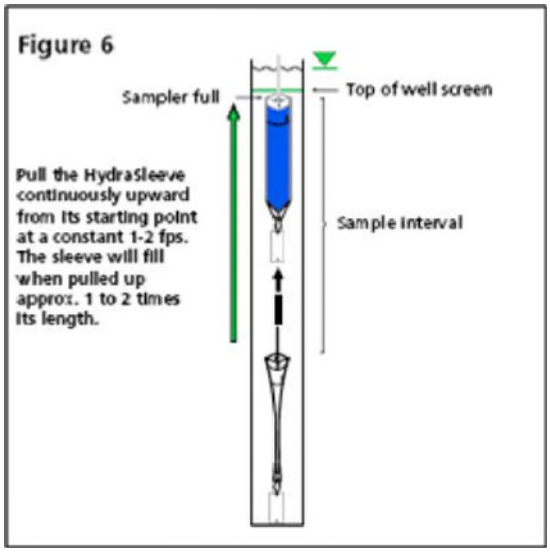
4. Inspect the sample bottles (obtained from the analytical laboratory prior to the sampling event) to ensure that they are appropriate for the samples being collected, are undamaged, and have had the appropriate types and volumes of preservatives added
    a. The types of sample containers to be used and sample preservation requirements will be provided in the FIP/PST.

5. The HydraSleeveTM Field Form will specify the sample collection method for each well—the *Continuous Pull Method* is preferred and will be used for the majority of the wells; however, if the well to be sampled has saturated screen length less than 10 feet in length, or if the HydraSleeveTM diameter is undersized when compared to the well diameter, the *Short Strokes Method* may be used
    a. *Continuous Pull Method* – Move the sampler upward at an approximate rate of 1 to 2 feet per second (ft/sec) (about the speed a bailer is usually pulled upward) for water to pass through the check valve into the sample sleeve until full
        i. The total upward distance the check valve must travel to fill the sample sleeve is about 1 to 2 times the length of the sampler

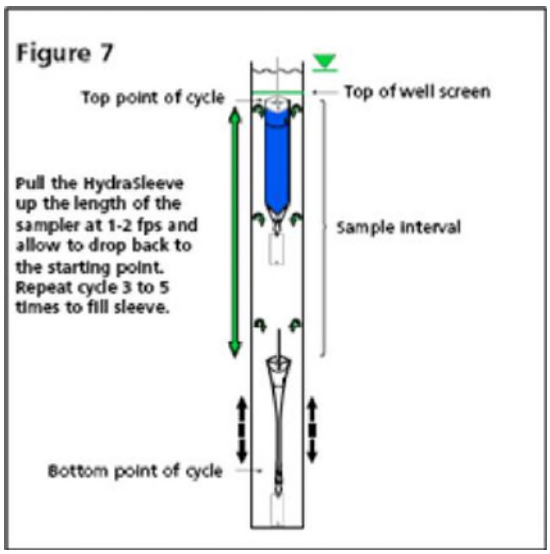
Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

ii. For example, a 36-inch HydraSleeveTM needs a total upward movement of 36 inches to no more than 72 inches to fill

iii. This method usually provides the least turbid samples and is analogous to coring the water column from the bottom up (Figure 6).



b. *Short Strokes Method* – Pull the sampler upward at about 1 to 2 ft/sec for the length of the sampler (e.g., 36 inches), let it drop back to the starting point, and repeat the cycle 3 to 5 times (Figure 7)



6. Once retrieved, if the sleeve is not completely full, a sample will not be collected and a new HydraSleeveTM will be deployed and the process repeated

7. To remove a sample from the HydraSleeveTM with the least amount of aeration and agitation use the short plastic discharge tube included with the sampler

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

a. First, squeeze the full sampler just below the top to expel water resting above the flexible check valve (Photo 8)



Photo 8

b. Then push the pointed discharge tube through the outer polyethylene sleeve about 3-4 inches below the white reinforcing strips (Photo 9)



Photo 9

c. Discharge the sample into the desired container (Photo 10) in the order described below

d. Raising and lowering the bottom of the sampler or pinching the sample sleeve just below the discharge tube will control the flow of the sample

e. The sample sleeve can also be squeezed, forcing fluid up through the discharge tube, similar to squeezing a tube of toothpaste

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.



Photo 10

8. Collect sample parameters in the following order: VOCs (care will be taken to avoid agitation and volatilization of sample during the decanting process), explosives, metals, and other parameters

    a. Samples will be collected and labeled in accordance with relevant TGIs

    b. Types of sample bottles and volume requirements for each analysis are provided in the Quality Assurance Project Plan (QAPP) and FIP

    c. Metals samples will not be field filtered unless specified

    d. If field filtering is required for any analyte, groundwater to be filtered will be placed into a dedicated transfer vessel and filtered using a small hand pump as shown below in Photo 7 (these items are available through environmental equipment vendors)



Photo 7

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

9. To obtain a duplicate/blind duplicate sample, collect a duplicate from the same bag as an original sample and send for analysis with the appropriate labeling
10. To obtain an equipment blank, pour deionized water into a **new, unused** HydraSleeveTM and collect the blank using the same method as the samples; send for analysis with the appropriate labeling
11. If turbidity of the collected sample is to be measured, use the collected sample water to fill the LaMotte turbidimeter vial, and measure and record turbidity on the HydraSleeveTM Field Form (**Attachment A**)
12. Place collected samples immediately in a sample cooler that is already full of ice or ice packs such that the samples are immediately chilled and stored at a temperature of 4° Celsius, in accordance with relevant TGIs
13. Field parameter measurements (temperature, specific conductance, pH, DO, and ORP) can now be taken using a down-hole multi-meter (e.g., a YSI 600XL). Gently lower the probe of the meter down the well until it reaches the middle of the well screen noted on the PST and HydraSleeveTM Field Form. Follow the manufacturer's guidelines on how to determine stability of parameter readings. Once the meter readings have stabilized, record them on the HydraSleeveTM Field Form.
14. Measured and record total well depth on the HydraSleeveTM Field Form.
15. NOTE: After the groundwater samples and field measurements have been collected, it may be necessary to deploy another HydraSleeveTM in the well for future sampling events (e.g., quarterly, semi-annually, etc.)
    a. This reduces the effort required to perform future events
    b. The FIP and/or PST will state if another HydraSleeveTM is to be deployed
    c. The same suspension line or well-specific tether will be reused for additional deployment to ensure consistency in the deployment depth
    d. Follow the steps outlined previously in this TGI for assembly and deployment instructions
16. Secure the well.
17. Properly dispose of PPE and disposable equipment.
18. Decontaminate any cutting devices, reusable weights, suspension lines, or sampler attachment mechanisms after each usage as described in the *TGI – Groundwater and Soil Sampling Equipment Decontamination*

8 WASTE MANAGEMENT

Materials generated during groundwater sampling activities, including disposable equipment and excess water in the HydrasleevesTM, will be stored on site in appropriate labeled containers and disposed of properly. Waste will be managed in accordance with the *TGI – Investigation-Derived Waste Handling and*

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

ARCADIS Design & Consultancy for natural and built assets

TECHNICAL GUIDANCE INSTRUCTION – PURGE SAMPLING AT PASSIVE BARRIER MITIGATION SYSTEMS

Rev: 0

VERSION CONTROL

Revision No	Revision Date	Page No(s)	Description	Reviewed by

APPROVAL SIGNATURES

Prepared by:  1/25/2019

Everett Rubin Date:

 1/25/2019

Eric Epple Date:

Technical Expert Reviewed by:  1/25/2019

Rachel Saari Date:

1 INTRODUCTION

This Technical Guidance Instruction – Purge Sampling at Passive Barrier Mitigation Systems (document) was prepared to help guide appropriate sampling of passive barrier mitigation systems.

This document describes general and/or specific procedures, methods, actions, steps, and considerations to be used and observed by Arcadis staff when performing work, tasks, or actions under the scope and relevancy of this document. This document may describe expectations, requirements, guidance, recommendations, and/or instructions pertinent to the service, work task, or activity it covers.

It is the responsibility of the Arcadis Certified Project Manager (CPM) to provide this document to the persons conducting services that fall under the scope and purpose of this procedure, instruction, and/or guidance. The Arcadis CPM will also ensure that the persons conducting the work falling under this document are appropriately trained and familiar with its content. The persons conducting the work under this document are required to meet the minimum competency requirements outlined herein, and inquire to the CPM regarding any questions, misunderstanding, or discrepancy related to the work under this document.

This document is not considered to be all inclusive nor does it apply to all projects. It is the CPM's responsibility to determine the proper scope and personnel required for each project. There may be project- and/or client- and/or state-specific requirements that may be more or less stringent than what is described herein. The CPM is responsible for informing Arcadis and/or Subcontractor personnel of omissions and/or deviations from this document that may be required for the project. In turn, project staff are required to inform the CPM if or when there is a deviation or omission from work performed as compared to what is described herein.

In following this document to execute the scope of work for a project, it may be necessary for staff to make professional judgment decisions to meet the project's scope of work based upon site conditions, staffing expertise, regulation-specific requirements, health and safety concerns, etc. Staff are required to consult with the CPM when or if a deviation or omission from this document is required that has not already been previously approved by the CPM. Upon approval by the CPM, the staff can perform the deviation or omission as confirmed by the CPM.

2 SCOPE AND APPLICATION

This document describes Arcadis' procedures for collecting samples representative of sub-slab conditions from passive vapor mitigation system (VMS) riser pipes in lieu of penetrating an existing vapor intrusion (VI) barrier by installing a sub-slab probe for sample collection. The objective of using these sampling procedures is to collect representative data from beneath the building slab as influenced by the mitigation system at riser pipe locations. The radius of influence for the mitigation system will be calculated and an appropriate purge volume will be extracted prior to sample collection based on screening results to ensure representative samples are collected. The following sections provide instructions for calculating the purge time, purging, screening, and sampling.

Site-specific requirements and/or field conditions may require modifications to some of the procedures described in this document. This document may be altered per approval of the Project Manager.

3 PERSONNEL QUALIFICATIONS

Arcadis field personnel will have current health and safety training, including 40-hour Hazardous Waste Operations and Emergency Response training and site-specific training, as needed. Arcadis field personnel will be familiar with the information presented in this document and possess the required skills and experience necessary to successfully complete the desired field work. An Arcadis engineer will be responsible for reviewing purge volume calculations and selecting the purge fan. Arcadis personnel leading the sampling activities will have previous VI sampling experience.

The Health and Safety Plan (HASP) provides additional required training specific to each job site.

4 EQUIPMENT LIST

The equipment recommended for purging and sampling activities is identified below:

- Appropriate personal protective equipment (PPE; as required by the HASP)
- In-line fan with cord installed (Class I, Division 2 rated for potentially flammable soil vapor [e.g., Marc Climatic Controls, Inc. ISFX])
- Anemometer (TSI Velocicalc® or similar)
- Stopwatch
- Laptop or tablet with purge volume calculating table
- Photo ionization detector (PID) that reads in parts per million and calibration kit
- PID that reads in parts per billion and calibration kit
- Landfill gas meter with carbon filters and calibration kit
- Extension cords
- Ground fault circuit interrupter (GFCI)
- Hand saw for cutting polyvinyl chloride (PVC) riser pipes, as needed
- Fernco® caps or PVC caps
- Fernco® couplings or reducing Fernco® couplings sized to connect fan to riser piping
- Hazmat Pac© overpack materials
- Heavy duty PVC glue and primer containing low or no volatile organic compounds (VOCs)
- One-liter evacuated canisters with filters that regulate flow to approximately 1 liter per minute
- Compression fittings (Swagelok or similar) with Ferrules (front and back)
- Compression (Swagelok or similar) caps for sample ports
- Two-way valves
- Custom built 3-inch-diameter stainless steel piping with associated sample ports
- TeflonTM or TeflonTM-lined polyethylene tubing ($^1/_4$-inch outer diameter)
- Silicone tubing (Masterflex [$^1/_4$-inch inner diameter])

- Lay-flat ducting (10-inch)
- Zip ties
- Duplicate sample tees.

5 HEALTH AND SAFETY CONSIDERATIONS

Arcadis will comply with Occupational Safety and Health Administration, state, and local standards or regulations relating to elevated work. The necessary PPE will be worn while on site.

Arcadis personnel will review the HASP and Job Safety Analysis (JSA) forms associated with each task prior to beginning work to be aware of potential hazards associated with the site. Additional considerations for potential roof access need to be considered and necessary revisions made to the site-specific HASP.

6 SAMPLING PROCEDURES

6.1 Minimum Purge Volume and Duration Determination

At a minimum, the approximate volume of air that is representative of one pore volume of the target area beneath the building footprint associated with each riser pipe plus pipe volume exchange (100 percent) is recommended to be removed during the purge. Purge volumes are to be calculated following the procedure outlined below:

1. Prior to any round of sampling, the consultant will confirm all analytical methods, methodology, current detection limits, and protocols are the most up to date version in the sampling protocol.
2. Obtain VMS construction report and as-built drawings.
3. Use as-built drawings to assist in identifying the portions of the building footprint serviced by each riser pipe and estimating the approximate area of the building footprint to be represented by each riser pipe sample.
4. Estimate the thickness and the void ratio of the gravel layer surrounding each riser pipe.
5. For each riser pipe, calculate the associated pore volume in cubic feet by multiplying the area by the thickness and the void ratio.
6. For each riser pipe, calculate the pipe volume (in cubic feet) by adding the length of the sub-slab collection piping to the above-grade riser piping and multiplying by the cross-sectional area of the piping. The pipe volume is the minimum volume that should be purged prior to collection of any sample.
7. For each riser pipe, add the pore volume and the pipe volume together to obtain one total purge volume.
8. Divide by the in-line fan's rated flow rate to calculate the estimated total purge time from model (in minutes) or divide by the actual flow rate as measured by a field anemometer to calculate the estimated total purge time from spreadsheet (in minutes). The estimated total purge time is the time to purge the minimum volume that should be purged at each riser pipe location.

8. Multiply the estimated purge time from spreadsheet by 100 to determine the estimated total purge time (for 100 percent purge of one pore volume plus one pipe volume exchange). Per professional judgement, additional purge time can be added as needed to ensure that the pore volume and pipe volume have been fully exchanged (e.g., H = 125 for 125 percent of one pore volume plus 125 percent of one pipe volume; a 25 percent addition purge volume / duration added for conservativeness).

The formula for purge duration (for both the estimated total purge time from model and the estimated total purge time from spreadsheet) is presented below (in minutes):

$$-- F[(A \chi B) \chi (C \chi D)] + [(it \chi E^2) \chi F]$$
$$'j \chi H G$$

Where:

A = Total building area (square feet)

B = Proportion of the total building area under influence by vent riser, as estimated from building drawings (unitless)

C = Gravel thickness (feet)

D = Gravel void percent (percent)

E = Riser pipe radius (feet)

F = Riser pipe length (feet)

G = Purge flow rate, from in-line fan rating (for the estimated purge time from model) or as measured by a field anemometer (for the estimated purge time from spreadsheet; cubic feet per minute)

H = 100 for estimated total purge volume (one pore volume plus one pipe volume). This number can be increased for additional buffer (e.g., H = 125 for 125 percent of one pore volume plus 125 percent of one pipe volume; a 25 percent addition purge volume / duration added for conservativeness).

6.2 Purging and Sampling Procedure

VMS sample ports will be sampled during induced steady flow conditions. The VMS sampling schematic is exemplified in Figure 1. The following procedure will be used to obtain a steady flow condition and collect a sample(s):

1. PVC piping sections will be removed from all of the VMS influent and effluent pipes servicing the building SSV system.
2. Caps will be placed on all inlet and discharge pipes, except the one being tested.
3. Use a 4- by 3-inch Fernco® coupling to install a 1.5-foot-long, 3-inch-wide, cylindrical stainless steel pipe (sample piping) to the existing cast iron vent riser piping. The sample piping will be prefabricated

to contain four threaded sampling ports aligned vertically along the pipe, with a fifth additional anemometer port above the other four sample ports. Each of the four sampling ports will be fitted with a compression fitting (Swagelok® or similar) connection.

4. Use a 3- by 4-inch Fernco® coupling to connect to a 6-inch piece of 4-inch PVC piping to the connected stainless steel piping.

5. Use a 4- by 6-inch Fernco ® coupling to install an intrinsically safe (Class I, Division 2), high-flow, in-line fan on the riser piping (e.g., Marc Climatic Controls, Inc. ISFX fan or equivalent) attached to the 4-inch piping. Attach lay-flat ducting to the fan such that discharge is upward and away from the work area and a minimum of 10 feet from heating, ventilation, and/or air conditioning intakes or other openings into the building. Locate the nearest outlet. Use extension cords and a GFCI as necessary to provide temporary power to the fan location.

6. Start the fan and start a stopwatch.

7. Begin continuous monitoring of the vapor concentration using the part per million PID connected to the third lowest sample port on the sample piping using Swagelok® or similar fittings and $^1/_4$-inch outer-diameter Teflon™ lined tubing. A part per billion PID will also be used (if needed) to measure lower concentrations, connected to the second lowermost port on the sample piping using Swagelok® or similar fittings and $^1/_4$-inch outer-diameter Teflon™ lined tubing. To prevent overloading of the part per billion PID, initial startup of each purge will begin with the part per million PID alone. If concentrations remain less than 5 parts per million (ppm) [as measured by the part per million PID]), the part per billion PID will be engaged. Similarly, if concentrations rise to exceed 5 ppm, the part per billion PID will be disengaged. When disengaged, part per billion PID piping will be capped.

8. A landfill gas meter with an attached carbon filter will be connected to the fourth lowermost sampling port on the sample piping using Swagelok® or similar fittings and $^1/_4$-inch outer-diameter Teflon™ lined tubing during both purging and sampling to screen for sample flammability. Arcadis' procedures for shipment of flammable samples will be used as necessary and all samples where methane was detected equal to or in excess of 5 percent by volume will be packed in Hazmat Pac© overpack materials. Refer to the shipping determination and associated shipping guide included in the HASP for instructions on how to properly handle and ship samples.

9. Use an anemometer inserted into the anemometer port (above the four sample ports) to measure the discharge flowrate (units of cubic feet per minute). Make sure the anemometer is set to the appropriate piping size (3-inch) and shape (round). The anemometer probe will be centered within the pipe and oriented perpendicularly to ensure accuracy.

10. Use the formula for purge duration (presented above) to determine the approximate number of minutes of fan operation necessary to remove the estimated purge volume.

11. Began the purging process. Record the PID and landfill gas meter readings at 1-minute intervals or as frequently as practicable to capture fluctuations and observe trends in readings.

12. Multiple samples (and up to one duplicate) may be collected from each riser pipe during purging. Samples will be collected when PID readings indicate that a relatively elevated (peak) concentration is being extracted and/or upon reaching the estimated purge volume, as specified. If no peak concentration is measured, collect a sample following the removal of the estimated purge volume, as

specified. If PID screening indicates that concentrations continue to rise following removal of the specified estimated purge volume, continue purging and (to the extent possible) collect the sample when PID readings are at their peak. A cap on purge volume should be set to avoid purging beyond the target area for the riser pipe (e.g., 125 percent of the estimated purge volume)..

13. Samples will be collected from the lowermost port on the sample piping. The grab sample will be collected with a 1-liter passivated canister, which will be connected to the sample piping via compression fittings, Teflon™ tubing, and an inherent two-way valve. A flow-regulating filter calibrated by the analytical laboratory may be used.
14. No passivated canisters with initial vacuums of less than -25 inches of mercury will be used for sampling.
15. To sample, the inherent two-way valve attached to the passivated canister will be opened. Volume will continue to be collected until the passivated canister's vacuum reaches approximately -5 inches of mercury. At this point, the valve will be closed and the samples will be packaged for shipment.
16. Repeat these steps at each discharge pipe on the building servicing a desired sub-slab sampling area. Cap the discharge pipes and repeat the processes described above while extracting from the inlet pipes.
17. Reinstall wind turbines, piping extension, and 90-degree fittings on riser pipes to match as-built conditions. Securely glue fittings (containing low or no VOCs) and adjust guy wires, as needed.
18. Prepare the laboratory-provided chain of custody form, specifying the proposed turnaround time and analyte list for United States Environmental Protection Agency Method TO-15 analysis. Samples will be picked up via a laboratory courier.

7 WASTE MANAGEMENT

The waste materials generated by these activities should be minimal. PPE (such as gloves) and other disposable equipment (e.g., tubing) will be collected by field personnel for proper disposal.

8 DATA RECORDING AND MANAGEMENT

Measurements will be recorded on the sampling log, with notations of project name, sampling date, vent riser name, calculated minimum purge time, calculated total purge time, calculated 125 percent purge time , anemometer readings, PID readings, landfill gas meter readings, sample start and finish times, canister identification numbers, flow controller identification numbers, and initial and final canister vacuum readings, as exemplified on Table 1. Field sampling logs and chain of custody forms will be transmitted to the Project Manager at the conclusion of the sampling event.

9 QUALITY ASSURANCE

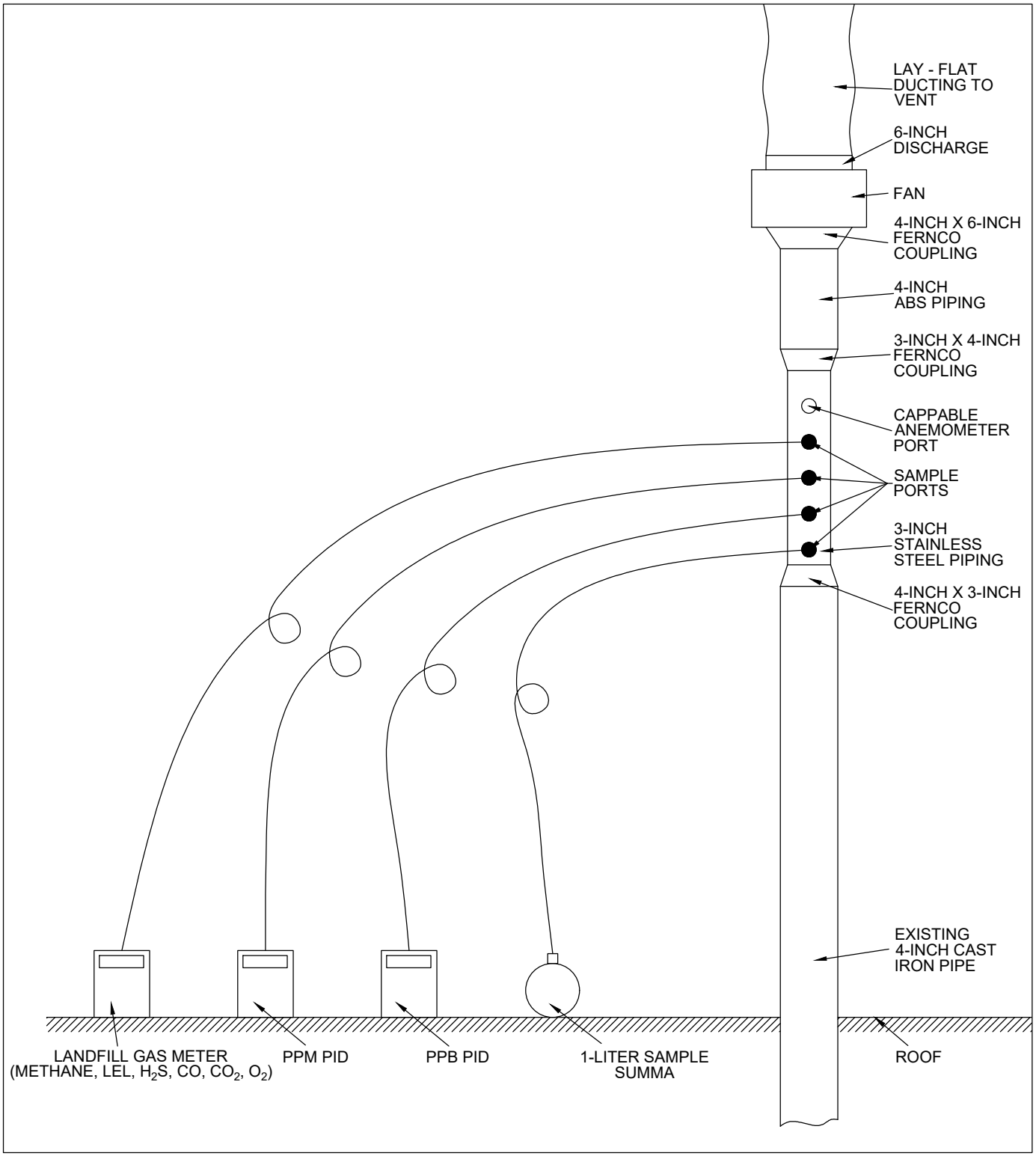
Up to one duplicate sample will be collected from each riser to ensure laboratory quality assurance. The total number of duplicate samples collected will be equal to or greater than 10 percent of the total

samples collected. Duplicate sample canisters will be attached in line with their parent sample via a tee fitting, and duplicate samples will be collected simultaneously with their parent sample.

ATTACHMENTS

Figure 1: Vapor Mitigation System Sampling Schematic

Table 1: Vent Riser Sampling Log



LEGEND:

ABS = ACRYLONITRILE BUTADIENE STYRENE

CO = CARBON MONOIDE

CO_2 = CARBON DIOXIDE

H_2S = HYDROGEN SULFIDE

LEL = LOWER EXPLOSIVE LIMIT

PID = PHOTO IONIZATION DETECTOR

PPB = PARTS PER BILLION

PPM = PARTS PER MILLION

NOTE: NOT TO SCALE

TECHNICAL GUIDANCE INSTRUCTION - PURGE SAMPLING AT PASSIVE BARRIER MITIGATION SYSTEMS

VAPOR MITIGATION SYSTEM, RISER SAMPLING SCHEMATIC

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: (SAN RAFAEL, CA [PETALUMA]) SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: (J.HARRIS) LD: L.POSENAUER PM: M.BARTEE TM: H.DENG LYR:(Opt)ON=*;OFF=*REF*
C:\Users\PA\01041\OneDrive - ARCADIS\BIM 360 Docs\GE CORP ENV PROG\GE SAN JOSE O AND M\2019\AP013098.4001\101-DWG\AP013098_P1-VIA_FIG 1_SAMPLING SCHEMATIC.dwg LAYOUT: 1 SAVED: 3/26/2019 2:27 PM ACADVER: 23.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 3/26/2019 2:27 PM BY: ANJANEYAKUMAR, PAVAN KUMAR

Vent Riser Sampling Log

Page ________________ of ______________

Project Name/Location ______________________________

Project/No. ______________________________ **Date** ______________________________

Field Staff ______________________________ **Weather** ______________________________

Vent Riser Name ______________________________ **Notes** ______________________________

Estimated Total Purge Time from Model ______________________________ ______________________________

Flow Rate from Anemometer ______________________________ ______________________________

Minimum Purge Time from Spreadsheet ______________________________ ______________________________

Estimated Total Purge Time from Spreadsheet ______________________________ ______________________________

Purge Screening and Monitoring

Time Interval (minutes)	**Time**	**PID** (ppm)	**PID** (ppb)	**CH_4** (percent)	**LEL** (Percent of CH_4)	**H_2S** (ppm)	**CO** (ppm)	**CO_2** (percent)	**O_2** (percent)

Sample Collection

Sample Name	**Time**	**PID at Time of Sampling** (ppm)	**Canister ID**	**Start Time**	**Initial Vacuum** (in Hg)	**End Time**	**Final Vacuum** (in Hg)	**Remarks**

Notes:

CH_4 = methane

CO = carbon monoxide

CO_2 = carbon dioxide

H_2S = hydrogen sulfide

in Hg = inches of mercury

LEL = lower explosive limit

O_2 = oxygen

PID = photoionization detector

ppb = parts per billion

ppm = parts per million

ARCADIS Design & Consultancy for natural and built assets

ARCADIS Design & Consultancy for natural and built assets

TGI - INDOOR OR AMBIENT AIR SAMPLING AND ANALYSIS VIA USEPA METHOD TO-15

Rev #: 1

Rev Date: August 19, 2016

SOP VERSION CONTROL

Revision No	Revision Date	Page No(s)	Description	Reviewed by
1	8/19/2016	All	Updated Rev0	Mitch Wacksman

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPROVAL SIGNATURES



Prepared by: _____ Date: 8/19/2016
Margaret Bartee



Reviewed by: _____ Date: 8/19/2016
Mitch Wacksman

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

I. INTRODUCTION

This Technical Guidance Instruction (TGI) document describes the procedures to conduct a building survey prior to indoor air sampling.

This document describes general and/or specific procedures, methods, actions, steps, and considerations to be used and observed by Arcadis staff when performing work, tasks, or actions under the scope and relevancy of this document. This document may describe expectations, requirements, guidance, recommendations, and/or instructions pertinent to the service, work task, or activity it covers.

It is the responsibility of the Arcadis Certified Project Manager (CPM) to provide this document to the persons conducting services that fall under the scope and purpose of this procedure, instruction, and/or guidance. The Arcadis CPM will also ensure that the persons conducting the work falling under this document are appropriately trained and familiar with its content. The persons conducting the work under this document are required to meet the minimum competency requirements outlined herein, and inquire to the CPM regarding any questions, misunderstanding, or discrepancy related to the work under this document.

This document is not considered to be all inclusive nor does it apply to all projects. It is the CPM's responsibility to determine the proper scope and personnel required for each project. There may be project- and/or client- and/or state-specific requirements that may be more or less stringent than what is described herein. The CPM is responsible for informing Arcadis and/or Subcontractor personnel of omissions and/or deviations from this document that may be required for the project. In turn, project staff are required to inform the CPM if or when there is a deviation or omission from work performed as compared to what is described herein.

In following this document to execute the scope of work for a project, it may be necessary for staff to make professional judgment decisions to meet the project's scope of work based upon site conditions, staffing expertise, regulation-specific requirements, health and safety concerns, etc. Staff are required to consult with the CPM when or if a deviation or omission from this document is required that has not already been previously approved by the CPM. Upon approval by the CPM, the staff can perform the deviation or omission as confirmed by the CPM.

II. SCOPE AND APPLICATION

This Technical Guidance Instruction (TGI) document describes the procedures to collect indoor air or ambient air samples in passivated stainless steel canisters (e.g., SUMMA®) for the analysis of volatile organic compounds (VOCs) using United States Environmental Protection Agency (USEPA) Method TO-15 (TO-15).

III. PERSONNEL QUALIFICATIONS

Arcadis field sampling personnel will have current health and safety training, including 40-hour HAZWOPER training, site supervisor training, site-specific training, first aid, and cardiopulmonary resuscitation (CPR), as needed. Arcadis field sampling personnel will be competent in the relevant procedures and possess the required skills and experience necessary to successfully complete the

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

desired field work. Arcadis personnel responsible for directing indoor air and/or ambient air sample collection activities must have previous indoor air sampling experience and be able to complete the field work without direct supervision.

IV. EQUIPMENT LIST

The equipment required for indoor air sample collection is presented below:

- 6-liter, stainless steel passivated canisters (e.g., SUMMA®). Request one canister for each sampling location, plus duplicate canisters per project-specific requirements. If feasible, order extra canisters at a rate of 10 to 20% of the total number of sampling canisters (including duplicates).
- Flow controllers with in-line particulate filters and vacuum gauges. Flow controllers are pre-calibrated by the laboratory to the sampling duration [e.g., 8 hours] specified by the project team). Vacuum gauges are also generally supplied by the laboratory.
- Open-end wrench. Typical canister caps require 9/16-inch wrenches.
- Chain-of-custody (COC) form.
- Sample collection log (attached).
- Box, chair, tripod, or similar to hold canister above the ground surface at approximate breathing height (3-5 feet).
- Camera (optional, if photography is permitted at sampling locations).
- Hand-held weather meter (optional)

For abnormal situations (i.e., sumps, crawlspaces with no access, where canisters must be hidden, etc.), Teflon tubing may be used to collect an air sample. In these situations, $^{1}/_{4}$-inch Swagelok fittings (including nut, front sleeve, and back sleeve) or other methods may be appropriate to affix tubing to canister.

V. CAUTIONS

Care must be taken to minimize the potential for introducing interferences during the sampling event. As such, keep canisters away from heavy pedestrian traffic areas (e.g., main entranceways, walkways), if possible. Sampling personnel should not handle hazardous substances (such as gasoline), permanent marking pens (sharpies), wear/apply fragrances, or smoke cigarettes before and/or during the sampling event.

Specify sample collection duration with the laboratory when ordering equipment, and confirm with the laboratory upon equipment receipt. Sample integrity can be compromised if sample collection is extended to the point that the canister reaches atmospheric pressure. Sample integrity is maintained if sample collection is terminated prior to the target sample duration and a measurable vacuum (e.g., 5 inches Hg) remains in the canister when sample collection is terminated.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

VI. HEALTH AND SAFETY CONSIDERATIONS

All sampling personnel should review the appropriate health and safety plan (HASP) and job safety analysis (JSA) prior to beginning work to be aware of all potential hazards associated with the job site and the specific task.

VII. PROCEDURE

Preparation of Passivated Canister and Collection of Sample

1. Prior to any round of sampling, the consultant will confirm all analytical methods, methodology, current detection limits, and protocols are the most up to date version in the sampling protocol
2. Record the following information on the sampling form (use a hand-held weather meter, contact the local airport or other suitable information source [e.g., weatherunderground.com] to obtain the following information):
   - ambient temperature
   - barometric pressure
   - wind speed
   - relative humidity
   - significant recent precipitation
   - snow/ice cover
3. For indoor air sampling, note whether the heating, ventilation, and air conditioning (HVAC) system is operational and record settings.
4. Choose the sampling location in accordance with the project sampling plan. If a breathing zone sample is required, place the canister on a box, chair, tripod, or other similar stand to locate the canister orifice 3 to 5 feet above the ground or floor surface. The canister may be affixed to wall/ceiling support with nylon rope or placed on a stable surface. In general, areas near windows, doors, air supply vents, and/or other potential sources of “drafts” shall be avoided.
5. Record canister serial number and flow controller number on the sampling log and COC form. Assign sample identification (ID), and record on canister ID tag, sample collection log (Attachment A), and COC form.
6. Remove the brass dust cap from the canister with the wrench. Attach the flow controller and vacuum gauge to the canister with the wrench. Tighten with fingers first, then gently with the wrench (roughly a quarter turn). Use caution not to over tighten fittings.
7. Open the canister valve to initiate sample collection. Record the date and local time (24-hour basis) of valve opening on the sample collection log and COC form. Collection of duplicate samples will include collecting two samples side by side at the same time.
8. Check the initial canister pressure using the vacuum gauge. Record the initial pressure in the canister on the sample log and COC form. The initial pressure reading should be evaluated with respect to project-specific and jurisdictional requirements. If the initial pressure registers less

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

than -25 inches of Hg, then the canister is not appropriate for use, and another canister should be used.

8. Photograph the canister and surrounding area, if photography is permitted at sampling locations.
9. If feasible, check the canister approximately half-way through the sample duration and note progress on sample logs.

Termination of Sample Collection

1. Arrive at the sampling location at least 1 to 2 hours prior to the end of the sampling interval (e.g., 6 hours following sample initiation for an 8-hour sampling duration).
2. Stop collecting the sample by turning the valve on the canister when the canister pressure reaches approximately -5 inches of Hg or when the desired sample time has elapsed, whichever comes first. Leaving some vacuum in the canister provides a way to evaluate whether the canister leaks before it reaches the laboratory.
3. Record the final canister pressure. Record the date and local time (24-hour basis) of valve closing on the sample collection log and COC form.
4. Remove the flow controller from the canister, re-install brass cap on canister fitting, and tighten with the wrench.
5. Package the canister and flow controller in accordance with Department of Transportation regulations available on the Transportation Health and Safety's Team Site on the Source for return shipment to the laboratory. The canister does not require preservation with ice or refrigeration during shipment.
6. Complete the forms and sample labels provided by the laboratory as directed (e.g., affix card with string).
7. Complete COC form; copy, photograph, or scan a version for the project file (if possible); and place the form in the shipping container. Close the shipping container and affix the custody seal to the container closure. Transmit canisters via courier delivery service (e.g., Federal Express or UPS) to laboratory for analysis.

VIII. WASTE MANAGEMENT

No specific waste management procedures are required.

IX. DATA RECORDING AND MANAGEMENT

Notes will be recorded on the sampling log form (attached), with notations of project name, sample date, sample time, and sample location (e.g., description and GPS coordinates if available) sample start and finish times, canister serial number, flow controller number, initial vacuum reading, and final vacuum reading. Sampling logs and COC records will be transmitted to the Task Manager or Project Manager and stored in the project file consistent with client and project requirements.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

X. QUALITY ASSURANCE

Conduct quality assurance as required by the project-specific work plan and/or Quality Assurance Project Plan (QAPP).

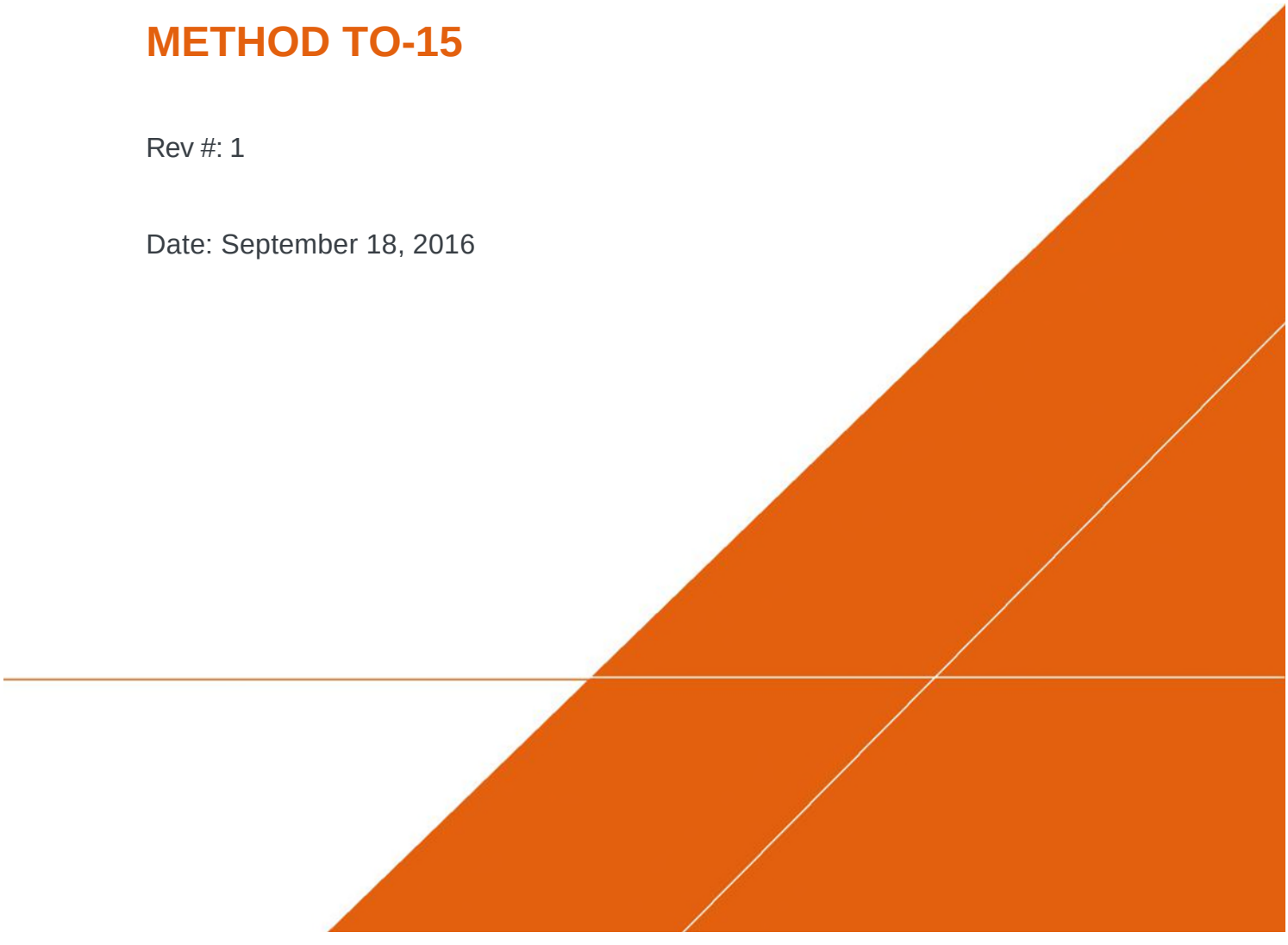
Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

ARCADIS Design & Consultancy for natural and built assets

TGI - SUB-SLAB SOIL VAPOR OR SOIL VAPOR SAMPLING USING WHOLE AIR CANISTERS ANALYZED VIA USEPA METHOD TO-15

Rev #: 1

Date: September 18, 2016



SOP VERSION CONTROL

Revision No	Revision Date	Page No(s)	Description	Reviewed by
1	9/18/2016	All	Updated Rev0	Mitch Wacksman

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPROVAL SIGNATURES

Prepared by:  Date: 9/18/2016

Eric Cathcart

Reviewed by:  Date: 9/18/2016

Mitch Wacksman (Technical Expert)

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

I. INTRODUCTION

This Technical Guidance Instruction (TGI) document describes the procedures to conduct a building survey prior to indoor air sampling.

This document describes general and/or specific procedures, methods, actions, steps, and considerations to be used and observed by Arcadis staff when performing work, tasks, or actions under the scope and relevancy of this document. This document may describe expectations, requirements, guidance, recommendations, and/or instructions pertinent to the service, work task, or activity it covers.

It is the responsibility of the Arcadis Certified Project Manager (CPM) to provide this document to the persons conducting services that fall under the scope and purpose of this procedure, instruction, and/or guidance. The Arcadis CPM will also ensure that the persons conducting the work falling under this document are appropriately trained and familiar with its content. The persons conducting the work under this document are required to meet the minimum competency requirements outlined herein, and inquire to the CPM regarding any questions, misunderstanding, or discrepancy related to the work under this document.

This document is not considered to be all inclusive nor does it apply to all projects. It is the CPM's responsibility to determine the proper scope and personnel required for each project. There may be project- and/or client- and/or state-specific requirements that may be more or less stringent than what is described herein. The CPM is responsible for informing Arcadis and/or Subcontractor personnel of omissions and/or deviations from this document that may be required for the project. In turn, project staff are required to inform the CPM if or when there is a deviation or omission from work performed as compared to what is described herein.

In following this document to execute the scope of work for a project, it may be necessary for staff to make professional judgment decisions to meet the project's scope of work based upon site conditions, staffing expertise, regulation-specific requirements, health and safety concerns, etc. Staff are required to consult with the CPM when or if a deviation or omission from this document is required that has not already been previously approved by the CPM. Upon approval by the CPM, the staff can perform the deviation or omission as confirmed by the CPM.

II. SCOPE AND APPLICATION

This document describes the procedures for collecting exterior soil vapor or sub-slab soil vapor (herein referred to as "soil vapor") samples using whole air canisters for the analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method TO-15 (TO-15). This document assumes a sample port – either sub-slab or exterior soil vapor – has already been installed. This document covers the above ground assembly and sampling methods.

Method TO-15 uses a 1-liter 3-liter or 6-liter SUMMA® passivated stainless steel canister to collect a whole-air sample. The whole-air sample is then analyzed for VOCs using a quadrupole or ion-trap gas chromatograph/mass spectrometer (GS/MS) system to provide typical compound detection limits of 0.5 parts per billion volume (ppbv).

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

The following sections list the necessary equipment and detailed instructions for collecting soil vapor samples for VOC analysis.

III. PERSONNEL QUALIFICATIONS

Arcadis field sampling personnel will have current health and safety training, including 40-hour HAZWOPER training, site supervisor training, site-specific training, first-aid, and cardiopulmonary resuscitation (CPR), as needed. Arcadis field sampling personnel will be well versed in the relevant technical guidance instructions (TGIs) and possess the required skills and experience necessary to successfully complete the desired field work. Arcadis personnel responsible for leading soil vapor sample collection activities must have previous soil vapor sampling experience.

IV. EQUIPMENT LIST

The equipment required for soil vapor sample collection is presented below:

- 1,3, or 6 – liter stainless steel SUMMA® canisters (order at least one extra, if feasible) (batch certified canisters or individual certified canisters as required by the project);
- Flow controllers with in-line particulate filters and vacuum gauges; flow controllers are pre-calibrated to specified sample duration (e.g.,5-, 10, or 30- minutes) or flow rate (e.g., < 200 milliliters per minute [mL/min]); confirm with the laboratory that the flow controller comes with an in-line particulate filter and pressure gauge (order at least one extra, if feasible);
- 1/4-inch OD tubing (Teflon®, or similar);
- Extra 1/4-inch Swagelok front and back compression sleeves
- Decontaminated stainless steel Swagelok or comparable “1” fitting and ball or needle valve for isolation of purge leg of sample train;
- Stainless steel duplicate “1” fitting provided by the laboratory (if collecting duplicate [i.e., split] samples);
- 60-mL syringe equipped with a three-way leur lock valve;
- Appropriate equipment and materials for quality assurance testing as laid out in the respective quality assurance TGIs (i.e., helium leak testing, water dam testing, methane testing);
- Appropriate-sized open-end wrench (typically 9/16-inch and $^{1}/_{2}$”);
- Tedlar® bag to collect purge air for venting outside a structure if working inside;
- Portable weather meter, if appropriate;

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

- Chain-of-custody (COC) form;
- Sample collection log (attached);
- Nitrile gloves;
- Work gloves; and
- Field notebook

V. CAUTIONS

The following cautions and field tips should be reviewed and considered prior to installing or collecting a soil vapor sample.

- Sampling personnel should not handle hazardous substances (such as gasoline), permanent marking pens (sharpies), wear/apply fragrances, or smoke cigarettes/cigars before and/or during the sampling event.
- Ensure that the flow controller is pre-calibrated to the proper sample collection duration (confirm with laboratory). Sample integrity can be compromised if sample collection is extended to the point that the canister reaches atmospheric pressure. Sample integrity is maintained if sample collection is terminated prior to the target duration and a measurable vacuum (e.g., 3 -7 – inches Hg) remains in the canister when sample collection is terminated.
- The integrity of the sample train will be tested in accordance with the project specific requirements. These procedures are contained in their own TGI documents and include helium leak testing, water dam testing, and methane screening.
- It is important to record the canister pressure, start and stop times, and sample identification on a proper field sampling form. You should observe and record the time/pressure at the start, and then again one or two hours after starting the sample collection. It is a good practice to lightly tap the pressure gauge with your finger before reading it to make sure it is not stuck. If the canister is running correctly for a 24-hour period, the vacuum will have decreased slightly after one or two hours (for example from 29 inches to 27 inches). Consult your project manager, risk assessor or air sampling expert by phone if the SUMMA canister does not appear to be working properly.
- Ensure that there is still measurable vacuum in the SUMMA® after sampling. Sometimes the gauges sent from labs have offset errors, or they stick.
- When sampling carefully consider elevation. If your site is over 2,000’ above sea level or the difference in elevation between your site and your lab is more than 2,000’ then pressure effects will be significant. If you take your samples at a high elevation they will contain less air for a given ending pressure reading. High elevation samples analyzed at low elevation

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

will result in more dilution at the lab, which could affect reporting limits. Conversely low elevation samples when received at high elevation may appear to not have much vacuum left in them. http://www.uigi.com/Atmos_pressure.html.

- If possible, have equipment shipped a two to three days before the scheduled start of the sampling event so that all materials can be checked. Order replacements if needed.

- Requesting extra canisters and flow controllers from the laboratory should also be considered to ensure that you have enough equipment on site in case of an equipment failure.

- Check the seal around the soil vapor sampling port by using a tracer gas (e.g., helium) or other method established in the appropriate guidance document. See TGI library and project specific instructions for appropriate TGIs.

VI. HEALTH AND SAFETY CONSIDERATIONS

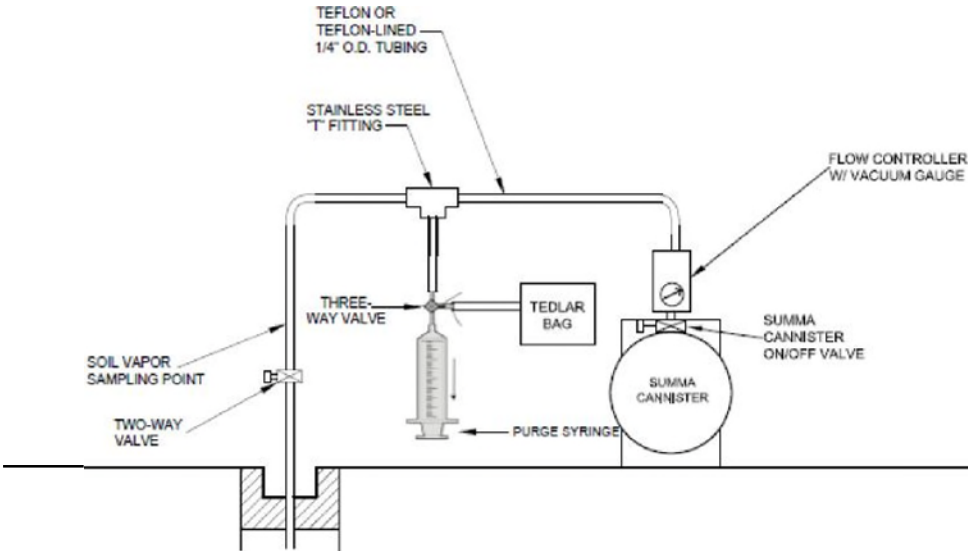
All sampling personnel should review the appropriate health and safety plan (HASP) and job safety analysis (JSA) prior to beginning work to be aware of all potential hazards associated with the job site and the specific task. Field sampling must be carefully performed to minimize the potential for injury and the spread of hazardous substances.

VII. SOIL VAPOR SAMPLE COLLECTION

Sample Train Assembly

The following procedures should be used to collect a soil vapor sample using a whole air canister (i.e., SUMMA canister). These methods can be used for both exterior soil vapor samples and interior sub-slab soil vapor samples collected from both permanent or temporary sample points installations. A schematic of the suggested sample train set up is included below

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.



1. Assemble the sample train by removing the cap from the SUMMA canister and connecting the flow controller with in-line particulate filter and vacuum gauge. The flow controller attaches directly to the canister and dictates the sample duration. This piece will come preset from the laboratory.

2. Attach the canister and flow controller assembly to a stainless steel T-fitting using a short length of 1/4-inch OD Teflon tubing. This T-fitting adds a leg to the sample train that will be used to purge “dead” air from the sample train in order to collect a more representative sample.

3. Connect the purge syringe with three-way valve to one of the free ends of the T-fitting using a length of Teflon sample tubing, Swagelok compression fittings and silicon tubing.

4. Attach the Swagelok two-way valve to the remaining free end of the T-fitting using a short length of $^{1}/_{4}$-inch OD Teflon tubing. The two-way valve will be immediately adjacent to the sample point in the train assembly. This valve is used to isolate the sample train from the sample point prior to sampling in order to test the sample train’s integrity.

5. When collecting duplicate or other quality assurance/quality control (QA/QC) samples as required by applicable regulations and guidance, couple two SUMMA canisters using stainless steel Swagelok duplicate sample T-fitting supplied by the laboratory. Attach flow controller with in-line particulate filter and vacuum gauge to duplicate sample T-fitting provided by the laboratory.

6. Attach the terminal end of the two-way Swagelok valve to the sample port as appropriate. This may be done using the options below:

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

a. Use a section of silicon tube to connect the Teflon sample tubing to the barbed fitting of a Vapor Pin™ port.

b. Use Swagelok compression fittings to connect Teflon tubing to sampling port. Teflon tape should never be used on Swagelok compression fitting connections.

c. Wrap the Teflon tubing with Teflon tape to seal around the slab then use VOC free clay to further seal around the slab if using temporary points.

Sample Documentation

1. Record on the sample log and COC form the flow controller number with the appropriate SUMMA® canister number.

2. Record the following information on the sample log, if appropriate (contact the local airport or other suitable information source [e.g., site-specific measurements, weatherunderground.com] to obtain the information):

   a. wind speed and direction;

   b. ambient temperature;

   c. barometric pressure; and

   d. relative humidity.

3. Take a photograph of the SUMMA® canister and surrounding area.

Sample Collection

1. Prior to any round of sampling, the consultant will confirm all analytical methods, methodology, current detection limits, and protocols are the most up to date version in the sampling protocol.
2. Perform a leak-down-test by closing the two-way valve to the sample port. Open the three-way valve to the syringe and pull a vacuum. Quickly close the three-way valve and record the pressure indicated on the gauge connected to the canister. If there are no leaks in the system this vacuum should be held. If vacuum holds proceed with sample collection; if not attempt to rectify the situation by tightening fittings.

3. Open the two-way valve and purge the soil vapor sampling port and tubing with the portable sampling pump. Purge approximately three volumes of air from the soil vapor sampling port and sampling line using a flow rate of 200 mL/min. Purge volume is calculated by the following equation “purge volume = 3 x Pi x inner radius of tubing^2 x length of tubing. Purge air will be collected into a Tedlar bag to provide that VOCs are not released into interior spaces. Perform quality control method tests concurrently, as appropriate

4. Close the three-way valve to the syringe in order to isolate this leg of the sample train.

4. Open the SUMMA® canister valve to initiate sample collection. Record on the sample log (attached) the time sampling began and the canister pressure.

   If the initial vacuum pressure registers less than -25 inches of Hg, then the SUMMA® canister is not appropriate for use and another canister should be used.

5. Check the SUMMA canister approximately half way through the sample duration and note progress on sample logs.

Termination of Sample Collection

1. Arrive at the SUMMA® canister prior to the end of sample collection.

2. Record the final vacuum pressure. Stop collecting the sample by closing the SUMMA® canister valves. The canister should have a minimum amount of vacuum (approximately 5 inches of Hg or slightly greater).

3. Record the date and local time (24-hour basis) of valve closing on the sample collection log and COC form.

4. Disconnect sample tubing from the sample port; replace any coverings or abandon as appropriate to mitigate tripping hazards.

5. Remove the particulate filter and flow controller from the SUMMA® canister, re-install the brass plug on the canister fitting, and tighten with the appropriate wrench.

6. Package the canister and flow controller per Department of Transportation regulations for return shipment to the laboratory. These regulations can be found at the Transportation Safety Program's Team Site on the Source. The SUMMA® canister does not require preservation with ice or refrigeration during shipment.

7. Complete the appropriate forms and sample labels as directed by the laboratory (e.g., affix card with a string).

8. Complete the COC form and place the requisite copies in a shipping container. Close the shipping container and affix a custody seal to the container closure. Ship the container to the laboratory via overnight carrier (e.g., Federal Express) for analysis.

VIII. WASTE MANAGEMENT

No specific waste management procedures are required.

IX. DATA RECORDING AND MANAGEMENT

Measurements will be recorded on the sample log at the time of measurement with notations of the project name, sample date, sample start and finish time, sample location (e.g., GPS

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

coordinates, distance from permanent structure [e.g., two walls, corner of room]), canister serial number, flow controller serial number, initial vacuum reading, and final pressure reading. Field sampling logs and COC records will be transmitted to the Project Manager.

X. QUALITY ASSURANCE

Duplicate samples should be collected in the field as a quality assurance step per project requirements. Generally, duplicates are taken from 10% of samples, but project specific requirements should take precedence.

XI. REFERENCES

DiGiulio et. al. 2003. Draft Standard Operating Procedure (SOP) for Installation of Sub-Slab Vapor Probes and Sampling Using EPA TO-15 to Support Vapor Intrusion Investigations. http://www.cdphe.state.co.us/hm/indoorair.pdf (Attachment C)

Di Giulio et. Al. 2006. Assessment of Vapor intrusion in Homes Near the Raymark Superfund Site Using Basement and Sub-Slab Air Samples. USEPA. EPA/600/R-05/147.

New York State Department of Health (NYSDOH). 2005. DRAFT “Guidance for Evaluating Soil Vapor Intrusion in the State of New York” February 23, 2005.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPENDIX J

QUALITY ASSURANCE PROJECT PLAN

Chevron Environmental Management Company

Appendix J
Generic Quality Assurance Project Plan (QAPP)

Former Gulf Oil Terminal
Nassau County
Oceanside, New York
NYDEC Site Number: 130165

September 2022

Appendix J
Generic Quality Assurance Project Plan

Former Gulf Oil Terminal
Nassau County
Oceanside, New York
NYDEC Site Number: 130165
September 2022

Prepared By:

Arcadis U.S., Inc.
50 Millstone Road
East Windsor
New Jersey 08520

Prepared For:

Chevron Environmental Management Company
1500 Louisiana Street, #38142
Houston, Texas 77002

Our Ref:

30064361

_____

Alex Newbrough

Certified Project Manager

_____

Manan Dalal

Assistant Project Manager

This document is intended only for the use of the individual or entity for which it was prepared and may contain information that is privileged, confidential and exempt from disclosure under applicable law. Any dissemination, distribution or copying of this document is strictly prohibited.

Contents

Preface vi

Acronyms and Abbreviations vii

1 Project Organization 1

1.1 Project Organization 1

1.1.1 Overall Project Management 1

1.1.2 Task Managers 1

1.2 Team Member Responsibilities 2

1.2.1 Chevron Environmental Management Company 2

1.2.2 Arcadis 2

1.2.3 Analytical Laboratories 3

1.2.4 NYDEC 4

2 Project Background 4

2.1 Site Location and Description 4

2.2 Site History and Summary of Activities 5

2.3 Current Status 6

3 Project Description 6

3.1.1 Groundwater Monitoring 6

3.1.2 Vapor Intrusion Monitoring 7

4 Quality Objectives and Criteria for Measurement Data 7

4.1 Data Categories 8

5 Special Training Requirements/Certification 9

6 Documentation and Records 9

6.1 General 9

6.2 Sample Designation System 9

6.2.1 Sample Codes 9

6.2.2 Field Documentation 10

6.3 Laboratory Documentation Files 11

6.3.1 Laboratory Project Files 11

6.3.2 Laboratory Logbooks 11

6.3.3 Computer Tape and Hard Copy Storage 11

6.4 Data Reporting Requirements 11

6.4.1 Field Data Reporting 11
6.4.2 Laboratory Data Reporting 12
6.5 Project File 13
7 Sampling Process Design 13
8 Sampling Method Requirements 13
9 Sample Handling and Custody Requirements 13
9.1 Sample Containers and Preservation 13
9.2 Field Custody Procedures ..... 14~~13~~
9.2.1 Field Logbooks 14
9.2.2 Sample Labelling ..... 15~~14~~
9.2.3 Field COC Forms 15
9.3 Management of Investigation Derived Materials and Wastes 15
9.4 Packing, Handling, and Shipping Requirements 16
9.5 Laboratory Custody Procedures 17
9.5.1 General 17
9.5.2 Sample Receipt and Storage 17
9.5.3 Sample Analysis 17
9.5.4 Sample Storage Following Analysis 17
10 Analytical Method Requirements 18
10.1 Field Parameters and Methods 18
10.2 Laboratory Parameters and Methods 18
10.2.1 General 18
10.2.2 Sample Matrices 18
10.2.2.1 Groundwater 18
10.2.2.2 Vapor Intrusion 19
11 Quality Control Requirements 19
11.1 Quality Assurance Indictors 19
11.1.1 Representativeness 19
11.1.2 Comparability 20
11.1.3 Completeness 20
11.1.4 Precision 20
11.1.5 Accuracy 20

11.1.6 Sensitivity 20
11.2 Field Quality Control Checks 21
11.2.1 Field Measurements 21
11.2.2 Sample Containers 21
11.2.3 Field Duplicates 21
11.2.4 Rinse Blanks 21
11.2.5 Trip Blanks 21
11.3 Analytical Laboratory Quality Control Checks 22
11.3.1 General 22
11.3.2 Method Blanks 22
11.3.3 MS/MSDs 22
11.3.4 Surrogate Spikes 22
11.3.5 Laboratory Duplicates 22
11.3.6 Calibration Standards 23
11.3.7 Internal Standards 23
11.3.8 Reference Standards/Control Samples 23
11.4 Data Precision Assessment Procedures 23
11.5 Data Accuracy Assessment Procedures 24
11.6 Data Completeness Assessment Procedures 24
12 Instrument/Equipment Testing, Inspection, and Maintenance Requirements 25
12.1 General 25
12.2 Field Instruments and Equipment 25
12.2.1 Equipment Maintenance 25
12.3 Laboratory Instruments and Equipment 25
12.3.1 General 25
12.3.2 Instrument Maintenance 26
12.3.3 Equipment Monitoring 26
13 Instrument Calibration and Frequency 26
13.1 Field Instruments and Equipment 26
13.2 Laboratory Instrument and Equipment 27
14 Inspection/Acceptance Requirements for Supplies and Consumables 27
15 Data Management 27

15.1 Sample Designation System 28
15.2 Field Activities 28
15.2.1 Field Documentation 28
15.2.2 Data Security 29
15.3 Sample Management and Tracking 29
15.4 Data Management System 30
15.4.1 Computer Hardware 30
15.4.2 Computer Software 30
15.4.3 Survey Information 30
15.4.4 Field Observations 30
15.4.5 Analytical Results 31
15.4.6 Data Analysis and Reporting 31
16 Assessment and Response Actions 32
16.1 General 32
16.2 Field Audits 32
16.3 Laboratory Audits 32
16.4 Corrective Action 33
16.4.1 Field Procedures 33
16.4.2 Laboratory Procedures 33
17 Reports to Management 34
17.1 Internal Reporting 34
17.2 Groundwater Monitoring and Vapor Intrusion Reporting 34
18 Data Reduction and Review 35
18.1 General 35
18.2 Field Data Reduction and Review 35
18.2.1 Field Data Reduction 35
18.2.2 Field Data Review 35
18.3 Laboratory Data Reduction and Review 35
18.3.1 Laboratory Data Reduction 35
18.3.2 Laboratory Data Review 36
18.4 Data validation and Verification 36
19 Data Validation and Verification 36

20 Reconciliation with User Requirements 38

21 References 39

TABLES

Table 1 Parameters, Methods, and Target Reporting Limits – Groundwater Samples

Table 2 Parameters, Methods, and Target Reporting Limits – Soil Vapor/Indoor Air

ATTACHMENTS

Attachment 1 Groundwater, Soil Vapor, Indoor Air Parameters, Laboratory Methods and Procedures

Attachment 2 Chain of Custody Form and Arcadis Chain of Custody SOP

Preface

This *Quality Assurance Project Plan* (QAPP) was prepared for the former Gulf Oil Terminal site (the Site) located in Oceanside, New York. This QAPP will support future work plans for the Site.

This QAPP was prepared in a manner consistent with the following reference and guidance documents:

- United States Environmental Protection Agency (USEPA) guidance document entitled *EPA Requirements for Quality Assurance Project Plans*, EPA-QA/R-5 (USEPA, 2001)
- USEPA *Guidance for Quality Assurance Project Plans*, EPA-QA/G-5 (USEPA, 2002)

Acronyms and Abbreviations

ASP	Analytical Services Protocol
CLP	Contract Laboratory Program
COC	Chain-of-Custody
DQOs	Data Quality Objectives
EDD	Electronic Data Deliverables
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
GIS	Geographic Information System
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NYSDEC	New York State Department of Environmental Administration
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated biphenyl
QAC	Quality Assurance Coordinator
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RPD	Relative percent difference
SDG	Sample Delivery Group
SOP	Standard Operating Procedure
SVOC	Semi-Volatile Organic Compound
TOC	Total Organic Carbon
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1 Project Organization

1.1 Project Organization

Monitoring performed as part of the groundwater, indoor air and soil gas monitoring activities for the former Gulf Oil Terminal, located in Oceanside, New York, will require integration of personnel from the organizations identified below, collectively referred to as the "project team". A detailed description of the responsibilities of each member of the project team is presented below.

1.1.1 Overall Project Management

On behalf of Chevron Environmental Management Company (Chevron), Arcadis has overall responsibility for the groundwater, indoor air and soil gas monitoring activities. Arcadis personnel will perform related sampling activities, evaluate data, and prepare the deliverables as specified in the section-4 of the Site Management Plan (SMP). Project direction will be provided by Chevron, with oversight by the New York State Department of Environmental Conservation (NYSDEC). A list of key project management personnel is provided below:

Company/Organization	Title	Name	Phone Number
NYSDEC	Project Manager	Steven Scharf	(518) 402-9620
Chevron	Project Manager	Rob Speer	(832) 854-5648
Arcadis	Program Manager	Kavin Gandhi	(609) 366-9031
	Project Manager	~~Edwin Ptak~~Alex Newbrough	(724) ~~934~~448-~~9501~~6218
	Field Manager/APM	Matthew Miller	(609) 366-9071
	Quality Assurance Coordinator	Dennis Capria	(315) 671-9299
Pace Analytical	Project Manager	Chris McCord	(615) 773-3281

1.1.2 Task Managers

The staff performing the monitoring and site activities will be directed by representatives of the project team. The personnel responsible for each of the site activities listed below.

Company/Organization	Title	Name	Phone Number
Arcadis	Field Task Manager	Matthew Miller	(609) 366-9071
	Health and Safety Officer		(609) 366-9071
	Database Administrator	Mosam Shah	(609) 366-9074

1.2 Team Member Responsibilities

The responsibilities of the various team members are summarized below by organization.

1.2.1 Chevron Environmental Management Company

Project Coordinator

Responsibilities and duties include:

- Provide overall direction of site actions.
- Direct Arcadis.
- Review Arcadis work products, including data, memoranda, letters, reports, and all other documents transmitted to the NYSDEC.

1.2.2 Arcadis

Program Manager

Responsibilities and duties include:

- Oversee Arcadis work products.
- Provide Arcadis approval for major project deliverables.

Project Manager

Responsibilities and duties include:

- Manage and coordinate the project as defined in the SMP, with emphasis on adhering to the objectives of the site activities.
- Review documents prepared by Arcadis.
- Ensure that corrective actions are taken for deficiencies cited during any audits of site activities.

Task Managers

The monitoring activities components will be managed by various Task Managers, as set forth in Section 1.1.2. Duties of each Task Manager include, as appropriate:

- Manage relevant day-to-day activities.
- Develop, establish, and maintain files on relevant site activities.
- Review data reductions from the relevant site activities.
- Perform final data review of field data reductions on relevant site activities.
- Ensure that corrective actions are taken for deficiencies cited during audits of relevant site activities.
- Perform overall quality assurance/quality control (QA/QC) of the relevant portions of the site activities.
- Review relevant field records and logs.

- Instruct personnel working on relevant site activities.
- Coordinate field and laboratory schedules pertaining to relevant site activities.
- Request sample bottles from laboratory.
- Review field instrumentation, maintenance, and calibration to meet quality objectives.
- Prepare reports pertaining to relevant site activities.
- Maintain field and laboratory files of notebooks/logs, data reductions, and calculations and transmit originals to the Project Manager.

Field Personnel

Responsibilities and duties include:

- Perform field procedures associated with the investigations as set forth in the field sampling procedures plans.
- Perform field analyses and collect quality assurance samples.
- Calibrate, operate, and maintain field equipment.
- Reduce field data.
- Maintain sample custody.
- Prepare field records and logs.

Quality Assurance Coordinator (QA)

Responsibilities and duties include:

- Review laboratory data packages.
- Oversee and interface with the analytical laboratory.
- Coordinate field QA/QC procedures with Task Managers (including audits of field activities) concentrating on field analytical measurements and practices to meet data quality objectives (DQOs).
- Review field reports.
- Perform and review audit reports.
- Prepare interim QA/QC compliance reports.
- Prepare a QA/QC report in accordance with United States Environmental Protection (USEPA) Region II guidelines, which includes an evaluation of field and laboratory data and data usability reports.

1.2.3 Analytical Laboratories

General responsibilities and duties of the analytical laboratories include:

- Perform sample analyses and associated laboratory QA/QC procedures.
- Supply sampling containers and shipping cartons.
- Maintain laboratory custody of sample.
- Strictly adhere to all protocols in the QAPP.

Project Manager

Responsibilities and duties include:

- Serve as primary communication link between Arcadis and laboratory technical staff.
- Monitor workloads and ensure availability of resources.
- Oversee preparation of analytical reports.
- Supervise in-house chain-of-custody (COC).

Quality Assurance Manager

Responsibilities and duties include:

- Supervise personnel reviewing and inspecting all project-related laboratory activities.
- Conduct audits of all laboratory activities.

1.2.4 NYDEC

Project Manager

Responsibilities and duties include:

- Provide NYSDEC review and approval of the monitoring reports, supporting documents, and future deliverables.
- Monitor progress of site activities.

Quality Assurance Manager

Responsibilities and duties include:

- Review and approval of the QAPP
- Review of the QA/QC portion of any submitted report
- Ensure that all activities are performed in compliance with applicable federal, state, and regional requirements.
- Perform field and laboratory audits, if necessary.

2 Project Background

2.1 Site Location and Description

The Former Gulf Oil Terminal site is located in Oceanside, Nassau County, New York. The Site consists of a partial Costco warehouse building footprint, a paved parking lot with landscaped features, and a fuel service station with a small modular building to the south. The Site is zoned for commercial and industrial use and is currently utilized for commercial use as a Costco.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include commercial and industrial properties. The properties immediately north of the Site include commercial and industrial properties;

the properties immediately east of the Site include industrial properties; and the properties to the west of the Site include commercial and industrial properties. The boundaries of the site are fully described in the metes and bounds site description that is part of the Environmental Easement provided as Appendix A in the Site Management Plan (SMP).

2.2 Site History and Summary of Activities

The site consists of three lots, Lots 502, 503, and 504. In 1931, Gulf Oil Corporation developed a portion of the site (Lot 504) as a petroleum storage terminal. Chevron acquired Gulf Oil Corporation in the mid-1980s. As part of the purchase agreement, Chevron was required to divest the northeast division. In 1986, Cumberland Farms, Inc. (CFI) purchased the northeast marketing assets of Gulf Oil Corporation from Chevron. The purchase included the Oceanside Terminal, which was transferred to CFI in May 1986. In December 1993, CFI, in a joint venture with Catamount Petroleum LP (Catamount), formed Gulf Oil Limited Partnership (Gulf). CFI owned two-thirds of Gulf as a limited partner, and Catamount owned one-third of Gulf as the general partner. In September 2005, CFI exercised its option to buy out Catamount and reorganized Gulf under a new general partner. However, ownership percentages of Gulf did not change during the reorganization. In 2015, the site was sold to Coremark L.L.C., who has leased the property to Costco. The site is currently developed as a Costco Wholesale Warehouse facility.

Operation of the petroleum storage terminal ceased in the early 1990s. Demolition of the 2003. The remaining on-site buildings (maintenance building, office building, and several small buildings associated with historical petroleum terminal operations) were demolished in 2005.

The site has undergone extensive investigation and remediation since the 1990s under NYSDEC oversight (Spill No. 92-03883). In January 2007, the NYSDEC accepted Lowe's Home Centers, Inc. (Lowe's) as a volunteer under the Brownfield Cleanup Program (BCP) – Site No. C130165. Following the decision by Lowe's to withdraw from the BCP in 2009, the NYSDEC transferred the site into the Hazardous Waste Program (State Superfund Site). An Order on Consent and Administrative Settlement were executed between the NYSDEC and CEMC on December 23, 2009 (Index # W3-1142-09-08, Site #130165).

The following were previously located on the Gulf parcel:

- Nine large-quantity ASTs containing fuel oil, kerosene, and gasoline;
- Two small 550-gallon ASTs containing fuel oil for the on-site garage and office building;
- Three underground storage tanks (USTs) containing fuel oil (one 550-gallon, one 1,000-gallon, and one 5,000-gallon);
- One 1,000-gallon UST containing waste oil;
- A loading rack;
- A retention pond;
- A maintenance garage;
- A vapor recovery unit (VRU); and
- An office complex.

Four of the nine large ASTs were demolished prior to 2000, with the remaining five large ASTs reportedly demolished in 2003. The two 550-gallon ASTs containing fuel oil for the maintenance garage and the office

building were demolished in 2005. A site map depicting the approximate locations of the former building, structures, tanks, and monitoring wells is provided on Figure 4a.

Light non-aqueous phase liquid (LNAPL), consisting of a mixture of No. 2 and No. 4 fuel oil, kerosene, and gasoline, had previously been detected in a monitoring well near the bulkhead at the southern portion of the site at a thickness up to 2.28 feet. LNAPL was also encountered near the former VRU and the former garage building. The observed occurrences of LNAPL and shallow soil impacts were addressed through a series of initial remedial measures. Measurable thicknesses of LNAPL have not been observed at the site since 2004.

In 2015, approximately four to seven feet of recycled concrete aggregate (RCA) fill from an NYSDEC-approved facility was added to the site.

A more detailed summary of the remedial activities performed at the site are described in section 2 of the SMP.

2.3 Current Status

After completion of the remedial work, some contamination was left at the site, which is hereafter referred to as “remaining contamination”. Institutional and Engineering Controls (ICs and ECs) have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Nassau County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site.

3 Project Description

This section presents a description of the monitoring activities to be conducted during the SMP. Sampling activities associated with the SMP will be conducted under the following tasks:

- Groundwater investigation
- Indoor air sampling
- Sub-slab sampling

Sampling protocols to be followed during the investigation activities are detailed in the section-4 of the SMP. Samples collected during the investigation will be analyzed in accordance with the USEPA SW-846 Test Methods for Evaluating Solid Waste. Table 1 and 2 presents a list of the constituents that will be analyzed for samples collected as part of the groundwater and vapor intrusion monitoring program. Health and safety protocols to be followed by field personnel during completion of the investigation activities are discussed in the Health and Safety Plan.

A brief description of the objectives for each task associated with the groundwater monitoring is described in the SMP and briefly presented below.

3.1.1 Groundwater Monitoring

The objectives of the groundwater monitoring program are to:

- Collect groundwater samples to evaluate the natural attenuation for each water-bearing horizon- shallow fill unit and lower sand unit.

- Collect groundwater samples to evaluate the effectiveness of the remedial measures.

3.1.2 Vapor Intrusion Monitoring

The objectives of the vapor intrusion monitoring program are to:

- Conduct vapor intrusion monitoring to complete vapor intrusion pathway within the building structure and evaluate if there is an opportunity for human exposure, which warrants further analysis.
- Collect indoor air and sub soil gas samples to evaluate if subsurface source of vapor-forming chemicals is present underneath the building.

4 Quality Objectives and Criteria for Measurement Data

The DQO process, as described in the USEPA EPA QA/G-4 (2006) instruction document, is intended to provide a "logical framework" for planning field investigations. The following section addresses, in tum, each of the seven sequential steps in the EPA QA/G-4 QAPP DQO process.

Step 1: State the Problem

The sampling and analysis program is intended to generate data to evaluate the effectiveness of remedial actions.

Step 2: Identify the Goal of the Study

The initial use of the data is descriptive (distribution and concentration) and there is no decision point for this descriptive application. Subsequent to review of the descriptive information, an exposure evaluation will be performed based on the findings of the monitoring.

Step 3: Identify Information Inputs

Decision inputs incorporate both concentration and distribution of constituents of concern in site media. A fundamental basis for decision-making is that a sufficient number of data points of acceptable quality are available from the monitoring to support the decision. Thus, the necessary inputs for the decision are: 1) the proportion of non-rejected (usable) data points; and 2) the quantity of data needed to evaluate remedial actions.

The data will be evaluated for completeness, general conformance with requirements of this QAPP, and consistency among data sets and with historical data, as appropriate.

Step 4: Define the Boundaries of the Study

The Former Gulf Oil Terminal is located in Oceanside, Nassau County, New York. The site is an approximately 7.2-acre area and is bounded by the Former Exxon Terminal site which contains most of a Costco warehouse building (currently 85 percent of the Costco warehouse building footprint is located on Lots 712 and 713, which is not affiliated with the Former Gulf Terminal Consent Order, and 15 percent of the Costco warehouse building is on Lot 502), Daly Avenue, and Liotta Bros Recycling Corporation across Daly Avenue to the north.

Step 5: Developing the Analytical Approach

The decision on whether data can be used in the exposure evaluation will be based on the validation results. Following validation, the data will be flagged, as appropriate, and any use restrictions noted. The sampling plan has been devised so that the loss of any single data point will not hinder description of the distribution of constituents of concern or the development of a risk assessment. Given this, a reasonable decision rule would be that 90% of the data points not be rejected and deemed unusable for exposure evaluation purposes. Applicable actions would be evaluated, if needed based on the results of the exposure evaluation.

Step 6: Specify Performance or Acceptance Criteria

Specifications for this step call for: 1) giving forethought to corrective actions to improve data usability; and 2) understanding the representative nature of the sampling design. This QAPP has been designed to meet both specifications for this step. The sampling and analysis program has been developed based on a review of previous site data and knowledge of present Site conditions. Corrective actions are described elsewhere in the document and in the appended documents. The representative nature of the sampling design has been assured by discussion among professionals familiar with the Site and the appropriate government agencies

Step 7: Develop the Plan for Obtaining Data

The overall quality assurance objective is to develop and implement procedures for field sampling; COC, laboratory analysis, and reporting that will provide results to support the evaluation of the site data consistent with Natural Contingency Plan requirements. Specific procedures for sampling, COC, laboratory instrument calibration, laboratory analysis, data reporting, internal quality control, audits, preventive.

A DQO summary for the sampling investigation efforts is presented in the subsequent section. The summary consists of stated DQOs relative to data uses, data types, data quantity, sampling and analytical methods, and data measurement performance criteria.

4.1 Data Categories

Three data categories have been defined to address various analytical data uses and the associated QA/QC effort and methods required to achieve the desired levels of quality. These categories are:

Screening Data: Screening data affords a quick assessment of site characteristics or conditions. This DQO is applicable to data collection activities that involve a rapid, non-rigorous methods of analysis and quality assurance. This objective is generally applied to physical and/or chemical properties of samples, degree of contamination relative to concentration differences, and preliminary health and safety assessment.

Screening Data with Definitive Confirmation: Screening data allows rapid identification and quantitation, although the quantitation can be relative imprecise. This DQO is available for data collection activities that require qualitative and/or quantitative verification of a select portion of sample findings (10% or more). This objective can also be used to verify less rigorous laboratory-based methods.

Definitive Data: Definitive data are generated using analytical methods such as approved USEPA reference methods. Data are analyte-specific, with confirmation of analyte identity and concentration. Methods produce raw data (e.g. chromatograms, spectra, digital values) in the form of paper printouts or computer-generated electronic files.

It is anticipated that both screening and definitive data categories will be used during the investigation. Field parameters (e.g. turbidity, conductivity, temperature, and pH) which will be obtained during water column sampling for use in qualitatively interpreting other site data will be determined using screening techniques. All remaining parameters will be determined using definitive techniques.

For this project, the level of data reporting will be:

Level 4 – Full Reporting: Full "CLP-type" reporting is used for those analytes that, based on intended data use, require full documentation. This reporting level should be equivalent to NYSDEC ASP Category B reporting.

Field Investigations

As part of the monitoring activities, field investigations will be conducted to support the DQOs. Details of the field sampling investigations are described in the field sampling procedure plans and SMP.

5 Special Training Requirements/Certification

In compliance of the Occupational Safety and Health Administration's (OSHA) final rule. "Hazardous Waste: Operations and Emergency Response, 29 Code of Federal Regulations 1910.120(e)", all personnel performing sampling activities at the site, except as noted below, will have completed the requirements for OSHA 40-hour Hazardous Waste Operations and Emergency Response initial training and current 8-hour refresher training. Persons in field supervisory positions will have also completed the additional OSHA 8 hours Supervisory Training.

Prior to the commencement of field activities, copied of applicable training certificates for subcontractor personnel will be provided to Arcadis for verification of training requirements. Training certificates for Arcadis personnel working on the site are maintained at Arcadis' main headquarters in Highlands Ranch, Colorado. Arcadis employees are provided training, as necessary, for the completion of projects, as determined by Arcadis' corporate Health and Safety Officer and Education and Training department. Subcontractor personnel will be required to provide verification of training (i.e. copied of records/certificates) prior to performing sampling activities at the site. Copied of training certificates and records will be kept in the project files.

6 Documentation and Records

6.1 General

Samples of the various media will be collected as described in the field sampling procedures plan. Detailed descriptions of the documentation and reporting requirements are presented below.

6.2 Sample Designation System

6.2.1 Sample Codes

Samples will be identified with a unique system that will facilitate sample tracking. The sample designation system to be employed during the sampling activities will be consistent, yet flexible enough to accommodate unforeseen sampling events and conditions. An alpha-numeric system is considered appropriate and will be used by field

personnel to assign each sample with a unique sample identification number. The sample identification will begin with two letters indicating the sample type and two digits indicating the sequential sample number collected from the location.

The samples types will be designated using the following codes:

Groundwater – “MW”

Trip Blank – “TB”

Equipment Rinse Blank – “RB”

The two-digit sample number beginning with “01” will be assigned in the field and incremented by one as samples are collected from one to the next.

Additional sample volumes collected for matrix spike (MS) and matrix spike duplicate (MSD) analysis will be noted on the COC forms, and the associated additional sample containers will be labeled with the appropriate suffix (MS or MSD). Rinse blanks will use to same coding scheme noted above, substituting the location code with the prefix “RB” (e.g. the first rinse blank associated with soil collection would be the named RBSD01). Field duplicates will be labeled as ordinary field samples with a unique identification number (e.g. the first field duplicate associated collection would be named DUPGW01). Duplicate samples will not be identified and the laboratory will analyze them as “blind” quality control samples.

6.2.2 Field Documentation

Field personnel will provide comprehensive documentation covering all aspects of field sampling, field analysis, and sample COC. This documentation constitutes of a record that allows reconstruction of all field events to aid in the data review and interpretation process. All documents, records, and information relating to the performance of the field work will be retained in the project file.

The various forms of documentation to be maintained throughout the action include:

- Daily Production Documentation - A field notebook consisting of a waterproof, bound notebook that will contain a record of all activities performed at the Site.
- Sampling information – Detailed notes will be made as to the exact sampling location, physical observations, and weather conditions (as appropriate).
- Sample COC – COC forms will provide the record of responsibility for sample collection, transport, and submittal to the laboratory. COC forms will be filles out at each sampling site, at a group of sampling sites, or at the end of each day of sampling by Arcadis field personnel designated to be responsible for sample custody. In the event the samples are relinquished by the designated sampling person to other sampling or field personnel, the COC form will be signed and dates by the appropriate personnel to document the sample transfer. The original COC form will accompany the samples to the laboratory, and copies will be forwarded to the project files. A sample COC form is included in Attachment 3.

  Persons will have custody of samples when the samples are in their physical possession, in their view after being in their possession, or in their physical possession and secured so they cannot be tampered with, In addition, when samples are secured in a restricted area accessible only to authorized personnel, they will be deemed to be in the custody of such authorized personnel.

- Field Equipment, Calibration, and Maintenance Logs – To document the calibration and maintenance of field instrumentation, calibration and maintenance logs will be maintained for each piece of field equipment thar is not factory-calibrated.

6.3 Laboratory Documentation Files

6.3.1 Laboratory Project Files

The laboratory will establish a file for all pertinent data. The file will include all correspondence, faxed information, phone logs, and COC forms. The laboratory will retain all project files and data packages for a period of 10 years.

6.3.2 Laboratory Logbooks

Workbooks, bench sheets, instrument logbooks, and instrument printouts will be used to trace the history of samples through the analytical process and document important aspects of the work, including the associated quality controls. As such, logbooks, bench sheets, instrument logs, and instrument printouts will be part of the permanent record of the laboratory.

Each page or entry will be dated and initialed by the analyst at the time of entry. Errors in entry will be crossed out in indelible ink with a single stroke, corrected without the use of white-out or by obliterating or writing directly over the erroneous entry, and initialed and dated by the individual making the correction. Pages of logbooks that are not used will be completed by lining out unused portions. Information regarding the sample, analytical procedures performed, and the results of the testing will be recorded on laboratory forms or personal notebook pages by the analyst. These notes will be dated and will also identify the analyst, the instrument used, and the instrument conditions.

Laboratory notebooks will be periodically reviewed by the laboratory group leaders for accuracy, completeness, and compliance to this QAPP. All entries and calculations will be verified by the laboratory group leader. If all entries on the pages are correct, then the laboratory group leader will initial and date the pages. Corrective action will be taken for incorrect entries before the laboratory group leader signs.

6.3.3 Computer Tape and Hard Copy Storage

All electronic files and deliverables will be retained by the laboratory for not less than 5 years; hard copy data packages (or electronic copies) will also be retained for not less than 5 years.

6.4 Data Reporting Requirements

Data will be reported both in the field and by the analytical laboratory, as described below.

6.4.1 Field Data Reporting

Information collected in the field through visual observation, manual measurement, and/or field instrumentation will be recorded in field notebooks or data sheets and/or on forms. Such data will be reviewed by the appropriate Task Manager for adherence to the SMP for consistency. Concerns identified as a result of this review will be

discussed with the field personnel, corrected if possible, and, as necessary, incorporated into the data evaluation process.

If applicable, field data forms and calculations will be processed and included in appendices to the appropriate reports (when generated). The original field logs, documents, and data reductions will be kept in the project file at the Arcadis office in Syracuse, New York.

6.4.2 Laboratory Data Reporting

The laboratory is responsible for preparing Level 4 data packages for all volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), inorganics, and general chemistry reduced data packages, and case narratives for all other analyses.

All data reports for all parameters will include, at a minimum, the following items:

Narrative: Summary of activities that took place during the course of sample analysis, including the following information:

- Laboratory name and address
- Date of sample receipt
- Cross-reference of laboratory identification number to contractor sample identification
- Analytical methods used
- Deviations from specified protocol
- Corrective action taken

Analytical Results: Reported according to analysis type and including the following information, as acceptable:

- Sample ID
- Laboratory ID
- Date of collection
- Date of receipt
- Date of extraction
- Date of analysis
- Detection limits

Sample results on the report forms will be collected for dilutions. Soil samples will be reported on a dry weight basis. Unless otherwise specified, results will be reported uncorrected for blank contamination.

The data for VOCs, SVOCs, inorganics, and general chemistry will be expanded to include all supporting documentation necessary to provide a Level 4 data package. This additional documentation will include, but is not limited to, all raw data required to recalculate any result, including printouts, chromatograms, and quantitation reports. The report also will include standards used in calibration and calculation of analytical results; sample extraction, digestion, and other preparation logs; standard preparation logs, instrument run logs; and moisture content calculations.

6.5 Project File

Project documentation will be placed in project files according to Arcadis requirements. Generally, field data and laboratory reports are filed by calendar year and task.

Documents and records are retained on site in Arcadis' offices, and off site at project sites, and storage facilities (e.g., Document Systems, Inc.). All corporate records and documents, regardless of where they are retained, are filed using the standard filing system. The most current and frequently used records are kept on site in filing cabinets or other record storage areas. Records accessed less frequently than once per month may be sent to storage and retrieved, as needed. Records must be stored in facilities that provide a suitable environment to prevent loss and minimize deterioration, tampering or damage. Such facilities may have controlled access. Electronic documents, data, databases, and electronic communication are stored within files and folders located on computerized hard disk servers. Network servers are located at all Arcadis offices. Files stored on these servers are "backed-up" daily in the event that the integrity of the electronic files is compromised.

7 Sampling Process Design

Information regarding the sampling design and rationale and associated sampling locations can be found in the SMP.

8 Sampling Method Requirements

Source materials, groundwater will be collected as described in the field sampling plan procedures (Appendix H of the SMP). The field sampling plan procedures also contain procedures that will be followed to measure water levels; collect groundwater samples; perform field measurements; and handle, package, and ship collected samples. Prior to any round of sampling, the consultant will confirm all analytical methods, methodology, current detection limits, standards, and protocols are up to date with the most current sampling program.

9 Sample Handling and Custody Requirements

9.1 Sample Containers and Preservation

Appropriate sample containers, preservation methods, and laboratory holding times for groundwater samples are discussed in laboratory standard operating procedures (Attachment 1).

The analytical laboratory will supply appropriate sample containers and preservatives, as necessary. The bottles will be purchased pre-cleaned according to USEPA Office of Solid Waste and Emergency Response Directive 9240.05A requirements. The field personnel will be responsible for properly labeling containers and preserving samples (as appropriate). Sample labeling procedures are discussed in Section 9.2.2.

9.2 Field Custody Procedures

The objective of field sample custody is to assure that samples are not tampered with from the time of sample collection through time of transport to the analytical laboratory. Persons will have “custody of samples” when the samples are in their physical possession, in their view after being in their possession, or in their physical possession and secured so they cannot be tampered with. In addition, when samples are secured in a restricted area accessible only to authorized personnel, they will be deemed to be in the custody of such authorized personnel.

Field custody documentation consists of both field logbooks and field COC forms.

9.2.1 Field Logbooks

Field logbooks will provide the means of recording data collecting activities performed. As such, entries will be described in as much detail as possible so that persons going to the Site could reconstruct a particular situation without reliance on memory.

Field logbooks will be bound field survey books or notebooks. Logbooks will be assigned to field personnel, but will be stored in a secure location when not in use. Each logbook will be identified by the project specific document number. The title page of each logbook will contain the following:

- Person to whom the logbook is assigned
- Logbook number
- Project name
- Project start date
- End date

Entries into the logbook will contain a variety of information. At the beginning of each entry, the date, start time, weather, names of all sampling team members present, level of personal protection being used, and the signature of the person making the entry will be entered. The names of visitors to the Site, field sampling or investigation team personnel, and the purpose of their visit will also be recorded in the field logbook.

Measurements made and samples collected will be recorded. Entries will be made in ink, and no erasures will be made. If an incorrect entry is made, the information will be crossed out with a single strike mark. Whenever a sample is collected or a measurement is made, a detailed description of the location of the station shall be recorded. The number of the photographs taken of the station, if any, will also be noted. All equipment used to make measurements will be identified, along with the date of calibration.

Samples will be collected following the sampling procedures documented in the field sampling procedures plan and SMP. The equipment used to collect samples will be noted, along with the time of sampling, sample description, depth at which the sample was collected, volume, and number of containers. Sample identification numbers will be assigned prior to sample collection. Field duplicate samples, which will receive an entirely separate sample identification number, will be noted under sample description.

9.2.2 Sample Labelling

Preprinted sample labels will be affixed to sample bottles prior to delivery at the sampling site. The following information is required on each sample label:

- Project
- Date collected
- Time collected
- Location
- Sampler
- Analysis to be performed
- Preservative
- Sample number

9.2.3 Field COC Forms

Completed COC forms will be required for all samples to be analyzed. COC forms will be initiated by the sampling crew in the field. The COC forms will contain the unique sample identification number, sample date and time, sample description, sample type, preservation (if any), and analyses required. The original COC form will accompany the samples to the laboratory. Copies of the COC will be made prior to shipment (or multiple copy forms used) for field documentation. The COC forms will remain with the samples at all times. The samples and signed COC forms will remain in the possession of the sampling crew until the samples are delivered to the express carrier (e.g., Federal Express) or hand delivered to a mobile or permanent laboratory or placed in secure storage.

Sample labels will be completed for each sample using waterproof ink. The labels will include sample information such as: sample number and location, type of sample, date and time of sampling, sampler's name or initials, preservation, and analyses to be performed. The completed sample labels will be affixed to each sample bottle and covered with clear tape.

Whenever samples are split with a government agency or other party, a separate COC will be prepared for those samples and marked to indicate with whom the samples are being split. The person relinquishing the samples to the facility or agency should request the representatives signature acknowledging sample receipt. If the representative is unavailable or refuses, this is noted in the “Received by” space.

9.3 Management of Investigation Derived Materials and Wastes

Management of investigation-derived materials and wastes will be performed consistent with the USEPA guidance Guide to Management of Investigation – Derived Wastes, 9345.3-03FS, dated January 1992. Disposable equipment (including personal protective equipment) and debris will be containerized and appropriately labeled during the sampling events, and will be disposed of accordingly. All purged groundwater and water generated during equipment decontamination will be returned to the treatment system. Equipment will be

decontaminated, as appropriate, as discussed in the field sampling procedures plan. All soil cuttings associated with drilling of monitoring wells will also be collected and temporally stored onsite in a 55-gallon drum(s), and disposed of properly following receipt of analytical results.

9.4 Packing, Handling, and Shipping Requirements

Sample packaging and shipment procedures are designed to insure that the samples will arrive at the laboratory, with the COC, intact.

Samples will be packaged for shipment as outlined below:

- Ensure that sample containers have the sample labels securely affixed to the container with clear packing tape.
- Check the caps on the sample containers to ensure that they are properly sealed.
- Wrap the sample container cap with clear packing tape to prevent it from becoming loose.
- Complete the COC form with the required sampling information and unsure that the recorded information matches the sample labels. NOTE: If the designated sampler relinquishes the samples to other sampling or field personnel for packing or other purposes, the sampler will complete the COC prior to this transfer. The appropriate personnel will sign and date the COC form to document the sample custody transfer.
- Using duct tape, secure the outside drain plug at the bottom of the cooler.
- Wrap sample containers in bubble wrap or other cushioning material.
- Place 1 to 2 inches of cushioning material at the bottom of the cooler.
- Place the sealed sample containers into the cooler.
- Place ice in plastic bags and seal. Place loosely in the cooler.
- Fill the remaining space in the cooler with cushioning material.
- Place COC forms in a plastic bag and seal. Tape the forms to the inside of the cooler lid.
- Close the lid of the cooler, lock, and secure with duct tape.
- Wrap strapping tape around both ends of the cooler at least twice.
- Mark the cooler on the outside with the following information: shipping address, return address, “Fragile” labels, and arrows indicating “this side up”. Cover the labels with clear plastic tape. Place a signed custody seal over the sample cooler lid.

Samples will be hand-delivered or delivered by an express carrier within 48 hours of the time of collection. Shipments will be accompanied by the COC form identifying the contents. The original form will accompany the shipment; copies will be retained by the sampler for the sampling office records. If the samples are sent by common carrier, a bill of lading will be used. Receipts or bills of lading will be retained as part of the permanent project documentation. Commercial carriers are not required to sign off on the COC form as long as the forms are sealed inside the sample cooler and the custody seals remain intact.

Sample custody seals and packing materials for filled sample containers will be provided by the analytical laboratory. The filled, labeled, and sealed containers will be placed in a cooler on ice and carefully packed to eliminate the possibility of container breakage.

9.5 Laboratory Custody Procedures

9.5.1 General

Upon sample receipt, laboratory personnel will be responsible for sample custody. The original field COC form will accompany all samples requiring laboratory analysis. The laboratory will use COC guidelines described in the USEPA guidance documents. Samples will be kept secured in the laboratory until all stages of analysis are complete. All laboratory personnel having samples in their custody will be responsible for documenting and maintaining sample integrity.

9.5.2 Sample Receipt and Storage

Immediately upon sample receipt, the laboratory sample custodian will verify the cooler seal, open the cooler, and compare the contents against the field COC. If a sample container is missing, a sample container is received broken, the sample is in an inappropriate container, or has not been preserved by appropriate means, the Arcadis PM or APM will be notified. The laboratory sample custodian will be responsible for logging the samples in, assigning a unique laboratory identification number to each sample, labeling the sample bottle with the laboratory identification number, and moving the sample to an appropriate storage location to await analysis. The project name, field sample code, date sampled, date received, analysis required, storage location and date, and action for final disposition will be recorded in the laboratory tracking system. Relevant custody documentation will be placed in the project file.

9.5.3 Sample Analysis

Analysis of an acceptable sample will be initiated by worksheets that contain all pertinent information for analysis.

Samples will be organized into sample delivery groups (SDGs) by the laboratory. A SDG may contain up to 20 field samples (field duplicates, trip blanks, and rinse blanks are considered field samples for the purposes of SDG assignment). All field samples assigned to a single SDG shall be received by the laboratory over a maximum of 7 calendar days and must be processed through the laboratory (preparation, analysis, and reporting) as a group. Every SDG must include a minimum of one site-specific MS/MSD pair, which shall be received by the laboratory at the start of the SDG assignment.

9.5.4 Sample Storage Following Analysis

Samples will be maintained by the laboratory for at least one month after the final report is delivered to Arcadis. The laboratory will be responsible for the eventual and appropriate disposal of the samples. The analytical laboratory will inform Arcadis before any samples are disposed. Unused portions of the samples, sample extracts and associated wastes will be disposed of by the laboratory in accordance with applicable rules and regulations as specified in their standard operating procedure (SOP) for waste disposal.

10 Analytical Method Requirements

10.1 Field Parameters and Methods

Field analytical procedures will include the measurement of pH, turbidity, temperature, conductivity, and groundwater levels.

10.2 Laboratory Parameters and Methods

The methods listed below include the range of analyses expected to be performed. The associated laboratory SOPs can be found in Attachment 1.

Laboratory analytical requirements presented in the sub-sections below include a general summary of requirements, specifics related to each sample medium to be analyzed, and details of the methods to be used for this project. SW-846 methods with NYSDEC ASP Category B reporting deliverables will be required for all analytes.

EPA Method 8270 has been modified to include analysis of the following SVOCs: 9,10-anthracenedione, 1,4-dihydroxy-9,10-anthracenedione, 1-hydroxy-9,10-anthracenedione, 0-chloroaniline, (z)-9-octadecenamide, 2-methyl-benzenamine and p-aminotoluene. The calibration curves, purity of standard documentation, and the demonstration of capability for the additional SVOCs is included in Attachment 1 along with the SOP for EPA Method 8270.

10.2.1 General

The following tables summarize general analytical requirements:

Table	Title
Table 1	Parameters, Methods, and Target Reporting Limits for groundwater samples
Table 2	Parameters, Methods, and Target Reporting Limits for sub-slab and indoor air samples

10.2.2 Sample Matrices

10.2.2.1 Groundwater

Analyses will be performed following the methods listed in Table 1.

Analytical Requirements

The primary sources to describe the analytical methods to be used during the investigation are provided in USEPA SW-846 Test Methods for Evaluating Solid Waste, Third Edition, Update IV, USEPA Methods for

Chemical Analysis of Water and Waste with method specified QA/QC. Reporting deliverables requirements will be NYSDEC ASP Category B or equivalent.

10.2.2.2 Vapor Intrusion

Analyses will be performed following the methods listed in Table 2.

Analytical Requirements

The primary sources to describe the analytical methods to be used during the investigation are provided in EPA TO-15 and EPA Method 18-Modified. Reporting deliverables requirements will be NYSDEC ASP Category B or equivalent.

11 Quality Control Requirements

11.1 Quality Assurance Indictors

The overall quality assurance objective for this QAPP is to develop and implement procedures for sampling, COC, laboratory analysis, instrument calibration, data reduction and reporting, internal quality control, audits, preventive maintenance, and corrective action, such that valid data will be generated. These procedures are presented or referenced in the following sections of the QAPP. Specific quality control checks are discussed in Section 11.2.

Quality assurance indicators are generally defined in terms of five parameters:

1. Representativeness
2. Comparability
3. Completeness
4. Precision
5. Accuracy
6. Sensitivity

Each parameter is defined below. Specific objectives for the site actions are set forth in other sections of this QAPP as referenced below.

11.1.1 Representativeness

Representativeness is the degree to which sampling data accurately and precisely represent site conditions and is dependent on sampling and analytical variability and the variability of environmental media at the Site. The actions have been designed to assess the presence of the chemical constituents at the time of sampling. The SMP presents the rationale for sample quantities and location. This QAPP presents field sampling and laboratory analytical methodologies. The use of the prescribed field and laboratory analytical methods with associated holding times and preservation requirements are intended to provide representative data.

11.1.2 Comparability

Comparability is the degree of confidence with which one data set can be compared to another. Comparability between this investigation, and to the extent possible, with existing data will be maintained through consistent sampling and analytical methodology set forth in this QAPP, SW-846 analytical methods with NYSDEC ASP Revision 2005, QA/QC requirements, and Category B reporting deliverables, and through use of QA/QC procedures and appropriately trained personnel.

11.1.3 Completeness

Completeness is defined as a measure of the amount of valid data obtained from an event and/or investigation compared to the total amount that was obtained. This will be determined upon final assessment of the analytical results, as discussed in Section 11.6.

11.1.4 Precision

Precision is the measure of reproducibility of sample results. The goal is to maintain a level of analytical precision consistent with the project objectives. To maximize precision, sampling and analytical procedures will be followed. All work for this monitoring program will adhere to established protocols presented in the SMP. Checks for analytical precision will include the analysis of MSDs, laboratory duplicates, and field duplicates. Checks for field measurement precision will include obtaining duplicate field measurements. Further discussion of precision quality control checks is provided in Section 11.4.

11.1.5 Accuracy

Accuracy is the deviation of a measurement from the true value of a known standard. Both field and analytical accuracy will be monitored through initial and continuing calibration of instruments. In addition, internal standards, MSs, blank spikes, and surrogates (system monitoring compounds) will be used to assess the accuracy of the laboratory analytical data. Further discussion of these quality control samples is provided in Section 11.5.

11.1.6 Sensitivity

Sensitivity is defined as the ability of the method or instrument to detect the contaminant of concern and other target compounds at the level of interest. Method detection limit (MDL) is defined as the minimum concentration of a substance that can be identified, measured, and reported with a 99 percent confidence that the analyte concentration is greater than zero and is determined from repeated analysis of a sample in a given matrix containing the analyte. MDLs have been determined as required in Title 40 of the Code of Federal Regulation (CFR) Part 136B. The reporting limit (RL) is greater than or equal to the lowest standard used to establish the calibration curve. Results greater than the MDL and less than the RL will be qualified estimated (J) by the laboratory.

11.2 Field Quality Control Checks

11.2.1 Field Measurements

To verify the quality of data using field instrumentation, duplicate measurements will be obtained and reported for all field measurements. A duplicate measurement will involve obtaining measurements a second time at the same sampling location.

11.2.2 Sample Containers

Certified-clean sample containers in accordance with Exhibit I of the NYSDEC ASP Revision 2005 (Eagle Picher pre-cleaned containers or equivalent) will be supplied by the laboratory.

11.2.3 Field Duplicates

Field duplicates will be collected from the different site materials to verify the reproducibility of the sampling methods. Field duplicates will be prepared by placing well homogenized aliquots (except samples for VOC analysis) from the same sample location into individual sample containers, which are submitted blind to the laboratory. Field duplicate water samples, sub-slab and indoor air samples for VOC analysis will constitute co-located samples rather than homogenized aliquots. In general, field duplicates will be analyzed at a 5% frequency (every 20 samples) for the chemical constituents. Ambient sample for indoor air sampling will be collected and analyzed for EPA TO-15.

11.2.4 Rinse Blanks

Rinse blanks are used to monitor the cleanliness of the sampling equipment and the effectiveness of the cleaning procedures. Rinse blanks will be prepared and submitted for analysis once per day per matrix. Rinse blanks will be prepared by filling sample containers with analyte-free water (supplied by the laboratory) which has been routed through a cleaned sampling device. When dedicated sampling devices or sample containers are used to collect the samples, rinse blanks will not be necessary.

11.2.5 Trip Blanks

Trip blanks will be used to assess whether site samples have been exposed to non-site-related volatile constituents during storage and transport. Trip blanks will be analyzed at a frequency of one per cooler containing samples to be analyzed for volatile organic constituents. A trip blank will consist of a container filled with analyte-free water (supplied by the laboratory) which remains unopened with field samples throughout the sampling event. Trip blanks will only be analyzed for VOCs.

11.3 Analytical Laboratory Quality Control Checks

11.3.1 General

Internal laboratory quality control checks will be used to monitor data integrity. These checks will include method blanks, MS/MSDs, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards. Project advisory quality control limits for surrogates, duplicates and MSs are identified in Table 2. Laboratory control charts will be used to determine long-term instrument trends.

11.3.2 Method Blanks

Sources of contamination in the analytical process, whether specific analyses or interferences, need to be identified, isolated, and corrected. The method blank is useful in identifying possible sources of contamination within the analytical process. For this reason, it is necessary that the method blank is initiated at the beginning of the analytical process and encompasses all aspects of the analytical work. As such, the method blank would assist in accounting for any potential contamination attributable to glassware, reagents, instrumentation, or other sources which could affect sample analysis. One method blank will be analyzed with each analytical series associated with no more than 20 samples.

11.3.3 MS/MSDs

MS/MSDs will be used to measure the accuracy of analyte recovery from the sample matrices and will be site-specific. MS/MSD pairs will be analyzed at a 5% frequency (every 20 samples or once every week, whichever comes first). When MS recoveries are outside quality control limits, associated control sample and surrogate spike recoveries will be evaluated, as applicable, to attempt to verify the reason for the deviation and determine the effect on the reported sample results.

11.3.4 Surrogate Spikes

Surrogates are compounds which are unlikely to occur under natural conditions that have properties similar to the analytes of interest. This type of control is primarily used for organic samples analyzed by gas chromatography/mass spectrometry (GC/MS) and GC methods and is added to the samples prior to purging or extraction. The surrogate spike is utilized to provide broader insight into the proficiency and efficiency of an analytical method on a sample-specific basis. This control reflects analytical conditions that may not be attributable to sample matrix. If surrogate spike recoveries exceed specified quality control limits, the analytical results need to be evaluated thoroughly in conjunction with other control measures. In the absence of other control measures, the integrity of the data may not be verifiable and reanalysis of the samples with additional control may be necessary.

Surrogate spike compounds will be selected utilizing the guidance provided in the analytical methods.

11.3.5 Laboratory Duplicates

For inorganics, laboratory duplicates may be analyzed to assess laboratory precision. Laboratory duplicates are defined as a separate aliquot of an individual sample that is analyzed as a separate sample

11.3.6 Calibration Standards

Calibration check standards analyzed within a particular analytical series provide insight regarding the instruments' stability. A calibration check standard will be analyzed at the beginning and end of an analytical series, or periodically throughout a series containing a large number of samples. In general, calibration check standards will be analyzed after every 12 hours, or more frequently, as specified in the applicable analytical method. In analyses where internal standards are used, a calibration check standard will only be analyzed in the beginning of an analytical series. If results of the calibration check standard exceed specified tolerances, then all samples analyzed since the last acceptable calibration check standard will be reanalyzed.

Laboratory instrument calibration standards will be selected utilizing the guidance provided in the analytical methods, as summarized in Section 13.

11.3.7 Internal Standards

Internal standard areas and retention times will be monitored for organic analyses performed by GC/MS methods. Method-specified internal standard compounds will be spiked into all field samples, calibration standards, and quality control samples after preparation and prior to analysis. If internal standard areas in one or more samples exceed the specified tolerances, the cause will be investigated, the instrument will be recalibrated if necessary, and all affected samples will be reanalyzed. The acceptability of internal standard performance will be determined using the guidance provided within the analytical methods.

11.3.8 Reference Standards/Control Samples

Reference standards are standards of known concentration and independent in origin from the calibration standards. The intent of reference standard analysis is to provide insight into the analytical proficiency within an analytical series. This includes preparation of calibration standards, validity of calibration, sample preparation, instrument set-up, and the premises inherent in quantitation. Reference standards will be analyzed at the frequencies specified within the analytical methods.

11.4 Data Precision Assessment Procedures

Field precision is difficult to measure because of temporal variations in field parameters. However, precision will be controlled through the use of experienced field personnel, properly calibrated meters, and duplicate field measurements. Field duplicates will be used to assess precision for the entire measurement system including sampling, handling, shipping, storage, preparation, and analysis. Laboratory data precision for analyses will be monitored through the use of MS/MSD and/or laboratory duplicates.

The precision of data will be measured by calculation of the relative percent difference (RPD) by the following equation:

$$RPD = \frac{A - B}{(A + B)/2} x100$$

Where:

A = Analytical results from one of two duplicate measurements

B = Analytical results from the second measurement

11.5 Data Accuracy Assessment Procedures

The accuracy of field measurements will be controlled by experienced field personnel, properly calibrated field meters, and adherence to established protocols. The accuracy of field meters will be assessed by review of calibration and maintenance logs.

Laboratory accuracy will be assessed via the use of MSs, surrogate spikes, internal standards, and reference standards. Where available and appropriate, quality assurance Performance Standards will be analyzed periodically to assess laboratory accuracy. Accuracy will be calculated in terms of percent recovery as follows:

$$\%\ Recovery = \frac{A - X}{B} x100$$

Where:

A = Value measured in spiked sample or standard

X = Value measured in original sample

B = True value of amount added to sample or true value of standard

This formula is derived under the assumption of constant accuracy over the original and spiked measurements. If any accuracy calculated by this formula is outside of the acceptable levels, data will be evaluated to determine whether the deviation represents unacceptable accuracy, or variable, but acceptable accuracy.

11.6 Data Completeness Assessment Procedures

Completeness of a field or laboratory data set will be calculated by comparing the number of valid sample results generated to the total number of results generated.

$$Completeness = \frac{Number\ valid\ results}{Total\ number\ of\ results\ generated} x100$$

As a general guideline, overall project completeness is expected to be at least 90%. The assessment of completeness will require professional judgment to determine data usability for intended purposes.

12 Instrument/Equipment Testing, Inspection, and Maintenance Requirements

12.1 General

Testing and maintenance schedules have been developed for both field and laboratory instruments. A summary of the testing and maintenance activities to be performed is presented below.

12.2 Field Instruments and Equipment

Prior to field sampling, each piece of field equipment will be inspected to ensure that it is operational. If the equipment is not operational, it will be serviced prior to its use. All meters which require charging or batteries will be fully charged and have fresh batteries. If instrument servicing is required, it is the responsibility of the appropriate Field Manager and/or onsite personnel to follow the maintenance schedule and arrange for timely service. Field instruments will be maintained according to the manufacturers' instructions.

Logbooks or calibration logs will be kept for each field instrument. Each log will contain records of operation, maintenance, calibration, and any problems and repairs. The log for each piece of equipment shall be maintained in project records. The Field Managers will review calibration and maintenance logs.

12.2.1 Equipment Maintenance

All measuring and test equipment to be used in support of the groundwater monitoring activities that directly affect the quality of the analytical data shall be subject to preventative maintenance measures that minimize equipment downtime. Equipment will be examined to certify that it is in operating condition. This includes checking the manufacturer's operating manual to ensure that all maintenance requirements are being observed. Field notes from previous sampling events will be reviewed to ensure that any prior equipment problems are not overlooked and that any necessary repairs to equipment have been carried out.

Field equipment returned from a site will be inspected to confirm that it is in working order. The inspection will be recorded in the logbook or field notebooks, as appropriate. It will also be the obligation of the last user to record any equipment problems in the logbook. Non-operational field equipment will either be repaired or replaced. Appropriate spare parts will be made available for field meters. Consultant-/subcontractor-owned or leased equipment maintenance shall be in accordance with the manufacturer's instructions.

12.3 Laboratory Instruments and Equipment

12.3.1 General

Laboratory instrument and equipment documentation procedures include details of any observed problems, corrective measure(s), routine maintenance, and instrument repair (which will include information regarding the repair and the individual who performed the repair).

Preventive maintenance of laboratory equipment generally will follow the guidelines recommended by the manufacturer. A malfunctioning instrument will be repaired immediately by in-house staff or through a service call from the manufacturer.

12.3.2 Instrument Maintenance

Maintenance schedules for laboratory equipment adhere to the manufacturer's recommendations. Records reflect the complete history of each instrument and specify the time frame for future maintenance. Major repairs or maintenance procedures are performed through service contracts with manufacturer or qualified contractors. Paperwork associated with service calls and preventative maintenance calls will be kept on file by the laboratory.

Laboratory Systems Managers are responsible for the routine maintenance of instruments used in the particular laboratory. Any routine preventative maintenance carried out is logged into the appropriate logbooks. The frequency of routine maintenance is dictated by the nature of samples being analyzed, the requirements of the method used, and/or the judgment of the Laboratory Systems Manager. All major instruments are backed up by comparable (if not equivalent) instrument systems in the event of unscheduled downtime. An inventory of spare parts is also available to minimize equipment/instrument downtime.

12.3.3 Equipment Monitoring

On a daily basis, the operation of balances, incubators, ovens, refrigerators, and water purification systems will be checked and documented. Any discrepancies will be immediately reported to the appropriate laboratory personnel for resolution.

13 Instrument Calibration and Frequency

13.1 Field Instruments and Equipment

The calibration of field instruments is governed by specific SOPs (Attachment 1) for the applicable field analysis method, and such procedures take precedence over the following discussion.

Field personnel are responsible for ensuring that a master calibration/maintenance log is maintained following the procedures specified for each measuring device. Where applicable, each log will include, at a minimum, the following information:

- Name of device and/or instrument calibrated
- Device/instrument serial/identification numbers
- Calibration method
- Tolerance
- Calibration standard used
- Frequency of calibration
- Date(s) of calibration(s)
- Name of person(s) performing calibration(s)

Instruments and equipment used to gather, generate, or measure environmental data will be calibrated at the intervals specified by the manufacturer or more frequently, and in such a manner that accuracy and reproducibility of results are consistent with the manufacturer's specifications. In the event that an internally calibrated field instrument fails to meet calibration/checkout procedures, it will be returned to the manufacturer for service.

Equipment found to be out of tolerance during the period of use shall be removed from the field and measuring and testing activities performed using the equipment shall be addressed via the corrective action system described in Section 16.4 of this QAPP.

13.2 Laboratory Instrument and Equipment

Instrument calibration will follow the specifications provided by the instrument manufacturer or specific analytical method used. The analytical methods for chemical constituents are identified in Tables 1 and 2.

When analyses are conducted according to the USEPA SW-846 methods, the calibration procedures and frequencies specified in the applicable method will be followed, as noted in the laboratory SOPs (Attachment 1).

For analyses governed by SOPs, see the appropriate SOP for the required calibration procedures and frequencies. Records of calibrations will be filed and maintained by the laboratory. These records will be subject to quality assurance audit. For all instruments, the laboratory will maintain trained repair staff with in-house spare parts or will maintain service contracts with vendors.

All standards used in the calibration of equipment are traceable, directly or indirectly, to National Institute of Standards and Technology. All standards received shall be logged into standard receipt logs maintained by the individual analytical groups. Each group shall maintain a standards log which tracks the preparation of standards used for calibration and quality control purposes.

14 Inspection/Acceptance Requirements for Supplies and Consumables

All supplies to be used in the field and laboratory will be available when needed. They will be free of target chemicals and interferences.

All laboratory reagents will be tested for acceptability, prior to use in the analyses of site samples. All standards will be verified against a second source standard. The laboratory will follow a "first in/first out" procedure for the storage and use of all consumables to minimize the risk of contamination and degradation. The various supplies and consumables required are noted in the laboratory SOPs, which are included as an attachment to this QAPP.

15 Data Management

The purpose of the data management is to ensure that all of the necessary data are accurate and readily accessible to meet the analytical and reporting objectives of the project. The field investigations will encompass a large number of samples and analytes from a large geographic area. Due to the large amount of resulting data, the need arises for a structured, comprehensive, and efficient program for management of data.

The data management program established for the project includes field documentation and sample QA/QC procedures, methods for tracking and managing the data, and a system for filing all site-related information. More specifically, data management procedures will be employed to efficiently process the information collected such that the data are readily accessible and accurate. These procedures are described in detail in the following section.

The data management plan has five elements: 1) sample designation system; 2) field activities; 3) sample tracking and management; 4) data management system; and 5) document control and inventory.

15.1 Sample Designation System

A concise and easily understandable sample designation system is an important part of the project sampling activities. It provides a unique sample number that will facilitate both sample tracking and easy re-sampling of select locations to evaluate data gaps, if necessary. The sample designation system to be employed during the sampling activities will be consistent, yet flexible enough to accommodate unforeseen sampling events or conditions. A combination of letters and numbers will be used to yield a unique sample number for each field sampled collected, as outlined in Section 6.2.1.

15.2 Field Activities

Field activities designed to gather the information necessary to make decisions during the groundwater monitoring program process require consistent documentation and accurate record keeping. During site activities, standardized procedures will be used for documentation of field activities, data security, and quality assurance. These procedures are described in further detail in the following subsections.

15.2.1 Field Documentation

Complete and accurate record keeping is a critical component of the field investigation activities. When interpreting analytical results and identifying data trends, investigators realize that field notes are an important part of the review and validation process. To ensure that the field investigation is thoroughly documented, several different information records, each with its own specific reporting requirements, will be maintained, including:

- Field logs
- COC forms

A description of each of these types of field documentation is provided below.

Field Logs

The personnel performing the field activities will keep field logs that detail all observations and measurements made during the monitoring program. Data will be recorded directly into site-dedicated, bound notebooks, with each entry dated and signed. To ensure at any future date that notebook pages are not missing, each page will be sequentially numbered. Erroneous entries will be corrected by crossing out the original entry, initialing it, and then documenting the proper information. In addition, certain media sampling locations will be surveyed to accurately record their locations. The survey crew will use their own field logs and will supply the sampling location coordinates to the Database Administrator.

COC Forms

COC forms are used as a means of documenting and tracking sample possession from time of collection to the time of disposal. A COC form will accompany each field sample collected, and one copy of the form will be filed in the field office. All field personnel will be briefed on the proper use of the COC procedure. COC procedures and a sample form are included as Attachment 2.

Instrument Calibration Records

As part of data quality assurance procedures, field monitoring and detection equipment will be routinely calibrated. Instrument calibration ensures that equipment used is of the proper type, range, accuracy, and precision to provide data compatible with the specified requirements and desired results. Calibration procedures for the various types of field instrumentation are described in Section 13.1. In order to demonstrate that established calibration procedures have been followed, calibration records will be prepared and maintained to include, as appropriate, the following:

- Calibration date and time
- Type and identification number of equipment
- Calibration frequency and acceptable tolerances
- Identification of individual(s) performing calibration
- Reference standards used
- Calibration data
- Information on calibration success or failure

The calibration record will serve as a written account of monitoring or detection equipment QA. All erratic behavior or failures of field equipment will be subsequently recorded in the calibration log.

15.2.2 Data Security

Measures will be taken during the field investigation to ensure that samples and records are not lost, damaged, or altered. When not in use, all field notebooks will be stored at the field office or locked in the field vehicle. Access to these files will be limited to the field personnel who utilize them.

15.3 Sample Management and Tracking

A record of all field documentation will be maintained to ensure the validity of data used in the site analysis. To effectively execute such documentation, specific sample tracking and data management procedures will be used throughout the sampling program.

Sample tracking will begin with the completion of COC forms as summarized in Section 9.2.3. The completed COC forms associated with samples collected will be faxed to the QAC. Copies of all completed COC forms will be maintained in the field office. The laboratory shall verify receipt of the samples electronically (via email) on the following day.

When analytical data are received from the laboratory, the QAC will review the incoming analytical data packages against the information on the COCs to confirm that the correct analyses were performed for each sample and that results for all samples submitted for analysis were received. Any discrepancies noted will be promptly followed-up by the QAC.

15.4 Data Management System

In addition to the sample tracking system, a data management system will be implemented. The central focus of the data management system will be the development of a personal computer-based project database. The project database, to be maintained by the Database Administrator, will combine pertinent geographical, field, and analytical data. Information that will be used to populate the database will be derived from three primary sources: surveying of sampling locations, field observations, and analytical results. Each of these sources is discussed in the following sections.

15.4.1 Computer Hardware

The database will be constructed on personal computer work stations connected through a network server. The network will provide access to various hardware peripherals, such as laser printers, backup storage devices, image scanners, and modems. Computer hardware will be upgraded to industrial and corporate standards, as necessary, in the future.

15.4.2 Computer Software

The database will be written in Microsoft Access, running in a Windows operating system. Geographic information system (GIS) applications will be developed in ESRI ArcGIS, with additional customization performed with Visual Basic. Tables and other database reports will be generated through Microsoft Access in conjunction with Microsoft Excel and/or Microsoft Word. These software products will be upgraded to current industrial standards, as necessary.

15.4.3 Survey Information

In general, each location sampled as part of the groundwater monitoring program will be surveyed to ensure accurate documentation of sample locations for mapping and GIS purposes (if appropriate), to facilitate the re-sampling of select sample locations during future monitoring programs and remediation activities. The surveying activities that will occur in the field will consist of the collection of information that will be used to compute a northing and easting in state plane coordinates for each sample location and the collection of information to compute elevations relative to the National Geodetic Vertical Datum of 1988 for select sample locations, as appropriate. All field books associated with the surveying activities will be stored as a record of the project activities.

15.4.4 Field Observations

An important part of the information that will ultimately reside in the data management system for use during the project will originate in the observations that are recorded in the field.

During each sampling event, appropriate field documentation will be prepared by the field personnel who performed the sampling activities. The purpose of the documentation is to create a summary and a record of the sampling event. Items to be included are the locations sampled, the sampling methodologies used, blind duplicate and sample identification numbers, equipment decontamination procedures, personnel involved in the activity, and any noteworthy events that occurred.

15.4.5 Analytical Results

Analytical results will be provided by the laboratory in both a digital (EDD) and a pdf format. The data packages will be examined to ensure that the correct analyses were performed for each sample submitted and that all of the analyses requested on the COC form were performed. If discrepancies are noted, the QAC will be notified and will promptly follow up with the laboratory to resolve any issues.

Each data package will be validated in accordance with the procedures presented in Section 20. Any data that does not meet the specified standards will be flagged pending resolution of the issue. The flag will not be removed from the data until the issue associated with the sample results is resolved. Although flags may remain for certain data, the use of that data may not necessarily be restricted.

Following completion of the data validation, the digital files will be used to populate the appropriate database tables.

- Sample identification number
- Date sampled
- Date analyzed
- Parameter name
- Analytical result
- Units
- Detection limit
- Qualifier(s)

The individual EDDs, supplied by the laboratory in either an ASCII comma separated value format or in a Microsoft Excel worksheet, will be loaded into the appropriate database table via a custom-designed user interface Visual Basic program. Any analytical data that cannot be provided by the laboratory in electronic format will be entered manually. After entry into the database, the EDD data will be compared to the field information previously entered into the database to confirm that all requested analytical data have been received.

15.4.6 Data Analysis and Reporting

The database management system will have several functions to facilitate the review and analysis of the groundwater data. Data entry screens will be developed to assist in the keypunching of field observations. Routines will also be developed to permit the user to scan analytical data from a given site for a given media. Several output functions that have been developed by Arcadis will be appropriately modified for use in the data management system.

A valuable function of the data management system will be the generation of tables of analytical results from the project databases. The capability of the data management system to directly produce tables reduces the redundant manual entry of analytical results during report preparation and precludes transcription errors that may occur otherwise. This data management system function creates a digital comma-delimited ASCII file of analytical results and qualifiers for a given media. The ASCII file is then processed through a spreadsheet, which transforms the comma-delimited file into a table of rows and columns. Tables of analytical data will be produced as part of data interpretation tasks, the reporting of data, and the generation of the monitoring reports.

Another function of the data management system will be to create digital files of analytical results and qualifiers suitable for transfer to mapping/presentation software. A function has been created by Arcadis that creates a digital file consisting of sample location number, state plane coordinates, sampling date, and detected constituents and associated concentrations and analytical qualifiers. The file is then transferred to an AutoCAD work station, where another program has been developed to plot a location's analytical data in a "box" format at the sample location (represented by the state plane coordinates). This routine greatly reduces the redundant keypunching of analytical results and facilitates the efficient production of interpretative and presentation graphics.

The data management system also has the capability of producing a digital file of select parameters that exists in one or more of the databases. This type of custom function is accomplished on an interactive basis and is best used for transferring select information into a number of analysis tools, such as statistical or graphing programs.

16 Assessment and Response Actions

16.1 General

Performance and systems audits will be completed in the field and laboratory during the groundwater monitoring as described below.

16.2 Field Audits

The following field performance and systems audits will be completed during this project. The appropriate Field Manager will monitor field performance. Field performance audit summaries will contain an evaluation of field activities to verify that activities are performed according to established protocols. The Arcadis QAC will review field reports and communicate concerns to the Arcadis Project Manager and/or Task Managers, as appropriate. In addition, the Arcadis QAC will review the rinse and trip blank data to identify potential deficiencies in field sampling and cleaning procedures. In addition, systems audits comparing scheduled QA/QC activities from this document with actual QA/QC activities completed will be performed. The appropriate Task Manager and QAC will periodically confirm that work is being performed consistent with this QAPP and SMP.

16.3 Laboratory Audits

Internal laboratory audits are conducted by the laboratory QAC. As part of the audit, the overall performance of the laboratory staff is evaluated and compared to the performance criteria outlined in the laboratory quality assurance manual and SOPs. The results of the audits are summarized and issued to each department supervisor, the Laboratory Manager, and the Laboratory Director. A systems audit of each laboratory is also

performed by the QAC to determine if the procedures implemented by each laboratory are in compliance with the quality assurance manual and SOPs.

In addition to the laboratory'=s internal audits, as participants in state and federal certification programs, the laboratory is audited by representatives of the regulatory agency issuing certification. Audits are usually conducted on a bi-annual basis and focus on laboratory conformance to the specific program protocols for which the laboratory is seeking certification. The auditor reviews sample handling and tracking documentation, analytical methodologies, analytical supportive documentation, and final reports. The audit findings are formally documented and submitted to the laboratory for corrective action, if necessary.

Arcadis reserves the right to conduct an on-site audit of the laboratory prior to the start of analyses for the project. Additional audits may be performed during the course of the project, as deemed necessary.

16.4 Corrective Action

Corrective actions are required when field or analytical data are not within the objectives specified in this QAPP. Corrective actions include procedures to promptly investigate, document, evaluate, and correct data collection and/or analytical procedures. Field and laboratory corrective action procedures for the actions are described below.

16.4.1 Field Procedures

When conducting the action field work, if a condition is noted by the field crew that would have an adverse effect on data quality, corrective action will be taken so as not to repeat this condition. Condition identification, cause, and corrective action implemented by the Field Manager or a designee, will be documented on a Corrective Action Form and reported to the appropriate Arcadis Task Manager, QAC, and Project Manager.

Examples of situations that would require corrective actions are provided below:

- Protocols as defines by the QAPP has not been followed
- Equipment is not in proper working order or is not properly calibrated
- QC requirements have not been met
- Issues resulting from performance or systems audits have not been resolved

Project personnel will continuously monitor ongoing work performance in the normal course of daily responsibilities.

16.4.2 Laboratory Procedures

In the laboratory, when a condition is noted to have an adverse effect on data quality, corrective action will be taken so as not to repeat this condition. Condition identification, cause, and corrective action taken will be documented and reported to the appropriate Project Manager and QAC.

Corrective action may be initiated, at a minimum, under the following conditions:

- Specific laboratory analytical protocols have not been followed

- Protocols as defined by this QAPP have not been followed
- Predetermined data acceptance standards are not obtained
- Equipment is not in proper working order or calibrated
- Sample and test results are not completely traceable
- QC requirements have not been met
- Issues resulting from performance or systems audits have not been resolved

Laboratory personnel will continuously monitor ongoing work performance in the normal course of daily responsibilities. Corrective action is initiated at a point where the problem has been identified. At whatever level this occurs (analyst, supervisor, data review, or quality control), it is brought to the attention of the laboratory QAC and, ultimately, the Laboratory Director. Final approval of any action deemed necessary is subject to the approval of the Laboratory Director.

Any corrective action deemed necessary based on system or performance audits or the results of data review will be implemented. The corrective action may include sample re-extraction, re-preparation, re-analysis, cleanup, dilutions, matrix modifications, or other activities.

17 Reports to Management

17.1 Internal Reporting

The analytical laboratory will submit analytical reports to Arcadis for review. If required, Arcadis will, in turn, submit the reports to the data validator for review. Supporting data (i.e., historic data, related field or laboratory data) will also be reviewed to evaluate data quality, as appropriate. The Arcadis Quality Assurance Manager will incorporate results of the data validation reports (if required) and assessments of data usability into a summary report (if required) that will be submitted to the Arcadis Project Manager and appropriate Task Managers. If required, this report will be filed in the project file at Arcadis and will include the following:

1. Assessment of data accuracy, precision, and completeness for both field and laboratory data
2. Results of the performance and system audits
3. Significant QA/QC problems, solutions, corrections, and potential consequences
4. Analytical data validation report

17.2 Groundwater Monitoring and Vapor Intrusion Reporting

Upon sample transport to the laboratory, a copy of the chain-of-custody will be forwarded to the Arcadis Project Manager. Upon receipt of the NYSDEC ASP - Category B Data Package from the laboratory, the Arcadis Quality Assurance Manager, or designee, will determine if the data package has met the required data quality objectives.

The analytical data package will be submitted to the Arcadis Project Manager and the analytical data will be incorporated into the monitoring report in a tabulated format. The laboratory will maintain QA records related to analyses, QC and corrective action. This information will be made available to the PM upon request. Routine reporting will include documenting all internal QC checks performed for this project.

18 Data Reduction and Review

18.1 General

After field laboratory data are obtained, the data will be subject to the following:

1. Reduction, or manipulation mathematically, or otherwise into meaningful and useful forms
2. Review
3. Organization, interpretation, and reporting
4. Data validation

18.2 Field Data Reduction and Review

18.2.1 Field Data Reduction

Information collected in the field through visual observation, manual measurement, and/or field instrumentation will be recorded in field notebooks or data sheets, and/or on forms. Such data will be reviewed by the appropriate Task Manager for adherence to this QAPP and for consistency. Concerns identified as a result of this review will be discussed with the field personnel, corrected if possible, and, as necessary, incorporated into the data evaluation process.

18.2.2 Field Data Review

Field data calculations, transfers, and interpretations will be conducted by the field personnel and reviewed for accuracy by the appropriate Field Manager or APM and the QAC. Logs and documents will be checked for:

1. General completeness
2. Readability
3. Usage of appropriate procedures
4. Appropriate instrument calibration and maintenance
5. Reasonableness in comparison to present and past data collected
6. Correct sample locations
7. Correct calculations and interpretations

18.3 Laboratory Data Reduction and Review

18.3.1 Laboratory Data Reduction

The calculations used for data reduction will be specified in each of the analytical methods referenced previously. Whenever possible, analytical data will be transferred directly from the instrument to a computerized data system. Raw data will be entered into permanently bound laboratory notebooks. The data entered are sufficient to document all factors used to arrive at the reported value.

Concentration calculations for chromatographic analyses will be based on response factors. Quantitation will be performed using internal standards for GC/MS methodology. Concentration calculations for metals and wet chemistry, if appropriate, will be based on linear regression. Non-aqueous values will be reported on a dry-weight basis. Unless otherwise specified, all values will be reported uncorrected for blank contamination.

18.3.2 Laboratory Data Review

Data will be subject to multi-level review by the laboratory. The group leader will review all data reports prior to release for final data report generation. The QAC will review the final data reports, and the QA Manager will review a cross-section of the final data reports prior to shipment to Arcadis.

If discrepancies or deficiencies exist in the analytical results, then corrective action will be taken, as discussed in Section 16. Deficiencies discovered as a result of internal data review, as well as the corrective actions to be used to rectify the situation, will be documented on a Corrective Action Form. This form will be submitted to the Arcadis Project Manager.

18.4 Data validation and Verification

All data generated for health and safety and engineering design/control purposes will be subjected to the data validation and verification procedures outlined in Section 19. Data generated for disposal purposes and monitoring will not be reviewed.

19 Data Validation and Verification

Data validation entails a review of the quality control data and the raw data to verify that the laboratory was operating within required limits, the analytical results were correctly transcribed from the instrument read outs, and which, if any, environmental samples were related to any out-of-control quality control samples. The objective of data validation is to identify any questionable or invalid laboratory measurements.

Arcadis will validate all data generated producing a NYSDEC data usability summary report for each individual SDG using the most recent versions of the USEPA's National Functional Guidelines (USEPA, 1999; 2004) and USEPA Region II SOPs for data validation available at the time of project initiation, where appropriate. These procedures and criteria may be modified as necessary to address project- specific and method-specific criteria, control limits, and procedures. Data validation will consist of data screening, checking, reviewing, editing, and interpretation to document analytical data quality and to determine whether the quality is sufficient to meet the DQOs.
The data validator will verify that reduction of laboratory measurements and laboratory reporting of analytical parameters is in accordance with the procedures specified for each analytical method and/or as specified in this QAPP. Any deviations from the analytical method or any special reporting requirements apart from that specified in this QAPP will be detailed on COC forms.

Upon receipt of laboratory data, the following procedures will be executed by the data validator:

- Evaluate completeness of data package
- Verify that field COC forms were completed and that samples were handled properly

- Verify that holding times were met for each parameter. Holding time exceedances, should they occur, will be documented. Data for all samples exceeding holding time requirements will be flagged as either estimated or rejected. The decision as to which qualifier is more appropriate will be made on a case-by-case basis.
- Verify that parameters were analyzed according to the methods specified
- Review QA/QC data (i.e. make sure duplicates, blanks, and spiked were analyzed on the required number of samples, as specified in the method; verify that duplicate and MS recoveries are acceptable).
- Investigate anomalies identified during review. When anomalies are identified, they will be discussed with the Project Manager and/or Laboratory Manager, as appropriate.
- If data appears suspect, investigate the specific data of concern. Calculations will be traced back to raw data; if calculations do not agree, the cause will be determined and corrected.

Deficiencies discovered as a result of the data review, as well as the corrective actions implemented in response, will be documented and submitted in the form of a written report addressing the following topics as applicable to each method:

- Assessment of the data package
- Description of any protocol deviations
- Failures to reconcile reported and/or raw data
- Assessment of any compromised data
- Overall appraisal of the analytical data
- Table of site name, sample quantities, matrix, and fractions analyzed

It should be noted that qualified results do not necessarily invalidate data. The goal to produce the best possible data does not necessarily mean producing data without quality control qualifiers. Qualified data can provide useful information.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results will be qualified with the following codes in accordance with National Functional Guidelines:

Concentration (C) Qualifiers

U The analyte/compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration greater than the method detection limit (MDL) but less than the quantitation limit (RL).

Quantitation (Q) Qualifiers

Inorganics

B The compound has been found in the sample as well in the associated blank, its presence in the sample may be suspect

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based in a diluted sample analysis

C Identification confirmed by GC/MS.

Validation Qualifiers

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may not represent the actual limit of quantitation.

UB Compound considered non-detect at the listed value due to associated blank contamination.

R The sample results are rejected.

Two facts will be noted to all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Resolution of any issues regarding laboratory performance or deliverables will be handled between the laboratory and the data validator. Suggestions for reanalysis may be made by the Arcadis QAC at this point. Data validation reports will be kept in electronic format (pdf) in the project file at the Arcadis office in Syracuse, New York.

20 Reconciliation with User Requirements

The data results will be examined to determine the performance that was achieved for each data usability criteria. The performance will then be compared with the project objectives and DQOs. Deviations from objectives will be noted. Additional action may be warranted when performance does not meet performance objectives for critical data. Options for corrective action relating to incomplete information, questionable results or inconsistent data, may include any or all of the following:

- Retrieval of missing information
- Request for additional explanation or clarification
- Reanalysis of sample from extract (when appropriate)
- Recalculation or interpretation of results by the laboratory

These actions may improve the data quality, reduce uncertainty, and may eliminate the need to quantify or reject data.

If these actions do not improve the data quality to an acceptable level, the following additional actions may be taken:

- Extrapolation of missing data from existing data points

- Use of historical data
- Evaluation of the critical/non-critical nature of the sample

If the data gap cannot be resolved by these actions, an evaluation of the data bias and potential for false negatives and positives can be performed. If the resultant uncertainty is unacceptable, the following action must be taken:

- Additional sample collection and analysis

21 References

USEPA. Guide to Management of Investigation-Derived Wastes. 9345.3-03FS. (January, 1992).

USEPA. Contract Laboratory Program National Functional Guidelines for Organic Data Review. EPA-540/R-99-008 (October 1999).

USEPA. EPA Requirements for Quality Assurance Project Plans EPA-QA/R-5. Office of Environmental Information. (March, 2001).

USEPA. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. EPA-540/R-04-004 (October 2004).

USEPA. Guidance for Quality Assurance Project Plans. EPA-QA/G-5. Office of Environmental Information. (December, 2002).

USEPA. Test Methods for Evaluating Solid Waste. SW-846 3rd Edition, Update 4. Office of Solid Waste (December 1996).

Tables

Table 1
Parameters, Methods and Target Reporting Limits
Groundwater Samples
Former Gulf Oil Terminal, Chevron Facility #6518040
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Parameter	Units	MDL	RL		Method
Method 8260C					
ACETONE	mg/l	0.01130000	0.05000000		8260C
BENZENE	mg/l	0.00009410	0.00100000		8260C
BROMOCHLOROMETHANE	mg/l	0.00012800	0.00100000		8260C
BROMODICHLOROMETHANE	mg/l	0.00013600	0.00100000		8260C
BROMOFORM	mg/l	0.00012900	0.00100000		8260C
BROMOMETHANE	mg/l	0.00060500	0.00500000		8260C
CARBON DISULFIDE	mg/l	0.00009620	0.00100000		8260C
CARBON TETRACHLORIDE	mg/l	0.00012800	0.00100000		8260C
CHLOROBENZENE	mg/l	0.00011600	0.00100000		8260C
CHLORODIBROMOMETHANE	mg/l	0.00014000	0.00100000		8260C
CHLOROETHANE	mg/l	0.00019200	0.00500000		8260C
CHLOROFORM	mg/l	0.00011100	0.00500000		8260C
CHLOROMETHANE	mg/l	0.00096000	0.00250000		8260C
CYCLOHEXANE	mg/l	0.00018800	0.00100000		8260C
1,2-DIBROMO-3-CHLOROPROPANE	mg/l	0.00027600	0.00500000		8260C
1,2-DIBROMOETHANE	mg/l	0.00012600	0.00100000		8260C
1,2-DICHLOROBENZENE	mg/l	0.00010700	0.00100000		8260C
1,3-DICHLOROBENZENE	mg/l	0.00011000	0.00100000		8260C
1,4-DICHLOROBENZENE	mg/l	0.00012000	0.00100000		8260C
DICHLORODIFLUOROMETHANE	mg/l	0.00037400	0.00500000		8260C
1,1-DICHLOROETHANE	mg/l	0.00010000	0.00100000		8260C
1,2-DICHLOROETHANE	mg/l	0.00008190	0.00100000		8260C
1,1-DICHLOROETHENE	mg/l	0.00018800	0.00100000		8260C
CIS-1,2-DICHLOROETHENE	mg/l	0.00012600	0.00100000		8260C
TRANS-1,2-DICHLOROETHENE	mg/l	0.00014900	0.00100000		8260C
1,2-DICHLOROPROPANE	mg/l	0.00014900	0.00100000		8260C
CIS-1,3-DICHLOROPROPENE	mg/l	0.00011100	0.00100000		8260C
TRANS-1,3-DICHLOROPROPENE	mg/l	0.00011800	0.00100000		8260C
ETHYLBENZENE	mg/l	0.00013700	0.00100000		8260C
2-HEXANONE	mg/l	0.00078700	0.01000000		8260C
ISOPROPYLBENZENE	mg/l	0.00010500	0.00100000		8260C
2-BUTANONE (MEK)	mg/l	0.00119000	0.01000000		8260C
METHYL ACETATE	mg/l	0.00129000	0.02000000		8260C
METHYL CYCLOHEXANE	mg/l	0.00066000	0.00100000		8260C
METHYLENE CHLORIDE	mg/l	0.00043000	0.00500000		8260C
4-METHYL-2-PENTANONE (MIBK)	mg/l	0.00047800	0.01000000		8260C
METHYL TERT-BUTYL ETHER	mg/l	0.00010100	0.00100000		8260C
NAPHTHALENE	mg/l	0.00100000	0.00500000		8260C
TERT-BUTYL ALCOHOL	mg/l	0.00406000	0.00500000		8260C
STYRENE	mg/l	0.00011800	0.00100000		8260C
1,1,2,2-TETRACHLOROETHANE	mg/l	0.00013300	0.00100000		8260C
TETRACHLOROETHENE	mg/l	0.00030000	0.00100000		8260C
TOLUENE	mg/l	0.00027800	0.00100000		8260C
1,2,3-TRICHLOROBENZENE	mg/l	0.00023000	0.00100000		8260C
1,2,4-TRICHLOROBENZENE	mg/l	0.00048100	0.00100000		8260C
1,1,1-TRICHLOROETHANE	mg/l	0.00014900	0.00100000		8260C
1,1,2-TRICHLOROETHANE	mg/l	0.00015800	0.00100000		8260C
TRICHLOROETHENE	mg/l	0.00019000	0.00100000		8260C
TRICHLOROFLUOROMETHANE	mg/l	0.00016000	0.00500000		8260C
1,1,2-TRICHLOROTRIFLUOROETHANE	mg/l	0.00018000	0.00100000		8260C

See Notes on Page 4.

Table 1
Parameters, Methods and Target Reporting Limits
Groundwater Samples
Former Gulf Oil Terminal, Chevron Facility #6518040
Oceanside, Township of Hempstead, New York

Parameter	Units	MDL	RL		Method
Method 8260C (cont.)					
VINYL CHLORIDE	mg/l	0.00023400	0.00100000		8260C
XYLENES, TOTAL	mg/l	0.00017400	0.00300000		8260C
TOTAL TIC	mg/l	--	--		8260C
Method 8270C					
ACETOPHENONE	mg/l	0.00020800	0.01000000		8270D
ATRAZINE	mg/l	0.00025500	0.01000000		8270D
BENZALDEHYDE	mg/l	0.00169000	0.01000000		8270D
BIPHENYL	mg/l	0.00079000	0.01000000		8270D
BIS(2-CHLORETHOXY)METHANE	mg/l	0.00011600	0.01000000		8270D
BIS(2-CHLOROETHYL)ETHER	mg/l	0.00013700	0.01000000		8270D
2,2-OXYBIS(1-CHLOROPROPANE)	mg/l	0.00021000	0.01000000		8270D
4-BROMOPHENYL-PHENYLETHER	mg/l	0.00008770	0.01000000		8270D
CAPROLACTAM	mg/l	0.00030900	0.01000000		8270D
CARBAZOLE	mg/l	0.00011100	0.01000000		8270D
4-CHLOROANILINE	mg/l	0.00023400	0.01000000		8270D
4-CHLOROPHENYL-PHENYLETHER	mg/l	0.00009260	0.01000000		8270D
DIBENZOFURAN	mg/l	0.00009700	0.01000000		8270D
3,3-DICHLOROBENZIDINE	mg/l	0.00021200	0.01000000		8270D
2,4-DINITROTOLUENE	mg/l	0.00009830	0.01000000		8270D
2,6-DINITROTOLUENE	mg/l	0.00025000	0.01000000		8270D
HEXACHLORO-1,3-BUTADIENE	mg/l	0.00009680	0.01000000		8270D
HEXACHLOROCYCLOPENTADIENE	mg/l	0.00005980	0.01000000		8270D
HEXACHLOROETHANE	mg/l	0.00012700	0.01000000		8270D
ISOPHORONE	mg/l	0.00014300	0.01000000		8270D
2-NITROANILINE	mg/l	0.00010200	0.01000000		8270D
3-NITROANILINE	mg/l	0.00008690	0.01000000		8270D
4-NITROANILINE	mg/l	0.00009100	0.01000000		8270D
NITROBENZENE	mg/l	0.00029700	0.01000000		8270D
N-NITROSODIPHENYLAMINE	mg/l	0.00237000	0.01000000		8270D
N-NITROSODI-N-PROPYLAMINE	mg/l	0.00026100	0.01000000		8270D
BENZYLBUTYL PHTHALATE	mg/l	0.00076500	0.00300000		8270D
BIS(2-ETHYLHEXYL)PHTHALATE	mg/l	0.00089500	0.00300000		8270D
DI-N-BUTYL PHTHALATE	mg/l	0.00045300	0.00300000		8270D
DIETHYL PHTHALATE	mg/l	0.00028700	0.00300000		8270D
DIMETHYL PHTHALATE	mg/l	0.00026000	0.00300000		8270D
DI-N-OCTYL PHTHALATE	mg/l	0.00093200	0.00300000		8270D
1,2,4,5-TETRACHLOROBENZENE	mg/l	0.00006470	0.01000000		8270D
4-CHLORO-3-METHYLPHENOL	mg/l	0.00013100	0.01000000		8270D
2-CHLOROPHENOL	mg/l	0.00013300	0.01000000		8270D
2-METHYLPHENOL	mg/l	0.00009290	0.01000000		8270D
3&4-METHYL PHENOL	mg/l	0.00016800	0.01000000		8270D
2,4-DICHLOROPHENOL	mg/l	0.00010200	0.01000000		8270D
2,4-DIMETHYLPHENOL	mg/l	0.00006360	0.01000000		8270D
4,6-DINITRO-2-METHYLPHENOL	mg/l	0.00112000	0.01000000		8270D
2,4-DINITROPHENOL	mg/l	0.00593000	0.01000000		8270D
2-NITROPHENOL	mg/l	0.00011700	0.01000000		8270D
4-NITROPHENOL	mg/l	0.00014300	0.01000000		8270D
PENTACHLOROPHENOL	mg/l	0.00031300	0.01000000		8270D
PHENOL	mg/l	0.00433000	0.01000000		8270D
2,4,5-TRICHLOROPHENOL	mg/l	0.00010900	0.01000000		8270D

See Notes on Page 4.

Table 1
Parameters, Methods and Target Reporting Limits
Groundwater Samples
Former Gulf Oil Terminal, Chevron Facility #6518040
Oceanside, Township of Hempstead, New York

ARCADIS Design & Consultancy for natural and built assets

Parameter	Units	MDL	RL		Method
Method 8270C (cont.)					
2,4,6-TRICHLOROPHENOL	mg/l	0.00010000	0.01000000		8270D
TOTAL TIC	mg/l	--	--		8270D
1-METHYLNAPHTHALENE	mg/l	0.00007900	0.00100000		8270D
2-METHYLNAPHTHALENE	mg/l	0.00011700	0.00100000		8270D
NAPHTHALENE	mg/l	0.00015900	0.00100000		8270D
Method 8270C-SIM					
ANTHRACENE	mg/l	0.00001900	0.00005000		8270C-SIM
ACENAPHTHENE	mg/l	0.00001900	0.00005000		8270C-SIM
ACENAPHTHYLENE	mg/l	0.00001710	0.00005000		8270C-SIM
BENZO(A)ANTHRACENE	mg/l	0.00002030	0.00005000		8270C-SIM
BENZO(A)PYRENE	mg/l	0.00001840	0.00005000		8270C-SIM
BENZO(B)FLUORANTHENE	mg/l	0.00001680	0.00005000		8270C-SIM
BENZO(G,H,I)PERYLENE	mg/l	0.00001840	0.00005000		8270C-SIM
BENZO(K)FLUORANTHENE	mg/l	0.00002020	0.00005000		8270C-SIM
CHRYSENE	mg/l	0.00001790	0.00005000		8270C-SIM
DIBENZ(A,H)ANTHRACENE	mg/l	0.00001600	0.00005000		8270C-SIM
DIBENZOFURAN	mg/l	0.00001910	0.00005000		8270C-SIM
FLUORANTHENE	mg/l	0.00002700	0.00010000		8270C-SIM
FLUORENE	mg/l	0.00001690	0.00005000		8270C-SIM
INDENO(1,2,3-CD)PYRENE	mg/l	0.00001580	0.00005000		8270C-SIM
NAPHTHALENE	mg/l	0.00009170	0.00025000		8270C-SIM
2-METHYLNAPHTHALENE	mg/l	0.00006740	0.00025000		8270C-SIM
PHENANTHRENE	mg/l	0.00001800	0.00005000		8270C-SIM
PYRENE	mg/l	0.00001690	0.00005000		8270C-SIM
Method 6010D					
ALUMINUM	mg/l	0.07040000	0.20000000		6010D
ALUMINUM,DISSOLVED	mg/l	0.07040000	0.20000000		6010D
ANTIMONY	mg/l	0.00430000	0.01000000		6010D
ANTIMONY,DISSOLVED	mg/l	0.00430000	0.01000000		6010D
ARSENIC	mg/l	0.00440000	0.01000000		6010D
ARSENIC,DISSOLVED	mg/l	0.00440000	0.01000000		6010D
BARIUM	mg/l	0.00089500	0.00500000		6010D
BARIUM,DISSOLVED	mg/l	0.00089500	0.00500000		6010D
BERYLLIUM	mg/l	0.00046000	0.00200000		6010D
BERYLLIUM,DISSOLVED	mg/l	0.00046000	0.00200000		6010D
CADMIUM	mg/l	0.00056300	0.00200000		6010D
CADMIUM,DISSOLVED	mg/l	0.00056300	0.00200000		6010D
CALCIUM	mg/l	0.38900000	1.00000000		6010D
CALCIUM,DISSOLVED	mg/l	0.38900000	1.00000000		6010D
CHROMIUM	mg/l	0.00500000	0.01000000		6010D
CHROMIUM,DISSOLVED	mg/l	0.00500000	0.01000000		6010D
COBALT	mg/l	0.00080700	0.01000000		6010D
COBALT,DISSOLVED	mg/l	0.00080700	0.01000000		6010D
COPPER	mg/l	0.00469000	0.01000000		6010D
COPPER,DISSOLVED	mg/l	0.00469000	0.01000000		6010D
IRON	mg/l	0.04580000	0.10000000		6010D
IRON,DISSOLVED	mg/l	0.04580000	0.10000000		6010D
LEAD	mg/l	0.00295000	0.00600000		6010D
LEAD,DISSOLVED	mg/l	0.00295000	0.00600000		6010D
MAGNESIUM	mg/l	0.11100000	1.00000000		6010D

See Notes on Page 4.

Table 1
Parameters, Methods and Target Reporting Limits
Groundwater Samples
Former Gulf Oil Terminal, Chevron Facility #6518040
Oceanside, Township of Hempstead, New York

Parameter	Units	MDL	RL		Method
Method 6010D (cont.)					
MAGNESIUM,DISSOLVED	mg/l	0.11100000	1.00000000		6010D
MANGANESE	mg/l	0.00327000	0.01000000		6010D
MANGANESE,DISSOLVED	mg/l	0.00327000	0.01000000		6010D
NICKEL	mg/l	0.00298000	0.01000000		6010D
NICKEL,DISSOLVED	mg/l	0.00298000	0.01000000		6010D
POTASSIUM	mg/l	0.51000000	2.00000000		6010D
POTASSIUM,DISSOLVED	mg/l	0.51000000	2.00000000		6010D
SELENIUM	mg/l	0.00735000	0.01000000		6010D
SELENIUM,DISSOLVED	mg/l	0.00735000	0.01000000		6010D
SILVER	mg/l	0.00191000	0.00500000		6010D
SILVER,DISSOLVED	mg/l	0.00191000	0.00500000		6010D
SODIUM	mg/l	1.40000000	3.00000000		6010D
SODIUM,DISSOLVED	mg/l	1.40000000	3.00000000		6010D
THALLIUM	mg/l	0.00431000	0.01000000		6010D
THALLIUM,DISSOLVED	mg/l	0.00431000	0.01000000		6010D
VANADIUM	mg/l	0.00634000	0.02000000		6010D
VANADIUM,DISSOLVED	mg/l	0.00634000	0.02000000		6010D
ZINC	mg/l	0.00916000	0.05000000		6010D
ZINC,DISSOLVED	mg/l	0.00916000	0.05000000		6010D
Method 5210 B-2011					
BOD (BIOCHEMICAL OXYGEN DEMAND)	mg/l	1	1		
Method 9060A					
TOC (TOTAL ORGANIC CARBON)	mg/l	0.102	1		
Method RSK175					
METHANE	mg/l	0.00291	0.01		
Method 353.2					
NITRATE-NITRITE	mg/l	0.05	0.1		
Method 4500S2 D-2011					
SULFIDE	mg/l	0.025	0.05		
Method 9056A					
NITRATE	mg/l	0.048	0.1		
NITRITE	mg/l	0.042	0.1		
SULFATE	mg/l	0.594	5		

Notes:
1. mg/kg: Milligram per kilogram
2. MDL: Method Detection Limit
3. RL: Reporting Limit
4. --: Not available
5. MDL and RL provided by Pace Analytical on July 2020.

Table 2
Parameters, Methods and Target Reporting Limits
Soil Vapor/Indoor Air
Former Gulf Oil Terminal, Chevron Facility #6518040
Oceanside, Township of Hempstead, New YorK

Compound	CAS #	Molecular Weight	MDL (ppbv)	RDL (ppbv)	MDL (ug/m3)	RDL (ug/m3)
Method TO-15SIM						
1,1,1-Trichloroethane	71-55-6	133	0.0065	0.0200	0.0353	0.1088
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0087	0.0200	0.0601	0.1374
1,1,2-Trichloroethane	79-00-5	133	0.00583	0.0300	0.0317	0.1632
1,1-Dichloroethane	75-34-3	98	0.00893	0.0200	0.0358	0.0802
1,1-Dichloroethene	75-35-4	96.9	0.00921	0.0200	0.0365	0.0793
1,2-Dibromoethane	106-93-4	188	0.00779	0.0200	0.0599	0.1538
1,2-Dichloropropane	78-87-5	113	0.00885	0.0300	0.0409	0.1387
1,4-Dichlorobenzene	106-46-7	147	0.00691	0.0200	0.0415	0.1202
Benzene	71-43-2	78.1	0.01120	0.0200	0.0358	0.0639
Carbon Tetrachloride	56-23-5	154	0.00995	0.0200	0.0627	0.1260
Chloroethane	75-00-3	64.5	0.00944	0.0400	0.0249	0.1055
Chloroform	67-66-3	119	0.00729	0.0200	0.0355	0.0973
Chloromethane	74-87-3	50.5	0.01620	0.0300	0.0335	0.0620
Cis-1,2-Dichloroethene	156-59-2	96.9	0.14200	0.0200	0.5628	0.0793
Cis-1,3-Dichloropropene	10061-01-5	111	0.00735	0.0200	0.0334	0.0908
Ethylbenzene	100-41-4	106	0.01260	0.0300	0.0546	0.1301
Tetrachloroethylene	127-18-4	166	0.01270	0.0200	0.0862	0.1358
Trans-1,2-dichloroethene	156-60-5	96.9	0.00499	0.0200	0.0198	0.0793
Trans-1,3-Dichloropropene	10061-02-6	111	0.00711	0.0300	0.0323	0.1362
Trichloroethylene	79-01-6	131	0.00746	0.0200	0.0400	0.1072
Vinyl Acetate	108-05-4	86.1	0.01110	0.0200	0.0391	0.0704
Vinyl chloride	75-01-4	62.5	0.00765	0.0200	0.0196	0.0511
1,1,1-Trichloroethane	71-55-6	133	0.0736	0.2000	0.4004	1.0879
1,1,2,2-Tetrachloroethane	79-34-5	168	0.0743	0.2000	0.5105	1.3742
1,1,2-Trichloroethane	79-00-5	133	0.0775	0.2000	0.4216	1.0879
1,1,2-Trichlorotrifluoroethane	76-13-1	187.4	0.0793	0.2000	0.6078	1.5329
1,1-Dichloroethane	75-34-3	98	0.0723	0.2000	0.2898	0.8016
1,1-Dichloroethene	75-35-4	96.9	0.0762	0.2000	0.3020	0.7926
1,2,4-Trichlorobenzene	120-82-1	181	0.1480	0.6300	1.0956	4.6638
1,2,4-Trimethyl benzene	95-63-6	120	0.0764	0.2000	0.3750	0.9816
1,2-Dibromoethane	106-93-4	188	0.0721	0.2000	0.5544	1.5378
1,2-Dichlorobenzene	95-50-1	147	0.1280	0.2000	0.7696	1.2025
1,2-Dichloroethane	107-06-2	99	0.0700	0.2000	0.2834	0.8098
1,2-Dichloropropane	78-87-5	113	0.0760	0.2000	0.3512	0.9243
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.0890	0.2000	0.6225	1.3988
1,3,5-Trimethyl benzene	108-67-8	120	0.0779	0.2000	0.3823	0.9816
1,3-butadiene	106-99-0	54.1	0.1040	2.0000	0.2301	4.4254
1,3-Dichlorobenzene	541-73-1	147	0.1820	0.2000	1.0942	1.2025
1,4-Dichlorobenzene	106-46-7	147	0.0557	0.2000	0.3349	1.2025
1,4-Dioxane	123-91-1	88.1	0.0833	0.2000	0.3002	0.7207
2,2,4-Trimethylpentane	540-84-1	114.22	0.1330	0.2000	0.6213	0.9343
2-Butanone	78-93-3	72.1	0.0814	1.2500	0.2400	3.6861
2-Chlorotoluene	95-49-8	126	0.0828	0.2000	0.4267	1.0307
2-propanol	67-63-0	60.1	0.2640	1.2500	0.6489	3.0726
4-Ethyltoluene	622-96-8	120	0.0783	0.2000	0.3843	0.9816

Table 2
Parameters, Methods and Target Reporting Limits
Soil Vapor/Indoor Air
Former Gulf Oil Terminal, Chevron Facility #6518040
Oceanside, Township of Hempstead, New YorK

Compound	CAS #	Molecular Weight	MDL (ppbv)	RDL (ppbv)	MDL (ug/m3)	RDL (ug/m3)
Method TO-15SIM						
4-Methyl-2-Pentanone	108-10-1	100.1	0.0765	1.2500	0.3132	5.1176
Acetone	67-64-1	58.1	0.5840	1.2500	1.3877	2.9703
Allyl Chloride	107-05-1	76.53	0.1140	0.2000	0.3568	0.6260
Benzene	71-43-2	78.1	0.0715	0.2000	0.2284	0.6389
Benzyl Chloride	100-44-7	127	0.0598	0.2000	0.3106	1.0389
Bromodichloromethane	75-27-4	164	0.0702	0.2000	0.4709	1.3415
Bromoform	75-25-2	253	0.0732	0.6000	0.7574	6.2086
Bromomethane	74-83-9	94.9	0.0982	0.2000	0.3812	0.7763
Carbon Disulfide	75-15-0	76.1	0.1020	0.2000	0.3175	0.6225
Carbon Tetrachloride	56-23-5	154	0.0732	0.2000	0.4611	1.2597
Chlorobenzene	108-90-7	113	0.0832	0.2000	0.3845	0.9243
Dibromochloromethane	124-48-1	208	0.0727	0.2000	0.6185	1.7014
Chloroethane	75-00-3	64.5	0.0996	0.2000	0.2627	0.5276
Chloroform	67-66-3	119	0.0717	0.2000	0.3490	0.9734
Chloromethane	74-87-3	50.5	0.1030	0.2000	0.2127	0.4131
Cis-1,2-Dichloroethene	156-59-2	96.9	0.0784	0.2000	0.3107	0.7926
Cis-1,3-Dichloropropene	10061-01-5	111	0.0689	0.2000	0.3128	0.9080
Cyclohexane	110-82-7	84.2	0.0753	0.2000	0.2593	0.6888
Dichlorodifluoromethane	75-71-8	120.92	0.1370	0.2000	0.6775	0.9891
Ethanol	64-17-5	46.1	0.2650	0.6300	0.4997	1.1879
Ethylbenzene	100-41-4	106	0.0835	0.2000	0.3620	0.8671
Heptane	142-82-5	100	0.1040	0.2000	0.4254	0.8180
Hexachloro-1,3-Butadiene	87-68-3	261	0.1050	0.6300	1.1209	6.7252
Hexane	110-54-3	86.18	0.2060	0.6300	0.7261	2.2206
Isopropylbenzene	98-82-8	120.2	0.0777	0.2000	0.3820	0.9832
m&p-Xylene	1330-20-7	106	0.1350	0.4000	0.5853	1.7342
Methyl Butyl Ketone	591-78-6	100	0.1330	1.2500	0.5440	5.1125
Methyl Methacrylate	80-62-6	100.12	0.0876	0.2000	0.3587	0.8190
MTBE	1634-04-4	88.1	0.0647	0.2000	0.2331	0.7207
Methylene chloride	75-09-2	84.9	0.0979	0.2000	0.3399	0.6945
Naphthalene	91-20-3	128	0.3500	0.6300	1.8323	3.2982
o-Xylene	95-47-6	106	0.0828	0.2000	0.3590	0.8671
Propene	115-07-1	42.1	0.0932	0.4000	0.1605	0.6888
Styrene	100-42-5	104	0.0788	0.2000	0.3352	0.8507
Tetrachloroethylene	127-18-4	166	0.0814	0.2000	0.5527	1.3579
Tetrahydrofuran	109-99-9	72.1	0.0734	0.2000	0.2164	0.5898
Toluene	108-88-3	92.1	0.0870	0.2000	0.3277	0.7534
Trans-1,2-dichloroethene	156-60-5	96.9	0.0673	0.2000	0.2667	0.7926
Trans-1,3-Dichloropropene	10061-02-6	111	0.0728	0.2000	0.3305	0.9080
Trichloroethylene	79-01-6	131	0.0680	0.2000	0.3643	1.0716
Trichlorofluoromethane	75-69-4	137.4	0.0819	0.2000	0.4602	1.1239
Vinyl Acetate	108-05-4	86.1	0.1160	0.2000	0.4085	0.7043
Vinyl Bromide	593-60-2	106.96	0.0852	0.2000	0.3727	0.8749
Vinyl chloride	75-01-4	62.5	0.0949	0.2000	0.2426	0.5112

Attachment 1

Groundwater, Soil Vapor, Indoor Air Parameters, Laboratory Methods and Procedures

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A
Required Client Information:

Company:	
Address:	
Email To:	
Phone:	Fax:
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C
Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Requested Analysis Filtered (Y/N)

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test											Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1																												
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Instructions for completing Chain of Custody (COC)

1. **Section A and B:** Complete all Client information at top of sheet: company name, address, phone, fax, contact (the person to contact if there are questions, and who will receive the final report.), e-mail address (if available), PO#, Project Name and/or Project Number as you would like to see it appear on the report.

2. **Section C:** Invoice Information: Billing information is included in this section. This information should include the name and address of the person receiving the invoice.

3. Quote Reference should be completed if a quotation was provided by Pace Analytical. The Project Manager, and Profile No. will be completed by Pace Analytical Services.

4. **Site Location:** A separate COC must be filled out for each day of sample collection. Record the two letter postal code for the US state in which the samples were collected.

5. **Regulatory Agency:** List the program that is guiding the work to ensure proper regulations are followed.

6. **Section D:** Complete a Sample Description in the "SAMPLE ID' section as you would like it to appear on the laboratory report. The following information should also be included: the sample matrix, sample type (G (grab) or C (composite). When collecting a composite, the start time and end time should be documented in the respective boxes. The collection time for a grab (G) sample should be entered in the boxes marked 'Composite End/Grab'), Sample temp at collection (if required by state), the total number of containers, and preservative used.

7. Mark if the sample was filtered in the field by marking Y or N in 'Filtered' row by the Analysis requested.

8. Requested Analysis: List the required analysis and methods on the lines provided and place a check in the column for the samples requiring the analysis. Additional comments should be referenced in the bottom left hand corner or include attachments for extended lists of parameters.

9. The sampler should print their name in the space provided and sign their name followed by the date of the sampling event at the bottom of the COC in the spaces designated for 'SAMPLER NAME AND SIGNATURE'.

10. When relinquishing custody of the samples to a representative of the laboratory or other organization, indicate the Item Numbers of those samples being transferred; sign relinquished by, date and time, and include your affiliation.

***Important Note:**

Standard Turnaround Time is 2 Weeks/10 business days. Results will be delivered by end of business on the date due unless other arrangements have been made with your project manager.

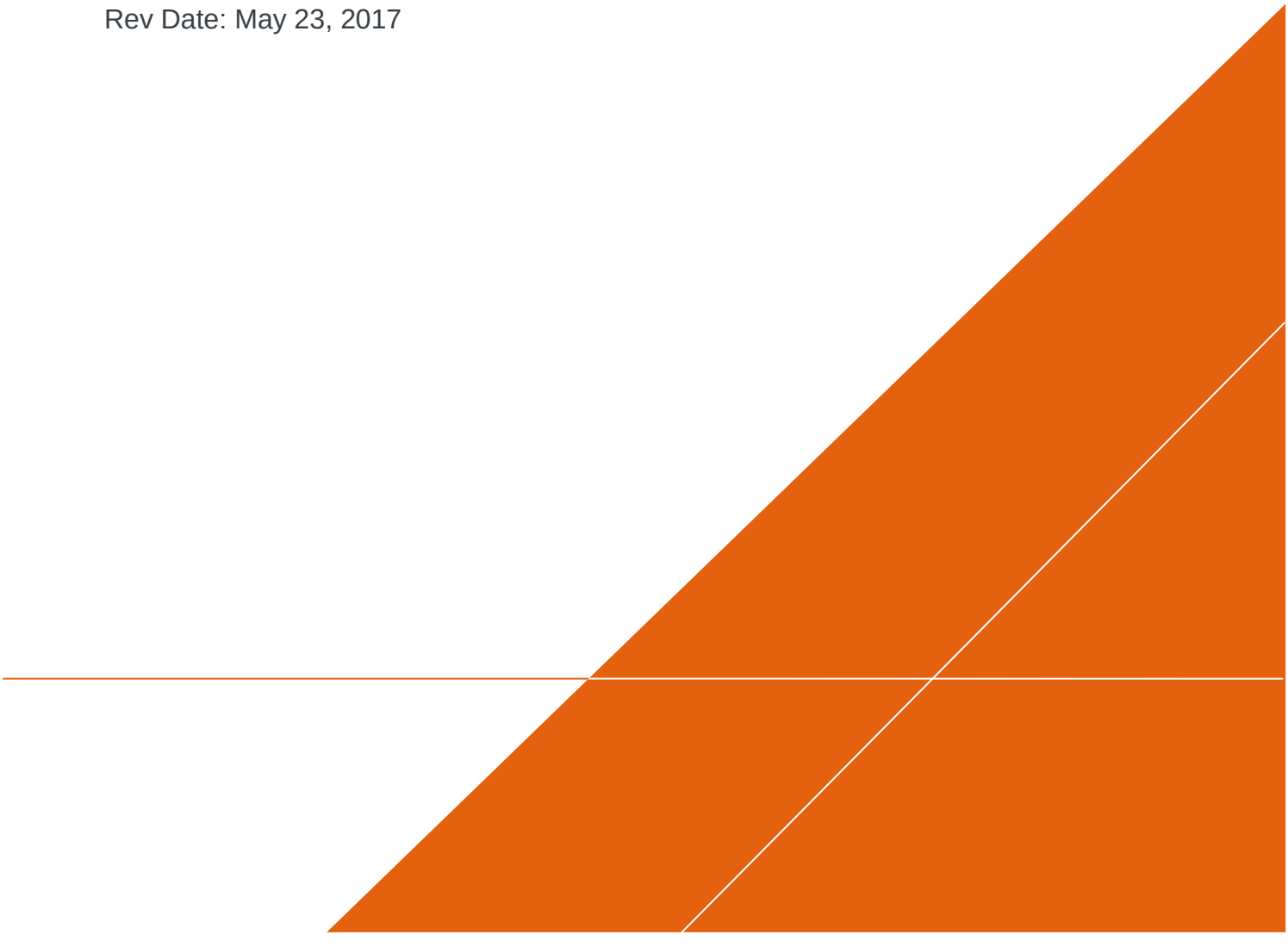
Special Project Requirements such as Low Level Detection Limits or level of QC reported must be included on the chain of custody in the Additional Comments section.

ARCADIS Design & Consultancy for natural and built assets

SOP - SAMPLE CHAIN OF CUSTODY

Rev: #1

Rev Date: May 23, 2017

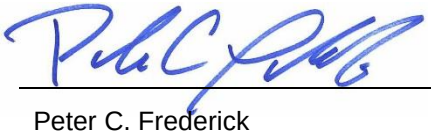


VERSION CONTROL

Revision No	Revision Date	Page No(s)	Description	Reviewed by
0	April 19, 2017	All	Re-write to COC only	Richard Murphy
1	May 23, 2017	4	Add: Guidance on use of previous version of SOP.	Peter Frederick
		9	Add: Info on COCs for multiple shipping containers	
		7	Modify: Move letter i. to letter m. and change to “when appropriate”	

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPROVAL SIGNATURES

Prepared by:  05/23/2017

Peter C. Frederick Date:

Technical Expert Reviewed by:  05/23/2017

Richard J. Murphy Date:

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

1 INTRODUCTION

This document describes general and/or specific procedures, methods, actions, steps, and considerations to be used and observed by Arcadis staff when performing work, tasks, or actions under the scope and relevancy of this document. This document may describe expectations, requirements, guidance, recommendations, and/or instructions pertinent to the service, work task, or activity it covers.

It is the responsibility of the Arcadis Certified Project Manager (CPM) to provide this document to the persons conducting services that fall under the scope and purpose of this procedure, instruction, and/or guidance. The Arcadis CPM will also ensure that the persons conducting the work falling under this document are appropriately trained and familiar with its content. The persons conducting the work under this document are required to meet the minimum competency requirements outlined herein, and inquire to the CPM regarding any questions, misunderstanding, or discrepancy related to the work under this document.

This document is not considered to be all inclusive nor does it apply to all projects. It is the CPM's responsibility to determine the proper scope and personnel required for each project. There may be project- and/or client- and/or state-specific requirements that may be more or less stringent than what is described herein. The CPM is responsible for informing Arcadis and/or Subcontractor personnel of omissions and/or deviations from this document that may be required for the project. In turn, project staff are required to inform the CPM if or when there is a deviation or omission from work performed as compared to what is described herein.

In following this document to execute the scope of work for a project, it may be necessary for staff to make professional judgment decisions to meet the project's scope of work based upon site conditions, staffing expertise, regulation-specific requirements, health and safety concerns, etc. Staff are required to consult with the CPM when or if a deviation or omission from this document is required that has not already been previously approved by the CPM. Upon approval by the CPM, the staff can perform the deviation or omission as confirmed by the CPM.

2 SCOPE AND APPLICATION

This Standard Operating Procedure (SOP) describes the general Chain of Custody (COC) procedures and guidance instructions for samples collected from project sites that are relinquished from Arcadis' possession.

COC is defined as the maintenance of an unbroken record of possession of an item from the time of its collection through some analytical or testing procedure. COC is typically documented by a written record of the collection, possession, and handling of samples collected from a project location. Each sample will be tracked by a documented record that efficiently documents the individuals who were responsible for the sample during each successive transfer of that sample to various recipients beyond Arcadis' possession. This information can be used to legally establish the integrity of the samples and therefore the analytical results derived from the samples. This information can be used in addition to other records and documentation regarding the samples, such as field forms, field logs, and photographs.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

A sample is considered under custody if:

- It is in your possession; or
- It is in your view, after being in your possession; or
- It was in your possession and then you then locked it up to prevent tampering; or
- It is in a designated secure area.

Continued use of previous version of SOP:

Although not recommended, Arcadis program-, project-, and client-teams may be able to use the previous version of this SOP provided that it meets all of the quality expectations of Arcadis and client, and meets applicable regulatory requirements. It is up to the program, project, and/or client-team leader to determine whether it is appropriate to adopt the current SOP or to continue using the previous version.

However, all new work not associated with the previous version of this SOP must be performed with the current version of the SOP.

When adopting this new SOP, users of the previous versions must be aware that specific handling, packing, and shipping procedures and guidance has been removed and that those should be addressed within program or project plans (e.g. QAPPs, Work Plans, SAPs, etc.) or in a more detailed SOP or TGI specific to that sampling activity, whether related to media, constituent/analyte, client, state, etc.

In addition, adopting this new SOP will require users to refer to the Arcadis DOT Safety Program for procedures and guidance on the determination and handling, packing, and shipping of samples that are or may be considered hazardous materials.

3 PERSONNEL QUALIFICATIONS

Arcadis personnel performing work under the purview of this SOP will have received appropriate training and have field experience regarding the collection of samples from project locations. Arcadis personnel will have all other applicable and appropriate training relevant to the sampling work and project site.

4 EQUIPMENT LIST

The following list provides materials that may be required for each COC. Project reporting and documentation requirements must be reviewed with the CPM prior to execution of work. Additional materials, tools, equipment, etc. may be required, and project staff are required to verify with the CPM and/or Technical Expert what specific equipment is required to complete the COC.

- Indelible ink pen (preferably either black or blue ink);
- COC form https://thesourceus.arcadissource.com/TKI/Documents/COC%20Form.pdf (**Appendix A**) from either Arcadis, laboratory receiving and analyzing the samples, or other applicable and appropriate entity for the work performed;
- When appropriate, such as for litigation or expert testimony work, custody seals or tape.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

5 CAUTIONS

One way in which the law tries to ensure the integrity of evidence is by requiring proof of the chain of custody by the party who is seeking to introduce a particular piece of evidence.

A proper chain of custody requires three types of affirmations: (1) affirmation that a sample is what it purports to be (for example, soil collected from a specified location and depth); (2) affirmation of continuous possession by each individual who has had possession of the sample from the time it is collected until the time it is analyzed or held by a laboratory; and (3) affirmation by each person who has had possession that sample remained in substantially the same condition and not contaminated or affected by outside influences from the moment one person took possession until the moment that person released the evidence into the custody of another (for example, affirmation that the sample was stored in a secure location where no one but the person in custody had access to it).

Proving chain of custody is necessary to "lay a foundation" for the samples in question, by showing the absence of alteration, substitution, or change of condition.

Ensure that appropriate sample containers with applicable preservatives, coolers, and packing material are planned for and provided at the site at the time of sample collection.

Understand the offsite transfer requirements of the samples for the facility at which samples are collected.

If overnight courier service is required schedule pick-up or know where the drop-off service center is located and the hours of operation.

An Arcadis employee appropriately trained at the correct level of internal hazardous materials/DOT (Department of Transportation) shipping must complete an Arcadis shipping determination to address applicable DOT and IATA (International Air Transport Association) shipping requirements. Review the applicable Arcadis procedures and guidance instructions for sample packaging, and labeling. Prior to using air transportation, confirm air shipment is acceptable under DOT and IATA regulations.

The person relinquishing possession of the samples or other member of the project team should contact the final recipient of the samples to confirm receipt and review any special provisions on the COC or questions that they may have.

6 HEALTH AND SAFETY CONSIDERATIONS

Follow the health and safety procedures outlined in the project/site Health and Safety Plan (HASP) as well as other applicable H&S requirements, such as:

- Arcadis Hazardous Material/DOT handling, packaging, and shipping training
- Project site-specific H&S training
- Client-specific H&S training
- Constituent-specific H&S training
- Media-specific H&S training

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

7 PROCEDURE

Collected samples must be uniquely identified, and properly documented, containerized, labeled with unique identifier, possessed in a secure manner during remainder of sampling event, packaged, and shipped to recipient laboratory.

Sample Identification

The method of sample identification depends on the type of measurement or analyses performed. In some cases, in-situ measurements of existing conditions and/or sample location must be made during sample collection. These data will be recorded directly on field forms, logbooks, or other project record data sheets used to permanently retain this information for the project file. Examples of location identification information includes: latitude/longitudinal measurements, compass directions, well number, building number, floor number, room name, or proximity to a site feature unique to the site. Examples of in-situ measurements are pH, temperature, conductivity, flow measurement, or physical condition of the media being sampled. Physical samples collected are identified by a unique identifying number or code on a sample tag or label. These physical samples are removed from the sample location and transported to a laboratory for analyses.

In some cases, before samples are placed into individual containers and labeled as individual samples, samples may be separated into portions depending upon the analytical methods and required duplicate or triplicate analyses to be performed.

When completing a COC for samples, personnel must complete the following:

1. Written COCs must be completed with indelible ink (preferably either black or blue colored ink).
2. Written COCs must be completed using legible printed writing, and not cursive writing.
3. All entry fields on the COC form must be completed. If information is not applicable for a specific entry field, personnel will either put “N/A” or use a strike-out line or dash like “----------“ to indicate no applicable information is needed for that field.
4. Use of quotation marks or lines/down arrows to represent repetitive/duplicative text in similar fields.
5. Regardless of the type or specific COC form, the following pertinent information must be provided on the COC form:
    a. Arcadis project number
    b. Arcadis project name
    c. Project location, including street address, city, state, building number, providing as much detail as appropriate
    d. Recipient laboratory contact and sample receiving shipping location information
    e. Entities’/persons’ contact information for who will be receiving analytical results
    f. Name of sampler, i.e. person collecting sample and relinquishing possession of samples to the next entity in the chain of custody
    g. Date of sample collection

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

h. If appropriate for the sample media, contaminant/constituent of concern, or analytical method, document time of sample collection using standard military time

i. Sample analytical method(s)

j. Turnaround time required for analyses and/or reporting

k. Instructions to laboratory regarding handling, timing, analyses, etc. as applicable and appropriate

l. Printed name and signature of the individual person who collected the samples and relinquishing possession of the samples

m. If appropriate or when documentation of the specific sample collection method will influence how the laboratory handles, prepares, or analyzes the samples, document the sample collection methodology used for collecting the samples (e.g. ASTM D5755)

6. The following additional specific information will be entered on the COC form, regardless of what type of COC is being used:

   a. Unique Sample Identifier – The sample identifier (ID) must be unique to the individual sample it is applied to. The information in which the sample ID conveys is determined by the CPM, Technical Expert, and/or other project team members in advance of sample collection so that sample identification is consistently applied for the project. The sample nomenclature may be dictated by a specific client, program, or project database and require unique identification for each sample collected for the project. Consult with the CPM and/or Technical Expert for additional information regarding sample identification.

      The sample ID could convey specific information regarding the sample to aid personnel in recognizing what the sample represents, or they may be arbitrary so as to facilitate the anonymity of the sample location, media, constituent of concern, project site, etc.

      Examples of unique identifiers include:

      1. Well locations, grid points, or soil boring identification numbers (e.g., MW-3, X-20, SB-30). When the depth interval is included, the complete sample ID would be “SB-30 (0.5-1.0) where the depth interval is in feet. Please note it is very important that the use of hyphens in sample names and depth units (i.e., feet or inches) remain consistent for all samples entered on the chain of custody form. DO NOT use the apostrophe or quotes in the sample ID.

      2. Sample names may also use the abbreviations “FB,” “TB,” and “DUP” as prefixes or suffixes to indicate that the sample is a field blank, trip blank, or field duplicate, respectively.

   b. List the date of sample collection. All indicated dates must be formatted using either mm/dd/yy (e.g., 03/07/09) or mm/dd/yyyy (e.g. 03/07/2009).

   c. When appropriate for the analytical procedure used, list the local time that the sample was collected. The time value should be presented using military format. For example, 3:15 P.M. should be entered as 15:15.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

d. Samples should be indicated to be either “Grab” or “Composite”. Grab samples are collected from only one unique location at one specific point in time.

e. Composite samples are a group of individual samples that are combined for analysis in their totality. Composite samples need to be documented if they are either collected from a number of different locations over a broader area to be representative of the entire area being sampled, or if they are representative of a single location over an extended period of time.

f. If used, preservatives for the individual sample will be noted.

g. The requested analytical method(s) that the samples are being analyzed for must be indicated. As much detail, as necessary, should be presented to allow the analytical laboratory to properly analyze the samples. For example, polychlorinated biphenyl (PCB) analyses may be represented by entering “EPA Method 8082 – PCBs” or “EPA PLM 600-R93-116.” In cases where multiple analytical methods and/or analytical parameters are required for an individual sample, each method should be indicated for the sample (e.g., EPA 8082/8260/8270 or EPA PLM/400-point count).

h. If there are project-specific sample analytes to be reported, they should be specifically listed for each individual sample (e.g., 40 CFR 264 Appendix IX).

i. The total number of containers for each analytical method requested should be documented. This information may be included under the parameter or as a total for the sample.

j. When necessary, note which samples should be used for site specific matrix spikes.

k. Indicate special project-specific requirements pertinent to the handling, shipping, or analyses. These requirements may be on a per sample basis such as “extract and hold sample until notified,” or may be used to inform the laboratory of special reporting requirements for the entire sample delivery group (SDG).

l. Indicate turnaround time (TAT) required for samples on COC. If individual samples have differing TATs, the different TATs for each sample or groups of samples must be clearly indicated.

m. Provide contact name and phone number in the event that problems are encountered when samples are received at the laboratory. The person relinquishing possession of the samples or other member of the project team should contact the final recipient of the samples to confirm receipt and review any special provisions on the COC or questions that they may have.

n. If available, attach the Laboratory Task Order or Work Authorization forms.

o. The “Relinquished By” field must contain the signature of the Arcadis person who relinquished custody of the samples to the next entity in the chain of custody, which may be another person, the shipping courier, or the analytical laboratory.

p. Dates and times must be indicated using the following format:

    1) Date: either mm/dd/yy e.g., 01/01/17 OR mm/dd/yyyy e.g., 01/01/2017

    2) Time: use military format, e.g. 9:30 a.m. is 0930 and 9:30 p.m. is 2130

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

q. The “Received By” section is signed by sample courier or laboratory representative who received the samples from the sampler or it is signed upon laboratory receipt from the overnight courier service.

4. When more than one page of the COC form is required to complete the total number of samples, use as many sheets as necessary to accurately and clearly document the samples and information. Some COCs may have a standard first page/cover page, and subsequent pages may not contain all the detailed fields as the first page/cover page. Ensure that any subsequent pages convey all of the necessary and pertinent information for each individual sample as required in this procedure document.
5. Pages of the COC must retain a page count of the total number of pages; e.g., Page 1 of 3, Page 2 of 3, Page 3 of 3.
6. Upon completing the COC forms, forward the original signed COC with the sample package. Ensure that the original COC form is secured with the sample package so that it remains with the physical samples for the duration of transport and handling to its final destination and ensure that the COC form will not be become damaged or rendered unreadable due to sample breakage/leakage if stored inside the sample shipping container or outside influences if COC is stored in an outside plastic pouch to the container.
7. If you’ve collected enough samples that would require more than one container to ship them all to the same laboratory or location, then each separate/individual container that contains any number of samples must have a separate COC representing only those samples contained within that specific container. For example, if you have 3 total shipping containers for all of your samples, you must have a total of 3 separate, individual COCs for each of the 3 containers representing only those samples in their representative container. Thus, every container holding samples must have its own, individual COC.
8. If electronic chain of custody (eCOC) forms are utilized, ensure that the requirements of this procedure and guidance instructions are followed to the extent possible. Verify that proper signature and COC procedures are maintained with the CPM and/or Technical Expert when using eCOC.

8 WASTE MANAGEMENT

Not Applicable.

9 DATA RECORDING AND MANAGEMENT

The original signed COC shall be submitted with the samples. Copies of COC records will be transmitted to the CPM or designee at the end of each day unless otherwise directed by the CPM. The sampling team leader retains copies of the chain of custody forms for filing in the project file. Record retention shall be in accordance with client- and project-specific requirements and Arcadis policies, the most stringent will apply.

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

10 QUALITY ASSURANCE

COC forms will be legibly completed in accordance with this procedure and guidance instruction document, as well as other applicable and appropriate project documents such as Sampling and Analysis Plan (SAP), Quality Assurance Project Plan (QAPP), Work Plan, or other project guidance documents.

COC records will be reviewed by the CPM or their appropriate designee for completeness and accuracy to the applicable requirements. Non-conformances will be noted and corrected in a timely manner on the copies retained by Arcadis as well as contacting the ultimate receiving entity for correction to the originally signed COC in their possession.

11 REFERENCES

Arcadis Client Document Retention Guide

Arcadis Transportation Safety Program requirements, procedures, and guidance instructions

EPA Samplers' Guide – Contract Laboratory Program Guidance for Field Samplers, EPA document EPA-540-R014-013 October 2014

EPA Region III – *Sample Submission Procedures for the Office of Analytical Services and Quality Assurance (OASQA) Laboratory Branch* revision 13.0 January 29, 2014

EPA Region I Office Environmental Measurement and Evaluation – *Standard Operating Procedures for Chain of Custody of Samples* revision 1 March 25, 2002

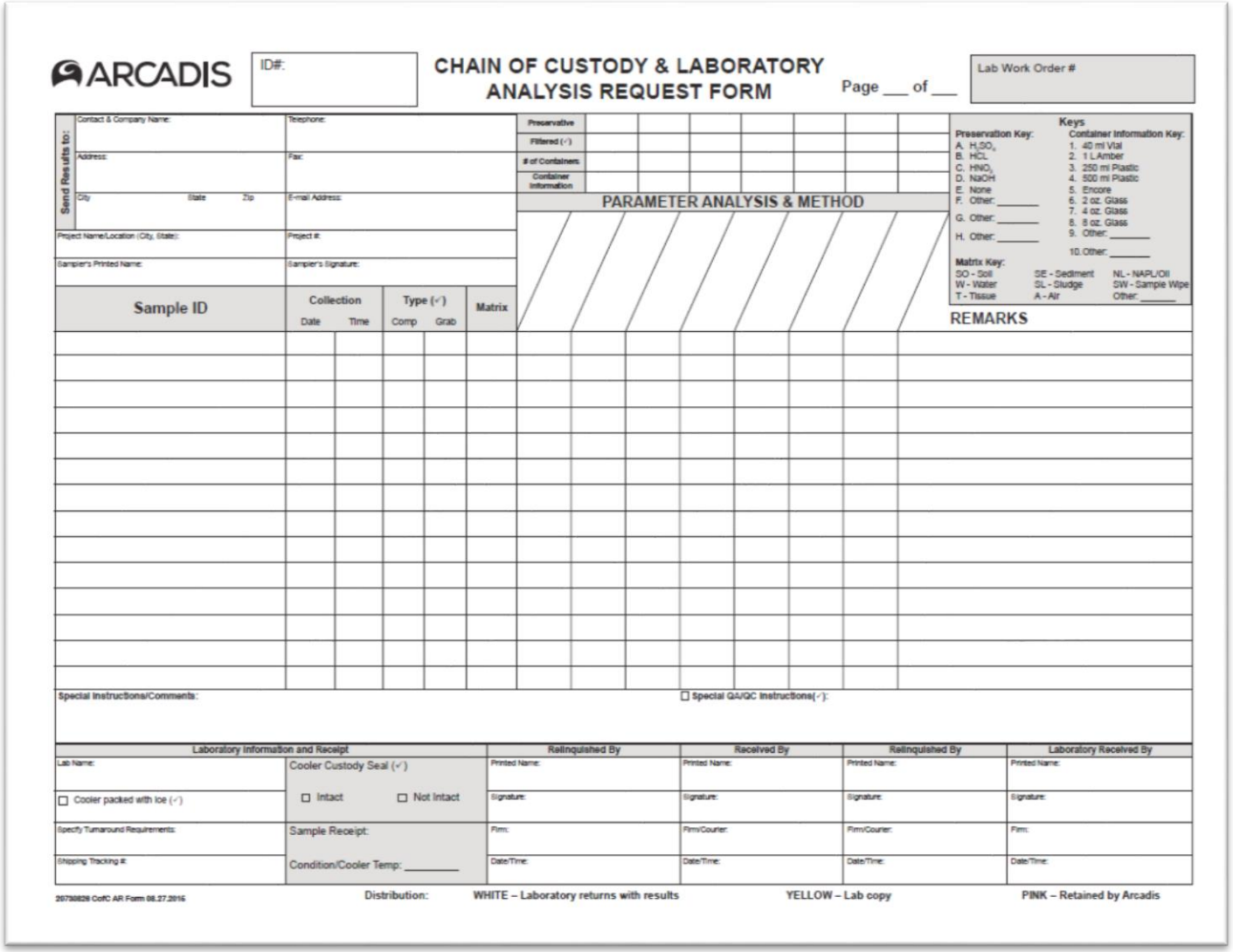
EPA Region IV Science and Ecosystem Support Division *Operating Procedure for Sample and Evidence Management* January 29, 2013

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPENDIX A

Chain of Custody Form

[click image below to access form]



ARCADIS

ID#:

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page ___ of ___

Lab Work Order #

Send Results to:

Contact & Company Name: | Telephone:

Address: | Fax:

City | State | Zip | E-mail Address:

Project Name/Location (City, State): | Project #:

Sampler's Printed Name: | Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix

Preservative | Filtered (✓) | # of Containers | Container Information

PARAMETER ANALYSIS & METHOD

REMARKS

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil | SE - Sediment | NL - NAPL/Oil
W - Water | SL - Sludge | SW - Sample Wipe
T - Tissue | A - Air | Other: _____

Special Instructions/Comments:

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name:	Cooler Custody Seal (✓)	Printed Name:	Printed Name:	Printed Name:	Printed Name:
☐ Cooler packed with Ice (✓)	☐ Intact ☐ Not Intact	Signature:	Signature:	Signature:	Signature:
Specify Turnaround Requirements:	Sample Receipt:	Firm:	Firm/Courier:	Firm/Courier:	Firm:
Shipping Tracking #:	Condition/Cooler Temp: _____	Date/Time:	Date/Time:	Date/Time:	Date/Time:

20730829 CofC AR Form 08.27.2015

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by Arcadis

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

APPENDIX A
Chain of Custody Form
[click image below to access form]

Downloaded and printed copies from the Approved Procedure Library are uncontrolled documents.

Attachment 2

Chain of Custody Form and Arcadis Chain of Custody SOP

METHOD 8260C
VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/
MASS SPECTROMETRY (GC/MS)

SW-846 is not intended to be an analytical training manual. Therefore, method procedures are written based on the assumption that they will be performed by analysts who are formally trained in at least the basic principles of chemical analysis and in the use of the subject technology.

In addition, SW-846 methods, with the exception of required method use for the analysis of method-defined parameters, are intended to be guidance methods which contain general information on how to perform an analytical procedure or technique which a laboratory can use as a basic starting point for generating its own detailed Standard Operating Procedure (SOP), either for its own general use or for a specific project application. The performance data included in this method are for guidance purposes only, and are not intended to be and must not be used as absolute QC acceptance criteria for purposes of laboratory accreditation.

1.0 SCOPE AND APPLICATION

1.1 This method is used to determine volatile organic compounds in a variety of solid waste matrices. This method is applicable to nearly all types of samples, regardless of water content, including various air sampling trapping media, ground and surface water, aqueous sludges, caustic liquors, acid liquors, waste solvents, oily wastes, mousses, tars, fibrous wastes, polymeric emulsions, filter cakes, spent carbons, spent catalysts, soils, and sediments. The following RCRA analytes have been determined by this method:

		Appropriate Preparation Technique[a]					
Compound	CAS No.[b]	5030/ 5035	5031	5032	5021	5041	Direct Inject.
Acetone	67-64-1	ht	c	c	nd	c	c
Acetonitrile	75-05-8	pp	c	nd	nd	nd	c
Acrolein (Propenal)	107-02-8	pp	c	c	nd	nd	c
Acrylonitrile	107-13-1	pp	c	c	nd	c	c
Allyl alcohol	107-18-6	ht	c	nd	nd	nd	c
Allyl chloride	107-05-1	c	nd	nd	nd	nd	c
t-Amyl ethyl ether (TAEE)	919-94-8	c / ht	nd	nd	c	nd	c
t-Amyl methyl ether (TAME)	994-05-8	c / ht	nd	nd	c	nd	c
Benzene	71-43-2	c	nd	c	c	c	c
Benzyl chloride	100-44-7	c	nd	nd	nd	nd	c
Bis(2-chloroethyl)sulfide	505-60-2	pp	nd	nd	nd	nd	c
Bromoacetone	598-31-2	pp	nd	nd	nd	nd	c
Bromochloromethane	74-97-5	c	nd	c	c	c	c
Bromodichloromethane	75-27-4	c	nd	c	c	c	c
4-Bromofluorobenzene (surr)	460-00-4	c	nd	c	c	c	c
Bromoform	75-25-2	c	nd	c	c	c	c
Bromomethane	74-83-9	c	nd	c	c	c	c
n-Butanol	71-36-3	ht	c	nd	nd	nd	c
2-Butanone (MEK)	78-93-3	pp	c	c	nd	nd	c

Compound	CAS No.[b]	Appropriate Preparation Technique[a] 5030/ 5035	5031	5032	5021	5041	Direct Inject.
t-Butyl alcohol	75-65-0	ht	c	nd	nd	nd	c
Carbon disulfide	75-15-0	c	nd	c	nd	c	c
Carbon tetrachloride	56-23-5	c	nd	c	c	c	c
Chloral hydrate	302-17-0	pp	nd	nd	nd	nd	c
Chlorobenzene	108-90-7	c	nd	c	c	c	c
Chlorobenzene-d_5 (IS)		c	nd	c	c	c	c
Chlorodibromomethane	124-48-1	c	nd	c	nd	c	c
Chloroethane	75-00-3	c	nd	c	c	c	c
2-Chloroethanol	107-07-3	pp	nd	nd	nd	nd	c
2-Chloroethyl vinyl ether	110-75-8	c	nd	c	nd	nd	c
Chloroform	67-66-3	c	nd	c	c	c	c
Chloromethane	74-87-3	c	nd	c	c	c	c
Chloroprene	126-99-8	c	nd	nd	nd	nd	c
Crotonaldehyde	4170-30-3	pp	c	nd	nd	nd	c
1,2-Dibromo-3-chloropropane	96-12-8	pp	nd	nd	c	nd	c
1,2-Dibromoethane	106-93-4	c	nd	nd	c	nd	c
Dibromomethane	74-95-3	c	nd	c	c	c	c
1,2-Dichlorobenzene	95-50-1	c	nd	nd	c	nd	c
1,3-Dichlorobenzene	541-73-1	c	nd	nd	c	nd	c
1,4-Dichlorobenzene	106-46-7	c	nd	nd	c	nd	c
1,4-Dichlorobenzene-d_4 (IS)		c	nd	nd	c	nd	c
cis-1,4-Dichloro-2-butene	1476-11-5	c	nd	c	nd	nd	c
trans-1,4-Dichloro-2-butene	110-57-6	c	nd	c	nd	nd	c
Dichlorodifluoromethane	75-71-8	c	nd	c	c	nd	c
1,1-Dichloroethane	75-34-3	c	nd	c	c	c	c
1,2-Dichloroethane	107-06-2	c	nd	c	c	c	c
1,2-Dichloroethane-d_4 (surr)		c	nd	c	c	c	c
1,1-Dichloroethene	75-35-4	c	nd	c	c	c	c
trans-1,2-Dichloroethene	156-60-5	c	nd	c	c	c	c
1,2-Dichloropropane	78-87-5	c	nd	c	c	c	c
1,3-Dichloro-2-propanol	96-23-1	pp	nd	nd	nd	nd	c
cis-1,3-Dichloropropene	10061-01-5	c	nd	c	nd	c	c
trans-1,3-Dichloropropene	10061-02-6	c	nd	c	nd	c	c
1,2,3,4-Diepoxybutane	1464-53-5	c	nd	nd	nd	nd	c
Diethyl ether	60-29-7	c	nd	nd	nd	nd	c
Diisopropyl ether (DIPE)	108-20-3	c / ht	nd	nd	c	nd	c
1,4-Difluorobenzene (IS)	540-36-3	c	nd	nd	nd	c	nd
1,4-Dioxane	123-91-1	ht	c	c	nd	nd	c
Epichlorohydrin	106-89-8	l	nd	nd	nd	nd	c
Ethanol	64-17-5	l	c	c	nd	nd	c
Ethyl acetate	141-78-6	l	c	nd	nd	nd	c
Ethylbenzene	100-41-4	c	nd	c	c	c	c
Ethylene oxide	75-21-8	pp	c	nd	nd	nd	c
Ethyl methacrylate	97-63-2	c	nd	c	nd	nd	c

Compound	CAS No.[b]	Appropriate Preparation Technique[a] 5030/ 5035	5031	5032	5021	5041	Direct Inject.
Fluorobenzene (IS)	462-06-6	c	nd	nd	nd	nd	nd
Ethyl tert-butyl ether (ETBE)	637-92-3	c / ht	nd	nd	c	nd	c
Hexachlorobutadiene	87-68-3	c	nd	nd	c	nd	c
Hexachloroethane	67-72-1	l	nd	nd	nd	nd	c
2-Hexanone	591-78-6	pp	nd	c	nd	nd	c
Iodomethane	74-88-4	c	nd	c	nd	c	c
Isobutyl alcohol	78-83-1	ht / pp	c	nd	nd	nd	c
Isopropylbenzene	98-82-8	c	nd	nd	c	nd	c
Malononitrile	109-77-3	pp	nd	nd	nd	nd	c
Methacrylonitrile	126-98-7	pp	l	nd	nd	nd	c
Methanol	67-56-1	l	c	nd	nd	nd	c
Methylene chloride	75-09-2	c	nd	c	c	c	c
Methyl methacrylate	80-62-6	c	nd	nd	nd	nd	c
4-Methyl-2-pentanone (MIBK)	108-10-1	pp	c	c	nd	nd	c
Methyl tert-butyl ether (MTBE)	1634-04-4	c / ht	nd	nd	c	nd	c
Naphthalene	91-20-3	c	nd	nd	c	nd	c
Nitrobenzene	98-95-3	c	nd	nd	nd	nd	c
2-Nitropropane	79-46-9	c	nd	nd	nd	nd	c
N-Nitroso-di-n-butylamine	924-16-3	pp	c	nd	nd	nd	c
Paraldehyde	123-63-7	pp	c	nd	nd	nd	c
Pentachloroethane	76-01-7	l	nd	nd	nd	nd	c
2-Pentanone	107-87-9	pp	c	nd	nd	nd	c
2-Picoline	109-06-8	pp	c	nd	nd	nd	c
1-Propanol	71-23-8	ht / pp	c	nd	nd	nd	c
2-Propanol	67-63-0	ht / pp	c	nd	nd	nd	c
Propargyl alcohol	107-19-7	pp	l	nd	nd	nd	c
β-Propiolactone	57-57-8	pp	nd	nd	nd	nd	c
Propionitrile (ethyl cyanide)	107-12-0	ht	c	nd	nd	nd	pc
n-Propylamine	107-10-8	c	nd	nd	nd	nd	c
Pyridine	110-86-1	l	c	nd	nd	nd	c
Styrene	100-42-5	c	nd	c	c	c	c
1,1,1,2-Tetrachloroethane	630-20-6	c	nd	nd	c	c	c
1,1,2,2-Tetrachloroethane	79-34-5	c	nd	c	c	c	c
Tetrachloroethene	127-18-4	c	nd	c	c	c	c
Toluene	108-88-3	c	nd	c	c	c	c
Toluene-d_8 (surr)	2037-26-5	c	nd	c	c	c	c
o-Toluidine	95-53-4	pp	c	nd	nd	nd	c
1,2,4-Trichlorobenzene	120-82-1	c	nd	nd	c	nd	c
1,1,1-Trichloroethane	71-55-6	c	nd	c	c	c	c
1,1,2-Trichloroethane	79-00-5	c	nd	c	c	c	c
Trichloroethene	79-01-6	c	nd	c	c	c	c
Trichlorofluoromethane	75-69-4	c	nd	c	c	c	c
1,2,3-Trichloropropane	96-18-4	c	nd	c	c	c	c
Vinyl acetate	108-05-4	c	nd	c	nd	nd	c

Compound	CAS No.[b]	Appropriate Preparation Technique[a] 5030/5035	5031	5032	5021	5041	Direct Inject.
Vinyl chloride	75-01-4	c	nd	c	c	c	c
o-Xylene	95-47-6	c	nd	c	c	c	c
m-Xylene	108-38-3	c	nd	c	c	c	c
p-Xylene	106-42-3	c	nd	c	c	c	c

[a] See Sec. 1.2 for other appropriate sample preparation techniques
[b] Chemical Abstract Service Registry Number

c = Adequate response by this technique
ht = Method analyte only when purged at 80°C
nd = Not determined
I = Inappropriate technique for this analyte
pc = Poor chromatographic behavior
pp = Poor purging efficiency resulting in high Estimated Quantitation Limits
surr = Surrogate
IS = Internal Standard

1.2 There are various techniques by which these compounds may be introduced into the GC/MS system. The more common techniques are listed in the table above. Purge-and-trap, by Methods 5030 (aqueous samples) and 5035 (solid and waste oil samples), is the most commonly used technique for volatile organic analytes. However, other techniques are also appropriate and necessary for some analytes. These include direct injection following dilution with hexadecane (Method 3585) for waste oil samples; automated static headspace by Method 5021 for solid samples; direct injection of an aqueous sample (concentration permitting) or injection of a sample concentrated by azeotropic distillation (Method 5031); and closed system vacuum distillation (Method 5032) for aqueous, solid, oil and tissue samples. For air samples, Method 5041 provides methodology for desorbing volatile organics from trapping media (Methods 0010, 0030, and 0031). In addition, direct analysis utilizing a sample loop is used for sub-sampling from polytetrafluoroethylene (PTFE) bags (Method 0040). Method 5000 provides more general information on the selection of the appropriate introduction method.

1.3 This method can be used to quantitate most volatile organic compounds that have boiling points below 200°C. Volatile, water soluble compounds can be included in this analytical technique by the use of azeotropic distillation or closed-system vacuum distillation. Such compounds include low molecular weight halogenated hydrocarbons, aromatics, ketones, nitriles, acetates, acrylates, ethers, and sulfides. See Tables 1 and 2 for analytes and retention times that have been evaluated on a purge-and-trap GC/MS system. Also, the lower limits of quantitation for 25-mL sample volumes are presented. The following compounds are also amenable to analysis by Method 8260:

Bromobenzene
n-Butylbenzene
sec-Butylbenzene
tert-Butylbenzene
Methyl acrylate
1,3-Dichloropropane
2,2-Dichloropropane
1,1-Dichloropropene
Hexachloroethane
p-Isopropyltoluene

1-Chlorobutane
1-Chlorohexane
2-Chlorotoluene
4-Chlorotoluene
Cyclohexane
cis-1,2-Dichloroethene
Methylcyclohexane
Pentachloroethane
Pentafluorobenzene
n-Propylbenzene
1,2,3-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene

1.4 The lower limits of quantitation for this method when determining an individual compound is somewhat instrument dependent and also dependent on the choice of sample preparation/introduction method. Using standard quadrupole instrumentation and the purge-and-trap technique, limits should be approximately 5 µg/kg (wet weight) for soil/sediment samples, 0.5 mg/kg (wet weight) for wastes, and 5 µg/L for ground water. Somewhat lower limits may be achieved using an ion trap mass spectrometer or other similar instrumentation. However, regardless of which instrument is used, the lower limits of quantitation will be proportionately higher for sample extracts and samples that require dilution or when a reduced sample size is used to avoid saturation of the detector. The lower limits of quantitation listed in the performance data tables are provided for guidance and may not always be achievable.

1.5 Prior to employing this method, analysts are advised to consult the base method for each type of procedure that may be employed in the overall analysis (e.g., Methods 5000 and 8000) for additional information on quality control procedures, development of QC acceptance criteria, calculations, and general guidance. Analysts also should consult the disclaimer statement at the front of the manual and the information in Chapter Two for guidance on the intended flexibility in the choice of methods, apparatus, materials, reagents, and supplies, and on the responsibilities of the analyst for demonstrating that the techniques employed are appropriate for the analytes of interest, in the matrix of interest, and at the levels of concern.

In addition, analysts and data users are advised that, except where explicitly specified in a regulation, the use of SW-846 methods is *not* mandatory in response to Federal testing requirements. The information contained in this method is provided by EPA as guidance to be used by the analyst and the regulated community in making judgments necessary to generate results that meet the data quality objectives for the intended application.

1.6 Use of this method is restricted to use by, or under supervision of, personnel appropriately experienced and trained in the use of gas chromatograph/mass spectrometers and skilled in the interpretation of mass spectra. Each analyst must demonstrate the ability to generate acceptable results with this method.

2.0 SUMMARY OF METHOD

2.1 The volatile compounds are introduced into the gas chromatograph by the purge-and-trap method or by other methods (see Sec. 1.2). The analytes are introduced directly to a wide-bore capillary column, or cryofocussed on a capillary pre-column before being flash evaporated to a narrow-bore capillary for analysis, or the effluent from the trap is sent to an injection port operating in the split mode for injection to a narrow-bore capillary column. The column is temperature-programmed to separate the analytes, which are then detected with a mass spectrometer (MS) interfaced to the gas chromatograph (GC).

2.2 Analytes eluted from the capillary column are introduced into the mass spectrometer via a jet separator or a direct connection. (Wide-bore capillary columns normally require a jet separator, whereas narrow-bore capillary columns may be directly interfaced to the ion source). Identification of target analytes is accomplished by comparing their mass spectra with the mass spectra of authentic standards. Quantitation is accomplished by comparing the response of a major (quantitation) ion relative to an internal standard using an appropriate calibration curve for the intended application.

2.3 The method includes specific calibration and quality control steps that supersede the general requirements provided in Method 8000.

3.0 DEFINITIONS

Refer to Chapter One and the manufacturer's instructions for definitions that may be relevant to this procedure.

4.0 INTERFERENCES

4.1 Solvents, reagents, glassware, and other sample processing hardware may yield artifacts and/or interferences to sample analysis. All of these materials must be demonstrated to be free from interferences under the conditions of the analysis by analyzing method blanks. Specific selection of reagents and purification of solvents by distillation in all-glass systems may be necessary. Refer to each method to be used for specific guidance on quality control procedures and to Chapter Four for general guidance on the cleaning of glassware.

4.2 Major contaminant sources are volatile materials in the laboratory and impurities in the inert purging gas and in the sorbent trap. The laboratory where the analysis is to be performed should be free of solvents other than water and methanol. Many common solvents, most notably acetone and methylene chloride, are frequently found in laboratory air at low levels. The sample receiving chamber should be loaded in an environment that is clean enough to eliminate the potential for contamination from ambient sources. In addition, the use of non-PTFE thread sealants, plastic tubing, or flow controllers with rubber components should be avoided, since such materials out-gas organic compounds which will be concentrated in the trap during the purge operation. Analyses of calibration and reagent blanks provide information about the presence of contaminants. Subtracting blank values from sample results is not permitted. If reporting values for situations where the laboratory feels is a false positive result for a sample, the laboratory should fully explain this in text accompanying the uncorrected data and / or include a data qualifier that is accompanied with an explanation.

4.3 Contamination may occur when a sample containing low concentrations of volatile organic compounds is analyzed immediately after a sample containing high concentrations of volatile organic compounds. A technique to prevent this problem is to rinse the purging apparatus and sample syringes with two portions of organic-free reagent water between samples. After the analysis of a sample containing high concentrations of volatile organic compounds, one or more blanks should be analyzed to check for cross-contamination. Alternatively, if the sample immediately following the high concentration sample does not contain the volatile organic compounds present in the high level sample, freedom from contamination has been established.

4.4 For samples containing large amounts of water-soluble materials, suspended solids, high boiling compounds, or high concentrations of compounds being determined, it may be necessary to appropriately clean the purging device, rinse it with organic-free reagent water, and then dry the purging device in an oven at 105°C. In extreme situations, the entire purge-and-trap device may require dismantling and cleaning. Screening of the samples prior to purge-and-trap GC/MS analysis is highly recommended to prevent contamination of the system. This is especially true for soil and waste samples. Screening may be accomplished with an automated headspace technique (Method 5021) or by Method 3820 (Hexadecane Extraction and Screening of Purgeable Organics).

4.5 Many analytes exhibit low purging efficiencies from a 25-mL sample. This often results in significant amounts of these analytes remaining in the sample purge vessel after analysis. After removal of the sample aliquot that was purged, and rinsing the purge vessel three times with organic-free water, the empty vessel should be subjected to a heated purge cycle prior to the analysis of another sample in the same purge vessel. This will reduce sample-to-sample carryover.

4.6 Special precautions must be taken to analyze for methylene chloride. The analytical and sample storage area should be isolated from all atmospheric sources of methylene chloride. Otherwise, random background levels will result. Since methylene chloride will permeate through PTFE tubing, all gas chromatography carrier gas lines and purge gas plumbing should be constructed from stainless steel or copper tubing. Laboratory clothing worn by the analyst should be clean, since clothing previously exposed to methylene chloride fumes during liquid/liquid extraction procedures can contribute to sample contamination.

4.7 Samples can be contaminated by diffusion of volatile organics (particularly methylene chloride and fluorocarbons) through the septum seal of the sample container into the sample during shipment and storage. A trip blank prepared from organic-free reagent water and carried through the sampling, handling, and storage protocols can serve as a check on such contamination.

4.8 Use of sensitive mass spectrometers to achieve lower quantitation levels will increase the potential to detect laboratory contaminants as interferences.

4.9 Direct injection - Some contamination may be eliminated by baking out the column between analyses. Changing the injector liner will reduce the potential for cross-contamination. A portion of the analytical column may need to be removed in the case of extreme contamination. The use of direct injection will result in the need for more frequent instrument maintenance.

4.10 If hexadecane is added to waste samples or petroleum samples that are analyzed, some chromatographic peaks will elute after the target analytes. The oven temperature program must include a post-analysis bake out period to ensure that semivolatile hydrocarbons are volatilized.

5.0 SAFETY

This method does not address all safety issues associated with its use. The laboratory is responsible for maintaining a safe work environment and a current awareness file of OSHA regulations regarding the safe handling of the chemicals listed in this method. A reference file of material safety data sheets (MSDSs) should be available to all personnel involved in these analyses.

6.0 EQUIPMENT AND SUPPLIES

The mention of trade names or commercial products in this manual is for illustrative purposes only, and does not constitute an EPA endorsement or exclusive recommendation for use. The products and instrument settings cited in SW-846 methods represent those products and settings used during method development or subsequently evaluated by the Agency. Glassware, reagents, supplies, equipment, and settings other than those listed in this manual may be employed provided that method performance appropriate for the intended application has been demonstrated and documented.

This section does not list common laboratory glassware (e.g., beakers and flasks).

6.1 Purge-and-trap device for aqueous samples - Described in Method 5030.

6.2 Purge-and-trap device for solid samples - Described in Method 5035.

6.3 Automated static headspace device for solid samples - Described in Method 5021.

6.4 Azeotropic distillation apparatus for aqueous and solid samples - Described in Method 5031.

6.5 Vacuum distillation apparatus for aqueous, solid and tissue samples - Described in Method 5032.

6.6 Desorption device for air trapping media for air samples - Described in Method 5041.

6.7 Air sampling loop for sampling from Tedlar® bags for air samples - Described in Method 0040.

6.8 Injection port liners (Agilent Catalog #18740-80200, or equivalent) - modified for direct injection analysis by placing a 1-cm plug of glass wool approximately 50-60 mm down the length of the injection port towards the oven (see illustration below). A 0.53-mm ID column is mounted 1 cm into the liner from the oven side of the injection port, according to manufacturer's specifications.

6.9 Gas chromatography/mass spectrometer/data system

6.9.1 Gas chromatograph - An analytical system complete with a temperature-programmable gas chromatograph suitable for splitless injection with appropriate interface or direct split interface for sample introduction device. The system includes all required accessories, including syringes, analytical columns, and gases.

6.9.1.1 The GC should be equipped with variable constant differential flow controllers so that the column flow rate will remain constant throughout desorption and temperature program operation.

6.9.1.2 For some column configurations, the column oven must be cooled to less than 30°C, therefore, a subambient oven controller may be necessary.

6.9.1.3 The capillary column is either directly coupled to the source or interfaced through a jet separator, depending on the size of the capillary and the requirements of the GC/MS system.

6.9.1.4 Capillary pre-column interface - This device is the interface between the sample introduction device and the capillary gas chromatograph, and is necessary when using cryogenic cooling. The interface condenses the desorbed sample components and focuses them into a narrow band on an uncoated fused-silica capillary pre-column. When the interface is flash heated, the sample is transferred to the analytical capillary column.

6.9.1.5 During the cryofocussing step, the temperature of the fused-silica in the interface is maintained at -150°C under a stream of liquid nitrogen. After the desorption period, the interface must be capable of rapid heating to 250°C in 15 seconds or less to complete the transfer of analytes.

6.9.2 Gas chromatographic columns - The following columns have been found to provide good separation of volatile compounds, however they are not listed in preferential order based on performance and the ability to achieve project-specific data quality objectives.

6.9.2.1 Column 1 - 60m x 0.32 mm ID, 1.5-µm column film thickness, (Restek) RTX-Volatiles.

6.9.2.2 Column 2 - 30 - 75 m x 0.53 mm ID capillary column coated with DB-624 (J&W Scientific), Rt_x-502.2 (RESTEK), or VOCOL (Supelco), 3-µm film thickness, or equivalent.

6.9.2.3 Column 3 - 30 m x 0.25 - 0.32 mm ID capillary column coated with 95% dimethyl - 5% diphenyl polysiloxane (DB-5, Rt_x-5, SPB-5, or equivalent), 1-µm film thickness.

6.9.2.4 Column 4 - 60m x 0.32 mm ID, capillary column (Agilent-VOC), 1.8-µm film thickness, or equivalent.

6.9.2.5 Column 5 - 20m x 0.18mm ID, 1-µm column film thickness, DB-VRX.

6.9.3 Mass spectrometer

6.9.3.1 Capable of scanning from m/z 35 to 270 every 1 sec or less, using 70 volts (nominal) electron energy in the electron impact ionization mode. The mass spectrometer must be capable of producing a mass spectrum for 4-bromofluorobenzene (BFB) which meets the criteria as outlined in Sec. 11.3.1.

6.9.3.2 An ion trap mass spectrometer may be used if it is capable of axial modulation to reduce ion-molecule reactions and can produce electron impact-like spectra that match those in the EPA/NIST Library. Because ion-molecule reactions with water and methanol in an ion trap mass spectrometer may produce interferences that coelute with chloromethane and chloroethane, the base peak for both of these analytes will be at m/z 49. This ion should be used as the quantitation ion in this case. The mass spectrometer must be capable of producing a mass spectrum for BFB which meets the criteria as outlined in Sec. 11.3.1.

6.9.4 GC/MS interface - Two alternatives may be used to interface the GC to the mass spectrometer.

6.9.4.1 Direct coupling, by inserting the column into the mass spectrometer, is generally used for 0.25 - 0.32 mm ID columns.

6.9.4.2 A jet separator, including an all-glass transfer line and glass enrichment device or split interface, is used with a 0.53 mm column.

6.9.4.3 Any enrichment device or transfer line may be used, if all of the performance specifications described in Sec. 8.0 (including acceptable calibration at 50 ng or less of BFB) can be achieved. GC/MS interfaces constructed entirely of glass or of glass-lined materials are recommended. Glass may be deactivated by silanizing with dichlorodimethylsilane.

6.9.5 Data system - A computer system that allows the continuous acquisition and storage on machine-readable media of all mass spectra obtained throughout the duration of the chromatographic program must be interfaced to the mass spectrometer. The computer must have software that allows searching any GC/MS data file for ions of a specified mass and plotting such ion abundances versus time or scan number. This type of plot is defined as an Extracted Ion Current Profile (EICP). Software must also be available that allows integrating the abundances in any EICP between specified time or scan-number limits. The most recent version of the EPA/NIST Mass Spectral Library should also be available.

6.10 Microsyringes - 10-, 25-, 100-, 250-, 500-, and 1,000-µL.

6.11 Syringe valve - Two-way, with Luer ends (three each), if applicable to the purging device.

6.12 Syringes - 5-, 10-, or 25-mL, gas-tight with shutoff valve.

6.13 Balance - Analytical, capable of weighing 0.0001 g, and top-loading, capable of weighing 0.1 g.

6.14 Glass scintillation vials - 20-mL, with PTFE-lined screw-caps or glass culture tubes with PTFE-lined screw-caps.

6.15 Vials - 2-mL, for GC autosampler.

6.16 Disposable pipets - Pasteur.

6.17 Volumetric flasks, Class A - 10-mL and 100-mL, with ground-glass stoppers.

6.18 Spatula - Stainless steel.

7.0 REAGENTS AND STANDARDS

7.1 Reagent-grade chemicals must be used in all tests. Unless otherwise indicated, it is intended that all reagents conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be

used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without lessening the accuracy of the determination.

7.2 Organic-free reagent water - All references to water in this method refer to organic-free reagent water, as defined in Chapter One.

7.3 Methanol, CH_3OH - Purge and trap grade or equivalent, demonstrated to be free of analytes. Store apart from other solvents.

7.4 Reagent Hexadecane - Reagent hexadecane is defined as hexadecane in which interference is not observed at the method quantitation limit of compounds of interest. Hexadecane quality is demonstrated through the analysis of a solvent blank injected directly into the GC/MS. The results of such a blank analysis must demonstrate that all interfering volatiles have been removed from the hexadecane.

7.5 Polyethylene glycol, $H(OCH_2CH_2)_nOH$ - Free of interferences at the quantitation limit of the target analytes.

7.6 Hydrochloric acid (1:1 v/v), HCl - Carefully add a measured volume of concentrated HCl to an equal volume of organic-free reagent water.

7.7 Stock standard solutions - The solutions may be prepared from pure standard materials or purchased as certified solutions. Prepare stock standard solutions in methanol, using assayed liquids or gases, as appropriate.

7.7.1 Place about 9.8 mL of methanol in a 10-mL tared ground-glass-stoppered volumetric flask. Allow the flask to stand, unstoppered, for about 10 minutes or until all alcohol-wetted surfaces have dried. Weigh the flask to the nearest 0.0001 g.

7.7.2 Add the assayed pure standard material, as described below.

7.7.2.1 Liquids - Using a 100-µL syringe, immediately add two or more drops of assayed pure standard material to the flask; then reweigh. The liquid must fall directly into the alcohol without contacting the neck of the flask.

7.7.2.2 Gases - To prepare standards for any compounds that boil below 30°C (e.g., bromomethane, chloroethane, chloromethane, or vinyl chloride), fill a 5-mL valved gas-tight syringe with the pure standard to the 5.0 mL mark. Lower the needle to 5 mm above the methanol meniscus. Slowly introduce the reference standard above the surface of the liquid. The heavy gas will rapidly dissolve in the methanol. Standards may also be prepared by using a lecture bottle equipped with a septum. Attach PTFE tubing to the side arm relief valve and direct a gentle stream of gas into the methanol meniscus.

7.7.3 Reweigh, dilute to volume, stopper, and then mix by inverting the flask several times. Calculate the concentration in milligrams per liter (mg/L) from the net gain in weight. When compound purity is assayed to be 96% or greater, the weight may be used without correction to calculate the concentration of the stock standard. Commercially-prepared stock standards may be used at any concentration if they are certified by the manufacturer or by an independent source.

7.7.4 Transfer the stock standard solution into a bottle with a PTFE-lined screw-cap. Store, with minimal headspace and protected from light, at ≤6°C or as recommended by the standard manufacturer. Standards should be returned to the refrigerator or freezer as soon as the analyst has completed mixing or diluting the standards to prevent the evaporation of volatile target compounds.

7.7.5 Frequency of Standard Preparation

7.7.5.1 Standards for the permanent gases should be monitored frequently by comparison to the initial calibration curve. Fresh standards should be prepared if this check exceeds a 20% drift. Standards for gases may need to be replaced after one week or as recommended by the standard manufacturer, unless the acceptability of the standard can be documented. Dichlorodifluoromethane and chloromethane will usually be the first compounds to evaporate from the standard and should, therefore, be monitored very closely when standards are held beyond one week.

7.7.5.2 Standards for the non-gases should be monitored frequently by comparison to the initial calibration. Fresh standards should be prepared if this check exceeds a 20% drift. Standards for non-gases may need to be replaced after one month for working standards and three months for opened stocks or as recommended by the standard manufacturer, unless the acceptability of the standard can be documented. Standards of reactive compounds such as 2-chloroethyl vinyl ether and styrene may need to be prepared more frequently.

7.7.6 Preparation of Calibration Standards From a Gas Mixture

An optional calibration procedure involves using a certified gaseous mixture daily, utilizing a commercially-available gaseous analyte mixture of bromomethane, chloromethane, chloroethane, vinyl chloride, dichloro-difluoromethane and trichlorofluoromethane in nitrogen. Mixtures of documented quality are stable for as long as six months without refrigeration. (VOA-CYL III, RESTEK Corporation, Cat. #20194 or equivalent).

7.7.6.1 Before removing the cylinder shipping cap, be sure the valve is completely closed (turn clockwise). The contents are under pressure and should be used in a well-ventilated area.

7.7.6.2 Wrap the pipe thread end of the Luer fitting with PTFE tape. Remove the shipping cap from the cylinder and replace it with the Luer fitting.

7.7.6.3 Transfer half the working standard containing other analytes, internal standards, and surrogates to the purge apparatus.

7.7.6.4 Purge the Luer fitting and stem on the gas cylinder prior to sample removal using the following sequence:

a) Connect either the 100-µL or 500-µL Luer syringe to the inlet fitting of the cylinder.

b) Make sure the on/off valve on the syringe is in the open position.

c) Slowly open the valve on the cylinder and withdraw a full syringe volume.

d) Be sure to close the valve on the cylinder before you withdraw the syringe from the Luer fitting.

e) Expel the gas from the syringe into a well-ventilated area.

f) Repeat steps a through e one more time to fully purge the fitting.

7.7.6.5 Once the fitting and stem have been purged, quickly withdraw the volume of gas you require using steps from Sec. 7.7.6.4 (a) through (d). Be sure to close the valve on the cylinder and syringe before you withdraw the syringe from the Luer fitting.

7.7.6.6 Open the syringe on/off valve for 5 seconds to reduce the syringe pressure to atmospheric pressure. The pressure in the cylinder is ~30 psi.

7.7.6.7 The gas mixture should be quickly transferred into the reagent water through the female Luer fitting located above the purging vessel.

NOTE: Make sure the arrow on the 4-way valve is pointing toward the female Luer fitting when transferring the sample from the syringe. Be sure to switch the 4-way valve back to the closed position before removing the syringe from the Luer fitting.

7.7.6.8 Transfer the remaining half of the working standard into the purging vessel. This procedure insures that the total volume of gas mix is flushed into the purging vessel, with none remaining in the valve or lines.

7.7.6.9 The concentration of each compound in the cylinder is typically 0.0025 µg/µL.

7.7.6.10 The following are the recommended gas volumes spiked into 5 mL of water to produce a typical 5-point calibration:

Gas Volume	Calibration Concentration
40 µL	20 µg/L
100 µL	50 µg/L
200 µL	100 µg/L
300 µL	150 µg/L
400 µL	200 µg/L

7.7.6.11 The following are the recommended gas volumes spiked into 25 mL of water to produce a typical 5-point calibration:

Gas Volume	Calibration Concentration
10 µL	1 µg/L
20 µL	2 µg/L

50 µL	5 µg/L
100 µL	10 µg/L
250 µL	25 µg/L

7.8 Secondary dilution standards - Using stock standard solutions, prepare secondary dilution standards in methanol containing the compounds of interest, either singly or mixed together. Secondary dilution standards must be stored with minimal headspace and should be checked frequently for signs of degradation or evaporation, especially just prior to preparing calibration standards from them. Store in a vial with no headspace. Secondary standards for most compounds should be replaced after 2-4 weeks unless the acceptability of the standard can be documented. Secondary standards for gases should be replaced after one week unless the acceptability of the standard can be documented. When using premixed certified solutions, store according to the manufacturer's documented holding time and storage temperature recommendations. The analyst should also handle and store standards as stated in Sec. 7.7.4 and return them to the refrigerator or freezer as soon as standard mixing or diluting is completed to prevent the evaporation of volatile target compounds.

7.9 Surrogate standards - The recommended surrogates are toluene-d_8, 4-bromofluorobenzene, and 1,2-dichloroethane-d_4. Other compounds may be used as surrogates, depending upon the analysis requirements. A stock surrogate solution in methanol should be prepared as described above, and a surrogate standard spiking solution should be prepared from the stock at an appropriate concentration in methanol. Each sample undergoing GC/MS analysis must be spiked with the surrogate spiking solution prior to analysis. If a more sensitive mass spectrometer is employed to achieve lower quantitation levels, then more dilute surrogate solutions may be required.

7.10 Internal standards - The recommended internal standards are fluorobenzene, chlorobenzene-d_5, and 1,4-dichlorobenzene-d_4. Other compounds may be used as internal standards as long as they have retention times similar to the compounds being detected by GC/MS. Prepare internal standard stock and secondary dilution standards in methanol using the procedures described in Secs. 7.7 and 7.8. It is recommended that the secondary dilution standard be prepared at a concentration of 25 mg/L of each internal standard compound. Addition of 10 µL of this standard to 5.0 mL of sample or calibration standard would be the equivalent of 50 µg/L. If a more sensitive mass spectrometer is employed to achieve lower quantitation levels, then more dilute internal standard solutions may be required. Area counts of the internal standard peaks should be between 50-200% of the areas of the target analytes in the mid-point calibration analysis.

7.11 4-Bromofluorobenzene (BFB) standard - A standard solution containing 25 ng/µL of BFB in methanol should be prepared. If a more sensitive mass spectrometer is employed to achieve lower quantitation levels, then a more dilute BFB standard solution may be required.

7.12 Calibration standards -There are two types of calibration standards used for this method: initial calibration standards and calibration verification standards. When using premixed certified solutions, store according to the manufacturer's documented holding time and storage temperature recommendations.

7.12.1 Initial calibration standards should be prepared at a minimum of five different concentrations from the secondary dilution of stock standards (see Secs. 7.7 and 7.8) or from a premixed certified solution. Prepare these solutions in organic-free reagent water. At least one of the calibration standards should correspond to a sample concentration at or below that necessary to meet the data quality objectives of the project. The remaining standards should

correspond to the range of concentrations found in typical samples but should not exceed the working range of the GC/MS system. Initial calibration standards should be mixed from fresh stock standards and dilution standards when generating an initial calibration curve.

7.12.2 Calibration verification standards should be prepared at a concentration near the mid-point of the initial calibration range from the secondary dilution of stock standards (see Secs. 7.7 and 7.8) or from a premixed certified solution. Prepare these solutions in organic-free reagent water. See Sec. 11.4 for guidance on calibration verification.

7.12.3 It is the intent of EPA that all target analytes for a particular analysis be included in the initial calibration and calibration verification standard(s). These target analytes may not include the entire list of analytes (Sec. 1.1) for which the method has been demonstrated. However, the laboratory shall not report a quantitative result for a target analyte that was not included in the calibration standard(s).

7.12.4 The calibration standards must also contain the internal standards chosen for the analysis.

7.13 Matrix spiking and laboratory control sample (LCS) standards - See Method 5000 for instructions on preparing the matrix spike standard. The matrix spike and laboratory control standards should be from the same source as the initial calibration standards to restrict the influence of accuracy on the determination of recovery throughout preparation and analysis. Matrix spiking and LCS standards should be prepared from volatile organic compounds which are representative of the compounds being investigated. At a minimum, the matrix spike should include 1,1-dichloroethene, trichloroethene, chlorobenzene, toluene, and benzene. The matrix spiking solution should contain compounds that are expected to be found in the types of samples to be analyzed.

7.13.1 Some permits may require the spiking of specific compounds of interest, especially if polar compounds are a concern, since the spiking compounds listed above would not be representative of such compounds. The standard should be prepared in methanol, with each compound present at an appropriate concentration.

7.13.2 If a more sensitive mass spectrometer is employed to achieve lower quantitation levels, more dilute matrix spiking solutions may be required.

7.14 Great care must be taken to maintain the integrity of all standard solutions. It is recommended that all standards be stored with minimal headspace and protected from light, at $\leq 6^{\circ}C$ or as recommended by the standard manufacturer using screw-cap or crimp-top amber containers equipped with PTFE liners. Standards should be returned to the refrigerator or freezer as soon as the analyst has completed mixing or diluting the standards to prevent the loss of volatile target compounds.

8.0 SAMPLE COLLECTION, PRESERVATION, AND STORAGE

8.1 See the introductory material to Chapter Four, "Organic Analytes."

8.2 Aqueous samples should be stored with minimal or no headspace to minimize the loss of highly volatile analytes.

8.3 Samples to be analyzed for volatile compounds should be stored separately from standards and from other samples expected to contain significantly different concentrations of volatile compounds, or from samples collected for the analysis of other parameters such as semivolatiles.

NOTE: Storage blanks should be used to monitor potential cross-contamination of samples due to improper storage conditions. The specific of this type of monitoring activity should be outlined in a laboratory standard operating procedure pertaining to volatiles sample storage.

9.0 QUALITY CONTROL

9.1 Refer to Chapter One for guidance on quality assurance (QA) and quality control (QC) protocols. When inconsistencies exist between QC guidelines, method-specific QC criteria take precedence over both technique-specific criteria and those criteria given in Chapter One, and technique-specific QC criteria take precedence over the criteria in Chapter One. Any effort involving the collection of analytical data should include development of a structured and systematic planning document, such as a Quality Assurance Project Plan (QAPP) or a Sampling and Analysis Plan (SAP), which translates project objectives and specifications into directions for those that will implement the project and assess the results. Each laboratory should maintain a formal quality assurance program. The laboratory should also maintain records to document the quality of the data generated. All data sheets and quality control data should be maintained for reference or inspection.

9.2 Quality control procedures necessary to evaluate the GC system operation are found in Method 8000 and include evaluation of retention time windows, calibration verification and chromatographic analysis of samples. In addition, discussions regarding the instrument QC requirements listed below can be found in the referenced sections of this method:

- The GC/MS must be tuned to meet the recommended BFB criteria prior to the initial calibration and for each 12-hr period during which analyses are performed. See Secs. 11.3.1 and 11.4.1 for further details.

- There must be an initial calibration of the GC/MS system as described in Sec. 11.3. In addition, the initial calibration curve should be verified immediately after performing the standard analyses using a second source standard (prepared using standards different from the calibration standards) spiked into organic-free reagent water. The suggested acceptance limits for this initial calibration verification analysis are 70 - 130%. Alternative acceptance limits may be appropriate based on the desired project-specific data quality objectives. Quantitative sample analyses should not proceed for those analytes that fail the second source standard initial calibration verification. However, analyses may continue for those analytes that fail the criteria with an understanding these results could be used for screening purposes and would be considered estimated values.

- The GC/MS system must meet the calibration verification acceptance criteria in Sec. 11.4, each 12 hours.

- The RRT of the sample component must fall within the RRT window of the standard component provided in Sec. 11.6.1.

9.3 Initial demonstration of proficiency

Each laboratory must demonstrate initial proficiency with each sample preparation and determinative method combination it utilizes, by generating data of acceptable accuracy and precision for target analytes in a clean matrix. If an autosampler is used to perform sample dilutions, before using the autosampler to dilute samples, the laboratory should satisfy itself that those dilutions are of equivalent or better accuracy than is achieved by an experienced analyst performing manual dilutions. The laboratory must also repeat the following operations whenever new staff are trained or significant changes in instrumentation are made. See Method 8000 for information on how to accomplish this demonstration of proficiency.

9.4 Before processing any samples, the analyst should demonstrate, through the analysis of a method blank, that interferences and/or contaminants from the analytical system, glassware, and reagents are under control. Each time a set of samples is analyzed or there is a change in reagents, a method blank should be analyzed for the compounds of interest as a safeguard against chronic laboratory contamination. The blanks should be carried through all stages of sample preparation and measurement.

9.5 Sample quality control for preparation and analysis

The laboratory must also have procedures for documenting the effect of the matrix on method performance (precision, accuracy, and method sensitivity). At a minimum, this should include the analysis of QC samples including a method blank, matrix spike, a duplicate, and a laboratory control sample (LCS) in each analytical batch and the addition of surrogates to each field sample and QC sample.

9.5.1 Documenting the effect of the matrix should include the analysis of at least one matrix spike and one duplicate unspiked sample or one matrix spike/matrix spike duplicate pair. The decision on whether to prepare and analyze duplicate samples or a matrix spike/matrix spike duplicate must be based on a knowledge of the samples in the sample batch. If samples are expected to contain target analytes, then laboratories may use one matrix spike and a duplicate analysis of an unspiked field sample. If samples are not expected to contain target analytes, laboratories should use a matrix spike and matrix spike duplicate pair.

9.5.2 A laboratory control sample (LCS) should be included with each analytical batch. The LCS consists of an aliquot of a clean (control) matrix similar to the sample matrix and of the same weight or volume. The LCS is spiked with the same analytes at the same concentrations as the matrix spike, when appropriate. When the results of the matrix spike analysis indicate a potential problem due to the sample matrix itself, the LCS results are used to verify that the laboratory can perform the analysis in a clean matrix. Also note the LCS for water sample matrices is typically prepared in organic-free reagent water similar to the continuing calibration verification standard. In these situations, a single analysis can be used for both the LCS and continuing calibration verification.

9.5.3 See Method 8000 for the details on carrying out sample quality control procedures for preparation and analysis. In-house method performance criteria for evaluating method performance should be developed using the guidance found in Method 8000.

9.5.4 Method blanks - Before processing any samples, the analyst must demonstrate that all equipment and reagent interferences are under control. Each day a set of samples is extracted or, equipment or reagents are changed, a method blank must be analyzed. If a peak is observed within the retention time window of any analyte that would prevent the determination of that analyte, determine the source and eliminate it, if possible, before processing samples.

9.6 Surrogate recoveries

The laboratory should evaluate surrogate recovery data from individual samples versus the surrogate control limits developed by the laboratory. See Method 8000 for information on evaluating surrogate data and developing and updating surrogate limits. Suggested surrogate recovery limits are provided in Table 8. Procedures for evaluating the recoveries of multiple surrogates and the associated corrective actions should be defined in an approved project plan.

9.7 The experience of the analyst performing GC/MS analyses is invaluable to the success of the methods. Each day that analysis is performed, the calibration verification standard should be evaluated to determine if the chromatographic system is operating properly. Questions that should be asked are: Do the peaks look normal? Is the response obtained comparable to the response from previous calibrations? Careful examination of the standard chromatogram can indicate whether the column is still performing acceptably, the injector is leaking, the injector septum needs replacing, etc. If any changes are made to the system (e.g., the column changed, a septum is changed), see the guidance in Method 8000 regarding whether recalibration of the system must take place.

9.8 It is recommended that the laboratory adopt additional quality assurance practices for use with this method. The specific practices that are most productive depend upon the needs of the laboratory and the nature of the samples. Whenever possible, the laboratory should analyze standard reference materials and participate in relevant performance evaluation studies.

10.0 CALIBRATION AND STANDARDIZATION

See Sec 11.3 for information on calibration and standardization.

11.0 PROCEDURE

11.1 Various alternative methods are provided for sample introduction. All internal standards, surrogates, and matrix spiking compounds (when applicable) must be added to the samples before introduction into the GC/MS system. Consult the sample introduction method for the procedures by which to add such standards.

11.1.1 Direct injection - This includes: injection of an aqueous sample containing a very high concentration of analytes; injection of aqueous concentrates from Method 5031 (azeotropic distillation); and injection of a waste oil diluted 1:1 with hexadecane (Method 3585). Direct injection of aqueous samples (non-concentrated) has very limited applications. It is only used for the determination of volatiles at the toxicity characteristic (TC) regulatory limits or at concentrations in excess of 10,000 µg/L. It may also be used in conjunction with the test for ignitability in aqueous samples (along with Methods 1010 and 1020), to determine if alcohol is present at greater than 24%.

11.1.2 Purge-and-trap - This includes purge-and-trap for aqueous samples (Method 5030) and purge-and-trap for solid samples (Method 5035). Method 5035 also provides techniques for extraction of high concentration solid and oily waste samples by methanol (and other water-miscible solvents) with subsequent purge-and-trap from an aqueous matrix using Method 5030.

11.1.2.1 Traditionally, the purge-and-trap of aqueous samples is performed at ambient temperature, while purging of soil/solid samples is performed at 40ºC, to improve purging efficiency.

11.1.2.2 Aqueous and soil/solid samples may also be purged at temperatures above those being recommended as long as all calibration standards, samples, and QC samples are purged at the same temperature, appropriate trapping material is used to handle the excess water, and the laboratory demonstrates acceptable method performance for the project. Purging of aqueous and soil/solid samples at elevated temperatures (e.g., 80ºC) may improve the purging performance of many of the water soluble compounds which have poor purging efficiencies at ambient temperatures.

11.1.3 Vacuum distillation - this technique may be used for the introduction of volatile organics from aqueous, solid, or tissue samples (Method 5032) into the GC/MS system.

11.1.4 Automated static headspace - this technique may be used for the introduction of volatile organics from solid samples (Method 5021) into the GC/MS system.

11.1.5 Cartridge desorption - this technique may be for the introduction of volatile organics from sorbent cartridges (Method 5041) used in the sampling of air. The sorbent cartridges are from the volatile organics sampling train (VOST) or SMVOC (Method 0031).

11.2 Recommended chromatographic conditions are provided as examples based on an assortment of analyses used to generate performance data for this method. The actual conditions will ultimately be dependent on the compounds of interest, instrument, and column manufacturer's guidelines. The maximum temperatures of operation should always be verified with the specific manufacturer.

11.2.1 General conditions

Injector temperature:	200 - 275°C
Transfer line temperature:	200 - 300°C

11.2.2 Split / splitless injection - Column 1 (example chromatogram is presented in Figure 1). The following are example conditions which may vary depending on the instrument and column manufacturer's recommendations:

Carrier gas (He) flow rate:	1.0 mL/min
Initial temperature:	35°C
Temperature program:	35°C for 1 min, 9°C/min to 250°C, hold for 2.5 min
Final temperature:	250°C, hold until all expected compounds have eluted.

11.2.3 Direct injection - Column 2. The following are example conditions which may vary depending on the instrument and column manufacturer's recommendations:

Carrier gas (He) flow rate:	4 mL/min
Column:	J&W DB-624, 70m x 0.53 mm
Initial temperature:	40°C, hold for 3 minutes
Temperature program:	8°C/min
Final temperature:	260°C, hold until all expected compounds have eluted.
Column Bake out:	75 minutes

11.2.4 Direct split interface - Column 3. The following are example conditions which may vary depending on the instrument and column manufacturer's recommendations:

Carrier gas (He) flow rate:	1.5 mL/min
Initial temperature:	35°C, hold for 2 minutes
Temperature program:	4°C/min to 50°C 10°C/min to 220°C
Final temperature:	220°C, hold until all expected compounds have eluted
Split ratio:	100:1

11.2.5 Split injection - Column 4. The following are example conditions which may vary depending on the instrument and column manufacturer's recommendations:

Carrier gas (He) flow rate:	1 mL/min
Initial temperature:	35°C, hold for 2 minutes
Temperature program:	35 ºC to 60 ºC at 10 ºC/min; 60 ºC to 150 ºC at 15 ºC/min; 150 ºC to 230 ºC at 6 ºC/min, final hold of 0.5 min
Final temperature:	230°C, hold until all expected compounds have eluted
Injector temperature:	250°C
Transfer line temperature:	280°C

11.2.6 Split injection - Column 5 (example chromatogram is presented in Figure 2). The following are example conditions which may vary depending on the instrument and column manufacturer's recommendations:

Carrier gas (He) flow rate:	0.9 mL/min
Initial temperature:	30°C, hold for 3 minutes
Temperature program:	10°C/min to 100°C, 20°C/min to 220°C, hold for 1 min
Final temperature:	220°C, hold until all expected compounds have eluted.
Split ratio:	50:1

11.3 Initial calibration

Establish the GC/MS operating conditions, using the following as guidance:

Mass range:	From m/z 35 - 270
Sampling rate:	To result in at least five full mass spectra across the peak but not to exceed 1 second per mass spectrum
Source temperature:	According to manufacturer's specifications
Ion trap only:	Set axial modulation, manifold temperature, and emission current to manufacturer's recommendations

11.3.1 The GC/MS system must be hardware-tuned such that injecting 50 ng or less of BFB meets the manufacturer's specified acceptance criteria or as listed in Table 3. The tuning criteria listed in Table 3 were developed using quadrupole mass spectrometer instrumentation and it is recognized that other tuning criteria may be more effective depending on the type of instrumentation, e.g., Time-of-Flight, Ion Trap, etc. In these cases it would be appropriate to follow the manufacturer's tuning instructions or some other consistent tuning criteria. However no matter which tuning criteria is selected, the system calibration must not begin until the tuning acceptance criteria are met with the sample analyses performed under the same conditions as the calibration standards.

11.3.1.1 In the absence of specific recommendations on how to acquire the mass spectrum of BFB from the instrument manufacturer, the following approach should be used: Three scans (the peak apex scan and the scans immediately preceding and following the apex) are acquired and averaged. Background subtraction is required, and must be accomplished using a single scan acquired within 20 scans of the elution of BFB. The background subtraction should be designed only to eliminate column bleed or instrument background ions. Do not subtract part of the BFB peak or any other discrete peak that does not coelute with BFB.

11.3.1.2 Use the BFB mass intensity criteria in the manufacturer's instructions as primary tuning acceptance criteria or those in Table 3 as default tuning acceptance criteria if the primary tuning criteria are not available. Alternatively, other documented tuning criteria may be used (e.g., CLP or Method 524.2), provided that method performance is not adversely affected. The analyst is always free to choose criteria that are tighter than those included in this method or to use other documented criteria provided they are used consistently throughout the initial calibration, calibration verification, and sample analyses.

NOTE: All subsequent standards, samples, MS/MSDs, LCSs, and blanks associated with a BFB analysis must use identical mass spectrometer instrument conditions.

11.3.2 Set up the sample introduction system as outlined in the method of choice (see Sec. 11.1). A different calibration curve is necessary for each method because of the differences in conditions and equipment. A set of at least five different calibration standards is necessary (see Sec. 7.12 and Method 8000). Calibration must be performed using the same sample introduction technique as that being used for samples. For Method 5030, the purging efficiency for 5 mL of water is greater than for 25 mL. Therefore, develop the standard curve with whichever volume of sample that will be analyzed.

11.3.2.1 To prepare a calibration standard, add an appropriate volume of a secondary dilution standard solution to an aliquot of organic-free reagent water in a volumetric flask. Use a microsyringe and rapidly inject the alcoholic standard into the expanded area of the filled volumetric flask underneath the surface of the reagent

water. Remove the needle as quickly as possible after injection and dilute to the volume mark with additional reagent water. Mix by inverting the flask sufficiently to achieve the desired dissolution. However, excessive mixing could result in the loss of gaseous standards. Aqueous standards are not stable and should be prepared daily. Transfer 5.0 mL (or 25 mL if lower quantitation limits are required) of each standard to a gas tight syringe along with 10 µL of internal standard. Then transfer the contents to the appropriate device or syringe. Some of the introduction methods may have specific guidance on the volume of calibration standard and the way the standards are transferred to the device.

When using an autosampler, prepare the calibration standard in a volumetric flask and transfer it to a vial and seal it. Place the sample vial in the instrument carousel according to the manufacturer's instructions. Without disturbing the hermetic seal on the sample vial, a specific sample volume is withdrawn (usually 5 or 25 mL) and placed into the purging vessel along with the addition of internal standards and surrogate compounds using an automated sampler.

11.3.2.2 The internal standards selected in Sec. 7.10 should permit most of the components of interest in a chromatogram to have retention times of 0.80 - 1.20, relative to one of the internal standards. Use the base peak ion from the specific internal standard as the primary ion for quantitation (see Table 5). If interferences are noted, use the next most intense ion as the quantitation ion.

11.3.2.3 To prepare a calibration standard for direct injection analysis of waste oil, dilute standards in hexadecane.

11.3.3 Proceed with the analysis of the calibration standards following the procedure in the introduction method of choice. For direct injection, inject 1 - 2 µL into the GC/MS system. The injection volume will depend upon the chromatographic column chosen and the tolerance of the specific GC/MS system to water.

NOTE: Historically the surrogate compounds have been included in the multi-point initial calibration at variable concentrations in order to evaluate the linear response as with any target analyte. However, with improvements in instrumentation and more reliance on the autosampler, an option is available depending on the project-specific data quality requirements for allowing the autosampler (or using a manual technique) to spike the initial calibration standards with surrogates in the same manner as the samples are spiked. With this option the surrogate standards in the initial calibration can be averaged to develop a response factor and an effective one point calibration with the sole purpose to measure the surrogate recovery using the same concentration for each sample analysis. For this calibration option the surrogate linear response is less important, since multiple concentrations of surrogates are not being measured. Instead, the surrogate concentration remains constant throughout and the recovery of this known concentration can easily be attained without demonstrating if the response is linear.

Under a second calibration option, the surrogates can be calibrated in the same manner as the target analytes, however, the laboratory should have the latitude to employ either option given the instrument system limitations and the ability to meet the project's data quality objectives.

11.3.4 Tabulate the area response of the characteristic ions (see Table 5) against the concentration for each target analyte and each internal standard. Calculate response factors (RF) for each target analyte relative to one of the internal standards. The internal standard selected for the calculation of the RF for a target analyte should be the internal standard that has a retention time closest to the analyte being measured (Sec. 11.7.1).

The RF is calculated as follows:

$$RF = \frac{A_s \times C_{is}}{A_{is} \times C_s}$$

where:

A_s = Peak area (or height) of the analyte or surrogate.
A_{is} = Peak area (or height) of the internal standard.
C_s = Concentration of the analyte or surrogate.
C_{is} = Concentration of the internal standard.

11.3.4.1 Calculate the mean response factor and the relative standard deviation (RSD) of the response factors for each target analyte using the following equations. The RSD should be less than or equal to 20% for each target analyte. It is also recommended that a minimum response factor for the most common target analytes as noted in Table 4, be demonstrated for each individual calibration level as a means to ensure that these compounds are behaving as expected. In addition, meeting the minimum response factor criteria for the lowest calibration standard is critical in establishing and demonstrating the desired sensitivity. Due to the large number of compounds that may be analyzed by this method, some compounds will fail to meet this criteria. For these occasions, it is acknowledged that the failing compounds may not be critical to the specific project and therefore they may be used as qualified data or estimated values for screening purposes. The analyst should also strive to place more emphasis on meeting the calibration criteria for those compounds that are critical project compounds, rather than meeting the criteria for those less important compounds.

$$\text{mean RF} = \overline{RF} = \frac{\sum_{i=1}^{n} RF_i}{n}$$

$$SD = \sqrt{\frac{\sum_{i=1}^{n} (RF_i - \overline{RF})^2}{n-1}}$$

$$RSD = \frac{SD}{\overline{RF}} \times 100$$

where:

RF_i = RF for each of the calibration standards

$\overline{RF}$ = mean RF for each compound from the initial calibration

n = Number of calibration standards, e.g., 5

11.3.4.2 If more than 10% of the compounds included with the initial calibration exceed the 20% RSD limit and do not meet the minimum correlation coefficient (0.99) for alternate curve fits, then the chromatographic system is considered too imprecise for analysis to begin. Adjust moisture control parameters, replace analytical trap or column, replace moisture trap or adjust desorb time, then repeat the calibration procedure beginning with Sec. 11.3.

11.3.5 Evaluation of retention times - The relative retention time (RRT) of each target analyte in each calibration standard should agree within 0.06 RRT units. Late-eluting target analytes usually have much better agreement. The RRT is calculated as follows:

$$RRT = \frac{\text{Retention time of the analyte}}{\text{Retention time of the internal standard}}$$

11.3.6 Linearity of target analytes - If the RSD of any target analyte is 20% or less, then the relative response factor is assumed to be constant over the calibration range, and the average relative response factor may be used for quantitation (Sec. 11.7).

11.3.6.1 If the RSD of any target analyte is greater than 20%, refer to Method 8000 for additional calibration options. One of the options must be applied to GC/MS calibration in this situation, or a new initial calibration must be performed. The average RF should not be used for compounds that have an RSD greater than 20% unless the concentration is reported as estimated.

11.3.6.2 When the RSD exceeds 20%, the plotting and visual inspection of a calibration curve can be a useful diagnostic tool. The inspection may indicate analytical problems, including errors in standard preparation, the presence of active sites in the chromatographic system, analytes that exhibit poor chromatographic behavior, etc.

11.3.6.3 Due to the large number of compounds that may be analyzed by this method, some compounds may fail to meet either the 20% RSD, minimum correlation coefficient criteria (0.99), or the acceptance criteria for alternative calibration procedures in Method 8000. Any calibration method stipulated in Method 8000 may be used, but it should be used consistently. It is considered inappropriate once the calibration analyses are completed to select an alternative calibration procedure in order to pass the recommended criteria on a case by case basis. If compounds fail to meet these criteria, the associated concentrations may still be determined but they must be reported as estimated. In order to report non-detects,

it must be demonstrated that there is adequate sensitivity to detect the failed compounds at the applicable lower quantitation limit.

11.4 GC/MS calibration verification - Calibration verification consists of three steps that are performed at the beginning of each 12-hour analytical shift.

11.4.1 Prior to the analysis of samples or calibration standards, inject or introduce 50 ng or less of the 4-bromofluorobenzene standard into the GC/MS system. The resultant mass spectra for the BFB must meet the criteria as outlined in Sec. 11.3.1 before sample analysis begins. These criteria must be demonstrated each 12-hour shift during which samples are analyzed.

11.4.2 The initial calibration curve should be verified immediately after performing the standard analyses using a second source standard (prepared using standards different from the calibration standards) spiked into organic-free reagent water with a concentration preferably at the midpoint of the initial calibration range. The suggested acceptance limits for this initial calibration verification analysis are 70 - 130%. Alternative acceptance limits may be appropriate based on the desired project-specific data quality objectives. Quantitative sample analyses should not proceed for those analytes that fail the second source standard initial calibration verification. However, analyses may continue for those analytes that fail the criteria with an understanding these results could be used for screening purposes and would be considered estimated values.

11.4.3 The initial calibration (Sec. 11.3) for each compound of interest should be verified once every 12 hours prior to sample analysis, using the introduction technique and conditions used for samples. This is accomplished by analyzing a calibration standard (containing all the compounds for quantitation) at a concentration either near the midpoint concentration for the calibrating range of the GC/MS or near the action level for the project. The results must be compared against the most recent initial calibration curve and should meet the verification acceptance criteria provided in Secs. 11.4.5 through 11.4.7.

NOTE: The BFB and calibration verification standard may be combined into a single standard as long as both tuning and calibration verification acceptance criteria for the project can be met without interferences.

11.4.4 A method blank should be analyzed prior to sample analyses in order to ensure that the total system (introduction device, transfer lines and GC/MS system) is free of contaminants. If the method blank indicates contamination, then it may be appropriate to analyze a solvent blank to demonstrate that the contamination is not a result of carryover from standards or samples. See Method 8000 for method blank performance criteria.

11.4.5 Calibration verification standard criteria

11.4.5.1 Each of the most common target analytes in the calibration verification standard should meet the minimum response factors as noted in Table 4. This criterion is particularly important when the common target analytes are also critical project-required compounds. This is the same check that is applied during the initial calibration.

11.4.5.2 If the minimum response factors are not met, the system should be evaluated, and corrective action should be taken before sample analysis begins.

Possible problems include standard mixture degradation, injection port inlet contamination, contamination at the front end of the analytical column, active sites in the analytical column, trap, or chromatographic system, and problems with the moisture control system.

11.4.5.3 All target compounds of interest must be evaluated using a 20% variability criterion. Use percent difference when performing the average response factor model calibration. Use percent drift when calibrating using a regression fit model. Refer to Method 8000 for guidance on calculating percent difference and drift.

11.4.5.4 If the percent difference or percent drift for a compound is less than or equal to 20%, then the initial calibration for that compound is assumed to be valid. Due to the large numbers of compounds that may be analyzed by this method, some compounds will fail to meet the criteria. If the criterion is not met (i.e., greater than 20% difference or drift) for more than 20% of the compounds included in the initial calibration, then corrective action must be taken prior to the analysis of samples. In cases where compounds fail, they may still be reported as non-detects if it can be demonstrated that there was adequate sensitivity to detect the compound at the applicable quantitation limit. For situations when the failed compound is present, the concentrations must be reported as estimated values.

11.4.5.5 Problems similar to those listed under initial calibration could affect the ability to pass the calibration verification standard analysis. If the problem cannot be corrected by other measures, a new initial calibration must be generated. The calibration verification criteria must be met before sample analysis begins.

11.4.5.6 The method of linear regression analysis has the potential for a significant bias to the lower portion of a calibration curve, while the relative percent difference and quadratic methods of calibration do not have this potential bias. When calculating the calibration curves using the linear regression model, a minimum quantitation check on the viability of the lowest calibration point should be performed by re-fitting the response from the low concentration calibration standard back into the curve (See Method 8000 for additional details). It is not necessary to re-analyze a low concentration standard, rather the data system can recalculate the concentrations as if it were an unknown sample. The recalculated concentration of the low calibration point should be within ± 30% of the standard's true concentration. Other recovery criteria may be applicable depending on the project's data quality objectives and for those situations the minimum quantitation check criteria should be outlined in a laboratory standard operating procedure, or a project-specific Quality Assurance Project Plan. Analytes which do not meet the minimum quantitation calibration re-fitting criteria should be considered "out of control" and corrective action such as redefining the lower limit of quantitation and/or reporting those "out of control" target analytes as estimated when the concentration is at or near the lowest calibration point may be appropriate.

11.4.6 Internal standard retention time - The retention times of the internal standards in the calibration verification standard must be evaluated immediately after or during data acquisition. If the retention time for any internal standard changes by more than 10 seconds from that in the mid-point standard level of the most recent initial calibration sequence, then the chromatographic system must be inspected for malfunctions and

corrections must be made, as required. When corrections are made, reanalysis of samples analyzed while the system was malfunctioning is required.

11.4.7 Internal standard response - If the EICP area for any of the internal standards in the calibration verification standard changes by a factor of two (-50% to + 100%) from that in the mid-point standard level of the most recent initial calibration sequence, the mass spectrometer must be inspected for malfunctions and corrections must be made, as appropriate. When corrections are made, reanalysis of samples analyzed while the system was malfunctioning is required.

11.5 GC/MS analysis of samples

11.5.1 It is highly recommended that the sample be screened to minimize contamination of the GC/MS system from unexpectedly high concentrations of organic compounds. Some of the screening options available utilizing SW-846 methods are screening solid samples for volatile organics (Method 3815), automated headspace-GC/FID (Methods 5021/8015), automated headspace-GC/PID/ELCD (Methods 5021/8021), or waste dilution-GC/PID/ELCD (Methods 3585/8021) using the same type of capillary column. When used only for screening purposes, the quality control requirements in the methods above may be reduced as appropriate. Sample screening is particularly important when Method 8260 is used to achieve low quantitation levels.

11.5.2 BFB tuning criteria and GC/MS calibration verification criteria must be met before analyzing samples.

11.5.3 All samples and standard solutions must be allowed to warm to ambient temperature before analysis. Set up the introduction device as outlined in the method of choice.

11.5.4 The process of taking an aliquot destroys the validity of the remaining volume of an aqueous sample for future analysis when target analytes are at low concentration and taking the aliquot leaves significant headspace in the sample vial. Higher concentration samples, for example those which need to be diluted before analysis at a 5-mL purge volume, often show no detectable changes when a small aliquot is removed, the sample vial is immediately recapped, and the same vial reanalyzed at a later time. That said, it is best practice not to analyze a sample vial repeatedly. Therefore, if only one VOA vial of a relatively clean aqueous matrix such as tap water is provided to the laboratory, to protect against possible loss of sample data, the analyst should prepare two aliquots for analysis at this time. A second aliquot in a syringe is maintained only until such time when the analyst has determined that the first sample has been analyzed properly. For aqueous samples, one 20-mL syringe could be used to hold two 5-mL aliquots. If the second aliquot is to be taken from the syringe, it must be analyzed within 24 hours. Care must be taken to prevent air from leaking into the syringe.

11.5.5 Place the sample vial in the instrument carousel according to the manufacturer's instructions. Without disturbing the hermetic seal on the sample vial, a specific sample volume is withdrawn (usually 5 or 25 mL) and placed into the purging vessel along with the addition of internal standards and surrogate compounds using an automated sampler.

Alternatively, remove the plunger from a 5-mL syringe and attach a closed syringe valve. Open the sample or standard bottle, which has been allowed to come to ambient temperature, and carefully pour the sample into the syringe barrel to just short of overflowing. Replace the syringe plunger and invert before compressing the sample. Open the syringe valve and vent any residual air while adjusting the sample volume to 5.0 mL. If lower quantitation limits are required, use a 25-mL syringe, and adjust the final volume to 25.0 mL.

NOTE: For most applications pouring a sample aliquot directly into the syringe is preferred in order to minimize the loss of volatile constituents, however when smaller volumes are necessary to prepare dilutions, drawing the sample directly into the syringe is considered acceptable.

11.5.6 The following procedure may be used to dilute aqueous samples for analysis of volatiles. All steps must be performed without delays, until the diluted sample is in a gas-tight syringe.

11.5.6.1 Dilutions may be made in volumetric flasks (10- to 100-mL). Select the volumetric flask that will allow for the necessary dilution. Intermediate dilution steps may be necessary for extremely large dilutions.

11.5.6.2 Calculate the approximate volume of organic-free reagent water to be added to the volumetric flask, and add slightly less than this quantity of organic-free reagent water to the flask.

11.5.6.3 Inject the appropriate volume of the original sample from the syringe into the flask underneath the reagent water surface. Aliquots of less than 1 mL are not recommended. Dilute the sample to the mark with organic-free reagent water. Cap the flask, invert, and shake three times. Repeat this procedure for additional dilutions.

11.5.6.4 Fill a 5-mL syringe by pouring with the diluted sample, as described in Sec. 11.5.5. Should smaller sample volumes be necessary to prepare dilutions, drawing the sample directly into the syringe is considered acceptable

11.5.6.5 Systems with autosamplers allow the user to perform automated dilutions. Refer to instrument manufacturer's instructions for more information. In addition, if an autosampler is used to perform sample dilutions, before using the autosampler to dilute samples, the laboratory should satisfy itself that those dilutions are of equivalent or better accuracy than is achieved by an experienced analyst performing manual dilutions.

11.5.7 Compositing aqueous samples prior to GC/MS analysis

11.5.7.1 The following compositing options may be considered depending on the sample composition and desired data quality objectives:

11.5.7.1.1 Flask compositing - for this procedure, a 300 to 500 mL round-bottom flask is immersed in an ice bath. The individual VOA grab samples, maintained at <6 °C, are slowly poured into the round-bottom flask. The flask is swirled slowly to mix the individual grab samples. After mixing, multiple aliquots of the composited sample are poured into VOA vials and

sealed for subsequent analysis. An aliquot can also be poured into a syringe for immediate analysis.

11.5.7.1.2 Purge device compositing - Equal volumes of individual grab samples are added to a purge device to a total volume of 5 or 25 mL. The sample is then analyzed.

11.5.7.1.3 Syringe compositing - In the syringe compositing procedure, equal volumes of individual grab samples are aspirated into a 25 mL syringe while maintaining zero headspace in the syringe. Either the total volume in the syringe or an aliquot is subsequently analyzed. The disadvantage of this technique is that the individual samples must be poured carefully in an attempt to achieve equal volumes of each. An alternate procedure uses multiple 5 mL syringes that are filled with the individual grab samples and then injected sequentially into the 25 mL syringe. If less than five samples are used for compositing, a proportionately smaller syringe may be used, unless a 25-mL sample is to be purged.

11.5.7.2 Introduce the composited sample into the instrument, using the method of choice. (see Sec. 11.1)

11.5.8 Add appropriate volumes of the surrogate spiking solution and the internal standard spiking solution to each sample either manually or by autosampler to achieve the desired concentrations. The surrogate and internal standards may be mixed and added as a single spiking solution.

If a more sensitive mass spectrometer is employed to achieve lower quantitation levels, more dilute surrogate and internal standard solutions may be required.

11.5.9 Add 10 µL of the matrix spike solution (Sec. 7.13) to a 5-mL aliquot of the sample chosen for spiking. Disregarding any dilutions, this is equivalent to a concentration of 50 µg/L of each matrix spike standard.

11.5.9.1 Follow the same procedure in preparing the laboratory control sample (LCS), except the spike is added to a clean matrix. See Sec. 9.5 and Method 5000 for more guidance on the selection and preparation of the matrix spike and the LCS.

11.5.9.2 If a more sensitive mass spectrometer is employed to achieve lower quantitation levels, more dilute matrix spiking and LCS solutions may be required.

11.5.10 Analyze the sample following the procedure in the introduction method of choice.

11.5.10.1 For direct injection, inject 1 to 2 µL into the GC/MS system. The volume limitation will depend upon the chromatographic column chosen and the tolerance of the specific GC/MS system to water (if an aqueous sample is being analyzed).

11.5.10.2 The concentration of the internal standards, surrogates, and matrix spiking standards (if any) added to the injection aliquot must be adjusted to provide the same concentration in the 1-2 µL injection as would be introduced into the GC/MS by purging a 5-mL aliquot.

NOTE: It may be a useful diagnostic tool to monitor internal standard retention times and responses (area counts) in all samples, spikes, blanks, and standards to effectively check drifting method performance, poor injection execution, and anticipate the need for system inspection and/or maintenance.

11.5.11 If the initial analysis of the sample or a dilution of the sample has a concentration of any analyte that exceeds the upper limit of the initial calibration range, the sample must be reanalyzed at a higher dilution. Secondary ion quantitation is allowed only when there are sample interferences with the primary ion.

11.5.11.1 When ions from a compound in the sample saturate the detector, this analysis must be followed by the analysis of an organic-free reagent water blank. If the blank analysis is not free of interferences, then the system must be decontaminated. Sample analysis may not resume until the blank analysis is demonstrated to be free of interferences. Depending on the extent of the decontamination procedures, recalibration may be necessary.

11.5.11.2 All dilutions should keep the response of the major constituents (previously saturated peaks) in the upper half of the linear range of the curve.

11.5.12 The use of selected ion monitoring (SIM) is acceptable for applications requiring quantitation limits below the normal range of electron impact mass spectrometry. However, SIM may provide a lesser degree of confidence in the compound identification, since less mass spectral information is available. Using the primary ion for quantitation and the secondary ions for confirmation set up the collection groups based on their retention times. The selected ions are nominal ions and most compounds have small mass defect, usually less than 0.2 amu, in their spectra. These mass defects should be used in the acquisition table. The dwell time may be automatically calculated by the laboratory's GC/MS software or manually calculated using the following formula. The total scan time should be less than 1,000 msec and produce at least 5 to 10 scans per chromatographic peak. The start and stop times for the SIM groups are determined from the full scan analysis using the formula below:

$$\text{Dwell Time for the Group} = \frac{\text{Laboratory's Scan Time (msec)}}{\text{Total Ions in the Group}}$$

11.6 Analyte identification

11.6.1 The qualitative identification of each compound determined by this method is based on retention time, and on comparison of the sample mass spectrum, after background correction, with characteristic ions in a reference mass spectrum. The reference

mass spectrum must be generated by the laboratory using the conditions of this method. The characteristic ions from the reference mass spectrum are defined to be the three ions of greatest relative intensity, or any ions over 30% relative intensity if less than three such ions occur in the reference spectrum. Compounds are identified as present when the following criteria are met.

11.6.1.1 The intensities of the characteristic ions of a compound maximize in the same scan or within one scan of each other. Selection of a peak by a data system target compound search routine where the search is based on the presence of a target chromatographic peak containing ions specific for the target compound at a compound-specific retention time will be accepted as meeting this criterion.

11.6.1.2 The relative retention time (RRT) of the sample component is within ± 0.06 RRT units of the RRT of the standard component.

11.6.1.3 The relative intensities of the characteristic ions agree within 30% of the relative intensities of these ions in the reference spectrum. (Example: For an ion with an abundance of 50% in the reference spectrum, the corresponding abundance in a sample spectrum can range between 20% and 80%.)

11.6.1.4 Structural isomers that produce very similar mass spectra should be identified as individual isomers if they have sufficiently different GC retention times. Sufficient GC resolution is achieved if the height of the valley between two isomer peaks is less than 50% of the average of the two peak heights. Otherwise, structural isomers are identified as isomeric pairs. The resolution should be verified on the mid-point concentration of the initial calibration as well as the laboratory designated continuing calibration verification level if closely eluting isomers are to be reported.

11.6.1.5 Identification is hampered when sample components are not resolved chromatographically and produce mass spectra containing ions contributed by more than one analyte. When gas chromatographic peaks obviously represent more than one sample component (i.e., a broadened peak with shoulder(s) or a valley between two or more maxima), appropriate selection of analyte spectra and background spectra is important.

11.6.1.6 Examination of extracted ion current profiles (EICP) of appropriate ions can aid in the selection of spectra, and in qualitative identification of compounds. When analytes coelute (i.e., only one chromatographic peak is apparent), the identification criteria may be met, but each analyte spectrum will contain extraneous ions contributed by the coeluting compound.

11.6.2 For samples containing components not associated with the calibration standards, a library search may be made for the purpose of tentative identification. The necessity to perform this type of identification will be determined by the purpose of the analyses being conducted. Data system library search routines should not use normalization routines that would misrepresent the library or unknown spectra when compared to each other.

For example, the RCRA permit or waste delisting requirements may require the reporting of non-target analytes. Only after visual comparison of sample spectra with the

nearest library searches may the analyst assign a tentative identification. Use the following guidelines for making tentative identifications:

(1) Relative intensities of major ions in the reference spectrum (ions greater than 10% of the most abundant ion) should be present in the sample spectrum.

(2) The relative intensities of the major ions should agree within ± 20%. (Example: For an ion with an abundance of 50% in the standard spectrum, the corresponding sample ion abundance must be between 30 and 70%).

(3) Molecular ions present in the reference spectrum should be present in the sample spectrum.

(4) Ions present in the sample spectrum but not in the reference spectrum should be reviewed for possible background contamination or presence of coeluting compounds.

(5) Ions present in the reference spectrum but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting peaks. Data system library reduction programs can sometimes create these discrepancies.

11.7 Quantitation

11.7.1 Once a compound has been identified, the quantitation of that compound will be based on the integrated abundance from the EICP of the primary characteristic ion. The internal standard used shall be the one nearest the retention time of that of a given analyte.

11.7.1.1 It is highly recommended to use the integration produced by the software if the integration is correct because the software should produce more consistent integrations. However, manual integrations are necessary when the software does not produce proper integrations due to improper baseline selection, the correct peak is missed, a coelution is integrated, a peak is partially integrated, etc. The analyst is responsible for ensuring that the integration is correct whether performed by the software or done manually.

11.7.1.2 Manual integrations should not be substituted for proper maintenance of the instrument or setup of the method (e.g. retention time updates, integration parameter files, etc). The analyst should seek to minimize manual integration by properly maintaining the instrument, updating retention times, and configuring peak integration parameters.

11.7.2 If the RSD of a compound's response factor is 20% or less, then the concentration in the extract may be determined using the average response factor ($\overline{RF}$) from initial calibration data (Sec. 11.3.5). See Method 8000 for the equations describing internal standard calibration and either linear or non-linear calibrations.

11.7.3 Where applicable, the concentration of any non-target analytes identified in the sample (Sec. 11.6.2) should be estimated. The same formulae should be used with the following modifications: The areas A_x and A_{is} should be from the total ion chromatograms, and the RF for the compound should be assumed to be 1. The resulting concentration should

be reported indicating that the value is an estimate. Use the nearest internal standard free of interferences.

11.7.4 Structural isomers that produce very similar mass spectra should be quantitated as individual isomers if they have sufficiently different GC retention times. Sufficient GC resolution is achieved if the height of the valley between two isomer peaks is less than 50% of the average of the two peak heights. Otherwise, structural isomers are identified as isomeric pairs. The resolution should be verified on the mid-point concentration of the initial calibration as well as the laboratory designated continuing calibration verification level if closely eluting isomers are to be reported.

11.7.5 Quantitation of multicomponent parameters such as gasoline range organics (GROs) and total petroleum hydrocarbons (TPH) using the Method 8260 recommended internal standard quantitation technique is beyond the scope of this method. Typically, analyses for these parameters are performed using GC/FID or GC with a MS detector capability that is available with Method 8015.

12.0 DATA ANALYSIS AND CALCULATIONS

See Sec. 11.7 for information on data analysis and calculations.

13.0 METHOD PERFORMANCE

13.1 Performance data and related information are provided in SW-846 methods only as examples and guidance. The data do not represent required performance criteria for users of the methods. Instead, performance criteria should be developed on a project-specific basis, and the laboratory should establish in-house QC performance criteria for the application of this method. These performance data are not intended to be and must not be used as absolute QC acceptance criteria for purposes of laboratory accreditation.

13.2 This method has been tested using purge-and-trap (Method 5030) in a single laboratory using spiked water. Using a wide-bore capillary column, water was spiked at concentrations between 0.5 and 10 µg/L. Single laboratory accuracy and precision data are presented for the method analytes in Table 6. Calculated example lower limits of quantitation are presented in Table 1.

13.3 The method was tested using purge-and-trap (Method 5030) with water spiked at 0.1 to 0.5 µg/L and analyzed on a cryofocussed narrow-bore column. The accuracy and precision data for these compounds are presented in Table 7. Example lower limits of quantitation were also calculated from these data and are presented in Table 2.

13.4 Initial demonstration of capability data from two EPA Regional laboratories were submitted using purge-and-trap (Method 5030) with water spiked at 20 µg/L and analyzed on a narrow-bore column. The accuracy and precision data for these studies are presented in Tables 8 and 9.

13.5 Direct injection (Method 3585) has been used for the analysis of waste motor oil samples using a wide-bore column. Single laboratory precision and accuracy data are presented in Tables 12 and 13 for TCLP volatiles in oil. The performance data were developed by spiking and

analyzing seven replicates each of new and used oil. The oils were spiked at the TCLP regulatory concentrations for most analytes, except for the alcohols, ketones, ethyl acetate and chlorobenzene which are spiked at 5 ppm, well below the regulatory concentrations. Prior to spiking, the new oil (an SAE 30-weight motor oil) was heated at 80°C overnight to remove volatiles. The used oil (a mixture of used oil drained from passenger automobiles) was not heated and was contaminated with 20 - 300 ppm of BTEX compounds and isobutanol. These contaminants contributed to the extremely high recoveries of the BTEX compounds in the used oil. Therefore, the data from the deuterated analogs of these analytes represent more typical recovery values.

13.6 Single laboratory accuracy and precision data were obtained for the Method 5035 analytes in three soil matrices: sand; a soil collected 10 feet below the surface of a hazardous waste landfill, and a surface garden soil. Sample preparation was by Method 5035. Each sample was fortified with the analytes at a concentration of 20 µg/kg. These data are listed in Tables 18, 19, and 20. All data were calculated using fluorobenzene as the internal standard added to the soil sample prior to extraction. This causes some of the results to be greater than 100% recovery because the precision of results is sometimes as great as 28%.

13.6.1 In general, the recoveries of the analytes from the sand matrix are the highest, the hazardous waste landfill soil results are somewhat less, and the surface garden soil recoveries are the lowest. This is due to the greater adsorptive capacity of the garden soil. This illustrates the necessity of analyzing matrix spike samples to assess the degree of matrix effects.

13.6.2 The recoveries of some of the gases, or very volatile compounds, such as vinyl chloride, trichlorofluoromethane, and 1,1-dichloroethene, are somewhat greater than 100%. This is due to the difficulty encountered in fortifying the soil with these compounds, allowing an equilibration period, then extracting them with a high degree of precision. Also, the garden soil results in Table 19 include some extraordinarily high recoveries for some aromatic compounds, such as toluene, xylenes, and trimethylbenzenes. This is due to contamination of the soil prior to sample collection, and to the fact that no background was subtracted.

13.7 Performance data for nonpurgeable volatiles using azeotropic distillation (Method 5031) are included in Tables 14 to 17.

13.8 Performance data for volatiles prepared using vacuum distillation (Method 5032) in soil, water, oil and fish tissue matrices are included in Tables 21 to 25.

13.9 Single laboratory accuracy and precision data were obtained for the Method 5021 analytes in a garden soil matrix. Replicate samples were fortified with the analytes at a concentration of 20 µg/kg. These data are listed in Table 28. All data were calculated using the internal standards listed for each analyte in Table 26. The recommended internal standards were selected because they generated the best accuracy and precision data for the analyte in both types of soil.

13.9.1 If a detector other than an MS is used for analysis, consideration must be given to the choice of internal standards and surrogates. They must not coelute with any other analyte and must have similar properties to the analytes. The recoveries of the analytes are 50% or higher for each matrix studied. The recoveries of the gases or very volatile compounds are greater than 100% in some cases. Also, results include high recoveries of

some aromatic compounds, such as benzene, toluene, and xylenes. This is due to contamination of the soil prior to sample collection.

13.9.2 The example lower limits of quantitation using Method 5021 are listed in Table 27 and were calculated from results of seven replicate analyses of the sand matrix. Sand was chosen because it demonstrated the least degree of matrix effect of the soils studied. These lower limits of quantitation were calculated utilizing the procedure described in Chapter One and are intended to be a general indication of the capabilities of the method.

13.10 The lower limits of quantitation listed in Table 29 were determined using Method 5041 in conjunction with Method 8260. They were obtained using cleaned blank VOST tubes and reagent water. Similar results have been achieved with field samples. The lower limit of quantitation actually achieved in a given analysis will vary depending upon instrument sensitivity and the effects of the matrix. Preliminary spiking studies indicate that under the test conditions, the lower limit of quantitation for spiked compounds in extremely complex matrices may be larger by a factor of 500 - 1000.

13.11 The lower limit of quantitation for samples taken by Method 0040 and analyzed by Method 8260 is estimated to be in the range of 0.03 to 0.9 ppm (See Table 31). Matrix effects may cause the individual compound quantitation limits to be higher.

13.12 The recommended internal standards with corresponding analytes assigned for quantitation that are appropriate for Method 5041 are listed in Table 30.

14.0 POLLUTION PREVENTION

14.1 Pollution prevention encompasses any technique that reduces or eliminates the quantity and/or toxicity of waste at the point of generation. Numerous opportunities for pollution prevention exist in laboratory operations. The EPA has established a preferred hierarchy of environmental management techniques that places pollution prevention as the management option of first choice. Whenever feasible, laboratory personnel should use pollution prevention techniques to address their waste generation. When wastes cannot be feasibly reduced at the source, the Agency recommends recycling as the next best option.

14.2 For information about pollution prevention that may be applicable to laboratories and research institutions consult *Less is Better: Laboratory Chemical Management for Waste Reduction* available from the American Chemical Society's Department of Government Relations and Science Policy, 1155 16th St., N.W. Washington, D.C. 20036, http://www.acs.org.

15.0 WASTE MANAGEMENT

The Environmental Protection Agency requires that laboratory waste management practices be conducted consistent with all applicable rules and regulations. The Agency urges laboratories to protect the air, water, and land by minimizing and controlling all releases from hoods and bench operations, complying with the letter and spirit of any sewer discharge permits and regulations, and by complying with all solid and hazardous waste regulations, particularly the hazardous waste identification rules and land disposal restrictions. For further information on waste management, consult *The Waste Management Manual for Laboratory Personnel* available from the American Chemical Society at the address listed in Sec. 14.2.

16.0 REFERENCES

1. Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water Method 524.2, U.S. Environmental Protection Agency, Office of Research Development, Environmental Monitoring and Support Laboratory, Cincinnati, OH, 1986.

2. Bellar, T.A., Lichtenberg, J.J, J. Amer. Water Works Assoc., 1974, 66(12), 739-744.

3. Bellar, T.A., Lichtenberg, J.J., "Semi-Automated Headspace Analysis of Drinking Waters and Industrial Waters for Purgeable Volatile Organic Compounds"; in Van Hall, Ed.; Measurement of Organic Pollutants in Water and Wastewater, ASTM STP 686, pp 108-129, 1979.

4. Budde, W.L., Eichelberger, J.W., "Performance Tests for the Evaluation of Computerized Gas Chromatography/Mass Spectrometry Equipment and Laboratories"; U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, OH, April 1980; EPA-600/4-79-020.

5. Eichelberger, J.W., Harris, L.E., Budde, W.L., "Reference Compound to Calibrate Ion Abundance Measurement in Gas Chromatography-Mass Spectrometry Systems"; Analytical Chemistry 1975, 47, 995-1000.

6. Olynyk, P., Budde, W.L., Eichelberger, J.W., "Method Detection Limit for Methods 624 and 625"; Unpublished report, October 1980.

7. Non Cryogenic Temperatures Program and Chromatogram, Private Communications; M. Stephenson and F. Allen, EPA Region IV Laboratory, Athens, GA.

8. Marsden, P.J., Helms, C.L., Colby, B.N., "Analysis of Volatiles in Waste Oil"; Report for B. Lesnik, OSW/EPA under EPA contract 68-W9-001, 6/92.

9. Methods for the Determination of Organic Compounds in Drinking Water, Supplement II Method 524.2; U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH, 1992.

10. Flores, P., Bellar, T., "Determination of Volatile Organic Compounds in Soils Using Equilibrium Headspace Analysis and Capillary Column Gas Chromatography/Mass Spectrometry", U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH, December, 1992.

11. Bruce, M.L., Lee, R.P., Stephens, M.W., "Concentration of Water Soluble Volatile Organic Compounds from Aqueous Samples by Azeotropic Microdistillation", Environmental Science and Technology 1992, 26, 160-163.

12. Cramer, P.H., Wilner, J., Stanley, J.S., "Final Report: Method for Polar, Water Soluble, Nonpurgeable Volatile Organics (VOCs)", For U.S. Environmental Protection Agency, Environmental Monitoring Support Laboratory, EPA Contract No. 68-C8-0041.

13. Hiatt, M.H., "Analysis of Fish and Sediment for Volatile Priority Pollutants", Analytical Chemistry 1981, 53, 1541.

14. Validation of the Volatile Organic Sampling Train (VOST) Protocol. Volumes I and II. EPA/600/4-86-014A, January, 1986.

15. Bellar, T., "Measurement of Volatile Organic Compounds in Soils Using Modified Purge-and-Trap and Capillary Gas Chromatography/Mass Spectrometry" U.S. Environmental Protection Agency, Environmental Monitoring Systems Laboratory, Cincinnati, OH, November 1991.

17.0 TABLES, DIAGRAMS, FLOWCHARTS, AND VALIDATION DATA

The following pages contain the tables and figures referenced by this method.

TABLE 1

EXAMPLE CHROMATOGRAPHIC RETENTION TIMES AND LOWER LIMITS OF QUANTITATION FOR VOLATILE ORGANIC COMPOUNDS ON WIDE-BORE CAPILLARY COLUMNS

Compound	Retention Time (minutes)			LOQ[d]
	Column 2A[a]	Column 2B[b]	Column 2C[c]	(µg/L)
Dichlorodifluoromethane	1.35	0.70	3.13	0.10
Chloromethane	1.49	0.73	3.40	0.13
Vinyl Chloride	1.56	0.79	3.93	0.17
Bromomethane	2.19	0.96	4.80	0.11
Chloroethane	2.21	1.02	--	0.10
Trichlorofluoromethane	2.42	1.19	6.20	0.08
Acrolein	3.19			
Iodomethane	3.56			
Acetonitrile	4.11			
Carbon disulfide	4.11			
Allyl chloride	4.11			
Methylene chloride	4.40	2.06	9.27	0.03
1,1-Dichloroethene	4.57	1.57	7.83	0.12
Acetone	4.57			
trans-1,2-Dichloroethene	4.57	2.36	9.90	0.06
Acrylonitrile	5.00			
1,1-Dichloroethane	6.14	2.93	10.80	0.04
Vinyl acetate	6.43			
2,2-Dichloropropane	8.10	3.80	11.87	0.35
2-Butanone	--			
cis-1,2-Dichloroethene	8.25	3.90	11.93	0.12
Propionitrile	8.51			
Chloroform	9.01	4.80	12.60	0.03
Bromochloromethane	--	4.38	12.37	0.04
Methacrylonitrile	9.19			
1,1,1-Trichloroethane	10.18	4.84	12.83	0.08
Carbon tetrachloride	11.02	5.26	13.17	0.21
1,1-Dichloropropene	--	5.29	13.10	0.10
Benzene	11.50	5.67	13.50	0.04
1,2-Dichloroethane	12.09	5.83	13.63	0.06
Trichloroethene	14.03	7.27	14.80	0.19
1,2-Dichloropropane	14.51	7.66	15.20	0.04
Bromodichloromethane	15.39	8.49	15.80	0.08
Dibromomethane	15.43	7.93	5.43	0.24
Methyl methacrylate	15.50			
1,4-Dioxane	16.17			
2-Chloroethyl vinyl ether	--			
4-Methyl-2-pentanone	17.32			
trans-1,3-Dichloropropene	17.47	--	16.70	--
Toluene	18.29	10.00	17.40	0.11
cis-1,3-Dichloropropene	19.38	--	17.90	--

TABLE 1 (cont.)

Compound	Retention Time (minutes)			LOQ[d]
	Column 1A[a]	Column 2B[b]	Column 2C[c]	(µg/L)
1,1,2-Trichloroethane	19.59	11.05	18.30	0.10
Ethyl methacrylate	20.01			
2-Hexanone	20.30			
Tetrachloroethene	20.26	11.15	18.60	0.14
1,3-Dichloropropane	20.51	11.31	18.70	0.04
Dibromochloromethane	21.19	11.85	19.20	0.05
1,2-Dibromoethane	21.52	11.83	19.40	0.06
1-Chlorohexane	--	13.29	--	0.05
Chlorobenzene	23.17	13.01	20.67	0.04
1,1,1,2-Tetrachloroethane	23.36	13.33	20.87	0.05
Ethylbenzene	23.38	13.39	21.00	0.06
p-Xylene	23.54	13.69	21.30	0.13
m-Xylene	23.54	13.68	21.37	0.05
o-Xylene	25.16	14.52	22.27	0.11
Styrene	25.30	14.60	22.40	0.04
Bromoform	26.23	14.88	22.77	0.12
Isopropylbenzene (Cumene)	26.37	15.46	23.30	0.15
cis-1,4-Dichloro-2-butene	27.12			
1,1,2,2-Tetrachloroethane	27.29	16.35	24.07	0.04
Bromobenzene	27.46	15.86	24.00	0.03
1,2,3-Trichloropropane	27.55	16.23	24.13	0.32
n-Propylbenzene	27.58	16.41	24.33	0.04
2-Chlorotoluene	28.19	16.42	24.53	0.04
trans-1,4-Dichloro-2-butene	28.26			
1,3,5-Trimethylbenzene	28.31	16.90	24.83	0.05
4-Chlorotoluene	28.33	16.72	24.77	0.06
Pentachloroethane	29.41			
1,2,4-Trimethylbenzene	29.47	17.70	31.50	0.13
sec-Butylbenzene	30.25	18.09	26.13	0.13
tert-Butylbenzene	30.59	17.57	26.60	0.14
p-Isopropyltoluene	30.59	18.52	26.50	0.12
1,3-Dichlorobenzene	30.56	18.14	26.37	0.12
1,4-Dichlorobenzene	31.22	18.39	26.60	0.03
Benzyl chloride	32.00			
n-Butylbenzene	32.23	19.49	27.32	0.11
1,2-Dichlorobenzene	32.31	19.17	27.43	0.03
1,2-Dibromo-3-chloropropane	35.30	21.08	--	0.26
1,2,4-Trichlorobenzene	38.19	23.08	31.50	0.04
Hexachlorobutadiene	38.57	23.68	32.07	0.11
Naphthalene	39.05	23.52	32.20	0.04
1,2,3-Trichlorobenzene	40.01	24.18	32.97	0.03

TABLE 1 (cont.)

Compound	Retention Time (minutes) Column 1A[a]	Column 2B[b]	Column 2C[c]	LOQ[d] (µg/L)
INTERNAL STANDARDS/SURROGATES				
1,4-Difluorobenzene	13.26			
Chlorobenzene-d_5	23.10			
1,4-Dichlorobenzene-d_4	31.16			
4-Bromofluorobenzene	27.83	15.71	23.63	
1,2-Dichlorobenzene-d_4	32.30	19.08	27.25	
Dichloroethane-d_4	12.08			
Dibromofluoromethane	--			
Toluene-d_8	18.27			
Pentafluorobenzene	--			
Fluorobenzene	13.00	6.27	14.06	

[a] Column 2A - 60 meter x 0.75 mm ID VOCOL capillary. Hold at 10°C for 8 minutes, then program to 180°C at 4°C/min.

[b] Column 2B - 30 meter x 0.53 mm ID DB-624 wide-bore capillary using cryogenic oven. Hold at 10°C for 5 minutes, then program to 160°C at 6°C/min.

[c] Column 2C - 30 meter x 0.53 mm ID DB-624 wide-bore capillary, cooling GC oven to ambient temperatures. Hold at 10°C for 6 minutes, program to 70°C at 10 °C/min, program to 120°C at 5°C/min, then program to 180°C at 8°C/min.

[d] Limit of quantitation based on a 25-mL sample volume.

TABLE 2

EXAMPLE CHROMATOGRAPHIC RETENTION TIMES AND LOWER LIMITS OF QUANTITATION FOR VOLATILE ORGANIC COMPOUNDS ON NARROW-BORE CAPILLARY COLUMNS

Compound	Retention Time (minutes) Column 4[a]	Lower Limit of Quantitation (µg/L)
Dichlorodifluoromethane	0.88	0.11
Chloromethane	0.97	0.05
Vinyl chloride	1.04	0.04
Bromomethane	1.29	0.03
1,1-Dichloroethane	4.03	0.03
cis-1,2-Dichloroethene	5.07	0.06
2,2-Dichloropropane	5.31	0.08
Chloroform	5.55	0.04
Bromochloromethane	5.63	0.09
1,1,1-Trichloroethane	6.76	0.04
1,2-Dichloroethane	7.00	0.02
1,1-Dichloropropene	7.16	0.12
Carbon tetrachloride	7.41	0.02
Benzene	7.41	0.03
1,2-Dichloropropane	8.94	0.02
Trichloroethene	9.02	0.02
Dibromomethane	9.09	0.01
Bromodichloromethane	9.34	0.03
Toluene	11.51	0.08
1,1,2-Trichloroethane	11.99	0.08
1,3-Dichloropropane	12.48	0.08
Dibromochloromethane	12.80	0.07
Tetrachloroethene	13.20	0.05
1,2-Dibromoethane	13.60	0.10
Chlorobenzene	14.33	0.03
1,1,1,2-Tetrachloroethane	14.73	0.07
Ethylbenzene	14.73	0.03
p-Xylene	15.30	0.06
m-Xylene	15.30	0.03
Bromoform	15.70	0.20
o-Xylene	15.78	0.06
Styrene	15.78	0.27
1,1,2,2-Tetrachloroethane	15.78	0.20
1,2,3-Trichloropropane	16.26	0.09
Isopropylbenzene	16.42	0.10
Bromobenzene	16.42	0.11
2-Chlorotoluene	16.74	0.08
n-Propylbenzene	16.82	0.10
4-Chlorotoluene	16.82	0.06

TABLE 2 (cont.)

Compound	Retention Time (minutes) Column 4[a]	Lower Limit of Quantitation (µg/L)
1,3,5-Trimethylbenzene	16.99	0.06
tert-Butylbenzene	17.31	0.33
1,2,4-Trimethylbenzene	17.31	0.09
sec-Butylbenzene	17.47	0.12
1,3-Dichlorobenzene	17.47	0.05
p-Isopropyltoluene	17.63	0.26
1,4-Dichlorobenzene	17.63	0.04
1,2-Dichlorobenzene	17.79	0.05
n-Butylbenzene	17.95	0.10
1,2-Dibromo-3-chloropropane	18.03	0.50
1,2,4-Trichlorobenzene	18.84	0.20
Naphthalene	19.07	0.10
Hexachlorobutadiene	19.24	0.10
1,2,3-Trichlorobenzene	19.24	0.14

[a] Column 3 - 30 meter x 0.32 mm ID DB-5 capillary with 1 µm film thickness.

[b] Lower limit of quantitation based on a 25-mL sample volume.

TABLE 3

BFB (4-BROMOFLUOROBENZENE) MASS INTENSITY CRITERIA[a]

m/z	Required Intensity (relative abundance)
50	15 to 40% of m/z 95
75	30 to 60% of m/z 95
95	Base peak, 100% relative abundance
96	5 to 9% of m/z 95
173	Less than 2% of m/z 174
174	Greater than 50% of m/z 95
175	5 to 9% of m/z 174
176	Greater than 95% but less than 101% of m/z 174
177	5 to 9% of m/z 176

[a] The criteria in this table are intended to be used as default criteria for quadrupole instrumentation if optimized manufacturer's operating conditions are not available. Alternate tuning criteria may be employed (e.g., CLP or Method 524.2), provided that method performance is not adversely affected. See Sec. 11.3.1

TABLE 4

RECOMMENDED MINIMUM RELATIVE RESPONSE FACTOR CRITERIA FOR INITIAL AND CONTINUING CALIBRATION VERIFICATION

Volatile Compounds	Minimum Response Factor (RF)[a]	Typical Response Factor (RF)[b]
Dichlorodifluoromethane	0.100	0.327
Chloromethane	0.100	0.537
Vinyl chloride	0.100	0.451
Bromomethane	0.100	0.255
Chloroethane	0.100	0.254
Trichlorofluoromethane	0.100	0.426
1,1-Dichloroethene	0.100	0.313
1,1,2-Trichloro-1,2,2-trifluoroethane	0.100	0.302
Acetone	0.100	0.151
Carbon disulfide	0.100	1.163
Methyl Acetate	0.100	0.302
Methylene chloride	0.100	0.380
trans-1,2-Dichloroethene	0.100	0.351
cis-1,2-Dichloroethene	0.100	0.376
Methyl tert-Butyl Ether	0.100	0.847
1,1-Dichloroethane	0.200	0.655
2-Butanone	0.100	0.216
Chloroform	0.200	0.557
1,1,1-Trichloroethane	0.100	0.442
Cyclohexane	0.100	0.579
Carbon tetrachloride	0.100	0.353
Benzene	0.500	1.368
1,2-Dichloroethane	0.100	0.443
Trichloroethene	0.200	0.338
Methylcyclohexane	0.100	0.501
1,2-Dichloropropane	0.100	0.382

Volatile Compounds	Minimum Response Factor (RF)[a]	Typical Response Factor (RF)[b]
Bromodichloromethane	0.200	0.424
cis-1,3-Dichloropropene	0.200	0.537
trans-1,3-Dichloropropene	0.100	0.515
4-Methyl-2-pentanone	0.100	0.363
Toluene	0.400	1.577
1,1,2-Trichloroethane	0.100	0.518
Tetrachloroethene	0.200	0.606
2-Hexanone	0.100	0.536
Dibromochloromethane	0.100	0.652
1,2-Dibromoethane	0.100	0.634
Chlorobenzene	0.500	1.733
Ethylbenzene	0.100	2.827
meta-/para-Xylene	0.100	1.080
ortho-Xylene	0.300	1.073
Styrene	0.300	1.916
Bromoform	0.100	0.413
Isopropylbenzene	0.100	2.271
1,1,2,2-Tetrachloroethane	0.300	0.782
1,3-Dichlorobenzene	0.600	1.408
1,4-Dichlorobenzene	0.500	1.427
1,2-Dichlorobenzene	0.400	1.332
1,2-Dibromo-3-chloropropane	0.050	0.129
1,2,4-Trichlorobenzene	0.200	0.806

[a] The project-specific response factors obtained may be affected by the quantitation ion selected and when using possible alternate ions the actual response factors may be lower than those listed. In addition, lower than the recommended minimum response factors may be acceptable for those compounds that are not considered critical target analytes and the associated data may be used for screening purposes.

[b] Data provided by EPA Region III laboratory.

TABLE 5

CHARACTERISTIC MASSES (m/z) FOR PURGEABLE ORGANIC COMPOUNDS

Compound	Primary Characteristic Ion	Secondary Characteristic Ion(s)
Acetone	58	43
Acetonitrile	41	40, 39
Acrolein	56	55, 58
Acrylonitrile	53	52, 51
Allyl alcohol	57	58, 39
Allyl chloride	76	41, 39, 78
Benzene	78	-
Benzyl chloride	91	126, 65, 128
Bromoacetone	136	43, 138, 93, 95
Bromobenzene	156	77, 158
Bromochloromethane	128	49, 130
Bromodichloromethane	83	85, 127
Bromoform	173	175, 254
Bromomethane	94	96
iso-Butanol	74	43
n-Butanol	56	41
2-Butanone	72	43
n-Butylbenzene	91	92, 134
sec-Butylbenzene	105	134
tert-Butylbenzene	119	91, 134
Carbon disulfide	76	78
Carbon tetrachloride	117	119
Chloral hydrate	82	44, 84, 86, 111
Chloroacetonitrile	48	75
Chlorobenzene	112	77, 114
1-Chlorobutane	56	49
Chlorodibromomethane	129	208, 206
Chloroethane	64 (49*)	66 (51*)
2-Chloroethanol	49	44, 43, 51, 80
Bis(2-chloroethyl) sulfide	109	111, 158, 160
2-Chloroethyl vinyl ether	63	65, 106
Chloroform	83	85
Chloromethane	50 (49*)	52 (51*)
Chloroprene	53	88, 90, 51
3-Chloropropionitrile	54	49, 89, 91
2-Chlorotoluene	91	126
4-Chlorotoluene	91	126
1,2-Dibromo-3-chloropropane	75	155, 157
Dibromochloromethane	129	127
1,2-Dibromoethane	107	109, 188
Dibromomethane	93	95, 174

TABLE 5 (cont.)

Compound	Primary Characteristic Ion	Secondary Characteristic Ion(s)
1,2-Dichlorobenzene	146	111, 148
1,2-Dichlorobenzene-d_4	152	115, 150
1,3-Dichlorobenzene	146	111, 148
1,4-Dichlorobenzene	146	111, 148
cis-1,4-Dichloro-2-butene	75	53, 77, 124, 89
trans-1,4-Dichloro-2-butene	53	88, 75
Dichlorodifluoromethane	85	87
1,1-Dichloroethane	63	65, 83
1,2-Dichloroethane	62	98
1,1-Dichloroethene	96	61, 63
cis-1,2-Dichloroethene	96	61, 98
trans-1,2-Dichloroethene	96	61, 98
1,2-Dichloropropane	63	112
1,3-Dichloropropane	76	78
2,2-Dichloropropane	77	97
1,3-Dichloro-2-propanol	79	43, 81, 49
1,1-Dichloropropene	75	110, 77
cis-1,3-Dichloropropene	75	77, 39
trans-1,3-Dichloropropene	75	77, 39
1,2,3,4-Diepoxybutane	55	57, 56
Diethyl ether	74	45, 59
1,4-Dioxane	88	58, 43, 57
Epichlorohydrin	57	49, 62, 51
Ethanol	31	45, 27, 46
Ethyl acetate	88	43, 45, 61
Ethylbenzene	91	106
Ethylene oxide	44	43, 42
Ethyl methacrylate	69	41, 99, 86, 114
Hexachlorobutadiene	225	223, 227
Hexachloroethane	201	166, 199, 203
2-Hexanone	43	58, 57, 100
2-Hydroxypropionitrile	44	43, 42, 53
Iodomethane	142	127, 141
Isobutyl alcohol	43	41, 42, 74
Isopropylbenzene	105	120
p-Isopropyltoluene	119	134, 91
Malononitrile	66	39, 65, 38
Methacrylonitrile	41	67, 39, 52, 66
Methyl acrylate	55	85
Methyl-t-butyl ether	73	57
Methylene chloride	84	86, 49
Methyl iodide	142	127, 141

TABLE 5 (cont.)

Compound	Primary Characteristic Ion	Secondary Characteristic Ion(s)
Methyl methacrylate	69	41, 100, 39
4-Methyl-2-pentanone	100	43, 58, 85
Naphthalene	128	-
Nitrobenzene	123	51, 77
2-Nitropropane	46	-
2-Picoline	93	66, 92, 78
Pentachloroethane	167	130, 132, 165, 169
Propargyl alcohol	55	39, 38, 53
β-Propiolactone	42	43, 44
Propionitrile (ethyl cyanide)	54	52, 55, 40
n-Propylamine	59	41, 39
n-Propylbenzene	91	120
Pyridine	79	52
Styrene	104	78
1,2,3-Trichlorobenzene	180	182, 145
1,2,4-Trichlorobenzene	180	182, 145
1,1,1,2-Tetrachloroethane	131	133, 119
1,1,2,2-Tetrachloroethane	83	131, 85
Tetrachloroethene	164	129, 131, 166
Toluene	92	91
1,1,1-Trichloroethane	97	99, 61
1,1,2-Trichloroethane	83	97, 85
Trichloroethene	95	97, 130, 132
Trichlorofluoromethane	101	103
1,2,3-Trichloropropane	75	77
1,2,4-Trimethylbenzene	105	120
1,3,5-Trimethylbenzene	105	120
Vinyl acetate	43	86
Vinyl chloride	62	64
o-Xylene	106	91
m-Xylene	106	91
p-Xylene	106	91
Internal Standards/Surrogates:		
Benzene-d_6	84	83
Bromobenzene-d_5	82	162
Bromochloromethane-d_2	51	131
1,4-Difluorobenzene	114	
Chlorobenzene-d_5	117	
1,4-Dichlorobenzene-d_4	152	115, 150
1,1,2-Trichloroethane-d_3	100	
4-Bromofluorobenzene	95	174, 176

TABLE 5 (cont.)

Compound	Primary Characteristic Ion	Secondary Characteristic Ion(s)
Internal Standards/Surrogates		
Chloroform-d_1	84	
Dibromofluoromethane	113	
Dichloroethane-d_4	102	
Toluene-d_8	98	
Pentafluorobenzene	168	
Fluorobenzene	96	77

* Characteristic ion for an ion trap mass spectrometer (to be used when ion-molecule reactions are observed).

TABLE 6

SINGLE LABORATORY ACCURACY AND PRECISION DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A WIDE-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Conc. Range (µg/L)	Number of Samples	% Recovery[a]	Standard Deviation of Recovery[b]	RSD
Benzene	0.1 - 10	31	97	6.5	5.7
Bromobenzene	0.1 - 10	30	100	5.5	5.5
Bromochloromethane	0.5 - 10	24	90	5.7	6.4
Bromodichloromethane	0.1 - 10	30	95	5.7	6.1
Bromoform	0.5 - 10	18	101	6.4	6.3
Bromomethane	0.5 - 10	18	95	7.8	8.2
n-Butylbenzene	0.5 - 10	18	100	7.6	7.6
sec-Butylbenzene	0.5 - 10	16	100	7.6	7.6
tert-Butylbenzene	0.5 - 10	18	102	7.4	7.3
Carbon tetrachloride	0.5 - 10	24	84	7.4	8.8
Chlorobenzene	0.1 - 10	31	98	5.8	5.9
Chloroethane	0.5 - 10	24	89	8.0	9.0
Chloroform	0.5 - 10	24	90	5.5	6.1
Chloromethane	0.5 - 10	23	93	8.3	8.9
2-Chlorotoluene	0.1 - 10	31	90	5.6	6.2
4-Chlorotoluene	0.1 - 10	31	99	8.2	8.3
1,2-Dibromo-3-Chloropropane	0.5 - 10	24	83	16.6	19.9
Dibromochloromethane	0.1 - 10	31	92	6.5	7.0
1,2-Dibromoethane	0.5 - 10	24	102	4.0	3.9
Dibromomethane	0.5 - 10	24	100	5.6	5.6
1,2-Dichlorobenzene	0.1 - 10	31	93	5.8	6.2
1,3-Dichlorobenzene	0.5 - 10	24	99	6.8	6.9
1,4-Dichlorobenzene	0.2 - 20	31	103	6.6	6.4
Dichlorodifluoromethane	0.5 - 10	18	90	6.9	7.7
1,1-Dichlorobenzene	0.5 - 10	24	96	5.1	5.3
1,2-Dichlorobenzene	0.1 - 10	31	95	5.1	5.4
1,1-Dichloroethene	0.1 - 10	34	94	6.3	6.7
cis-1,2-Dichloroethene	0.5 - 10	18	101	6.7	6.7
trans-1,2-Dichloroethene	0.1 - 10	30	93	5.2	5.6
1,2-Dichloropropane	0.1 - 10	30	97	5.9	6.1
1,3-Dichloropropane	0.1 - 10	31	96	5.7	6.0
2,2-Dichloropropane	0.5 - 10	12	86	14.6	16.9
1,1-Dichloropropene	0.5 - 10	18	98	8.7	8.9
Ethylbenzene	0.1 - 10	31	99	8.4	8.6
Hexachlorobutadiene	0.5 - 10	18	100	6.8	6.8
Isopropylbenzene	0.5 - 10	16	101	7.7	7.6
p-Isopropyltoluene	0.1 - 10	23	99	6.7	6.7
Methylene chloride	0.1 - 10	30	95	5.0	5.3

TABLE 6 (cont.)

Compound	Conc. Range (µg/L)	Number of Samples	% Recovery[a]	Standard Deviation of Recovery[b]	RSD
Naphthalene	0.1 -100	31	104	8.6	8.2
n-Propylbenzene	0.1 - 10	31	100	5.8	5.8
Styrene	0.1 -100	39	102	7.3	7.2
1,1,1,2-Tetrachloroethane	0.5 - 10	24	90	6.1	6.8
1,1,2,2-Tetrachloroethane	0.1 - 10	30	91	5.7	6.3
Tetrachloroethene	0.5 - 10	24	89	6.0	6.8
Toluene	0.5 - 10	18	102	8.1	8.0
1,2,3-Trichlorobenzene	0.5 - 10	18	109	9.4	8.6
1,2,4-Trichlorobenzene	0.5 - 10	18	108	9.0	8.3
1,1,1-Trichloroethane	0.5 - 10	18	98	7.9	8.1
1,1,2-Trichloroethane	0.5 - 10	18	104	7.6	7.3
Trichloroethene	0.5 - 10	24	90	6.5	7.3
Trichlorofluoromethane	0.5 - 10	24	89	7.2	8.1
1,2,3-Trichloropropane	0.5 - 10	16	108	15.6	14.4
1,2,4-Trimethylbenzene	0.5 - 10	18	99	8.0	8.1
1,3,5-Trimethylbenzene	0.5 - 10	23	92	6.8	7.4
Vinyl chloride	0.5 - 10	18	98	6.5	6.7
o-Xylene	0.1 - 31	18	103	7.4	7.2
m-Xylene	0.1 - 10	31	97	6.3	6.5
p-Xylene	0.5 - 10	18	104	8.0	7.7

[a] Recoveries were calculated using internal standard method. The internal standard was fluorobenzene.

[b] Standard deviation was calculated by pooling data from three concentrations.

TABLE 7

SINGLE LABORATORY ACCURACY AND PRECISION DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Conc. (µg/L)	Number of Samples	% Recovery[a]	Standard Deviation of Recovery[b]	RSD
Benzene	0.1	7	99	6.2	6.3
Bromobenzene	0.5	7	97	7.4	7.6
Bromochloromethane	0.5	7	97	5.8	6.0
Bromodichloromethane	0.1	7	100	4.6	4.6
Bromoform	0.5	7	101	5.4	5.3
Bromomethane	0.5	7	99	7.1	7.2
n-Butylbenzene	0.5	7	94	6.0	6.4
sec-Butylbenzene	0.5	7	110	7.1	6.5
tert-Butylbenzene	0.5	7	110	2.5	2.3
Carbon tetrachloride	0.1	7	108	6.8	6.3
Chlorobenzene	0.1	7	91	5.8	6.4
Chloroethane	0.1	7	100	5.8	5.8
Chloroform	0.1	7	105	3.2	3.0
Chloromethane	0.5	7	101	4.7	4.7
2-Chlorotoluene	0.5	7	99	4.6	4.6
4-Chlorotoluene	0.5	7	96	7.0	7.3
1,2-Dibromo-3-chloropropane	0.5	7	92	10.0	10.9
Dibromochloromethane	0.1	7	99	5.6	5.7
1,2-Dibromoethane	0.5	7	97	5.6	5.8
Dibromomethane	0.5	7	93	5.6	6.0
1,2-Dichlorobenzene	0.1	7	97	3.5	3.6
1,3-Dichlorobenzene	0.1	7	101	6.0	5.9
1,4-Dichlorobenzene	0.1	7	106	6.5	6.1
Dichlorodifluoromethane	0.1	7	99	8.8	8.9
1,1-Dichloroethane	0.5	7	98	6.2	6.3
1,2-Dichloroethane	0.1	7	100	6.3	6.3
1,1-Dichloroethene	0.1	7	95	9.0	9.5
cis-1,2-Dichloroethene	0.1	7	100	3.5	3.7
trans-1,2-Dichloroethene	0.1	7	98	7.2	7.3
1,2-Dichloropropane	0.5	7	96	6.0	6.3
1,3-Dichloropropane	0.5	7	99	5.8	5.9
2,2-Dichloropropane	0.5	7	99	4.9	4.9
1,1-Dichloropropene	0.5	7	102	7.4	7.3
Ethylbenzene	0.5	7	99	5.2	5.3
Hexachlorobutadiene	0.5	7	100	6.7	6.7
Isopropylbenzene	0.5	7	102	6.4	6.3
p-Isopropyltoluene	0.5	7	113	13.0	11.5
Methylene chloride	0.5	7	97	13.0	13.4
Naphthalene	0.5	7	98	7.2	7.3

TABLE 7 (cont.)

Compound	Conc. (µg/L)	Number of Samples	% Recovery[a]	Standard Deviation of Recovery[b]	RSD
n-Propylbenzene	0.5	7	99	6.6	6.7
Styrene	0.5	7	96	19.0	19.8
1,1,1,2-Tetrachloroethane	0.5	7	100	4.7	4.7
1,1,2,2-Tetrachloroethane	0.5	7	100	12.0	12.0
Tetrachloroethene	0.1	7	96	5.0	5.2
Toluene	0.5	7	100	5.9	5.9
1,2,3-Trichlorobenzene	0.5	7	102	8.9	8.7
1,2,4-Trichlorobenzene	0.5	7	91	16.0	17.6
1,1,1-Trichloroethane	0.5	7	100	4.0	4.0
1,1,2-Trichloroethane	0.5	7	102	4.9	4.8
Trichloroethene	0.1	7	104	2.0	1.9
Trichlorofluoromethane	0.1	7	97	4.6	4.7
1,2,3-Trichloropropane	0.5	7	96	6.5	6.8
1,2,4-Trimethylbenzene	0.5	7	96	6.5	6.8
1,3,5-Trimethylbenzene	0.5	7	101	4.2	4.2
Vinyl chloride	0.1	7	104	0.2	0.2
o-Xylene	0.5	7	106	7.5	7.1
m-Xylene	0.5	7	106	4.6	4.3
p-Xylene	0.5	7	97	6.1	6.3

[a] Recoveries were calculated using internal standard method. Internal standard was fluorobenzene.

TABLE 8

US EPA REGION III LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Replicate #1	Replicate #2	Replicate #3	Replicate #4	Average	%Rec	RSD
Acetone	20	23.78	21.41	21.10	21.95	22.06	110.3	5.4
Benzene	20	19.42	19.31	18.41	20.08	19.31	96.5	3.6
Bromobenzene	20	22.74	19.32	18.61	19.52	20.05	100.2	9.2
Bromochloromethane	20	22.87	19.58	18.91	19.60	20.24	101.2	8.8
Bromodichloromethane	20	18.07	18.10	17.57	18.69	18.11	90.5	2.5
Bromoform	20	18.97	19.39	18.88	19.09	19.08	95.4	1.2
Bromomethane	20	18.93	18.76	17.77	19.86	18.83	94.2	4.5
2-Butanone	20	21.81	20.70	21.61	22.01	21.53	107.7	2.7
n-Butylbenzene	20	22.16	19.14	18.04	19.12	19.62	98.1	9.0
sec-Butylbenzene	20	22.84	19.36	18.15	19.39	19.94	99.7	10.1
tert-Butylbenzene	20	21.87	18.62	17.64	18.62	19.19	95.9	9.6
Carbon disulfide	20	19.01	18.69	17.25	20.23	18.80	94.0	6.5
Carbon tetrachloride	20	19.46	18.74	17.77	20.34	19.08	95.4	5.7
Chlorobenzene	20	19.54	19.39	18.77	20.23	19.48	97.4	3.1
Chloroethane	20	18.86	18.89	17.06	19.95	18.69	93.5	6.4
2-Chloroethylvinyl ether	20	18.26	16.54	16.31	16.51	16.91	84.5	5.4
Chloroform	20	19.47	19.62	18.60	20.14	19.46	97.3	3.3
Chloromethane	20	18.89	18.27	16.78	19.37	18.33	91.6	6.1
2-Chlorotoluene	20	22.82	19.45	18.52	19.69	20.12	100.6	9.3
4-Chlorotoluene	20	22.46	19.08	18.19	19.38	19.78	98.9	9.4
Cyclohexane	20	19.10	18.60	17.46	20.20	18.84	94.2	6.0
1,2-Dibromo-3-chloropropane	20	18.90	18.07	18.54	18.64	18.54	92.7	1.9

TABLE 8 (cont.)

US EPA REGION III LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Replicate #1	Replicate #2	Replicate #3	Replicate #4	Average	%Rec	RSD
Dibromochloromethane	20	19.70	19.62	19.23	19.83	19.60	98.0	1.3
1,2-Dibromoethane	20	19.95	19.92	19.83	20.39	20.02	100.1	1.2
Dibromomethane	20	22.77	19.72	19.47	20.21	20.54	102.7	7.4
1,2-Dichlorobenzene	20	18.85	18.89	18.29	19.56	18.90	94.5	2.8
1,3-Dichlorobenzene	20	19.27	19.22	18.71	19.91	19.28	96.4	2.6
1,4-Dichlorobenzene	20	19.60	19.49	18.81	20.20	19.53	97.6	2.9
Dichlorodifluoromethane	20	21.07	20.36	18.76	22.20	20.60	103.0	7.0
1,1-Dichloroethane	20	19.23	19.42	18.22	20.15	19.26	96.3	4.1
1,2-Dichloroethane	20	20.15	20.21	19.71	20.67	20.19	100.9	1.9
1,1-Dichloroethene	20	19.36	18.98	17.78	20.59	19.18	95.9	6.0
cis-1,2-Dichloroethene	20	18.56	18.67	17.77	19.40	18.60	93.0	3.6
trans-1,2-Dichloroethene	20	19.26	18.96	17.85	20.04	19.03	95.1	4.8
1,2-Dichloropropane	20	19.73	19.46	18.74	20.18	19.53	97.6	3.1
1,3-Dichloropropane	20	22.23	19.68	19.51	19.59	20.25	101.3	6.5
2,2-Dichloropropane	20	23.16	19.40	17.71	19.08	19.84	99.2	11.8
1,1-Dichloro-1-propene	20	23.24	19.70	18.29	19.97	20.30	101.5	10.3
cis-1,3-Dichloropropene	20	18.96	19.09	18.47	19.54	19.02	95.1	2.3
trans-1,3-Dichloropropene	20	20.19	20.31	19.57	20.36	20.11	100.5	1.8
Ethylbenzene	20	19.55	19.28	18.21	20.21	19.31	96.6	4.3
Hexachlorobutadiene	20	21.14	18.20	17.30	18.34	18.75	93.7	8.9
2-Hexanone	20	23.39	21.20	21.24	22.01	21.96	109.8	4.7
Isopropylbenzene	20	19.13	18.91	17.81	19.84	18.92	94.6	4.4

TABLE 8 (cont.)

US EPA REGION III LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Replicate #1	Replicate #2	Replicate #3	Replicate #4	Average	%Rec	RSD
p-Isopropyltoluene	20	22.28	18.98	17.93	18.93	19.53	97.7	9.7
Methylene chloride	20	20.03	19.89	20.17	20.56	20.16	100.8	1.4
Methyl acetate	20	20.21	19.73	20.34	20.77	20.26	101.3	2.1
Methyl cyclohexane	20	19.24	18.80	17.75	20.18	18.99	95.0	5.3
4-Methyl-2-pentanone	20	22.00	21.19	21.44	22.00	21.66	108.3	1.9
Methyl tert-butyl ether	20	20.23	20.30	19.82	20.41	20.19	101.0	1.3
Naphthalene	20	20.98	18.60	18.42	18.89	19.22	96.1	6.2
n-Propylbenzene	20	22.56	19.20	18.05	19.31	19.78	98.9	9.8
Styrene	20	16.72	16.46	15.90	16.87	16.49	82.4	2.6
1,1,1,2-Tetrachloroethane	20	22.67	19.12	18.58	19.46	19.96	99.8	9.2
1,1,2,2-Tetrachloroethane	20	20.54	20.21	20.24	20.96	20.49	102.4	1.7
Tetrachloroethene	20	18.88	18.57	17.32	19.67	18.61	93.1	5.2
Toluene	20	20.01	19.59	18.78	20.51	19.72	98.6	3.7
1,2,3-Trichlorobenzene	20	21.68	19.12	18.59	19.20	19.65	98.2	7.0
1,2,4-Trichlorobenzene	20	19.39	18.50	18.13	19.04	18.77	93.8	3.0
1,1,1-Trichloroethane	20	19.06	18.58	17.47	19.95	18.77	93.8	5.5
1,1,2-Trichloroethane	20	19.76	19.91	19.47	20.33	19.87	99.3	1.8
Trichloroethene	20	20.19	19.84	18.42	20.67	19.78	98.9	4.9
Trichlorofluoromethane	20	18.25	17.98	16.79	18.98	18.00	90.0	5.1
1,2,3-Trichloropropane	20	21.83	19.89	19.76	20.32	20.45	102.3	4.6

TABLE 8 (cont.)

US EPA REGION III LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Replicate #1	Replicate #2	Replicate #3	Replicate #4	Average	%Rec	RSD
1,1,2-Trichloro-1,2,2-trifluoroethane	20	20.33	19.65	18.54	21.18	19.93	99.6	5.6
1,2,4-Trimethylbenzene	20	22.67	19.41	18.47	19.45	20.00	100.0	9.2
1,3,5-Trimethylbenzene	20	22.51	19.13	18.09	19.20	19.73	98.7	9.7
Vinyl acetate	20	22.23	19.92	19.44	19.86	20.36	101.8	6.2
Vinyl chloride	20	19.85	19.72	18.08	21.12	19.69	98.5	6.3
o-Xylene	20	19.78	19.63	18.87	20.46	19.69	98.4	3.3
m & p-Xylene	40	39.08	38.42	36.45	40.21	38.54	96.4	4.1
Surrogates								
1,2-Dichloroethane-d_4	20	20.33	20.33	20.35	20.41	20.36	101.8	0.2
Toluene-d_8	20	20.39	20.24	20.36	20.21	20.30	101.5	0.4
Bromofluorobenzene	20	20.18	20.17	20.12	20.19	20.17	100.8	0.2

TABLE 9

US EPA REGION VI LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Rep. #1	Rep. #2	Rep. #3	Rep. #4	Rep. #5	Average	%Rec	RSD
Acetone	20	18.69	22.81	19.57	21.73	21.30	20.82	104	8.0
Benzene	20	17.99	19.64	18.25	19.77	20.06	19.14	96	5.0
Bromodichloromethane	20	17.86	20.40	18.39	20.45	20.02	19.42	97	6.2
Bromoform	20	18.47	20.16	18.12	20.83	20.39	19.59	98	6.2
Bromomethane	20	18.53	21.27	19.25	20.66	21.31	20.20	101	6.2
2-Butanone	20	17.20	20.88	18.33	20.86	20.84	19.62	98	8.9
Carbon disulfide	20	18.63	20.86	19.00	20.99	21.50	20.20	101	6.4
Carbon tetrachloride	20	17.82	20.11	18.41	19.79	20.19	19.26	96	5.6
Chlorobenzene	20	18.11	20.65	18.47	20.60	20.63	19.69	98	6.5
Chloroethane	20	21.84	20.31	19.18	20.57	21.70	20.72	104	5.3
Chloroform	20	18.48	21.32	19.10	21.28	20.44	20.12	101	6.4
Chloromethane	20	18.35	20.08	19.11	20.38	19.18	19.42	97	4.2
Cyclohexane	20	18.00	20.07	18.01	19.55	20.35	19.20	96	5.9
1,2-Dibromo-3-chloropropane	20	17.23	20.88	18.03	21.62	20.69	19.69	98	9.8
Dibromochloromethane	20	17.36	20.07	18.23	19.76	20.07	19.10	95	6.5
1,2-Dibromoethane	20	17.97	20.06	18.13	20.01	20.88	19.41	97	6.6
1,2-Dichlorobenzene	20	17.74	19.92	18.11	19.41	20.05	19.05	95	5.6
1,3-Dichlorobenzene	20	17.95	20.10	17.98	19.90	20.25	19.24	96	6.1
1,4-Dichlorobenzene	20	18.05	19.66	18.22	19.47	19.67	19.01	95	4.3
Dichlorodifluoromethane	20	18.81	21.17	19.46	20.98	20.76	20.24	101	5.1
1,1-Dichloroethane	20	18.34	20.86	18.57	20.43	20.69	19.78	99	6.2
1,2-Dichloroethane	20	18.94	21.32	19.35	21.44	20.63	20.34	102	5.6

TABLE 9 (cont.)

US EPA REGION VI LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Rep. #1	Rep. #2	Rep. #3	Rep. #4	Rep #5	Average	%Rec	RSD
1,1-Dichloroethene	20	17.69	20.18	18.44	21.12	19.81	19.45	97	7.1
cis-1,2-Dichloroethene	20	18.23	20.74	18.49	20.13	19.60	19.44	97	5.5
trans-1,2-Dichloroethene	20	18.29	20.50	18.25	19.89	20.04	19.39	97	5.4
1,2-Dichloropropane	20	17.97	20.35	18.23	19.98	20.44	19.39	97	6.2
cis-1,3-Dichloropropene	20	16.29	17.93	16.14	17.93	17.77	17.21	86	5.3
trans-1,3-Dichloropropene	20	16.83	18.88	16.93	18.46	18.50	17.92	90	5.4
Ethylbenzene	20	17.03	19.05	17.20	18.82	19.04	18.23	91	5.6
2-Hexanone	20	17.00	20.59	18.63	19.59	21.16	19.39	97	8.5
Isopropylbenzene	20	17.22	19.51	17.32	18.75	19.19	18.40	92	5.8
Methylene chloride	20	18.56	20.23	18.76	20.53	20.06	19.63	98	4.6
Methyl acetate	20	18.74	21.20	19.04	21.21	20.57	20.15	101	5.9
Methyl cyclohexane	20	18.36	20.51	18.33	20.50	20.26	19.59	98	5.8
4-Methyl-2-pentanone	20	15.91	19.04	16.86	18.10	18.86	17.75	89	7.6
Methyl tert-butyl ether	20	17.52	20.14	18.03	20.41	19.46	19.11	96	6.7
Styrene	20	17.59	19.93	17.88	19.52	19.87	18.96	95	6.0
1,1,2,2-Tetrachloroethane	20	18.29	21.59	19.00	22.17	21.09	20.43	102	8.3
Tetrachloroethene	20	18.12	20.53	18.80	20.79	20.91	19.83	99	6.5
Toluene	20	18.36	20.57	18.77	20.25	20.85	19.76	99	5.7
1,2,4-Trichlorobenzene	20	16.97	18.95	17.09	18.38	18.86	18.05	90	5.3
1,1,1-Trichloroethane	20	18.30	19.87	18.49	20.37	19.91	19.39	97	4.8
1,1,2-Trichloroethane	20	17.68	19.74	18.02	20.37	19.84	19.13	96	6.3
Trichloroethene	20	17.89	19.49	18.20	19.80	20.06	19.09	95	5.1

TABLE 9 (cont.)

US EPA REGION VI LABORATORY INITIAL DEMONSTRATION OF CAPABILITY DATA FOR PURGEABLE VOLATILE ORGANIC COMPOUNDS IN WATER DETERMINED WITH A NARROW-BORE CAPILLARY COLUMN (METHOD 5030)

Compound	Spike Conc. (µg/L)	Rep. #1	Rep. #2	Rep. #3	Rep. #4	Rep. #5	Average	%Rec	RSD
Trichlorofluoromethane	20	19.53	21.52	19.86	21.76	21.68	20.87	104	5.2
1,1,2-Trichloro-1,2,2-trifluoroethane	20	19.48	21.10	18.18	21.16	21.46	20.28	101	6.9
Vinyl chloride	20	19.22	21.48	19.35	21.33	20.97	20.47	102	5.4
o-Xylene	20	17.89	19.87	17.58	19.38	20.00	18.94	95	6.0
m & p-Xylene	40	36.15	40.29	36.51	39.44	40.57	38.59	96	5.5
Surrogates									
1,2-Dichloroethane-d_4	50	45.62	45.78	45.94	46.31	45.35	45.80	92	0.8
Toluene-d_8	50	47.00	47.17	47.65	47.24	46.93	47.20	94	0.6
Bromofluorobenzene	50	48.40	49.46	49.32	48.61	49.48	49.05	98	1.0

TABLE 10

EXAMPLE SURROGATE SPIKE RECOVERY LIMITS
FOR WATER AND SOIL/SEDIMENT SAMPLES

Surrogate Compound	Water	Soil/Sediment
4-Bromofluorobenzene[a]	86-115	74-121
Dibromofluoromethane[a]	86-118	80-120
Toluene-d_8[a]	88-110	81-117
Dichloroethane-d_4[a]	80-120	80-120

[a] Single laboratory data, for guidance only.

TABLE 11

RECOMMENDED QUANTITY OF EXTRACT FOR ANALYSIS OF
HIGH CONCENTRATION SAMPLES

Approximate Concentration Range (µg/kg)			Volume of Extract[a]
500	-	10,000	100 µL
1,000	-	20,000	50 µL
5,000	-	100,000	10 µL
25,000	-	500,000	100 µL of 1/50 dilution[b]

Calculate appropriate dilution factor for concentrations exceeding this table.

[a] The volume of solvent added to 5 mL of water being purged should be kept constant. Therefore, add to the 5-mL syringe whatever volume of solvent is necessary to maintain a volume of 100 µL added to the syringe.

[b] Dilute an aliquot of the solvent extract and then take 100 µL for analysis.

TABLE 12

DIRECT INJECTION ANALYSIS OF NEW OIL AT VARIOUS CONCENTRATIONS
(METHOD 3585)

Compound	Recovery (%)	%RSD	Blank (ppm)	Spike (ppm)
Acetone	91	14.8	1.9	5.0
Benzene	86	21.3	0.1	0.5
n-Butanol*,**	107	27.8	0.5	5.0
iso-Butanol*,**	95	19.5	0.9	5.0
Carbon tetrachloride	86	44.7	0.0	0.5
Carbon disulfide**	53	22.3	0.0	5.0
Chlorobenzene	81	29.3	0.0	5.0
Chloroform	84	29.3	0.0	6.0
1,4-Dichlorobenzene	98	24.9	0.0	7.5
1,2-Dichloroethane	101	23.1	0.0	0.5
1,1-Dichloroethene	97	45.3	0.0	0.7
Diethyl ether	76	24.3	0.0	5.0
Ethyl acetate	113	27.4	0.0	5.0
Ethylbenzene	83	30.1	0.2	5.0
Hexachloroethane	71	30.3	0.0	3.0
Methylene chloride	98	45.3	0.0	5.0
Methyl ethyl ketone	79	24.6	0.4	5.0
MIBK	93	31.4	0.0	5.0
Nitrobenzene	89	30.3	0.0	2.0
Pyridine	31	35.9	0.0	5.0
Tetrachloroethene	82	27.1	0.0	0.7
Trichlorofluoromethane	76	27.6	0.0	5.0
1,1,2-Trichlorotrifluoroethane	69	29.2	0.0	5.0
Toluene	73	21.9	0.6	5.0
Trichloroethene	66	28.0	0.0	0.5
Vinyl chloride	63	35.2	0.0	0.2
o-Xylene	83	29.5	0.4	5.0
m/p-Xylene	84	29.5	0.6	10.0

* Alternate mass employed
** IS quantitation

Data are taken from Reference 9.

TABLE 13

SINGLE LABORATORY PERFORMANCE
DATA FOR THE DIRECT INJECTION METHOD - USED OIL (METHOD 3585)

Compound	Recovery (%)	%RSD	Blank (ppm)	Spike (ppm)
Acetone**	105	54	2.0	5.0
Benzene	3135	44	14	0.5
Benzene-d_6	56	44	2.9	0.5
n-Butanol**	100	71	12	5.0
iso-Butanol*,**	132	27	0	5.0
Carbon tetrachloride	143	68	0	0.5
Carbon tetrachloride-^{13}C	99	44	5.1	0.5
Carbon disulfide**	95	63	0	5.0
Chlorobenzene	148	71	0	5.0
Chlorobenzene-d_5	60	44	3.6	5.0
Chloroform	149	74	0	6.0
Chloroform-d_1	51	44	2.6	6.0
1,4-Dichlorobenzene	142	72	0	7.5
1,4-Dichlorobenzene-d_4	53	44	3.4	7.5
1,2-Dichloroethane**	191	54	0	0.5
1,1-Dichloroethene*	155	51	0	0.7
1,1-Dichloroethene-d_2	68	44	3.4	0.7
Diethyl ether**	95	66	0	5.0
Ethyl acetate*,**	126	39	0	5.0
Ethylbenzene	1298	44	54	5.0
Ethylbenzene-d_{10}	63	44	3.6	5.0
Hexachloroethane	132	72	0	3.0
Hexachloroethane-^{13}C	54	45	3.5	3.0
Methylene chloride**	86	65	0.3	5.0
Methyl ethyl ketone**	107	64	0	5.0
4-Methyl-2-pentanone (MIBK)**	100	74	0.1	5.0
Nitrobenzene	111	80	0	2.0
Nitrobenzene-d_5	65	53	4.0	2.0
Pyridine**	68	85	0	5.0
Pyridine-d_5	ND	--	0	5.0
Tetrachloroethene**	101	73	0	0.7
Trichlorofluoromethane**	91	70	0	5.0
1,1,2-Cl_3F_3ethane**	81	70	0	5.0
Toluene	2881	44	128	5.0
Toluene-d_8	63	44	3.6	5.0
Trichloroethene	152	57	0	0.5
Trichloroethene-d_1	55	44	2.8	0.5

TABLE 13 (cont.)

Compound	Recovery (%)	%RSD	Blank (ppm)	Spike (ppm)
Vinyl chloride**	100	69	0	0.2
o-Xylene	2292	44	105	5.0
o-Xylene-d_{10}	76	44	4.2	5.0
m-/p-Xylene	2583	44	253	10.0
p-Xylene-d_{10}	67	44	3.7	10.0

* Alternate mass employed
** IS quantitation
ND = Not Detected

Data are based on seven measurements and are taken from Reference 9.

TABLE 14

TARGET COMPOUNDS, SURROGATES, AND INTERNAL STANDARDS (METHOD 5031)

Target Compound	Surrogate	Internal Standard
Acetone	d_6-Acetone	d_8-Isopropyl alcohol
Acetonitrile	d_3-Acetonitrile	d_8-Isopropyl alcohol
Acrylonitrile	d_8-Isopropyl alcohol	
Allyl alcohol	d_7-Dimethyl formamide	
Crotonaldehyde	d_8-Isopropyl alcohol	
1,4-Dioxane	d_8-1,4-Dioxane	d_7-Dimethyl formamide
Isobutyl alcohol	d_7-Dimethyl formamide	
Methanol	d_3-Methanol	d_8-Isopropyl alcohol
Methyl ethyl ketone	d_8-Isopropyl alcohol	
N-Nitroso-di-n-butylamine	d_7-Dimethyl formamide	
Paraldehyde	d_7-Dimethyl formamide	
2-Picoline	d_7-Dimethyl formamide	
Propionitrile	d_8-Isopropyl alcohol	
Pyridine	d_5-Pyridine	d_7-Dimethyl formamide
o-Toluidine	d_7-Dimethyl formamide	

TABLE 15

RECOMMENDED CONCENTRATIONS FOR CALIBRATION SOLUTIONS (METHOD 5031)

Compound	Concentration(s) (ng/µL)
Internal Standards	
d_5-benzyl alcohol	10.0
d_{14}-Diglyme	10.0
d_7-Dimethyl formamide	10.0
d_8-Isopropyl alcohol	10.0
Surrogates	
d_6-Acetone	10.0
d_3-Acetonitrile	10.0
d_8-1,4-Dioxane	10.0
d_3-Methanol	10.0
d_5-Pyridine	10.0
Target Compounds	
Acetone	1.0, 5.0, 10.0, 25.0, 100.0
Acetonitrile	1.0, 5.0, 10.0, 25.0, 100.0
Acrylonitrile	1.0, 5.0, 10.0, 25.0, 100.0
Allyl alcohol	1.0, 5.0, 10.0, 25.0, 100.0
Crotonaldehyde	1.0, 5.0, 10.0, 25.0, 100.0
1,4-Dioxane	1.0, 5.0, 10.0, 25.0, 100.0
Isobutyl alcohol	1.0, 5.0, 10.0, 25.0, 100.0
Methanol	1.0, 5.0, 10.0, 25.0, 100.0
Methyl ethyl ketone	1.0, 5.0, 10.0, 25.0, 100.0
N-Nitroso-di-n-butylamine	1.0, 5.0, 10.0, 25.0, 100.0
Paraldehyde	1.0, 5.0, 10.0, 25.0, 100.0
2-Picoline	1.0, 5.0, 10.0, 25.0, 100.0
Propionitrile	1.0, 5.0, 10.0, 25.0, 100.0
Pyridine	1.0, 5.0, 10.0, 25.0, 100.0
o-Toluidine	1.0, 5.0, 10.0, 25.0, 100.0

TABLE 16

CHARACTERISTIC IONS AND RETENTION TIMES FOR VOCs (METHOD 5031)

Compound	Quantitation Ion[a]	Secondary Ions	Retention Time (min)[b]
Internal Standards			
d_8-Isopropyl alcohol	49		1.75
d_{14}-Diglyme	66	98,64	9.07
d_7-Dimethyl formamide	50	80	9.20
Surrogates			
d_6-Acetone	46	64,42	1.03
d_3-Methanol	33	35,30	1.75
d_3-Acetonitrile	44	42	2.63
d_8-1,4-Dioxane	96	64,34	3.97
d_5-Pyridine	84	56,79	6.73
d_5-Phenol[c]	99	71	15.43
Target Compounds			
Acetone	43	58	1.05
Methanol	31	29	1.52
Methyl ethyl ketone	43	72,57	1.53
Methacrylonitrile[c]	67	41	2.38
Acrylonitrile	53	52,51	2.53
Acetonitrile	41	40,39	2.73
Methyl isobutyl ketone[c]	85	100,58	2.78
Propionitrile	54	52,55	3.13
Crotonaldehyde	41	70	3.43
1,4-Dioxane	58	88,57	4.00
Paraldehyde	45	89	4.75
Isobutyl alcohol	43	33,42	5.05
Allyl alcohol	57	39	5.63
Pyridine	79	50,52	6.70
2-Picoline	93	66	7.27
N-Nitroso-di-n-butylamine	84	116	12.82
Aniline[c]	93	66,92	13.23
o-Toluidine	106	107	13.68
Phenol[c]	94	66,65	15.43

[a] These ions were used for quantitation in selected ion monitoring.
[b] GC column: DB-Wax, 30 meter x 0.53 mm, 1 µm film thickness.
Oven program: 45°C for 4 min, increased to 220°C at 12°C/min.
[c] Compound removed from target analyte list due to poor accuracy and precision.

TABLE 17

METHOD ACCURACY AND PRECISION BY MEAN PERCENT RECOVERY AND PERCENT RELATIVE STANDARD DEVIATION[a] (METHOD 5031 - MACRODISTILLATION TECHNIQUE)
(Single Laboratory and Single Operator)

Compound	25 ppb Spike		100 ppb Spike		500 ppb Spike	
	Mean %R	%RSD	Mean %R	%RSD	Mean %R	%RSD
d_6-Acetone	66	24	69	14	65	16
d_3-Acetonitrile	89	18	80	18	70	10
d_8-1,4-Dioxane	56	34	58	11	61	18
d_3-Methanol	43	29	48	19	56	14
d_5-Pyridine	83	6.3	84	7.8	85	9.0
Acetone	67	45	63	14	60	14
Acetonitrile	44	35	52	15	56	15
Acrylonitrile	49	42	47	27	45	27
Allyl alcohol	69	13	70	9.7	73	10
Crotonaldehyde	68	22	68	13	69	13
1,4-Dioxane	63	25	55	16	54	13
Isobutyl alcohol	66	14	66	5.7	65	7.9
Methanol	50	36	46	22	49	18
Methyl ethyl ketone	55	37	56	20	52	19
N-Nitroso-di-n-butylamine	57	21	61	15	72	18
Paraldehyde	65	20	66	11	60	8.9
Picoline	81	12	81	6.8	84	8.0
Propionitrile	67	22	69	13	68	13
Pyridine	74	7.4	72	6.7	74	7.3
o-Toluidine	52	31	54	15	58	12

[a] Data from analysis of seven aliquots of reagent water spiked at each concentration, using a quadrupole mass spectrometer in the selected ion monitoring mode.

TABLE 18

RECOVERIES IN SAND SAMPLES FORTIFIED AT 20 µg/kg (ANALYSIS BY METHOD 5035)

Compound	Recovery per Replicate (ng) 1	2	3	4	5	Mean	RSD	Mean Rec
Vinyl chloride	8.0	7.5	6.7	5.4	6.6	6.8	13.0	34.2
Trichlorofluoromethane	13.3	16.5	14.9	13.0	10.3	13.6	15.2	68.0
1,1-Dichloroethene	17.1	16.7	15.1	14.8	15.6	15.9	5.7	79.2
Methylene chloride	24.5	22.7	19.7	19.4	20.6	21.4	9.1	107
trans-1,2-Dichloroethene	22.7	23.6	19.4	18.3	20.1	20.8	0.7	104
1,2-Dichloroethane	18.3	18.0	16.7	15.6	15.9	16.9	6.4	84.4
cis-1,2-Dichloroethene	26.1	23.1	22.6	20.3	20.8	22.6	9.0	113
Bromochloromethane	24.5	25.4	20.9	20.1	20.1	22.2	10.2	111
Chloroform	26.5	26.0	22.1	18.9	22.1	23.1	12.2	116
1,1,1-Trichloroethane	21.5	23.0	23.9	16.7	31.2	23.4	21.2	117
Carbon tetrachloride	23.6	24.2	22.6	18.3	23.3	22.4	9.4	112
Benzene	22.4	23.9	20.4	17.4	19.2	20.7	11.2	103
Trichloroethene	21.5	20.5	19.2	14.4	19.1	18.9	12.7	94.6
1,2-Dichloropropane	24.9	26.3	23.1	19.0	23.3	23.3	10.5	117
Dibromomethane	25.4	26.4	21.6	20.4	23.6	23.5	9.6	117
Bromodichloromethane	25.7	26.7	24.1	17.9	23.0	23.5	13.1	117
Toluene	28.3	25.0	24.8	16.3	23.6	23.6	16.9	118
1,1,2-Trichloroethane	25.4	24.5	21.6	17.7	22.1	22.2	12.1	111
1,3-Dichloropropane	25.4	24.2	22.7	17.0	22.2	22.3	12.8	112
Dibromochloromethane	26.3	26.2	23.7	18.2	23.2	23.5	12.5	118
Chlorobenzene	22.9	22.5	19.8	14.6	19.4	19.9	15.0	99.3
1,1,1,2-Tetrachloroethane	22.4	27.7	25.1	19.4	22.6	23.4	12.0	117
Ethylbenzene	25.6	25.0	22.1	14.9	24.0	22.3	17.5	112
p-Xylene	22.5	22.0	19.8	13.9	20.3	19.7	15.7	98.5
o-Xylene	24.2	23.1	21.6	14.0	20.4	20.7	17.3	103
Styrene	23.9	21.5	20.9	14.3	20.5	20.2	15.7	101
Bromoform	26.8	25.6	26.0	20.1	23.5	24.4	9.9	122
iso-Propylbenzene	25.3	25.1	24.2	15.4	24.6	22.9	16.6	114
Bromobenzene	19.9	21.8	20.0	15.5	19.1	19.3	10.7	96.3
1,2,3-Trichloropropane	25.9	23.0	25.6	15.9	21.4	22.2	15.8	111
n-Propylbenzene	26.0	23.8	22.6	13.9	21.9	21.6	19.0	106
2-Chlorotoluene	23.6	23.8	21.3	13.0	21.5	20.6	19.2	103
4-Chlorotoluene	21.0	19.7	18.4	12.1	18.3	17.9	17.1	89.5
1,3,5-Trimethylbenzene	24.0	22.1	22.5	13.8	22.9	21.1	17.6	105
sec-Butylbenzene	25.9	25.3	27.8	16.1	28.6	24.7	18.1	124
1,2,4-Trimethylbenzene	30.6	39.2	22.4	18.0	22.7	26.6	28.2	133
1,3-Dichlorobenzene	20.3	20.6	18.2	13.0	17.6	17.9	15.2	89.7
p-iso-Propyltoluene	21.6	22.1	21.6	16.0	22.8	20.8	11.8	104
1,4-Dichlorobenzene	18.1	21.2	20.0	13.2	17.4	18.0	15.3	90.0
1,2-Dichlorobenzene	18.4	22.5	22.5	15.2	19.9	19.7	13.9	96.6
n-Butylbenzene	13.1	20.3	19.5	10.8	18.7	16.5	23.1	82.4
1,2,4-Trichlorobenzene	14.5	14.9	15.7	8.8	12.3	13.3	18.8	66.2
Hexachlorobutadiene	17.6	22.5	21.6	13.2	21.6	19.3	18.2	96.3
1,2,3-Trichlorobenzene	14.9	15.9	16.5	11.9	13.9	14.6	11.3	73.1

Data in Tables 17, 18, and 19 are from Reference 15.

TABLE 19
RECOVERIES IN HAZARDOUS WASTE LANDFILL SOILS FORTIFIED AT 20 µg/kg (ANALYSIS BY METHOD 5035)

Compound	Recovery per Replicate (ng) 1	2	3	4	5	Mean	RSD	Mean Rec
Vinyl chloride	33.4	31.0	30.9	29.7	28.6	30.8	5.2	154
Trichlorofluoromethane	37.7	20.8	20.0	21.8	20.5	24.1	28.2	121
1,1-Dichloroethene	21.7	33.5	39.8	30.2	32.5	31.6	18.5	158
Methylene chloride	20.9	19.4	18.7	18.3	18.4	19.1	5.1	95.7
trans-1,2-Dichloroethene	21.8	18.9	20.4	17.9	17.8	19.4	7.9	96.8
1,1-Dichloroethane	23.8	21.9	21.3	21.3	20.5	21.8	5.2	109
cis-1,2-Dichloroethene	21.6	18.8	18.5	18.2	18.2	19.0	6.7	95.2
Bromochloromethane	22.3	19.5	19.3	19.0	19.2	20.0	6.0	100
Chloroform	20.5	17.1	17.3	16.5	15.9	17.5	9.2	87.3
1,1,1-Trichloroethane	16.4	11.9	10.7	9.5	9.4	11.6	22.4	57.8
Carbon tetrachloride	13.1	11.3	13.0	11.8	11.2	12.1	6.7	60.5
Benzene	21.1	19.3	18.7	18.2	16.9	18.8	7.4	94.1
Trichloroethene	19.6	16.4	16.5	16.5	15.5	16.9	8.3	84.5
1,2-Dichloropropane	21.8	19.0	18.3	18.8	16.5	18.9	9.0	94.4
Dibromomethane	20.9	17.9	17.9	17.2	18.3	18.4	6.9	92.1
Bromodichloromethane	20.9	18.0	18.9	18.2	17.3	18.6	6.6	93.2
Toluene	22.2	17.3	18.8	17.0	15.9	18.2	12.0	91.2
1,1,2-Trichloroethane	21.0	16.5	17.2	17.2	16.5	17.7	9.6	88.4
1,3-Dichloropropane	21.4	17.3	18.7	18.6	16.7	18.5	8.8	92.6
Dibromochloromethane	20.9	18.1	19.0	18.8	16.6	18.7	7.5	93.3
Chlorobenzene	20.8	18.4	17.6	16.8	14.8	17.7	11.2	88.4
1,1,1,2-Tetrachloroethane	19.5	19.0	17.8	17.2	16.5	18.0	6.2	90.0
Ethylbenzene	21.1	18.3	18.5	16.9	15.3	18.0	10.6	90.0
p-Xylene	20.0	17.4	18.2	16.3	14.4	17.3	10.9	86.3
o-Xylene	20.7	17.2	16.8	16.2	14.8	17.1	11.4	85.7
Styrene	18.3	15.9	16.2	15.3	13.7	15.9	9.3	79.3
Bromoform	20.1	15.9	17.1	17.5	16.1	17.3	8.6	86.7
iso-Propylbenzene	21.0	18.1	19.2	18.4	15.6	18.4	9.6	92.2
Bromobenzene	20.4	16.2	17.2	16.7	15.4	17.2	10.1	85.9
1,1,2,2-Tetrachloroethane	23.3	17.9	21.2	18.8	16.8	19.6	12.1	96.0
1,2,3-Trichloropropane	18.4	14.6	15.6	16.1	15.6	16.1	8.0	80.3
n-Propylbenzene	20.4	18.9	17.9	17.0	14.3	17.7	11.6	88.4
2-Chlorotoluene	19.1	17.3	16.1	16.0	14.4	16.7	9.2	83.6
4-Chlorotoluene	19.0	15.5	16.8	15.9	13.6	16.4	10.6	81.8
1,3,5-Trimethylbenzene	20.8	18.0	17.4	16.1	14.7	17.4	11.7	86.9
sec-Butylbenzene	21.4	18.3	18.9	17.0	14.9	18.1	11.8	90.5
1,2,4-Trimethylbenzene	20.5	18.6	16.8	15.3	13.7	17.0	14.1	85.0
1,3-Dichlorobenzene	17.6	15.9	15.6	14.2	14.4	15.6	7.9	77.8
p-iso-Propyltoluene	20.5	17.0	17.1	15.6	13.4	16.7	13.9	83.6
1,4-Dichlorobenzene	18.5	13.8	14.8	16.7	14.9	15.7	10.5	78.7
1,2-Dichlorobenzene	18.4	15.0	15.4	15.3	13.5	15.5	10.5	77.6
n-Butylbenzene	19.6	15.9	15.9	14.4	18.9	16.9	11.7	84.6
1,2,4-Trichlorobenzene	15.2	17.2	17.4	13.6	12.1	15.1	13.5	75.4
Hexachlorobutadiene	18.7	16.2	15.5	13.8	16.6	16.1	10.0	80.7
Naphthalene	13.9	11.1	10.2	10.8	11.4	11.5	11.0	57.4
1,2,3-Trichlorobenzene	14.9	15.2	16.8	13.7	12.7	14.7	9.5	73.2

TABLE 20
RECOVERIES IN GARDEN SOIL FORTIFIED AT 20 µg/kg (ANALYSIS BY METHOD 5035)

Compound	Recovery per Replicate (ng) 1	2	3	4	5	Mean	RSD	Mean Rec
Vinyl chloride	12.7	10.9	9.8	8.1	7.2	9.7	20.2	48.7
Trichlorofluoromethane	33.7	6.4	30.3	27.8	22.9	24.2	39.6	121
1,1-Dichloroethene	27.7	20.5	24.1	15.1	13.2	20.1	26.9	101
Methylene chloride	25.4	23.9	24.7	22.2	24.2	24.1	4.4	120
trans-1,2-Dichloroethene	2.8	3.0	3.3	2.2	2.4	2.7	15.0	13.6
1,1-Dichloroethane	24.1	26.3	27.0	20.5	21.2	23.8	11.0	119
cis-1,2-Dichloroethene	8.3	10.2	8.7	5.8	6.4	7.9	20.1	39.4
Bromochloromethane	11.1	11.8	10.2	8.8	9.0	10.2	11.2	50.9
Chloroform	16.7	16.9	17.0	13.8	15.0	15.9	7.9	79.3
1,1,1-Trichloroethane	24.6	22.8	22.1	16.2	20.9	21.3	13.4	107
Carbon tetrachloride	19.4	20.3	22.2	20.0	20.2	20.4	4.6	102
Benzene	21.4	22.0	22.4	19.6	20.4	21.2	4.9	106
Trichloroethene	12.4	16.5	14.9	9.0	9.9	12.5	22.9	62.7
1,2-Dichloropropane	19.0	18.8	19.7	16.0	17.6	18.2	7.1	91.0
Dibromomethane	7.3	8.0	6.9	5.6	6.8	6.9	11.3	34.6
Bromodichloromethane	14.9	15.9	15.9	12.8	13.9	14.7	8.3	73.3
Toluene	42.6	39.3	45.1	39.9	45.3	42.4	5.9	212
1,1,2-Trichloroethane	13.9	15.2	1.4	21.3	14.9	15.9	17.0	79.6
1,3-Dichloropropane	13.3	16.7	11.3	10.9	9.5	12.3	20.3	61.7
Dibromochloromethane	14.5	13.1	14.5	11.9	14.4	13.7	7.6	68.3
Chlorobenzene	8.4	10.0	8.3	6.9	7.8	8.3	12.1	41.3
1,1,1,2-Tetrachloroethane	16.7	16.7	15.6	15.8	15.7	16.1	3.2	80.4
Ethylbenzene	22.1	21.4	23.1	20.1	22.6	21.9	4.8	109
p-Xylene	41.4	38.4	43.8	38.3	44.0	41.2	6.1	206
o-Xylene	31.7	30.8	34.3	30.4	33.2	32.1	4.6	160
Styrene	0	0	0	0	0	0	0	0
Bromoform	8.6	8.9	9.1	7.0	7.7	8.3	9.4	41.4
iso-Propylbenzene	18.1	18.8	9.7	18.3	19.6	18.9	3.5	94.4
Bromobenzene	5.1	5.4	5.3	4.4	4.0	4.8	11.6	24.1
1,1,2,2-Tetrachloroethane	14.0	13.5	14.7	15.3	17.1	14.9	8.5	74.5
1,2,3-Trichloropropane	11.0	12.7	11.7	11.7	11.9	11.8	4.5	59.0
n-Propylbenzene	13.4	13.3	14.7	12.8	13.9	13.6	4.7	68.1
2-Chlorotoluene	8.3	9.0	11.7	8.7	7.9	9.1	14.8	45.6
4-Chlorotoluene	5.1	5.4	5.5	4.8	4.5	5.0	7.9	25.2
1,3,5-Trimethylbenzene	31.3	27.5	33.0	31.1	33.6	31.3	6.8	157
sec-Butylbenzene	13.5	13.4	16.4	13.8	15.4	14.5	8.3	72.5
1,2,4-Trimethylbenzene	38.7	32.4	40.8	34.1	40.3	37.3	9.1	186
1,3-Dichlorobenzene	3.6	3.6	3.7	3.0	3.2	3.4	8.0	17.2
p-iso-Propyltoluene	14.7	14.1	16.1	13.9	15.1	14.8	5.2	73.8
1,4-Dichlorobenzene	3.0	3.5	3.3	2.6	2.8	3.0	10.2	15.0
1,2-Dichlorobenzene	3.6	4.3	4.0	3.5	3.6	3.8	8.3	19.0
n-Butylbenzene	17.4	13.8	14.0	18.9	24.0	17.6	21.2	88.0
1,2,4-Trichlorobenzene	2.8	2.9	3.3	2.6	3.2	3.0	8.5	15.0
Hexachlorobutadiene	4.8	4.0	6.1	5.6	6.0	5.3	15.1	26.4
Naphthalene	5.5	5.1	5.5	4.7	5.6	5.3	6.2	26.5
1,2,3-Trichlorobenzene	2.2	2.3	2.4	2.2	2.3	2.3	3.5	11.4

Data in Table 19 are from Reference 15.

TABLE 21

VOLATILE ORGANIC ANALYTE RECOVERY FROM SOIL
USING VACUUM DISTILLATION (METHOD 5032)[a]

Compound	Soil/H_2O[b] Recovery Mean	RSD	Soil/Oil[c] Recovery Mean	RSD	Soil/Oil/H_2O[d] Recovery Mean	RSD
Chloromethane	61	20	40	18	108	68
Bromomethane	58	20	47	13	74	13
Vinyl chloride	54	12	46	11	72	20
Chloroethane	46	10	41	8	52	14
Methylene chloride	60	2	65	8	76	11
Acetone	INT[e]	INT	44	8		
Carbon disulfide	47	13	53	10	47	4
1,1-Dichloroethene	48	9	47	5	58	3
1,1-Dichloroethane	61	6	58	9	61	6
trans-1,2-Trichloroethane	54	7	60	7	56	5
cis-1,2-Dichloroethene	60	4	72	6	63	8
Chloroform	104	11	93	6	114	15
1,2-Dichloroethane	177	50	117	8	151	22
2-Butanone	INT	36	38	INT		
1,1,1-Trichloroethane	124	13	72	16	134	26
Carbon tetrachloride	172	122	INT	INT		
Vinyl acetate	88	11	INT			
Bromodichloromethane	93	4	91	23	104	23
1,1,2,2-Tetrachloroethane	96	13	50	12	104	7
1,2-Dichloropropane	105	8	102	6	111	6
trans-1,3-Dichloropropene	134	10	84	16	107	8
Trichloroethene	98	9	99	10	100	5
Dibromochloromethane	119	8	125	31	142	16
1,1,2-Trichloroethane	126	10	72	16	97	4
Benzene	99	7	CONT[f]	CONT		
cis-1,3-Dichloropropene	123	12	94	13	112	9
Bromoform	131	13	58	18	102	9
2-Hexanone	155	18	164	19	173	29
4-Methyl-2-pentanone	152	20	185	20	169	18
Tetrachloroethene	90	9	123	14	128	7
Toluene	94	3	CONT	CONT		
Chlorobenzene	98	7	93	18	112	5
Ethylbenzene	114	13	CONT	CONT		
Styrene	106	8	93	18	112	5
p-Xylene	97	9	CONT	CONT		
o-Xylene	105	8	112	12	144	13

TABLE 21 (cont.)

Compound	Soil/H_2O[b] Recovery Mean	RSD	Soil/Oil[c] Recovery Mean	RSD	Soil/Oil/H_2O Recovery Mean	RSD
Surrogates						
1,2-Dichloroethane	177	50	117	8	151	22
Toluene-d_8	96	6	79	12	82	6
Bromofluorobenzene	139	13	37	13	62	5

[a] Results are for 10 min. distillation times, and condenser temperature held at -10°C. A 30 m x 0.53 mm ID stable wax column with a 1 µm film thickness was used for chromatography. Standards and samples were replicated and precision value reflects the propagated errors. Each analyte was spiked at 50 ppb. Vacuum distillation efficiencies (Method 5032) are modified by internal standard corrections. Method 8260 internal standards may introduce bias for some analytes. See Method 5032 to identify alternate internal standards with similar efficiencies to minimize bias.

[b] Soil samples spiked with 0.2 mL water containing analytes and then 5 mL water added to make slurry.

[c] Soil sample + 1 g cod liver oil, spiked with 0.2 mL water containing analytes.

[d] Soil samples + 1 g cod liver oil, spiked as above with 5 mL of water added to make slurry.

[e] Interference by co-eluting compounds prevented accurate measurement of analyte.

[f] Contamination of sample matrix by analyte prevented assessment of efficiency.

TABLE 22

VACUUM DISTILLATION EFFICIENCIES FOR VOLATILE ORGANIC ANALYTES IN FISH TISSUE (METHOD 5032)[a]

Compound	Efficiency Mean (%)	RSD (%)
Chloromethane	N/A[b]	
Bromomethane	N/A[b]	
Vinyl chloride	N/A[b]	
Chloroethane	N/A[b]	
Methylene chloride	CONT[c]	
Acetone	CONT[c]	
Carbon disulfide	79	36
1,1-Dichloroethene	122	39
1,1-Dichloroethane	126	35
trans-1,2-Trichloroethene	109	46
cis-1,2-Dichloroethene	106	22
Chloroform	111	32
1,2-Dichloroethane	117	27
2-Butanone	INT[d]	
1,1,1-Trichloroethane	106	30
Carbon tetrachloride	83	34
Vinyl acetate	INT[d]	
Bromodichloromethane	97	22
1,1,2,2-Tetrachloroethane	67	20
1,2-Dichloropropane	117	23
trans-1,3-Dichloropropene	92	22
Trichloroethene	98	31
Dibromochloromethane	71	19
1,1,2-Trichloroethane	92	20
Benzene	129	35
cis-1,3-Dichloropropene	102	24
Bromoform	58	19
2-Hexanone	INT[d]	
4-Methyl-2-pentanone	113	37
Tetrachloroethene	66	20
Toluene	CONT[c]	
Chlorobenzene	65	19
Ethylbenzene	74	19
Styrene	57	14
p-Xylene	46	13
o-Xylene	83	20

TABLE 22 (cont.)

Compound	Efficiency Mean (%)	RSD (%)
Surrogates		
1,2-Dichloroethane	115	27
Toluene-d_8	88	24
Bromofluorobenzene	52	15

[a] Results are for 10 min. distillation times and condenser temperature held at -10°C. Five replicate 10-g aliquots of fish spiked at 25 ppb were analyzed using GC/MS external standard quantitation. A 30 m x 0.53 mm ID stable wax column with a 1 µm film thickness was used for chromatography. Standards were replicated and results reflect 1 sigma propagated standard deviation.

[b] No analyses.

[c] Contamination of sample matrix by analyte prevented accurate assessment of analyte efficiency.

[d] Interfering by co-eluting compounds prevented accurate measurement of analyte.

TABLE 23

VOLATILE ORGANIC ANALYTES RECOVERY FOR WATER
USING VACUUM DISTILLATION (METHOD 5032)[a]

Compound	5 mL H_2O Recovery Mean	RSD	20 mL H_2O Recovery Mean	RSD	20 mL H_2O/Oil[b] Recovery Mean	RSD
Chloromethane	114	27	116	29	176	67
Bromomethane	131	14	121	14	113	21
Vinyl chloride	131	13	120	16	116	23
Chloroethane	110	15	99	8	96	16
Methylene chloride	87	16	105	15	77	6
Acetone	83	22	65	34	119	68
Carbon disulfide	138	17	133	23	99	47
1,1-Dichloroethene	105	11	89	4	96	18
1,1-Dichloroethane	118	10	119	11	103	25
trans-1,2-Dichloroethene	105	11	107	14	96	18
cis-1,2-Dichloroethene	106	7	99	5	104	23
Chloroform	114	6	104	8	107	21
1,2-Dichloroethane	104	6	109	8	144	19
2-Butanone	83	50	106	31	INT[c]	
1,1,1-Trichloroethane	118	9	109	9	113	23
Carbon tetrachloride	102	6	108	12	109	27
Vinyl acetate	90	16	99	7	72	36
Bromodichloromethane	104	3	110	5	99	5
1,1,2,2-Tetrachloroethane	85	17	81	7	111	43
1,2-Dichloropropane	100	6	103	2	104	7
trans-1,3-Dichloropropene	105	8	105	4	92	4
Trichloroethene	98	4	99	2	95	5
Dibromochloroethane	99	8	99	6	90	25
1,1,2-Trichloroethane	98	7	100	4	76	12
Benzene	97	4	100	5	112	10
cis-1,3-Dichloropropene	106	5	105	4	98	3
Bromoform	93	16	94	8	57	21
2-Hexanone	60	17	63	16	78	23
4-Methyl-2-pentanone	79	24	63	14	68	15
Tetrachloroethene	101	3	97	7	77	14
Toluene	100	6	97	8	85	5
Chlorobenzene	98	6	98	4	88	16
Ethylbenzene	100	3	92	8	73	13
Styrene	98	4	97	9	88	16
p-Xylene	96	4	94	8	60	12
o-Xylene	96	7	95	6	72	14

TABLE 23 (cont.)

Compound	5 mL H_2O[b] Recovery Mean	RSD	20 mL H_2O[c] Recovery Mean	RSD	20 mL H_2O/Oil Recovery Mean	RSD
Surrogates						
1,2-Dichloroethane	104	6	109	6	144	19
Toluene-d_8	104	5	102	2	76	7
Bromofluorobenzene	106	6	106	9	40	8

[a] Results are for 10 min. distillation times, and condenser temperature held at -10°C. A 30 m x 0.53 mm ID stable wax column with a 1 µm film thickness was used for chromatography. Standards and samples were replicated and precision values reflect the propagated errors. Concentrations of analytes were 50 ppb for 5-mL samples and 25 ppb for 20-mL samples. Recovery data generated with comparison to analyses of standards without the water matrix.

[b] Sample contained 1 gram cod liver oil and 20 mL water. An emulsion was created by adding 0.2 mL of water saturated with lecithin.

[c] Interference by co-eluting compounds prevented accurate assessment of recovery.

TABLE 24

VOLATILE ORGANIC ANALYTE RECOVERY FROM FISH OIL
USING VACUUM DISTILLATION (METHOD 5032)[a]

Compound	Recovery Mean (%)	RSD (%)
Chloromethane	N/A[b]	
Bromomethane	N/A[b]	
Vinyl chloride	N/A[b]	
Chloroethane	N/A[b]	
Methylene chloride	62	32
Acetone	108	55
Carbon disulfide	98	46
1,1-Dichloroethene	97	24
1,1-Dichloroethane	96	22
trans-1,2-Trichloroethene	86	23
cis-1,2-Dichloroethene	99	11
Chloroform	93	14
1,2-Dichloroethane	138	31
2-Butanone	INT[c]	
1,1,1-Trichloroethane	89	14
Carbon tetrachloride	129	23
Vinyl acetate	INT[c]	
Bromodichloromethane	106	14
1,1,2,2-Tetrachloroethane	205	46
1,2-Dichloropropane	107	24
trans-1,3-Dichloropropene	98	13
Trichloroethene	102	8
Dibromochloromethane	168	21
1,1,2-Trichloroethane	95	7
Benzene	146	10
cis-1,3-Dichloropropene	98	11
Bromoform	94	18
2-Hexanone	INT[c]	
4-Methyl-2-pentanone	INT[c]	
Tetrachloroethene	117	22
Toluene	108	8
Chlorobenzene	101	12
Ethylbenzene	96	10
Styrene	120	46
p-Xylene	87	23
o-Xylene	90	10

TABLE 24 (cont.)

Compound	Recovery Mean (%)	RSD (%)
Surrogates		
1,2-Dichloroethane-d_4	137	30
Toluene-d_8	84	6
Bromofluorobenzene	48	2

[a] Results are for 10 min. distillation times and condenser temperature held at -10°C. Five replicates of 10-g fish oil aliquots spiked at 25 ppb were analyzed. Quantitation was performed with a 30 m x 0.53 mm ID stable wax column with a 1 µm film thickness. Standards and samples were replicated and precision value reflects the propagated errors. Vacuum distillation efficiencies (Method 5032) are modified by internal standard corrections. Method 8260 internal standards may bias for some analytes. See Method 5032 to identify alternate internal standards with similar efficiencies to minimize bias.

[b] Not analyzed.

[c] Interference by co-eluting compounds prevented accurate measurement of analyte.

TABLE 25

EXAMPLE LOWER LIMITS OF QUANTITATION FOR VOLATILE ORGANIC ANALYTES IN FISH OIL (METHOD 5032)[a]

Compound	Lower Limit of Quantitation (ppb) External Standard Method	Internal Standard Method
Chloromethane	N/A[b]	N/A[b]
Bromomethane	N/A[b]	N/A[b]
Vinyl chloride	N/A[b]	N/A[b]
Chloroethane	N/A[b]	N/A[b]
Methylene chloride	80	50
Acetone	120	60
Carbon disulfide	190	180
1,1-Dichloroethene	190	180
1,1-Dichloroethane	130	140
trans-1,2-Dichloroethene	90	100
cis-1,2-Dichloroethene	80	70
Chloroform	60	70
1,2-Dichloroethane	60	60
2-Butanone	INT[c]	INT[c]
1,1,1-Trichloroethane	80	100
Carbon tetrachloride	150	130
Vinyl acetate	INT[c]	INT[c]
Bromodichloromethane	50	60
1,1,2,2-Tetrachloroethane	90	20
1,2-Dichloropropane	120	150
trans-1,3-Dichloropropene	80	50
Trichloroethene	60	40
Dibromochloromethane	40	70
1,1,2-Trichloroethane	70	50
Benzene	30	50
cis-1,3-Dichloropropene	60	40
Bromoform	100	50
2-Hexanone	INT[c]	INT[c]
4-Methyl-2-pentanone	INT[c]	INT[c]
Tetrachloroethene	120	100
Toluene	90	50
Chlorobenzene	70	60
Ethylbenzene	90	40
Styrene	160	180
p-Xylene	180	200
o-Xylene	80	70

[a] Method quantitation limits (MQLs) are estimated as the result of five replicated analyses of 1 g cod liver oil spiked at 25 ppb. MQLs were calculated as three times the standard deviation. Quantitation was performed using a 30 m x 0.53 mm ID stable wax column with a 1 µm film thickness. MQLs can be used to establish the lower limit of instrument quantitation, however, since they are statistical approximations of the actual method sensitivity, it is recommended that the lowest calibration concentration be used to establish the minimum quantitation limit.

[b] No analyses.

[c] Interference by co-eluting compounds prevented accurate quantitation.

TABLE 26

INTERNAL STANDARDS FOR ANALYTES AND SURROGATES PREPARED USING EQUILIBRIUM HEADSPACE ANALYSIS (METHOD 5021)

Chloroform-d_1	1,1,2-TCA-d_3	Bromobenzene-d_5
Dichlorodifluoromethane	1,1,1-Trichloroethane	Chlorobenzene
Chloromethane	1,1-Dichloropropene	Bromoform
Vinyl chloride	Carbon tetrachloride	Styrene
Bromomethane	Benzene	iso-Propylbenzene
Chloroethane	Dibromomethane	Bromobenzene
Trichlorofluoromethane	1,2-Dichloropropane	n-Propylbenzene
1,1-Dichloroethene	Trichloroethene	2-Chlorotoluene
Methylene chloride	Bromodichloromethane	4-Chlorotoluene
trans-1,2-Dichloroethene	cis-1,3-Dichloropropene	1,3,5-Trimethylbenzene
1,1-Dichloroethane	trans-1,3-Dichloropropene	tert-Butylbenzene
cis-1,2-Dichloroethene	1,1,2-Trichloroethane	1,2,4-Trimethylbenzene
Bromochloromethane	Toluene	sec-Butylbenzene
Chloroform	1,3-Dichloropropane	1,3-Dichlorobenzene
2,2-Dichloropropane	Dibromochloromethane	1,4-Dichlorobenzene
1,2-Dichloroethane	1,2-Dibromoethane	p-iso-Propyltoluene
	Tetrachloroethene	1,2-Dichlorobenzene
	1,1,2-Trichloroethane	n-Butylbenzene
	Ethylbenzene	1,2-Dibromo-3-chloropropane
	m-Xylene	1,2,4-Trichlorobenzene
	p-Xylene	Naphthalene
	o-Xylene	Hexachlorobutadiene
	1,1,2,2-Tetrachloroethane	1,2,3-Trichlorobenzene
	1,2,3-Trichloropropane	

TABLE 27

EXAMPLE PRECISION AND STATISTICAL MINIMUM QUANTITATION LIMIT (MQL) DETERMINED FOR ANALYSIS OF FORTIFIED SAND[a] (METHOD 5021)

Compound	% RSD	MQL (µg/kg)
Benzene	3.0	0.34
Bromochloromethane	3.4	0.27
Bromodichloromethane	2.4	0.21
Bromoform	3.9	0.30
Bromomethane	11.6	1.3
Carbon tetrachloride	3.6	0.32
Chlorobenzene	3.2	0.24
Chloroethane	5.6	0.51
Chloroform	3.1	0.30
Chloromethane	4.1	3.5[b]
1,2-Dibromo-3-chloropropane	5.7	0.40
1,2-Dibromoethane	3.2	0.29
Dibromomethane	2.8	0.20
1,2-Dichlorobenzene	3.3	0.27
1,3-Dichlorobenzene	3.4	0.24
1,4-Dichlorobenzene	3.7	0.30
Dichlorodifluoromethane	3.0	0.28
1,1-Dichloroethane	4.5	0.41
1,2-Dichloroethane	3.0	0.24
1,1-Dichloroethene	3.3	0.28
cis-1,2-Dichloroethene	3.2	0.27
trans-1,2-Dichloroethene	2.6	0.22
1,2-Dichloropropane	2.6	0.21
1,1-Dichloropropene	3.2	0.30
cis-1,3-Dichloropropene	3.4	0.27
Ethylbenzene	4.8	0.47
Hexachlorobutadiene	4.1	0.38
Methylene chloride	8.2	0.62[c]
Naphthalene	16.8	3.4[c]
Styrene	7.9	0.62
1,1,1,2-Tetrachloroethane	3.6	0.27
1,1,2,2-Tetrachloroethane	2.6	0.20
Tetrachloroethene	9.8	1.2[c]
Toluene	3.5	0.38
1,2,4-Trichlorobenzene	4.2	0.44
1,1,1-Trichloroethane	2.7	0.27
1,1,2-Trichloroethane	2.6	0.20
Trichloroethene	2.3	0.19

TABLE 27 (cont.)

Compound	% RSD	MQL (µg/kg)
Trichlorofluoromethane	2.7	0.31
1,2,3-Trichloropropane	1.5	0.11
Vinyl chloride	4.8	0.45
m-Xylene/p-Xylene	3.6	0.37
o-Xylene	3.6	0.33

[a] Most compounds spiked at 2 ng/g (2 µg/kg)
[b] Incorrect ionization due to methanol
[c] Compound detected in unfortified sand at >1 ng

TABLE 28

EXAMPLE RECOVERIES IN GARDEN SOIL FORTIFIED AT 20 µg/kg
(ANALYSIS BY METHOD 5021)

Compound	Recovery per Replicate (ng) Sample 1	Sample 2	Sample 3	Mean (ng)	RSD	Recovery (%)
Benzene	37.6	35.2	38.4	37.1	3.7	185[a]
Bromochloromethane	20.5	19.4	20.0	20.0	2.3	100
Bromodichloromethane	21.1	20.3	22.8	21.4	4.9	107
Bromoform	23.8	23.9	25.1	24.3	2.4	121
Bromomethane	21.4	19.5	19.7	20.2	4.2	101
Carbon tetrachloride	27.5	26.6	28.6	27.6	3.0	138
Chlorobenzene	25.6	25.4	26.4	25.8	1.7	129
Chloroethane	25.0	24.4	25.3	24.9	1.5	125
Chloroform	21.9	20.9	21.7	21.5	2.0	108
Chloromethane	21.0	19.9	21.3	20.7	2.9	104[a]
1,2-Dibromo-3-chloro-propane	20.8	20.8	21.0	20.9	0.5	104
1,2-Dibromoethane	20.1	19.5	20.6	20.1	2.2	100
Dibromomethane	22.2	21.0	22.8	22.0	3.4	110
1,2-Dichlorobenzene	18.0	17.7	17.1	17.6	2.1	88.0
1,3-Dichlorobenzene	21.2	21.0	20.1	20.8	2.3	104
1,4-Dichlorobenzene	20.1	20.9	19.9	20.3	2.1	102
Dichlorodifluoromethane	25.3	24.1	25.4	24.9	2.4	125
1,1-Dichloroethane	23.0	22.0	22.7	22.6	1.9	113
1,2-Dichloroethane	20.6	19.5	19.8	20.0	2.3	100
1,1-Dichloroethene	24.8	23.8	24.4	24.3	1.7	122
cis-1,2-Dichloroethene	21.6	20.0	21.6	21.1	3.6	105
trans-1,2-Dichloroethene	22.4	21.4	22.2	22.0	2.0	110
1,2-Dichloropropane	22.8	22.2	23.4	22.8	2.1	114
1,1-Dichloropropene	26.3	25.7	28.0	26.7	3.7	133
cis-1,3-Dichloropropene	20.3	19.5	21.1	20.3	3.2	102
Ethylbenzene	24.7	24.5	25.5	24.9	1.7	125
Hexachlorobutadiene	23.0	25.3	25.2	24.5	4.3	123
Methylene chloride	26.0	25.7	26.1	25.9	0.7	130[a]
Naphthalene	13.8	12.7	11.8	12.8	6.4	63.8[a]
Styrene	24.2	23.3	23.3	23.6	1.8	118
1,1,1,2-Tetrachloroethane	21.4	20.2	21.3	21.0	2.6	105
1,1,2,2-Tetrachloroethane	18.6	17.8	19.0	18.5	2.7	92.3
Tetrachloroethene	25.2	24.8	26.4	25.5	2.7	127
Toluene	28.6	27.9	30.9	29.1	4.4	146[a]
1,2,4-Trichlorobenzene	15.0	14.4	12.9	14.1	6.3	70.5
1,1,1-Trichloroethane	28.1	27.2	29.9	28.4	4.0	142
1,1,2-Trichloroethane	20.8	19.6	21.7	20.7	4.2	104

TABLE 28 (cont.)

Compound	Recovery per Replicate (ng) Sample 1	Sample 2	Sample 3	Mean (ng)	RSD	Recovery (%)
Trichloroethene	26.3	24.9	26.8	26.0	3.1	130
Trichlorofluoromethane	25.9	24.8	26.5	25.7	2.7	129
1,2,3-Trichloropropane	18.8	18.3	19.3	18.8	2.2	94.0
Vinyl chloride	24.8	23.2	23.9	24.0	2.7	120
m-Xylene/p-Xylene	24.3	23.9	25.3	24.5	2.4	123
o-Xylene	23.1	22.3	23.4	22.9	2.0	115

[a] Compound found in unfortified garden soil matrix at >5 ng.

TABLE 29

EXAMPLE MINIMUM QUANTITATION LIMITS (MQL) AND BOILING POINTS FOR VOLATILE ORGANICS (ANALYSIS BY METHOD 5041)[a]

Compound	MQL (ng)	Boiling Point (°C)
Chloromethane	58	-24
Bromomethane	26	4
Vinyl chloride	14	-13
Chloroethane	21	13
Methylene chloride	9	40
Acetone	35	56
Carbon disulfide	11	46
1,1-Dichloroethene	14	32
1,1-Dichloroethane	12	57
trans-1,2-Dichloroethene	11	48
Chloroform	11	62
1,2-Dichloroethane	13	83
1,1,1-Trichloroethane	8	74
Carbon tetrachloride	8	77
Bromodichloromethane	11	88
1,1,2,2-Tetrachloroethane[**]	23	146
1,2-Dichloropropane	12	95
trans-1,3-Dichloropropene	17	112
Trichloroethene	11	87
Dibromochloromethane	21	122
1,1,2-Trichloroethane	26	114
Benzene	26	80
cis-1,3-Dichloropropene	27	112
Bromoform[**]	26	150
Tetrachloroethene	11	121
Toluene	15	111
Chlorobenzene	15	132
Ethylbenzene[**]	21	136
Styrene[**]	46	145
Trichlorofluoromethane	17	24
Iodomethane	9	43
Acrylonitrile	13	78
Dibromomethane	14	97
1,2,3-Trichloropropane[**]	37	157
total Xylenes[**]	22	138-144

Footnotes are found on the following page.

* The method quantitation limit (MQL) is defined in Chapter One. The quantitation limits cited above were determined according to 40 CFR, Part 136, Appendix B, using standards spiked onto clean VOST tubes. Since clean VOST tubes were used, the values cited above represent the best that the methodology can achieve. The presence of an emissions matrix will affect the ability of the methodology to perform at its optimum level. MQLs can be used to establish the lower limit of instrument quantitation, however, since they are statistical approximations of the actual method sensitivity, it is recommeded that the lowest calibration concentration be used to establish the minimum quantitation limit.

** Boiling Point greater than 130°C. Not appropriate for quantitative sampling by Method 0030.

TABLE 30

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING ANALYTES ASSIGNED FOR QUANTITATION (METHOD 5041)

Bromochloromethane	1,4-Difluorobenzene
Acetone	Benzene
Acrylonitrile	Bromodichloromethane
Bromomethane	Bromoform
Carbon disulfide	Carbon tetrachloride
Chloroethane	Chlorodibromomethane
Chloroform	Dibromomethane
Chloromethane	1,2-Dichloropropane
1,1-Dichloroethane	cis-1,3-Dichloropropene
1,2-Dichloroethane	trans-1,3-Dichloropropene
1,2-Dichloroethane-d_4 (surrogate)	1,1,1-Trichloroethane
1,1-Dichloroethene	1,1,2-Trichloroethane
Trichloroethene	
trans-1,2-Dichloroethene	
Iodomethane	
Methylene chloride	
Trichlorofluoromethane	
Vinyl chloride	

Chlorobenzene-d_5
4-Bromofluorobenzene (surrogate)
Chlorobenzene
Ethylbenzene
Styrene
1,1,2,2-Tetrachloroethane
Tetrachloroethene
Toluene
Toluene-d_8 (surrogate)
1,2,3-Trichloropropane
Xylenes

TABLE 31

METHOD 0040 - COMPOUNDS DEMONSTRATED TO BE APPLICABLE TO THE METHOD

Compound	Boiling Point (°C)	Condensation Point at 20°C (%)	Estimated Quantitation Limit[a] (ppm)
Dichlorodifluoromethane	-30	Gas	0.20
Vinyl chloride	-19	Gas	0.11
1,3-Butadiene	-4	Gas	0.90
1,2-Dichloro-1,1,2,2-tetrafluoroethane	4	Gas	0.14
Methyl bromide	4	Gas	0.14
Trichlorofluoromethane	24	88	0.18
1,1-Dichloroethene	31	22	0.07
Methylene chloride	40	44	0.05
1,1,2-Trichloro-trifluoroethane	48	37	0.13
Chloroform	61	21	0.04
1,1,1-Trichloroethane	75	13	0.03
Carbon tetrachloride	77	11	0.03
Benzene	80	10	0.16
Trichloroethene	87	8	0.04
1,2-Dichloropropane	96	5	0.05
Toluene	111	3	0.08
Tetrachloroethene	121	2	0.03

[a] Since this value represents a direct injection (no concentration) from the Tedlar® bag, these values are directly applicable as stack quantitation limits.

FIGURE 1
EXAMPLE GAS CHROMATOGRAM OF VOLATILE ORGANICS
(Provided Courtesy APPL, Inc.)

```
File        : M:\MAX\DATA\M050720\0720M07W.D
Operator    : RP
Acquired    : 20 Jul 05  19:50      using AcqMethod PM82602
Instrument  :   Max
Sample Name: Vol Std 07-20-05Z@10ug/L
Misc Info   : Water 10mL w/IS: 07-12-05AQ
Vial Number: 7
```

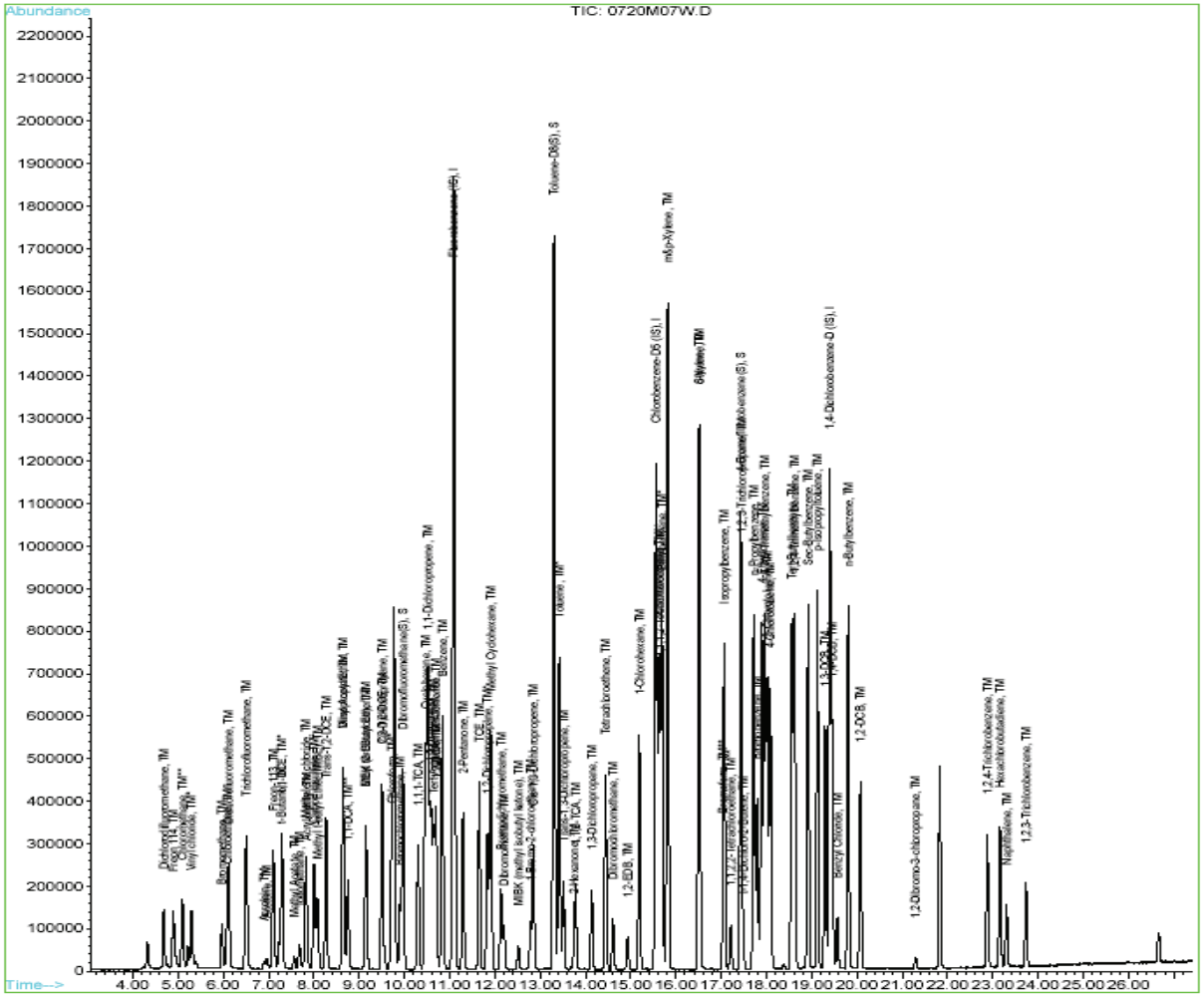
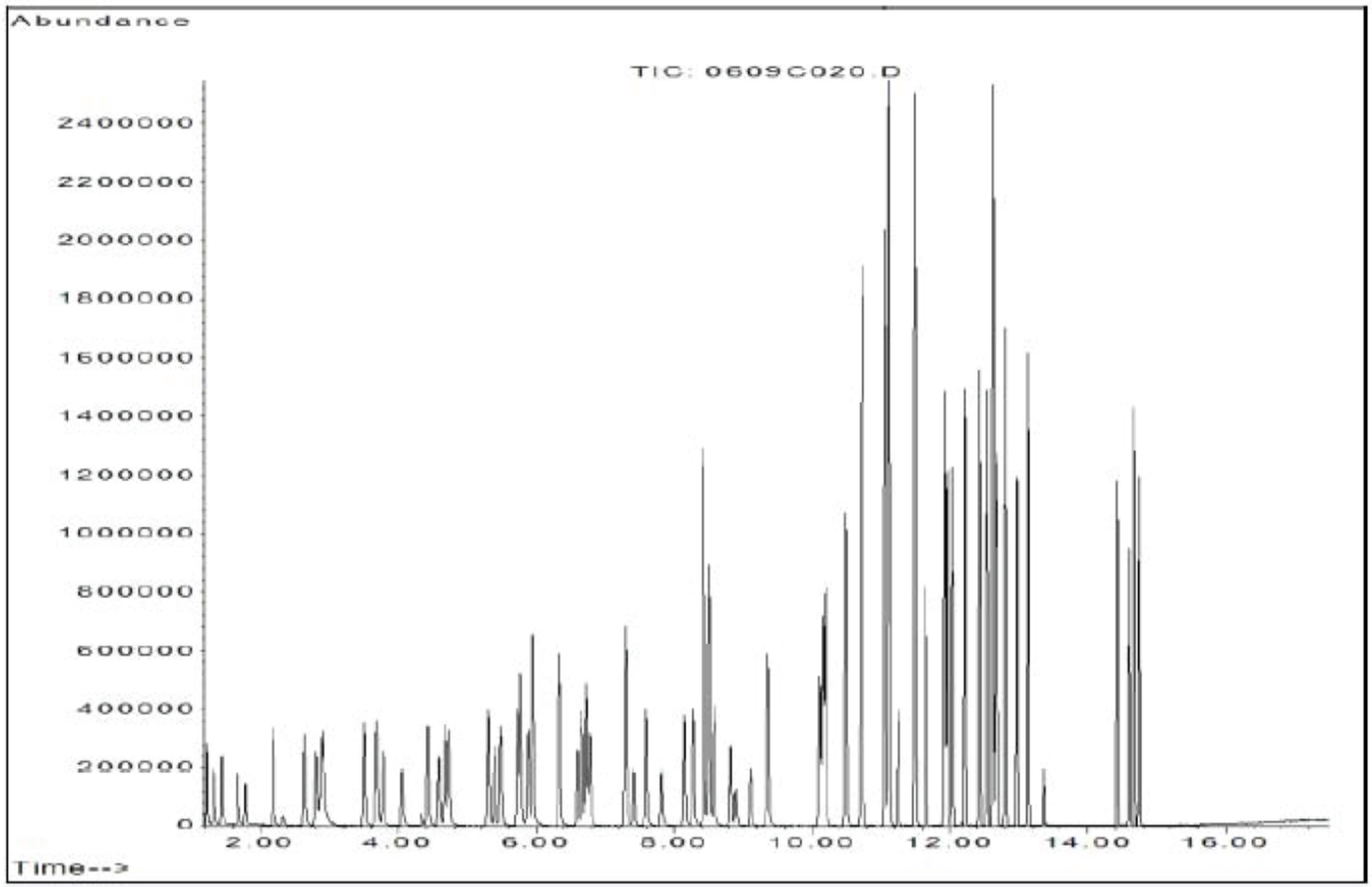


FIGURE 2
EXAMPLE GAS CHROMATOGRAM OF VOLATILE ORGANICS
(Provided Courtesy EPA Region III)





Document Information

Document Number: ENV-SOP-MTJL-0104 **Revision:** 03

Document Title: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)

Department(s): Air

Date Information

Effective Date: 20 Nov 2020

Notes

Document Notes:

All Dates and Times are listed in: Central Time Zone

Signature Manifest

Document Number: ENV-SOP-MTJL-0104 **Revision:** 03

Title: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)

All dates and times are in Central Time Zone.

ENV-SOP-MTJL-0104

QM Approval

Name/Signature	Title	Date	Meaning/Reason
Rebecca King (010125)	Quality Analyst 2	20 Nov 2020, 10:56:26 AM	Approved

Management Approval

Name/Signature	Title	Date	Meaning/Reason
Christopher Johnson (006487)	Manager - Operations	20 Nov 2020, 09:14:31 AM	Approved
James Burns (006456)	Manager - EHS	20 Nov 2020, 09:20:41 AM	Approved

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

1.0 SCOPE AND APPLICATION

STATE NOTE: For samples analyzed in conjunction with the Ohio Voluntary Action Program (VAP) please utilize ENV-SOP-MTJL-0104.

CLIENT NOTE: See Attachment IV for DoD requirements.

CLIENT NOTE: For clients, whose environment laboratory quality program is administered by Environmental Standards Inc. (ESI), see controlled document QUA-25 AIR. \\FAP\NovDiskH\QAQC\Controlled Docs

1.1 This document details the procedures for analysis of volatile organic compounds (VOCs) in ambient air. The whole air samples are collected in passivated stainless steel canisters or Tedlar bags and analyzed by gas chromatography/mass spectrometry (GC/MS). The procedures describe the operational details needed to perform analysis of pressurized and sub-atmospheric air samples in the Volatiles Section of the Pace National laboratory. This procedure provides for analysis using either the SCAN or SIM modes on the Agilent GC/MS analytical systems.

1.2 The laboratory routine reporting limits for both SCAN and SIM modes are provided in the Attachment II and characteristic ions are provided in Attachment III. Reporting limits are subject to change to better meet client/project/regulatory needs or to improve laboratory method performance.

1.3 An MDL study must be completed at least annually or more frequently if major instrumentation changes occur. Method Detection Limits (MDLs) are performed based on ENV-SOP-MTJL-0016. Updated MDL records are filed and stored in a central location on the network: \\INSTSRV\Volatiles\Annual MDLs LODs and RT Studies.

1.3.1 Limit of Detection (LOD) and Limit of Quantitation (LOQ) studies are completed at the frequency required by the TNI standard per the procedure identified in the ENV-SOP-MTJL-0016, *Method Detection Limits (MDL), Limits of Detection (LOD) and Limits of Quantitation (LOQ).* Should the procedure be utilized for DOD support; then the frequency of these studies must meet the requirements of the current DOD QSM (see Attachment IV).

2.0 METHOD SUMMARY AND DEFINITIONS

2.1 Whole air is collected into Tedlar bags or evacuated canisters using passive or pump-assisted air sampling techniques. The sample of air is drawn through a sampling device that removes particulates, regulates sampling flow rate and duration, controls sample start and end times, and monitors start and end pressures. The canisters are cleaned, evacuated and certified prior to sample collection. The available instruments may be used to collect and analyze both sub-atmospheric pressure and pressurized samples.

2.2 During analysis in the laboratory, the sample canister or Tedlar bag is attached to an autosampler where typically 1 to 400cc of the air sample is pumped out of the canister and collected on a cryogen-cooled glass bead trap. Internal standard (IS) and tuning compounds are also collected on the trap with the sample. The sample and IS compounds are then transferred to a second stage Tenax trap, effectively removing most of the water and CO2. The VOC compounds are then transferred to a third stage where they are cryogenically focused prior to injection onto the GC column. The detector used in the analysis is a quadrupole mass spectrometer.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

2.3 The VOC compounds are separated *via* gas chromatography and detected using a mass spectrometer, which provides both qualitative and quantitative information. The described method is based on TO-15 in the *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition* (EPA/625/R-96/010b). The procedures described here are designed to meet or exceed the criteria from both of these EPA quantitative methods. The TO-14A and TO-15 methods are sufficiently similar to permit the analysis of all compounds in the TO-14A list and a subset of the TO-15 compound list using a single procedure. The compounds in Method TO-15 tend to be more polar than those in Method TO-14A, requiring special consideration to address water management. Please refer to these EPA guidance documents for additional details.

2.4 Absolute Pressure - Pressure measured with reference to absolute zero pressure expressed in psia. An absolute pressure value of zero is indicative of an evacuated system (vacuum).

2.5 Gauge Pressure - Pressure measured with reference to the surrounding atmospheric pressure expressed in units of psi. A gauge pressure value of zero is equal to atmospheric pressure.

2.6 Dynamic Calibration - Calibration of the analytical system with gas standard concentrations at similar concentrations, in a form identical and through the same analytical path as in the real samples.

2.7 Dynamic Dilution – Preparation of calibration mixtures in which concentrated standard gas are continually blended with zero air in a manifold and introduced at the inlet of the analytical system or a receiving canister.

2.8 Sub-atmospheric Sampling - Collection of ambient air into an evacuated canister with a final canister pressure below atmospheric pressure. This is the normal practice when collecting air with passive sampling devices since the sample collection must be stopped prior to completely filling the canister.

2.9 GC/MS Scan Mode – A GC/MS system in Full Scan mode will monitor a range of masses know as mass to charge ratio (abbreviated m/z). A typical mass scan range will cover from 35-500 m/z four times per second and will detect compound fragments within that range over a set time period. The Full Scan mode is quite useful when identifying unknown compounds in a sample and providing confirmation of results from GC using other types of detectors.

2.10 GC/MS SIM Mode – (Gas Chromatography/Mass Spectroscopy- Selective Ion Monitoring) Operation of a GC/MS in SIM mode allows for detection of specific analytes with increased sensitivity relative to full scan mode. In SIM mode the MS gathers data for masses of interest rather than looking for all masses over a wide range. Because the instrument is set to look for only masses of interest it can be specific for particular analytes of interest. Typically two to four ions are monitored per compound and the ratios of those ions are unique to the analyte of interest. In order to increase sensitivity, the mass scan rate and dwell times (the time spent looking at each mass) are adjusted. When properly setup and calibrated, GC/MS SIM can increase sensitivity by a factor of 10 to 100 times that of GC/MS Full Scan.

2.11 See the current Quality Assurance Manual for definitions associated with other terms found in this document.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

3.0 HEALTH AND SAFETY

3.1 The toxicity or carcinogenicity of each reagent used in the laboratory has not been fully established. Each chemical should be regarded as a potential health hazard and exposure to these compounds must be as low as reasonably achievable. A reference file of safety data sheets (SDSs) is made available on Pace National's intranet to all personnel. Use hazardous reagents in a fume hood whenever possible and if eye or skin contact occurs, flush with large volumes of water. Always wear safety glasses or a shield for eye protection, protective clothing and observe proper mixing protocols.

3.2 Glycol ethers are suspected carcinogens. All solvent handling should be done in a hood while using proper protective equipment to minimize exposure to liquid and vapor. Minimum personal protection includes the use of laboratory safety glasses, a lab coat or apron, and protective gloves.

3.3 The following analytes have been tentatively classified as known or suspected, human or mammalian carcinogens: benzene, carbon tetrachloride, 1,4-dichlorobenzene, 1-2dichlorethane, hexachlorobutadiene, 1,2,2,2-tetrachloroethane, 1,1,2-trichloroethane, chloroform, 1,2-dibromoethane, tetrachloroethene, trichloroethene, and vinyl chloride. Pure standard materials and stock standard solutions of these compounds must be handled in a hood. A NIOSH/MESA approved toxic gas respirator should be worn when the analyst handles high concentrations of these toxic compounds.

4.0 SAMPLE PRESERVATION, CONTAINERS, HANDLING, AND STORAGE

4.1 All samples must have been collected using a sampling plan that addresses the considerations of this method.

4.2 The sampling process begins with the preparation of the canisters or purchase of Tedlar bags used to collect the sample. The canisters are provided by the laboratory and are prepared based on the sample requests received on a weekly basis. Please refer to ENV-SOP-MTJL-0108 for canister cleaning and certification information.

STATE NOTE: When analyzing samples from MN and AZ, samples should not be collected in Tedlar bags. Samples received from these states in Tedlar bags must be qualified as having an improper container.

CLIENT NOTE: When analyzing samples from Environmental Standards clients, samples should not be collected in Tedlar bags. Samples received from these clients in Tedlar bags must be transferred to a summa canister or bottle vac and qualified as having an improper container.

4.3 Sample Collection

4.3.1 Samples are collected with either a passive critical orifice sampler or an active pump sampler with a mass flow controller. The canisters and sampling unit must be certified clean prior to collecting samples. All sampling procedures are the responsibility of the client.

4.4 Sample Storage

4.4.1 Under conditions of normal usage for sampling ambient air, most VOCs can be recovered from summa canisters near their original concentrations after storage times of up to thirty days from the date of collection to analysis.

© 2019 Pace Analytical Services, LLC.

STATE NOTE: When analyzing samples from MN and NJ, canister samples must be analyzed within 14 days from the time of collection.

The holding time for Tedlar bags is generally five (5) days from collection to analysis. Shorter hold times may apply depending on regulatory agency requirements.

STATE NOTE: Samples received in a Tedlar bag from FL and AZ have a three (3) day holding time from collection.

CLIENT NOTE: Samples received in a Tedlar bag from Environmental Standards clients have a three (3) day holding time from collection. Samples can be transferred to a summa canister or bottle vac in which the holding times extends to thirty (30) days from collection.

4.4.2 Air samples are maintained in the AIR laboratory where they are secure and at ambient temperature.

4.5 Sample Preparation

4.5.1 Each canister or Tedlar bag must be visually inspected for damaged or missing parts. This includes but is not limited to valves and loose stems. Any problems found are to be communicated with the Project Manager via e-mail so that the proper instructions on how to proceed are communicated from the client to the laboratory.

4.5.2 The canister pressure is checked upon arrival into the lab. That pressure is compared to the client pressures when available. The pressure must read +/- 4“Hg from clients final sample pressure reading. If the canister pressure does not meet the criteria, the TSR is informed and communicates the information to the client requesting their guidance.

The pressure is documented on the canister label as well as in the Air Tracking software program.

Note: If there is no final vacuum documented by the client and the canister reads zero or if the field documentation of the summa pressure does not indicate zero, but the summa is received at zero, then Project Mangers will be notified via e-mail of the situation to communicate with the client for guidance.

4.5.3 Connect each sample canister or Tedlar bag to an autosampler position, but leave the valve closed

4.5.4 Flush and leak check each of the autosampler positions using the SmartLab software for the autosampler.

4.5.5 Once the autopositions are leak tight, open the valves on the canisters or Tedlar bags.

4.5.6 The internal standard and surrogate compounds are automatically added to each sample by the sample concentrator

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

5.0 INTERFERENCES

5.1 Moisture and carbon dioxide are two of the primary interferences encountered in whole air measurements due to the normally high concentration of these compounds in ambient air. The sample concentrator unit used to isolate the volatile organic compounds from whole air is designed to effectively remove water and carbon dioxide prior to sample introduction into the gas chromatograph. Elevated levels of water or carbon dioxide may severely restrict the sample size that can be measured. Compendium Method TO-15 provides guidance for water management systems as it pertains to the analysis of polar organic compounds.

5.2 Contamination may occur in the sampling and concentrator systems if the equipment is improperly cleaned before each use. All sampling and analysis equipment contacting the sample must be thoroughly cleaned and tested on a regular basis.

5.3 The potential for overlap of eluting compounds in the chromatography is significant when dealing with such an extensive compound list from two air analysis methods. The potential for encountering interferences is significantly reduced by using cryogenic focusing, a smaller ID capillary column and a mass spectrometer detector. Cryogen focusing and the small ID capillary column used in this method give enhanced compound separation such that overlapping compounds are minimized. The mass spectrometer can effectively resolve many of the remaining overlapped compounds based on the mass spectra of the compounds.

6.0 EQUIPMENT AND SUPPLIES

The operation, cleaning and scheduled maintenance procedures prescribed by the equipment manufacturer are followed as provided in the Operator's Manuals. Maintenance contracts, provided by the manufacture, are purchased for the Gas Chromatograph/Mass Spectrometer Systems. Documentation of cleaning, maintenance or system modification is recorded in a maintenance logbook that accompanies each instrument system.

6.1 Sample Containers

6.1.1 6L Restek Silcocan canister with fused silica lining in the can and valve

6.1.2 6L Entech Silonite canister with fused silica lining in the can and valve

6.1.3 1L Entech Silonite canister with fused silica lining in the can and valve

6.1.4 1L Restek Silcocan canister with fused silica lining in the can and valve

6.1.5 1L Tedlar bags

6.1.6 1.4L Entech Silonite canister with fused silica lining in the can and MicroQT

6.2 IsoTemp Forced-Air Oven

6.3 Gas Chromatograph/Mass Spectrometer System

6.3.1 Agilent 6890 Gas Chromatograph or equivalent

6.3.2 Agilent 5973 Quadrupole Detector or equivalent

6.3.3 Entech 7200 Preconcentrator or equivalent

© 2019 Pace Analytical Services, LLC.

6.3.4 Entech 7016CA Autosampler or equivalent

6.3.5 Entech 7032A-LB Tedlar Bag Autosampler or equivalent

6.3.6 IBM-compatible Pentium personal computer

6.3.7 Agilent Computer Software

6.3.8 LIMS Network Software

6.3.9 J&W Scientific DB-5MS, 60m x 0.25mm ID capillary column, 0.25µm film thickness or equivalent

6.3.10 Compendium Method TO-15 Calibration Standard Cylinder with dedicated regulator and transfer line

6.4 Equipment Cleaning and Certification Procedures

The equipment used for sample collection and analysis must be clean and certified before use. For information regarding the canister cleaning and certification process, see ENV-SOP-MTJL-0108, *Canister Cleaning, Certification and Storage*.

7.0 REAGENTS AND STANDARDS

Working with volatile compounds presents a number of challenges not normally confronted in the handling of most other chemicals. Volatile compounds may escape from sample containers or, when present in the laboratory environment, can contaminate analytical equipment.

Sources of the reagents and chemicals are given, but may change based on availability, quality and cost. The use of a different source is acceptable without modification of the procedures provided the products are equivalent.

All reagents and standards must be recorded in the appropriate preparation log and assigned a unique number. See ENV-SOP-MTJL-0041, *Standards Logger – Tree Operation.*

7.1 Laboratory Reagent Water: DI water VOC free or equivalent

7.2 Helium, Nitrogen and Air: Ultra-high purity grade in gas cylinders of Nitrogen and breathing grade Air. Helium is used as the carrier gas in the GC/MS.

7.3 Internal Standard, Surrogate, and Tuning Standard

7.3.1 1ppmv Internal Standard and Tune Standard Mixture

7.3.1.1 The internal standard and tune standard mixture is purchased in a 3395L (2A) cylinder from Spectra Gases at a concentration of 1ppmv. The internal standard compounds are:

Bromochloromethane
1,4-Difluorobenzene
Chlorobenzene-d_5
1,4-Bromofluorobenzene

The compounds in this mixture are typically prepared in nitrogen at a final cylinder pressure of approximately 2000psig. The standard mixture is certified by Spectra Gases for one year from preparation.

© 2019 Pace Analytical Services, LLC.

7.3.1.2 The mass spectrometer tune standard and surrogate compound is 4-bromofluorobenzene.

7.3.2 Preparation

7.3.2.1 Inject 1800cc of 1ppmv standard into a 15L Canister for TO-15 (routine scan) or 300cc of 1ppmv standard for SIM.

7.3.2.2 Using an airtight syringe, add 0.20mL of laboratory reagent water (VOC free).

7.3.2.3 Bring to a final volume of 20psig with nitrogen.

7.3.2.4 Final concentration equals 20ppbv per component.

7.3.2.5 Place canister on autosampler.

7.3.2.6 Autosampler will inject 50cc of standard per sample.

7.3.2.7 50cc of injected standard will result in a concentration of 4ppbv per component for TO-15 or 1.25ppbv per component for SIM.

7.4 Calibration Standards

7.4.1 The TO-15 calibration standard is purchased as a custom mix in a 3395L (2A) cylinder from Spectra Gases at a concentration of 0.100ppmv, production number 1475123 or equivalent. The compounds in this mixture are balanced with nitrogen at a final cylinder pressure of 2000psig. The standard mixture is certified by Spectra Gases for 12 months from preparation.

7.4.2 Preparation of Calibration Curve

7.4.2.1 Prepare an intermediate standard(s) using the Dynamic Diluter. Bring summa to a final volume of 20psig.

Dynamic Diluter Software Settings		
Final Concentration (ppbv)	**Nitrogen (cc)**	**Standard (cc)**
0.5	3980	20
5	950	50
25	150	50

7.4.2.2 Using the standard mix prepared in 7.4.2.1, prepare the following calibration concentrations for routine SCAN analysis:

Standard Level (ppbv)*	Volume of 2.5ppbv Standard Used (cc)	Volume of 25ppbv Standard Used (cc)
0.19	15	-
0.3125	25	-
0.625	50	-

© 2019 Pace Analytical Services, LLC.

Standard Level (ppbv)*	Volume of 2.5ppbv Standard Used (cc)	Volume of 25ppbv Standard Used (cc)
1.25	100	-
2.5	200	-
3.75	300	-
10	-	80
25	-	200
50	-	400
100	-	800

All compounds are calibrated with these concentrations except for: m&p Xylene = 0.31, 0.625, 1.25, 2.5, 5.0, 7.5, 10, 20, 40, 100; and TPH:

TPH Calibration Standards								
Std. Vol (cc):	50	100	200	300	400	800	1600 (400)	4000 (800)
Final Conc. (ppm):	34.02	67.5	135	202.5	270	540	1350	2700

For GC/MS SIM analysis for the compounds identified in Attachment II(b), reduce the Standard Levels and the volume of standards in the above table by 10x as presented in the following table:

Standard Level (ppbv)*	Volume of 0.5ppbv Standard Used (cc)	Volume of 25ppbv Standard Used (cc)
0.019	15	-
0.03125	25	-
0.0625	50	-
0.125	100	-
0.25	200	-
0.375	300	-
0.5	400	-
1	-	16
5	-	80
10	-	160

7.4.2.3 The low standard must be at or below the RL.

7.4.2.4 The daily initial calibration verification standard analyzed in lieu of a full initial calibration to verify the on-going stability of the existing calibration curve is prepared using the process for the 3.75ppbv calibration standard for SCAN analysis and 0.50ppbv for SIM analysis.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

7.5 Laboratory Control Standard - Stock

7.5.1 0.100ppmv TO-15 Calibration Standard Mixture

7.5.1.1 The TO-15 calibration standard is purchased as a custom mix in a 3395L (2A) cylinder from Spectra Gases at a concentration of 0.100ppmv, production #1433041 or equivalent.

7.5.1.2 The compounds in this mixture are balance with nitrogen at a final cylinder pressure of 2000psig.

7.5.1.3 The standard mixture is certified by Spectra Gases for 12 months from preparation.

7.5.2 Prepare an intermediate standard for GC/MS Scan analysis using the Dynamic Diluter. Bring to a final volume of 20psig with nitrogen.

Dynamic Diluter Software Settings		
Final Concentration (ppbv)	**Nitrogen (cc)**	**Standard (cc)**
0.5	3980	20
5	950	50
25	150	50

7.5.3 Second Source LCS is available upon the request of the client.

8.0 PROCEDURE

Suggested instrument conditions are presented below. Specific instrument conditions may vary slightly, depending on analysis being performed.

8.1 INSTRUMENT OPERATIONS

8.1.1 Entech Concentrator and Autosampler Settings (typical):

Line Temp	100ºC
Bulk Head 1	30ºC
Bulk Head 2	30ºC
Module 1 Trap	-150ºC
Module 1 Preheat	20ºC
Module 1 Desorb	20ºC
Module 1 Bake	130ºC
Module 1 Bake Time	5 min
Module 2 Trap	-30ºC
Module 2 Preheat	off

Module 2 Desorb	180ºC
Module 2 Bake	190ºC
Module 2 Desorb Tim	3.5 min
Module 3 Trap	-180ºC
Module 3 Inject	2 min
Module 3 Bake Time	2 min
Module 3 Event	3
Module 3 Wait Time	25 min
Pressure Comp Factor	14
Loop Flush	30 seconds

© 2019 Pace Analytical Services, LLC.

8.1.2 Agilent GC/MS Conditions (typical):

Initial temperature = 35°C
Hold time= 3 min.
Ramp rate = 8°C/min. to 200°C
Ramp rate = 30° C/min to 230°C
Final time = 25.63 min

8.1.3 GC/MS instrument file names are generated using the following naming convention **MMDD_##.D**

where:

M Month: (01 = January, 02 = February, 03 = March, 04 = April, 05 = May, 06 = June, 07 = July, 08 =August, 09 = September, 10 = October, 11 = November, 12 = December)

DD Day: (01-31)

##: Sequential sample numbers from 01-99.

8.1.4 Pre-Analysis Checklist for the GC/MS Run Sequence

8.1.4.1 Check the autosampler program.

8.1.4.2 Check the quantity of internal standard.

8.1.4.3 Check the air cylinder pressure.

8.1.4.4 Check the Entech 7200 or equivalent concentrator settings.

8.1.4.5 Check the LIMS lab comments for any special instructions.

8.1.4.6 Setup the acquisition sequence in the instrument log and in the computer acquisition program.

8.1.4.7 Check the acquisition parameters in the computer program.

8.1.4.8 Arrange the canisters on the autosampler.

8.1.4.9 Double check the order of the sample cylinders to ensure that it is consistent with the computer acquisition and the instrument log.

8.1.4.10 Flush and pressure test the cylinder connections on the autosampler.

8.1.4.11 Open the valves on the sample cylinders.

8.1.5 Analytical Sequence

The analysis sequence should be similar to the following:

8.1.5.1 BFB tune check (the nitrogen blank and tune check or CCV and tune check can be analyzed together), every 24 hours

8.1.5.2 3.75ppbv Initial Calibration Verification Standard every 24 hours for SCAN mode or 0.50ppb

© 2019 Pace Analytical Services, LLC.

8.1.5.3 Replicate laboratory control samples (LCS and LCSD)

8.1.5.4 Daily method blank

8.2 GC/MS Tuning: The GC/MS system must be checked to ensure that acceptable performance criteria are achieved for the tuning compound bromofluorobenzene (BFB) at the beginning of each day and every 24 hours thereafter for as long as analysis are to be performed. This performance test must be successfully completed before any samples are analyzed.

8.2.1 The tune analysis must meet the criteria listed in EPA Method TO-15 for a 25-ng injection of BFB (4-bromofluorobenzene).

- Once the data is acquired, either select the mass spectrum at the peak apex for evaluation, or use an averaged mass spectrum (e.g., three highest abundance spectra, or across entire BFB peak). Background subtraction is conducted using a single scan prior to the elution of BFB. No part of the BFB peak or any other discrete peak should be subtracted.
- If the criteria are not achieved, the operator must retune the mass spectrometer, either automatically or manually, and the test must be repeated until all criteria are achieved.

Table 8 - BFB m/z Abundance Criteria

Mass	m/z Abundance Criteria
50	8-40 % of mass 95
75	30-66 % of mass 95
95	Base peak, 100 %
96	5-9 % of mass 95
173	<2 % of mass 174
174	50-120 % of mass 95
175	4-9 % of mass 174
176	93-101 % of mass 174
177	5-9 % of mass 176

8.2.2 The internal standard and surrogate mixture are added automatically by the sample concentrator and contain BFB. Analysis of a nitrogen blank will serve as a GC/MS performance test. The standard mixture is added at a rate of 50cc per sample.

8.3 Initial Calibration

8.3.1 Calibration Standards

- Each instrument is calibrated according to the procedures specified within EPA Method TO-15.
- Clarification of the calibration requirements and practices of this laboratory are discussed below. Calculations can be found in section 9.
- Refer to the EPA method protocols for additional detail.

© 2019 Pace Analytical Services, LLC.

- Initial calibration of the GC/MS is performed before sample analysis, with the assistance of the preconcentrator calibration system.
- The preconcentrator draws standard gas from cylinders purchased at a concentration of 0.1ppmv.
- The standard gas flow into the preconcentrator is regulated by a mass flow controller or electronic flow controller that is set through the system software.
- See section 9.1 for calculation of RSD for calibration response factors and for linear fit equations. See section 10.6 for required acceptance criteria for the initial calibration.

STATE NOTE: When analyzing samples from Minnesota, the reporting limit must be verified with each calibration or at least monthly. Verification can be performed by re-quantitation of the low calibration standards using the newly updated calibration curve or by analyze a separate reporting level standard following calibration curve update. This standard must recover ±40% of the expected concentration. If the criterion is not met, a higher level standard may be re-quantitated or analyzed; however the reporting limit must be amended to reflect the increased concentration of the standard utilized. Analytes known to be poor performers are dealt with on a case-by-case basis.

8.3.2 Reference Spectra: A reference mass spectrum library must be generated for all the target compounds.

8.3.2.1 The reference spectra can be extracted the calibration data, provided that the target compounds do not co-elute.
8.3.2.2 In the case of co-elution, an individual compound standard analyzed using the same method conditions will be required to produce the reference mass spectra.
8.3.2.3 The reference spectra will be used for qualitative and quantitative analysis as described later in this section

8.3.3 Internal Standard Retention Time and Internal Standard Response

8.3.3.1 The internal standard responses and retention times of each standard and sample analyzed are evaluated after data acquisition.
8.3.3.2 See section 10.11 for internal standard acceptance criteria.

8.4 ROUTINE CONTINUING CALIBRATION

Daily verification of the calibration curve can be used in lieu of a full initial calibration.

8.4.1 For routine analysis, a single point initial calibration verification sample or ICV is evaluated daily to insure on-going calibration stability. See section 10.7 for required acceptance criteria.

8.5 Blank Analysis

8.5.1 Daily method blank - Analyze a summa canister containing ultra high purity nitrogen after the calibration standard and before the samples to demonstrate that the analytical system is clean and will not impart target analytes to the field

© 2019 Pace Analytical Services, LLC.

samples. This sample serves as the method blank for the analytical sequence. See acceptance criteria in section 10.8 for the method blank.

8.5.2 A blank check may also be interspersed throughout the analytical sequence to demonstrate that there is no carryover contamination from previous high concentration samples.

8.5.3 Nitrogen filled blanks are also used when cleaning canisters to verify the cleanliness prior to use for sampling. See ENV-SOP-MTJL-0107, *Cleaning, Certification and Storage of Air Sampling Equipment*. These canisters can be used as the daily method blank.

8.6 Sample Analysis

8.6.1 Sample Introduction

8.6.1.1 Sample canisters are connected to the 7016CA/D autosampler inlet ports and the canister valves are opened. Entech 7032A-LB Autosampler is only used for Tedlar Bags.

8.6.1.2 The sample information is recorded into the sequence log for that system, including such information as sample name, laboratory identification number, analysis file name, calibration method used, canister number, dilution factor, and volume of sample loaded.

8.6.1.3 While the GC oven is cooling, the pre-concentrator collects the specified volume of a single sample (up to 400cc) out of the specified sample container (canister or Tedlar bag) along with 50cc of the BFB/internal standard (IS)/Surrogate mixture and concentrates the sample volume a 3-stage trapping system.

8.6.1.4 The trapped sample is then thermally desorbed onto the head of the GC column, and the GC begins the temperature program.

8.6.2 Quantitative Compound Identification – Individual Target Analytes

8.6.2.1 IS peak areas for each analysis completed in the 24-hour GC/MS analysis period must be compared to the mean area response for each IS in the most recent calibration. See section 10.11 for acceptance criteria for internal standards.

8.6.2.2 The ID of each compound in the sample must be verified by retention time and relative abundances of the primary and secondary ions. See Attachment II for characteristic masses.

8.6.2.3 Each compound spectrum is compared against a reference spectrum from the spectral library.

8.6.3 Quantitative Compound Identification – TPH

8.6.3.1 Quantitation is performed using an internal standard method.

8.6.3.1.1 The concentration of volatile petroleum products in the sample is determined from a summation of the total response within a specified range.

8.6.3.1.2 The retention time window must, at a minimum, include the area immediately prior to MTBE through the conclusion of the 1,2,4-Trimethylbenzene peak and must be verified daily, using the initial calibration verification standard.

© 2019 Pace Analytical Services, LLC.

8.6.3.1.3 No area other than that relating to the internal standard or surrogate may be subtracted from the retention time window in calculating results.

8.6.3.1.4 For the calculation of response factors for total petroleum hydrocarbons, see the equations in section 9.0.

8.6.3.2 Integration must be “baseline to baseline” as opposed to “valley to valley”.

8.6.3.2.1 Baseline to baseline is defined here as a flat baseline drawn parallel to the x-axis of the chromatogram that includes all responses within the retention time window.

8.6.3.2.2 The correct baseline coincides with a horizontal line drawn through the lowest point in the chromatogram before the end of the window, or before the solvent front.

8.6.3.2.3 Baseline to baseline integration does not include the solvent peak.

8.6.3.2.4 Placement of the baseline is determined for each sample.

8.6.4 Any manual integration performed must be documented with the exception of TPH. When manual integration is performed on a peak, the “before” and “after” integrations must be printed out and included in the data package. All manual integrations performed must be done so in accordance to ENV-SOP-MTJL-0024, *Manual Integration*.

8.6.5 Sample Dilutions

If any target analytes are detected that exceed the upper calibration range of the instrument, the sample is re-analyzed at a dilution if enough sample permits.

Autosampler Dilution:

- Dilutions on summa canisters can be performed one of three ways, depending on the degree of dilution needed.
- First, a smaller sample volume can be analyzed using the capabilities of the Entech autosampler. For example, for a standard sample volume of 200cc, if 20cc were analyzed, that would be equivalent to a 10 fold dilution.
- The smallest sample volume that can be accurately analyzed using the autosampler method is 1cc (or a 200x).

Pressurized Manual Dilution:

- Sometimes, a 200X dilution is not sufficient to bring the concentration of a target analyte within the calibration range. In those cases, the sample canister is pressurized resulting in a dilution of the target analytes present.
- The act of introducing more pure air into the canister performs a dilution.
- The canister can then be analyzed at 200cc or diluted using a lesser autosampler volume if necessary.

© 2019 Pace Analytical Services, LLC.

Secondary Manual Dilution:

- In extreme cases, the canister may need to be diluted into a second evacuated canister.
- This is accomplished by using a gas tight syringe to remove an aliquot of sample (1-10mL) from the initial canister then injecting it into a clean evacuated second canister.
- The second canister is then analyzed and quantified taking into account the dilution based on the amount of sample injected and the total volume of the canister utilized.

Tedlar Bag Dilutions/1L Glass Bottle Vac:

- Dilutions on Tedlar bags or 1L bottle vacs can be performed in much the same manner as summa canisters using either the autosampler dilution or the secondary manual dilution using a second Tedlar bag or 1L bottle vac and filling it with ultra-pure helium then adding an aliquot of field sample using a gas tight syringe.

8.6.6 Qualitative Compound Identification

Qualitative identification of each compound is based on retention time and comparison of the sample mass spectrum with characteristic ions in the reference mass spectrum. The characteristic ions from the reference mass spectrum are defined to be the three ions of greatest intensity or any ions over 30% relative intensity. Compounds are identified as present when the following criteria are met:

8.6.6.1 The characteristic ions of a compound maximize in the same scan or within one scan of each other.

8.6.6.2 The retention time of the compound is within ±0.2 seconds of the retention time of the standard component.

8.6.6.3 The relative intensities of the characteristic ions agree within 30% of the relative intensities of these ions in the reference spectrum. The presence of co-eluting compounds may alter the relative intensities and complicate the compound identification. Examination of extracted ion current profiles can aid in the selection of spectra and in qualitative identification of compounds.

8.6.6.4 Structural isomers that produce similar mass spectra and are sufficiently resolved are identified as individual isomers. If the height of the valley between two close eluting isomers is more than 25% of the sum of the two peak heights, then the structural isomers must be identified as isomeric pairs.

8.6.6.5 A library search must be performed for unknown chromatographic peaks when the total ion chromatogram of the sample contains unknown peaks larger than the internal standard peaks. A tentative identification can be assigned provided that relative intensities of major ions in the library reference spectrum are present in the sample spectrum and the relative intensities agree within 20%. Molecular ions must also be present.

© 2019 Pace Analytical Services, LLC.

8.7 Post-Analysis Checklist

The results of each analytical run must be examined promptly upon completion. The instruments are designed to create an electronic file for each sample analyzed. The following items must be checked following each batch analysis:

8.7.1 Check all tunes for compliance with tuning requirements.

8.7.2 Check to make sure the internal standards are in the retention time window and their mass spectra are correct.

8.7.3 Review the method blank for acceptance criteria.

8.7.4 Review the LCS/LCSD pair for acceptable recovery and precision as listed in section 10.

8.8 For acceptance criteria and corrective actions regarding calibration, QC and sample analysis, refer to sections 10.0 & 11.0.

8.9 TIC's – Tentatively Identified Compounds

Periodically, clients may request additional identification of compounds that are not normally calibrated. This identification is limited to the compounds in the current mass spectral library employed by Pace National.

For samples containing components not associated with the calibration standards, a library search may be made for the purpose of tentative identification. The necessity to perform this type of identification is determined by the type of analyses being conducted. At the client request, when serving the role of QA (or referee) laboratory, tentatively identified compounds (TICs) must always be reported. Guidelines for making tentative identification are:

(1) Relative intensities of major ions in the reference spectrum (ions >10% of the most abundant ion) should be present in the sample spectrum.

(2) The relative intensities of the major ions should agree within 15% to be consistent with target compound list identification. (Example: For an ion with an abundance of 50% in the standard spectrum the corresponding sample ion abundance must be between 20 and 80%).

(3) Molecular ions present in the reference spectrum should be present in the sample spectrum.

(4) Ions present in the sample spectrum but not in the reference spectrum should be reviewed for possible background contamination or presence of co-eluting compounds.

(5) Ions present in the reference spectrum but not in the sample spectrum must be reviewed for possible subtraction from the sample spectrum because of background contamination or co-eluting peaks. Data system library reduction programs can sometimes create these discrepancies.

Computer generated library search routines must not use normalization routines that would misrepresent the library or unknown spectra when compared to each other. Only

© 2019 Pace Analytical Services, LLC.

after visual comparison of sample with the nearest library searches does the mass spectral interpretation specialist assign a tentative identification.

Routinely, Pace National employs a minimum Q value of 85% for tentative identifications and a minimum concentration of 10ppb. Peaks below a Q value of 85% but above 10ppb may be reported as "Unknown". Any identified peaks below 10ppb are removed as these could result from baseline noise or other interferences, not necessarily attributable to the field sample or reliably quantifiable using GCMS technology. Additionally, any peaks that are attributable to instrument contamination (e.g., siloxanes) are also removed.

If multiple TICs, with same exact name, exist for a sample, the LIMS will only display the TIC with the highest quality match per sample.

TIC names assigned as "Unknown" may initially have the same name as another "Unknown" until parsed and displayed in LIMS where it is given a hyphen and incremental number which then becomes a unique TIC (e.g., Unknown-1).

When reporting "Total TIC" for any client sample, only concentrations per above requirements will be used to sum the Total TIC concentration.

8.10 SIM – Selected Ion Monitoring

8.10.1 SIM may be useful for applications requiring quantitation limits below the normal range of electron impact quadrupole mass spectrometry and is an allowable option for this method. Using the primary m/z for quantitation and at least one secondary m/z for confirmation, set up the collection groups based on their chromatographic RTs. The selected m/z values should include any mass defect noted in the target analyte mass spectra acquired on the instrument, usually less than 0.2 amu. The dwell time for each ion may be automatically calculated by the instrument software or may be calculated based on the peak widths of the analytes of interest, the number of spectra needed to be acquired across each peak, and the number of concurrent ions that need to be acquired in each segment. When fewer m/z values are monitored in each segment, the acquisition time for each m/z can be increased, thereby increasing the sensitivity of the system. The total cycle time for the MS should be short enough that at least five, but preferably ten or more, spectra are acquired per chromatographic peak.

8.10.1.1 Monitor at least two ions for each target analyte and use the mid-point of the calibration curve to establish proper ion ratios for each compound. The ratios of primary and secondary ions are the only qualitative tools available in SIM runs (other than RT), which increases their importance in proper identification. When interferences are expected or observed in a given matrix, acquiring multiple secondary ions may aid in qualitative identification.

8.10.1.2 Verify that all monitored ions are correctly integrated in order to achieve proper ion ratios. Update the primary/secondary ion ratios and reference mass spectra after each ICAL using a mid-range ICAL standard.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

9.0 DATA ANALYSIS AND CALCULATIONS

9.1 TPH Calculations: The total area must be measured, from the beginning to the end marker, will be used in conjunction with the concentration to calculate the response factor.

$$RF = \frac{(\text{Total TPH Area})x(\text{Concentration of Internal Standard})}{(\text{Area of Internal Standard})x(\text{Concentration of Total TPH})}$$

$$\text{Total Sample TPH} = \frac{(\text{Area of Sample})x(\text{Concentration of Internal Standard})}{(\text{Area of Internal Standard})x(\text{Avg. RF of Total TPH})}$$

9.2 Sample Concentration: Target compound concentrations in units of ppbv are calculated using the RRFs obtained in the initial calibration. The abundance of the primary ion is used for quantitation unless there is an interference with the primary ion; in case of interference with the primary ion, a secondary ion can be used.

$$C_t = \frac{(A_t)\ (C_{is})\ (DF)}{(A_{is})\ (MRRF)}$$

Where:
A_t = area count of the primary ion for the target compound to be measured
A_{is} = area count of the primary ion for the ISTD
C_t = concentration of the target compound (ppbv)
C_{is} = concentration of the internal standard (ppbv)
MRRF = mean RRF from initial calibration
DF = dilution factor. DF = 1, if no dilution.

9.3 Concentration Conversions

$$ppmv = ppbv/1000$$

$$mg/m^3 = \frac{(\text{compound molecular weight})(ppmv)}{(\text{molar volume})}$$

$$\mu g/m^3 = \frac{(\text{compound molecular weight})(ppbv)}{(\text{molar volume})}$$

$$\mu g/L = \frac{(\mu g/m^3)}{1000}$$

$$\mu g = \frac{\mu g/L}{\text{sample size analyzed}}$$

© 2019 Pace Analytical Services, LLC.

$$ng = \mu g \times 1000$$

9.4 See the current Quality Assurance Manual for equations associated with common calculations.

10.0 QUALITY CONTROL AND METHOD PERFORMANCE

10.1 All analysts must meet the qualifications specified in ENV-SOP-MTJL-0015, *Technical Training and Personnel Qualifications* before approval to perform this method. Analysts must complete an initial demonstration of proficiency before being approved to perform this method. Continuing proficiency must be demonstrated using proficiency testing, laboratory control sample analysis and/or MDL studies. Method performance is assessed per analyst. Updated method performance records are filed and stored in a central location within the department.

10.2 Use the designated Run log to record batch order and standards/reagents used during analysis. See ENV-SOP-MTJL-0014, *Data Handling and Reporting*.

10.3 Batches are defined as sets of 1 - 20 samples. Batch analysis must include the following: 1 method blank, 1 Laboratory Control Sample (LCS) and 1 Laboratory Control Sample Duplicate (LCSD). All batch information must be maintained in the preparation documentation assigned to the department.

10.4 Detector Tuning - The BFB must be analyzed daily prior to any calibration or field sample analysis (once/24 hours). The acceptance criteria must meet the specifications found in Table 8.

10.5 Retention Time - Evaluation of retention time windows to ensure that all compounds are detected within their respective time windows. The retention time of the target analytes in each calibration standard must agree within +/-0.06 RRT Units. Late-eluting compounds usually have much better agreement.

10.6 Initial Calibration - There must be an initial calibration of the GC/MS system as described in Section 8.3. A calibration curve of at least five (5) points must be established that brackets the expected range of sample concentrations and remains within the analytical range of the instrument. The Relative Standard Deviation (RSD) for any one of the compounds must be <30% for sample analysis to proceed with two compounds being allowed to be <40%. If the RSD for any analyte is beyond the required criteria, any of the curve fits listed below may be used for calibration if the correlation coefficient is $\geq$0.990. Establishment of a successful calibration curve occurs when analysis of continuing calibration standards indicate that a new calibration curve is required or when there has been a major change, repair, or maintenance performed on the instrument. The recalibration period does not exceed three (3) months. The most appropriate curve fitting mode is used from among the following choices below (given in order of preference):

- Average Response Factor
- Linear – No Weighting
- Linear – 1/x Weighting
- Linear – $1/x^2$ Weighting
- Quadratic

When second order (quadratic) curves are evaluated, acceptability must include an assessment of a graphic representation of the curve to confirm that this fit type is not

© 2019 Pace Analytical Services, LLC.

being used to mask detector saturation and that the curve (which defines a parabola) does not result in two concentration for one response. High order polynomial curves (i.e., third-order and greater) are not allowed at Pace National.

10.7 ICV - On the days that an initial calibration of the instrument is not needed, a mid-level standard is analyzed daily to verify the stability of the original calibration curve. The deviations of the response factor for the target analytes in this standard must be <30% from those of the initial calibration curve. The GC/MS system must meet the calibration criteria each 24 hours of instrument operation as described in Section 8.3. If the Percent Difference for the compounds in the single point initial calibration verification sample are <30%, then analysis of field samples may continue.

10.8 Method Blank – One each day of analysis, a nitrogen filled summa (method blank) must be analyzed before the samples in the analytical batch. The method blank must be analyzed following the BFB tune and calibration verification standard (ICV) and prior to any field sample analysis. This method blank verifies that the instrument is free from target analytes prior to the analysis of field samples. The acceptance criteria for target analytes in the method blank is < the MDL.

10.9 LCS/LCSD - On days of field sample analysis, an LCS/LCSD pair must be analyzed. The recoveries for the target analytes must be within 70-130% for accuracy and the RPD must be <25% for most commonly analyzed target in this method. Marginal excedence limits for these analytes are 60-140%. Some analytes that are routinely quantitated by this method do not respond well due to various factors. These analytes are considered poor performers in the analytical sequence and utilize control limits based on historical data that may be updated per laboratory policy. The analytes noted in this method as poor performing are included in the table below. See LIMS for the current acceptance limits of these poor performing compounds.

Poor Performing Compound Name
1,2,4-TRICHLOROBENZENE
1,4-DIOXANE
2-PROPANOL
4-METHYL-2-PENTANONE (MIBK)
BENZYL CHLORIDE
DICHLORODIFLUOROMETHANE
ETHANOL
HEXACHLORO-1,3-BUTADIENE
METHYL BUTYL KETONE
NAPHTHALENE
PROPENE
TETRAHYDROFURAN
TERT-BUTYL ALCOHOL
2-METHYLNAPHTHALENE

© 2019 Pace Analytical Services, LLC.

10.10 Surrogate (1,4-Bromofluorobenzene) - The surrogate is automatically added to each standard, QC and field sample by the autosampler. The surrogate must recovery within 60-140% of the expected value.

10.11 Internal Standards - In each QC and field sample, the autosampler automatically adds internal standard, along with the surrogate. The internal standard area response for each QC and field sample must be ±40% of the mean area response for each of the ISTDs in the multipoint calibration. The retention time of the ISTD compounds in each QC and field sample must also be within ±0.06RRT units of the same internal standard in the multipoint calibration.

10.12 Manual Integration – All manual integrations must comply with the requirements found in ENV-SOP-MTJL-0024, *Manual Integration Procedure*. Before and after integrations must be available for review by the secondary data reviewer.

10.13 Reporting Limit Verification (RLV) – RL checks are evaluated but are currently applicable to Minnesota samples only. See State Note in Section 8.3.1 above for details.

10.14 Any sample analyte responses that are beyond the linear range of the calibration curve must be diluted and re-analyzed.

10.15 For corrective actions, see section 11.0.

11.0 DATA VALIDATION AND CORRECTIVE ACTION

11.1 BFB Instrument Tune - If the acceptance criteria are not met, the analyst can attempt a second tune injection. If the second tune also fails, the analyst must perform corrective action. Corrective actions can include: instrument autotuning, source cleaning, manual adjustment of the mass spectrometer parameters. Analysis of field sample cannot occur until a successful tune is achieved.

11.2 Initial Calibration - If a calibration curve does not meet the acceptance criteria, review the points of the curve to determine if an individual point requires reanalysis, if so, re-analyze the suspect point and re-process the curve. If all calibration points analyzed appear acceptable and the calibration still does not pass criteria, perform instrument maintenance, if suspected as the cause, prepare new calibration standards, and repeat the calibration curve.

11.3 Initial Calibration Verification - If this criterion is not met, the ICV can be re-analyzed once. If the re-analysis continues to fail the acceptance criteria, the full calibration curve must be re-analyzed. Instrument maintenance may be necessary prior to re-calibration.

11.4 LCS/LCSD - If these criteria are not met, repeat the LCS and/or LCSD analysis once and if the criteria is still not met then a new standard is prepped and analyzed. If the failure persists, re-calibrate the instrument and re-analyze the LCS/LCSD and any additional sample injections that may have occurred with the previous failing LCS/LCSD pair.

11.5 Surrogate Recovery - If the acceptance criteria are not met, re-analyze any failing sample, method blank and/or LCS/LCSD sample. If the failure occurs in the method blank or LCS/LCSD sample, re-analyze once. If the failure persists, corrective action is needed. Corrective action can include instrument maintenance and/or re-calibration. Failures of method blanks and LCS/LCSD samples are routinely noted and addressed prior to the analysis of field samples; however if the failure occurs in the method blank or LCS/LCSD sample during an analytical sequence, then any samples analyzed in

© 2019 Pace Analytical Services, LLC.

conjunction with the failure must be re-analyzed. If the failure occurs in the field sample, unless gross contamination or high target analyte levels are present, all re-analyses should be performed at the same dilution as the original analysis to determine the cause of the original failure. If the failure persists in the re-analysis, flag the data with explanation to the client.

11.6 Method Blank Analysis - If the method blank does not meet criteria, the analysis must be repeated with a different nitrogen filled canister. If the method blank is still not valid, the pre-concentrator/GC/MS system must be checked for leaks and/or contamination. Canister cleaning batch nitrogen blanks can be used for clean method blanks since one canister of each cleaned batch must be analyzed by GC/MS for the batch to be certified as clean. An acceptable method blank must be achieved prior to any field sample analysis.

NOTE: Tedlar bags have, in some cases, been shown to contain analytes above the values listed on the certificates of cleanliness. This has not been experienced at Pace National; however should a new manufacturer be chosen as the supplier of Tedlar bags, a method blank Tedlar may be necessary to demonstrate acceptable cleanliness.

11.7 Internal Standard Recovery - If the area response for any ISTD changes by more than ± 40% between the sample and the most recent calibration, the GC/MS system must be inspected for malfunction and corrections made as appropriate. When corrections are made, an initial calibration verification sample must be analyzed to determine whether the multipoint calibration remains valid. If acceptance criteria are not met, recalibration is necessary. Re-analysis of all samples analyzed while the GC/MS system was malfunctioning is necessary.

11.8 Reporting Limit Verification (RLV) – RL checks are evaluated but are currently applicable to Minnesota samples only. See State Note in Section 8.3.1 above for details.

11.9 All data must undergo a primary review by the analyst. The analyst must check the performance of the initial calibration and continuing calibrations to ensure that they meet the criteria of the method. The analyst should review any sample that has quantifiable compounds and make sure that they have been confirmed, if needed. The analyst must also verify that reported results are derived from quantitation between the MDL and the highest standard of the initial calibration curve. All calculations must be checked (any dilutions, re-analyses, etc.). Data must be checked for the presence or absence of appropriate flags. Comments should be noted when data is flagged.

11.10 All data must undergo a second analyst review. The analyst checking the data must check the performance of the initial calibration and calibration verifications to ensure that they meet the criteria of the method.

11.10.1 The analyst should look at any sample that has quantifiable compounds and check the integration.

11.10.2 All surrogate recoveries must be checked to see if they are within limits.

11.10.3 Method Blanks must be clean of all interfering peaks.

11.10.4 Quality control criteria should be checked for the ISTDs, LCS, and LCSD.

© 2019 Pace Analytical Services, LLC.

11.10.5 Data must be checked for the presence or absence of appropriate flags. Comments should be noted when data is flagged.

11.10.6 See ENV-SOP-MTJL-0014, *Data Handling and Reporting*.

11.10.7 See ENV-SOP-MTJL-0018, *Corrective and Preventive Action*.

11.11 LCS/LCSD: The laboratory control sample and laboratory control sample duplicate, recoveries must be evaluated against the limits listed in this procedure. The LCS/LCSD are spiked with the same list of compounds for which the instrument is calibrated. Due to the large number of compounds analyzed using these methods, it is statistically likely that accuracy and precision failures will occur.

LCS or LCSD samples that do not pass the acceptable QC criteria must be re-analyzed. LCS/LCSD failures must meet the marginal excedence criteria below. Allowable marginal excedence outliers are based on the number of compounds being analyzed and must be random events.

Upper and lower marginal excedence (ME) limits are established by ± 4 times the standard deviation of historical accuracy data.

Number of allowable marginal excedences:

90+ analytes,	5 analytes allowed in the ME limit
71 – 90 analytes,	4 analytes allowed in the ME limit.
51 – 70 analytes,	3 analytes allowed in the ME limit.
31 – 50 analytes,	2 analytes allowed in the ME limit.
11 – 30 analytes,	1 analyte allowed in the ME limit.
< 11 analytes,	no analyte allowed in the ME limit.

STATE NOTE: For South Carolina, marginal exceedances do not apply. All outliers in QC require corrective action when possible and the data must be flagged when necessary.

12.0 POLLUTION PREVENTION AND WASTE MANAGEMENT

12.1 The EPA requires that laboratory waste management practice to be conducted consistent with all applicable federal and state laws and regulations. Excess reagents, samples and method process wastes must be characterized and disposed of in an acceptable manner. See *ENV-SOP-MTJL-0051, Waste Management Plan.*

12.2 See ENV-SOP-MTJL-0046, *Environmental Sustainability & Pollution Prevention*.

13.0 METHOD MODIFICATIONS/CLARIFICATIONS

13.1 Modifications to this method are noted in the body of the text as state notes. Compliance analyses performed in conjunction with specific state requirements must be performed as noted within the specific state(s) note listed.

13.2 Provisions have been added to this procedure for the analysis of gasoline range organics and additional analytes from those listed specifically in the EPA TO-14A and TO-15 Compendium Methods. Sufficient supporting data is maintained by the laboratory to demonstrate accurate identification and adequate sensitivity for quantitation of these analytes using this procedure.

© 2019 Pace Analytical Services, LLC.

13.3 Adjustments to the concentrations of standards/spiking solutions, standards providers, and quality control are subject to change to better meet client/project/regulatory needs or to improve laboratory method performance.

14.0 REFERENCES

14.1 *Ambient Air*: Method TO-14A, Second Edition, U.S. Environmental Protection Agency, Research Triangle Park, NC, EPA 600/625/R-96/010b, January 1999.

14.2 *Compendium of Method for the Determination of Toxic Organic Compounds in Ambient Air*: Method TO-15, Second Edition, U.S. Environmental Protection Agency, Research Triangle Park, NC, EPA 600/625/R-96/010b, January 1999.

14.3 Entech 7100 Operators Manual, Version 2.0, Entech Instruments Inc., Simi Valley, CA, 1999.

14.4 Entech 3100 Operators Manual, Version 1.0, Entech Instruments Inc., Simi Valley, CA, 1999.

14.5 Method 18 – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography, 40 CFR 60, Appendix A-6.

14.6 Markes Unity-xr User Manual, QUI-1119, Version 1.0 – July 2016, Markes International Ltd.

14.7 Markes CIA Advantage Operator Manual, QUI-1078, Version 1.1 – Markes International Ltd.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Attachment I: Revision History

Current Version (Pace National):

Date	Description of Revisions
11/20/2020	Revised header. Added Section 8.10 and all subsections.

Superseded Versions (ESC Lab Sciences SOP#330367):

Version	Date	Description of Revisions
0	3/26/04	Origination
1	3/24/05	
2	6/15/05	
3	12/5/05	
4	4/21/06	
5	4/30/07	Corrected format errors and sequential numbering, expanded on process discussion in response to Ohio VAP review.
6	2/3/09	Technical and Quality Review and update. Inclusion of sections 12.1-12.2 & 13.1; Clarification of holding times; Addition of State Notes for Ohio VAP and MN; Ohio VAP approval 2/3/09.
7	7/13/11	Technical and Quality Review and update. Revised sections 7.3.2, 7.4, Table 7.4, 7.5, 8.1 through 8.5, 9.1 through 9.5, 11.6 through 11.11, 12.1 and 13.2; Added sections 1.2, 2.9 through 2.23, 10.4 through 10.14, 13.3 and Attachments II and III.
8	9/19/11	Technical and Quality Review and update. Revised sections 8.7.4 and 10.9
9	11/17/11	Technical and Quality Review and update. Revised sections 7.3.1, 7.4.2, 8.3.1, 8.3.3, 8.4, 8.6.2, 8.6.3, 8.6.4, 8.7, 10.5, 10.8, 10.14, 11.5, and 11.7; Added sections 7.4.2.4, 8.1.4, 8.1.5, and 8.5; Removed sections 8.2.3, 8.2.6, 8.4, and 8.6; Reconciled Ohio VAP approval with changes from Rev. 7, 8 and 9 - 11/17/11.
10	1/29/13	Technical and Quality Review and update. Revised sections 4.2 (including state note), 8.2.1, and 10.9; Added state note in section 1.0 and sections 1.3.1, 2.24, 2.25, and 6.3.4.
	3/19/14	Reviewed with no changes per D. Ramey/D. Marlin
11	11/6/14	Technical and Quality Review and update. Revised Attachments II and II and Table 7.4, Revised sections 1.1, 1.2, 4.5.3, 7.4.2.2, 7.4.2.4, 8.1.5.2, 10.9 and 11.4; Added sections 2.26, 2.27, 4.5.4, and 7.5.3.
12	11/25/2015	Technical and quality review and update. Header and signature block re-formatting. Revised Sections 1.3.1, 4.4.2, 4.5.4, 6.1.4, 7.1, 7.2, 7.3.1.1, 7.4.1, Table 7.4, 7.5.4, 8.0, 8.1.5.1, 8.2.2, 8.5, 8.6.5, 8.7.5, 8.7.6, 10.8, 11.6, 11.9.8, 12.2, Attachment IIa, and Attachment IIIa. Removed Sections 7.3.1.2 and 7.3.1.3. Added Attachment IV.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Version	Date	Description of Revisions
13	11/9/2016	Technical and quality review and update. Header and signature block re-formatting. Revised Sections 2.9, 2.10, 2.11, 7.3.1.1, 7.3.2.1, 7.3.2.2, 7.3.2.7, 7.4.1, 7.4.2.1.1, 7.4.2.1.4, 7.5.1.3, 7.5.2.1, 7.5.2.2, 7.5.2.4, 8.1.4.5, 8.1.5.3, 8.3.1, 8.5, 8.6.1, 8.6.2, 8.6.4, 8.6.5, 8.7.5, 10.3, 10.6, 10.8, 11.7, 11.10, 11.11.1, and Attachment IV Table 2. Deleted Sections 2.9 through 2.25, 7.3.2.5, 7.5.3 and all subsections, 9.1, 9.2, 9.4, and 9.5. Added Section 9.4.
14	4/10/2017	Technical and quality review and update. Revised SOP title and Sections 1.3, 4.5.2, 4.5.3, 7.3.1.1, 7.4.2.2, 8.1.4.9, 8.1.5.1, 8.1.5.3, 8.2, 8.6.5, 10.9, 10.10, and 10.11. Deleted Section 4.5.2 and 8.1.4.1. Added Section 6.3.7, 6.3.8, 14.5, 14.6, and 14.7.
15	11/30/2017	Update in response to A2LA audit finding CAR2872. Revised Sections 1.0, 1.3, 3.1, and Attachment IV Table 4.

Superseded Versions (Pace National):

Date	Description of Revisions
1/19/2019	Technical and quality review and update. Deleted header, footer and signature bar. Revised sections 1.0, 1.1, 1.3, 1.3.1, 3.1, 4.2, 4.3, 4.4, 4.4.1, 4.5, 4.5.1, 4.5.2, 4.5.3, 6.1, 6.1.1, 6.1.2, 6.1.3, 6.1.4 ,6.1.5, 6.3, 6.3.9, 6.3.12, 6.4, 7.0, 7.1, 7.3.2.2, 7.4.1, 7.4.2.2, 7.5, 7.5.1, 7.5.1.1, 7.5.2, 8.1.4, 8.1.4.4, 8.1.5, 8.1.5.1, 8.1.5.2, 8.2.1, 8.2.2, 8.3, 8.6, 8.6.4, 8.7, 8.9, 10.1, 10.2, 10.3, 10.6, 10.9, 10.10, 10.12, 11.6, 12.1, 12.2 and 14.7. Deleted Table 7.4. Deleted sections 7.4.2.1, 7.4.2.1.1, 7.4.2.1.2, 7.4.2.1.3, 7.4.2.1.4, 7.5.1.2, 7.5.2.1, 7.5.2.2, 7.5.2.3, 7.5.2.4, 8.7.5, 8.7.6, 11.9.2, 11.11, 11.11.1, 11.11.2 and renumbered as necessary. Added sections 7.4.2.1, 8.9, 10.13, 11.8 and renumbered as necessary. Added State Note to section 8.3.1. Added sub-section numbers to sections 8.3.2, 8.3.3, 8.4, 8.5, 8.6.1, 8.6.2, 8.6.3.1 and 8.6.3.2. Revised sections 8.5.1, 8.5.3, 8.6.1.3, 11.10.6 and 11.10.7. Revised Attachments I, IIa and IIIa.
12/23/2019	Added corporate header and footer. Added Client Note in Sections 4.2 and 4.4.1. Deleted Section 4.5.1, 6.3.3, 6.3.7, 6.3.8, and renumbered as appropriate. Added Section 6.1.6. Revised Sections 4.5.2, 6.0, 7.4.2.2, 8.6.1.1, and 8.6.5.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Attachment IIa: Routine Analytes and Reporting Limits for Scan Mode *(*See section 13.3)*

Compound*	RL ppbv*
1,1,1-Trichloroethane	0.2
1,1,2,2-Tetrachloroethane	0.2
1,1,2-Trichloroethane	0.2
1,1,2-Trichlorotrifluoroethane	0.2
1,1-Dichloroethane	0.2
1,1-Dichloroethylene	0.2
1,2,4-Trichlorobenzene	0.63
1,2,4-Trimethylbenzene	0.2
1,2-Dibromoethane	0.2
1,2-Dichlorobenzene	0.2
1,2-Dichloroethane	0.2
1,2-Dichloropropane	0.2
1,2-Dichlorotetrafluoroethane	0.2
1,3,5-Trimethylbenzene	0.2
1,3-Butadiene	2.0
1,3-Dichlorobenzene	0.2
1,4-dichlorobenzene	0.2
1,4-Dioxane	0.2
2,2,4-Trimethylpentane	0.2
2-Butanone	1.25
2-Chlorotoluene	0.2
2-propanol	1.25
4-Ethyltoluene	0.2
4-Methyl-2-Pentanone	1.25
Acetone	1.25
Allyl Chloride	0.2
Benzene	0.2
Benzyl Chloride	0.2
Bromodichloromethane	0.2
Bromoform	0.6
Bromomethane	0.2
Carbon Disulfide	0.2
Carbon Tetrachloride	0.2
Chlorobenzene	0.2
Chloroethane	0.2
Chloroform	0.2
n-Propylbenzene	0.2
sec-Butylbenzene	0.2
1,2,3-Trimethylbenzene	0.2
Tert-butyl alcohol	1.25
Dicyclopentadiene	0.2
Ethyl Acetate	0.2
Butane	0.2
Acrolein	0.31
2-Methylnaphthalene	1.0
Acetonitrile	0.2

Compound*	RL ppbv*
Chloromethane	0.2
cis-1,2-Dichloroethene	0.2
cis-1,3-Dichloropropene	0.2
Cyclohexane	0.2
Dibromochloromethane	0.2
Dichlorodifluoromethane	0.2
Ethanol	0.63
Ethylbenzene	0.2
Heptane	0.2
Hexachloro-1,3-Butadiene	0.63
Isopropyl benzene	0.2
m&p-Xylene	0.4
Methyl Butyl Ketone	1.25
Methyl Methacrylate	0.2
Methylene Chloride	0.2
MTBE	0.2
Naphthalene	0.63
n-Hexane	0.2
o-Xylene	0.2
Propene	2
Styrene	0.2
Tetrachloroethylene	0.2
Tetrahydrofuran	0.2
Toluene	0.2
TPH	50
Trans-1,2-Dichloroethene	0.2
trans-1,3-Dichloropropene	0.2
Trichloroethylene	0.2
Trichlorofluoromethane	0.2
Vinyl Acetate	0.2
Vinyl Bromide	0.2
Vinyl Chloride	0.2
1,4-Bromofluorobenzene (surrogate)	0.2
1,4-Difluorobenzene (internal standard)	0.2
Bromochloromethane (internal standard)	0.2
Chlorobenzene-d5 (internal standard)	0.2
tert-Butylbenzene	0.2
n-Butylbenzene	0.2
1,1-Difluoroethane	0.2
Tert-Amyl Ethyl Ether	0.2
Chlorodifluoromethane	0.2
Methyl Cyclohexane	0.2
Pentane	0.2
Acrylonitrile	0.2
Bromoethane	0.2
Nonane	0.2

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Attachment IIb: Routine Analytes and Reporting Limits for SIM Mode *(*See section 13.3)*

Compound*	RL ppbv*
1,1,1-Trichloroethane	0.02
1,1,2,2-Tetrachloroethane	0.02
1,1,2-Trichloroethane	0.03
1,1-Dichloroethane	0.02
1,1-Dichloroethylene	0.02
1,2-Dibromoethane	0.02
1,2-Dichloropropane	0.03
1,4-Dichlorobenzene	0.02
Benzene	0.02
Carbon Tetrachloride	0.02
Chloroethane	0.04
Chloroform	0.02
Chloromethane	0.03

Compound*	RL ppbv*
cis-1,2-Dichloroethene	0.02
cis-1,3-Dichloropropene	0.03
Ethylbenzene	0.03
Tetrachloroethylene	0.02
trans-1,2-Dichloroethene	0.02
trans-1,3-Dichloropropene	0.03
Trichloroethylene	0.02
Vinyl Acetate	0.02
Vinyl Chloride	0.02
1,4-Bromofluorobenzene (surrogate)	0.02
1,4-Difluorobenzene (ISTD)	0.02
Bromochloromethane (ISTD)	0.02
Chlorobenzene-d5 (ISTD)	0.02

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Attachment IIIa: Characteristic Ions for SCAN mode

Compound	1° Ion	2° Ion	Compound	1° Ion	2° Ion
1,1,1-Trichloroethane	97	99, 61	Chloromethane	50	52
1,1,2,2-Tetrachloroethane	83	85	cis-1,2-Dichloroethene	96	61, 98
1,1,2-Trichloroethane	97	83, 61	cis-1,3-Dichloropropene	75	39, 77
1,1,2-Trichlorotrifluoroethane	101	151, 85	Cyclohexane	56	84, 41
1,1-Dichloroethane	63	65	Dibromochloromethane	129	127, 131
1,1-Dichloroethylene	96	98, 61	Dichlorodifluoromethane	85	87, 101
1,2,4-Trichlorobenzene	105	122	Ethanol	31	45, 27, 46
1,2,4-Trimethylbenzene	105	120	Ethylbenzene	91	106
1,2-Dibromoethane	107	109	Heptane	43	71, 57
1,2-Dichlorobenzene	146	148, 111	Hexachloro-1,3-Butadiene	225	227, 223
1,2-Dichloroethane	62	64	Isopropyl benzene	105	120
1,2-Dichloropropane	63	62, 41	m&p-Xylene	91	106
1,2-Dichlorotetrafluoroethane	85	135, 87	Methyl Butyl Ketone	43	58, 57, 100
1,3,5-Trimethylbenzene	105	120	Methyl Methacrylate	41	69, 100
1,3-Butadiene	54	53, 39	Methylene Chloride	84	49
1,3-Dichlorobenzene	146	148, 111	MTBE	73	57
1,4-Dichlorobenzene	146	148, 111	Naphthalene	128	-
1,4-Dioxane	88	58	n-Hexane	57	41, 43
2,2,4-Trimethylpentane	57	41, 56	o-Xylene	91	106
2-Butanone	43	72	Propene	41	39, 42
2-Chlorotoluene	91	126	Styrene	104	78, 103
2-propanol	45	43	Tetrachloroethylene	166	164, 131
4-Ethyltoluene	105	120	Tetrahydrofuran	42	41, 72, 71
4-Methyl-2-Pentanone	43	58, 100	Toluene	91	92
Acetone	43	58	TPH	NA	NA
Allyl Chloride	76	41, 78	trans-1,2-Dichloroethene	96	98, 61
Benzene	78	77, 50	trans-1,3-Dichloropropene	75	39, 77
Benzyl Chloride	91	126	Trichloroethylene	130	132, 95
Bromodichloromethane	83	85, 129	Trichlorofluoromethane	101	103, 105
Bromoform	173	171, 175, 252	Vinyl Acetate	43	86
Bromomethane	94	96	Vinyl Bromide	106	108
Carbon Disulfide	76	44, 78	Vinyl Chloride	62	64
Carbon Tetrachloride	117	119	1,4-Bromofluorobenzene (surr.)	95	174, 176
Chlorobenzene	112	77, 114	1,4-Difluorobenzene (ISTD)	114	-
Chloroethane	64	66	Bromochloromethane (ISTD)	51	131
Chloroform	83	85	Chlorobenzene-d5 (ISTD)	117	-
n-Propylbenzene	91	120	tert-Butylbenzene	119	91, 134
sec-Butylbenzene	105	134	n-Butylbenzene	91	92, 134
1,2,3-Trimethylbenzene	105	120	Tert-butyl alcohol	59	-
Dicyclopentadiene	66	132	Tert-amyl ethyl ether	73	55, 87, 43
1,1-Difluoroethane	51	-	chlorodifluoromethane	51	67
Ethyl acetate	43	45, 70	Methyl Cyclohexane	83	55, 41
Butane	43	58	Pentane	43	57, 72
Acrolein	56	55	Acrylonitrile	53	52, 51
2-Methylnaphthalene	142	141, 115	Bromoethane	108	110

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Compound	1° Ion	2° Ion	Compound	1° Ion	2° Ion
Acetonitrile	41	40, 39	Nonane	43	57, 71, 128

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Attachment IIIb: Characteristic Ions for SIM mode

Compound	1° Ion	2° Ion	Compound	1° Ion	2° Ion
1,1,1-Trichloroethane	97	99, 61	cis-1,2-Dichloroethene	96	61, 98
1,1,2,2-Tetrachloroethane	83	85	cis-1,3-Dichloropropene	75	39, 77
1,1,2-Trichloroethane	97	83, 61	Ethylbenzene	91	106
1,1-Dichloroethane	63	65	Tetrachloroethylene	166	164, 131
1,1-Dichloroethylene	96	98, 61	trans-1,2-Dichloroethene	96	98, 61
1,2-Dibromoethane	107	109	trans-1,3-Dichloropropene	75	39, 77
1,2-Dichloropropane	63	62, 41	Trichloroethylene	130	132, 95
1,4-Dichlorobenzene	146	148, 111	Vinyl Acetate	43	86
Benzene	78	77, 50	Vinyl Chloride	62	64
Carbon Tetrachloride	117	119	1,4-Bromofluorobenzene (surr.)	95	174, 176
Chloroethane	64	66	1,4-Difluorobenzene (ISTD)	114	-
Chloroform	83	85	Bromochloromethane (ISTD)	51	131
Chloromethane	50	52	Chlorobenzene-d5 (ISTD)	117	-

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Attachment IV: DoD Requirements

1.0 Equipment/Instrument Maintenance

Instrument maintenance must be performed routinely to optimize instrument performance and improve chromatography. Commonly performed maintenance includes baking traps and columns, cleaning inlet, replacing valves, etc. A new calibration curve must be analyzed following any major maintenance performed on the analytical system.

2.0 Computer Hardware and Software

Software name and version: MSD Chemstation E.02.01.1177 or equivalent

3.0 Troubleshooting

Table 1. GCMS Troubleshooting Guide

Problem	Cause	Treatment
Peaks broaden and tail	Poor column installation causing dead volume in the injector	Reinstall column in injector. Check seal at ferrule. Check insertion depth. Ensure a good column cut.
	Solvent flashing in hot injector	Reduce injection speed on hot injectors and if possible reduce injector temperature
	Injector not being purged properly after splitless injection	For splitless injection, the vent flow should be 70 ml/min, and the injector should be switched to the split mode 0.5_1.5 min after injection.
Tailing sample peaks for active components	Active sites in the injector insert or liner	Change or clean the injector insert
	Active sites or degraded phase in column	Remove the front 15 cm of the column and reinstall. If retention times are changing or cutting the column does not help, replace the column.
	Injector not hot enough for higher boiling compounds	Increase the injector temperature and lower the injection speed. Check that the graphite ferrule is free of cracks and the septum support is tight.
Low response and tailing of high boiling point compounds	Injector is not hot enough to vaporize high boilers	Increase injector temperature
	Interface/ion source not getting to adequate temperature	Change the manifold heater
Leading sample peaks	Column overload due to excess amount of component injected	Dilute the sample or do split injection
	Degradation of stationary phase	Change the column
	Carrier gas velocity too low	Increase carrier gas flow rate
Poor chromatographic resolution	Column temperature or program not optimized	Modify method by changing temperature ramp segment slopes

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 1. GCMS Troubleshooting Guide

Problem	Cause	Treatment
	Carrier gas flow rate not optimized	Decrease carrier gas linear velocity
	Stationary phase has degraded	Replace the column
Peak splitting, especially low boilers	Sample is flashing in the injector simulating two injections	Lower injector temperature
Retention times shift in chromatogram	Unstable carrier gas flow controller/regulator	Check pneumatics for leaks. Replace flow controller/ regulator if necessary.
	Column contamination or degradation	Condition or replace column
	Leaks at septum or column to injector connection	Replace septum regularly and check that the septum nut and the capillary column nut are tight
Cannot reach operating vacuum	Analyzer contaminated by diffusion pump oil	Shut down and clean mass spec
	Major air leak around column fitting into interface	Replace column ferrule and reseat compression fitting
No tuning peaks	Cal gas valve not open	Open cal gas valve
	Calibration gas solenoid valve stuck open. All PFTBA has evaporated.	Have solenoid replaced. Put fresh PFTBA in the cal gas vial.
Analysis sensitivity has decreased	Background has increased	Check column bleed, septum bleed, pump oil, and ion source contamination
	Detector needs replacement	Replace detector
	Defective syringe	Try a new or proven syringe
	"Blown" septum or other massive leaks at the inlet or with carrier gas flow. Poor peak shapes usually result from bad leaks.	Find and fix leaks and adjust gas flow.
	Purge flow or split ratio too high	Adjust gas flow rates

4.0 Other Requirements

4.1 All hardcopy laboratory notebooks must be reviewed by the Supervisor, or their designee, on a monthly basis.

4.2 If not self-explanatory (e.g., a typo or transposed number), corrections to technical and quality records shall also include a justification for the change.

4.3 A storage blank must be stored with all volatile organic samples, regardless of suspected concentration levels.

4.4 A person performing a manual integration must sign and date each manually integrated chromatogram and record the rationale for performing manual integration. Electronic signatures are acceptable.

© 2019 Pace Analytical Services, LLC.

4.5 The results of calibration and verification of support equipment must be within the specifications required of the application for which this equipment is used or the equipment must be removed from service until repaired. Calibration and verification records, including those of established correction factors, must be maintained. In the absence of method-specific requirements, the minimum requirements are as follows:

Table 2. Support Equipment Checks

Performance Check	Frequency	Acceptance Criteria
Balance calibration check [Using two standard weights that bracket the expected mass]	Daily prior to use	Top-loading balance: ±2% or ±0.02g, whichever is greater Analytical balance: ±0.1% or ±0.5 mg, whichever is greater
Verification of standard mass [Using weights traceable to the International System of Units (SI) through a NMI	Every 5 years	Certificate of Calibration from ISO/IEC 17025 accredited calibration laboratory
Monitoring of refrigerator/freezer temperatures	Daily (i.e. 7 days per week) [use MIN/MAX thermometers or data loggers equipped with notification of out of control event capabilities if personnel not available to record daily]	Refrigerators: 0˚C to 6˚C Freezers: ≤-10˚C
Thermometer verification check [Using a thermometer traceable to the SI through an NMI] [Performed at two temperatures that bracket the target temperature(s). Assume linearity between the two bracketing temperatures.] [If only a single temperature is used, at the temperature of use]	Liquid in glass: Before first use and annually Electronic: Before first use and quarterly	Apply correction factors or replace thermometer
Volumetric labware	Class B: By lot before first use Class A and B: Upon evidence of deterioration	Bias: Mean within ±2% of nominal volume Precision: RSD ≤1% of nominal volume (based on 10 replicate measurements)
Non-volumetric labware [Applicable only when used for measuring initial sample volume and final extract/ digestates volume]	By lot before first use or upon evidence of deterioration	Bias: Mean within ±3% of nominal volume Precision: RSD ≤3% of nominal volume (based on 10 replicate measurements)
Mechanical volumetric pipette	Quarterly	Bias: Mean within ±2% of nominal volume Precision: RSD ≤1% of nominal volume (based on minimum of 3 replicate measurements) [Note: for variable volume pipettes, the nominal volume is the volume of use]

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 2. Support Equipment Checks		
Performance Check	**Frequency**	**Acceptance Criteria**
Glass microliter syringe	Upon receipt and upon evidence of deterioration	General Certificate of Bias & Precision upon receipt Replace if deterioration is evident
Drying oven temperature check	Daily prior to and after use	Within ±5% of set temperature
Water purification system	Daily prior to use	See method blank criteria given in Section 4.20 of this addendum

4.6 The expiration date of the prepared standard shall not exceed the expiration date of the primary standard. All containers must bear a preparation date.

4.7 To avoid preparing non-representative samples, the laboratory shall not "target" within a relatively small mass range (e.g., 1.00 ± 0.01g) because such targeting will produce non-representative subsamples if the sample has high heterogeneity. The laboratory shall not manipulate the sample material so the sample aliquot weighs exactly 1.00g ± 0.01g, as an example.

4.8 In the absence of project-specific requirements, the minimum standard data qualifiers to be used are:

U Analyte was not detected and is reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.

J The reported result is an estimated value (e.g., matrix interference was observed or the analyte was detected at a concentration outside the quantitation range).

B Blank contamination. The recorded result is associated with a contaminated blank.

N Non-target analyte. The analyte is a tentatively identified compound using mass spectrometry or any non-customer requested compounds that are tentatively identified.

Q One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery, or CCV recovery).

Additional data qualifiers may be used, or different letters or symbols to denote the qualifiers listed above, as long as they are appropriately defined and their use is consistent with project-specific requirements (e.g., QSM 5.0, the contract, and project-planning documents).

4.9 If the time of the sample collection is not provided, assume the most conservative time of day. For the purpose of batch processing, the start and stop dates and times of the batch preparation shall be recorded.

4.10 Each preparation method listed on the scope of accreditation must have quarterly LOD/LOQ verifications. However, not all possible combinations of preparation and cleanup techniques are required to have LOD/LOQ verifications. If LOD/LOQ verifications are not performed on all combinations, the laboratory must base the LOD/LOQ verifications on the worst case basis (preparation method with all applicable cleanup steps).

4.11 After each MDL determination, the laboratory must establish the LOD by spiking a quality system matrix at a concentration of at least 2 times but no greater than four times the MDL. This spike concentration establishes the LOD and the concentration at which the LOD shall be verified. It is

© 2019 Pace Analytical Services, LLC.

specific to each suite of analyte, matrix, and method (including sample preparation). The following requirements apply to the initial LOD establishment and to the LOD verifications:

- The apparent signal to noise (S/N) ratio at the LOD must be at least three and the results must meet all method requirements for analyte identification (e.g., ion abundance, second column confirmation, or pattern recognition). For data systems that do not provide a measure of noise, the signal produced by the verification sample must produce a result that is at least three standard deviations greater than the mean method blank concentration. This is initially estimated based on a minimum of four method blank analyses and later established with a minimum of 20 method blank results.
- If the LOD verification fails, then the laboratory must repeat the MDL determination and LOD verification or perform and pass two consecutive LOD verifications at a higher spike concentration and set the LOD at the higher concentration.
- The laboratory shall maintain documentation for all MDL determinations and LOD verifications.
- The DL and LOD must be reported for all analyte-matrix-methods suites, unless it is not applicable to the test or specifically excluded by project requirements.

4.12 The LOD shall be verified quarterly. In situations where methods are setup and used on an infrequent basis, the laboratory may choose to perform LOD verifications on a one per batch basis. All verification data will be in compliance, reported, and available for review.

4.13 For DoD, at a minimum, the LOQ shall be verified quarterly. In situations where methods are setup and used on an infrequent basis, the laboratory may choose to perform LOQ verifications on a one per batch basis.

4.14 All initial instrument calibrations must be verified with a standard obtained from a second manufacturer prior to analyzing any samples. The use of a standard from a second lot obtained from the same manufacturer (independently prepared from different source materials) is acceptable for use as a second source standard. The concentration of the second source standard shall be at or near the midpoint of the calibration range. The acceptance criteria for the initial calibration verification must be at least as stringent as those for the continuing calibration verification.

4.15 Exclusion of calibration points without documented scientifically valid technical justification is not permitted.

4.16 The concentration of the CCV standard shall be greater than the low calibration standard and less than or equal to the midpoint of the calibration range.

4.17 All CCVs analyzed must be evaluated and reported. If a CCV fails, reanalysis or corrective actions must be taken.

- If a CCV fails, the laboratory can immediately analyze two additional consecutive CCVs (immediately is defined as starting a consecutive pair within one hour; no samples can be run between the failed CCV and the two additional CCVs). This approach allows for spurious failures of analytes to be reported without reanalysis of samples. Any corrective actions that change the dynamics of the system (e.g., clip column, clean injection port, run blanks) requires that all samples since the last acceptable CCV be reanalyzed.

© 2019 Pace Analytical Services, LLC.

- Both of these CCVs must meet acceptance criteria in order for the samples to be reported without reanalysis.
- If either of these two CCVs fail or if the laboratory cannot immediately analyze two CCVs, the associated samples cannot be reported and must be reanalyzed.
- Corrective action(s) and recalibration must occur if the above scenario fails. All affected samples since the last acceptable CCV must be reanalyzed.
- Flagging of data for a failed CCV is only appropriate when the affected samples cannot be reanalyzed. The laboratory must notify the client prior to reporting data associated with a failed CCV.

4.18 The results of all MS/MSDs must be evaluated using the same acceptance criteria used for the DoD LCS limits (see Addendum Table 3) or project limits, if specified. If the specific analyte(s) are not available in the Addendum Table 3, the laboratory shall use their LCS in-house limits (see the LIMS) as a means of evaluating MS/MSDs. The MS and MSD must be spiked with all reported analytes.

4.19 Surrogate spike results shall be compared with DoD LCS limits (see Addendum Table 3) or acceptance criteria specified by the client. If these criteria are not available, the laboratory shall compare the results with its in-house statistically established LCS criteria (see the LIMS).

4.20 The method blank shall be considered to be contaminated if:

- The concentration of any target analyte (chemical of concern) in the blank exceeds 1/2 the LOQ and is greater than 1/10th the amount measured in any associated sample, or 1/0th the regulatory limit, whichever is greater;
- The concentration of any common laboratory contaminant in the blank exceeds the LOQ;
- If a method blank is contaminated as described above, then the laboratory shall reprocess affected samples in a subsequent preparation batch, except when sample results are below the LOD. If insufficient sample volume remains for reprocessing, the results shall be reported with appropriate data qualifiers.

4.21 Sporadic Marginal Exceedances are not allowed for target analytes (chemicals of concern as identified by a project) without project-specific approval. Target analytes are considered those few analytes that are critical for the success of a project (such as risk drivers) where sporadic marginal exceedances cannot be allowed. Laboratories should consult with clients whenever long lists of analytes are requested for analysis to determine if marginal exceedances will not be allowed.

4.22 DoD considers the same analyte exceeding the LCS control limit two (2) out of three (3) consecutive LCS to be indicative of non-random behavior, which requires corrective action and reanalysis of the LCS.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 3. LCS Control Limits – Method TO-15 Gas Matrix

CAS ID	Analyte	N Records	Mean	Standard Deviation	Lower Control Limit	Upper Control Limit
630-20-6	1,1,1,2-Tetrachloroethane	1344	97.9	10.5	67	129
71-55-6	1,1,1-Trichloroethane	5436	96.7	9.5	68	125
79-34-5	1,1,2,2-Tetrachloroethane	5273	95.9	10.4	65	127
79-00-5	1,1,2-Trichloroethane	5332	95.9	7.7	73	119
76-13-1	1,1,2-Trifluoro-1,2,2-trichloroethane [Freon-113]	5351	96.1	10	66	126
75-34-3	1,1-Dichloroethane	5422	97	9.7	68	126
75-35-4	1,1-Dichloroethene	3503	97.3	11.9	61	133
96-18-4	1,2,3-Trichloropropane	465	99.6	8	76	124
120-82-1	1,2,4-Trichlorobenzene	4545	98.5	14.5	55	142
95-63-6	1,2,4-Trimethylbenzene	4699	99.2	11.1	66	132
106-93-4	1,2-Dibromoethane	4655	98.2	7.9	74	122
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	4572	92.4	9.7	63	121
95-50-1	1,2-Dichlorobenzene	4739	95.7	11	63	129
107-06-2	1,2-Dichloroethane	5467	96.8	10.5	65	128
78-87-5	1,2-Dichloropropane	4729	95.7	8.9	69	123
108-67-8	1,3,5-Trimethylbenzene	4679	98.3	10.4	67	130
106-99-0	1,3-Butadiene	3167	99.8	11.4	66	134
541-73-1	1,3-Dichlorobenzene	4737	97.1	10.9	65	130
142-28-9	1,3-Dichloropropane	165	105.2	14.4	62	148
542-75-6	1,3-Dichloropropene	560	100.7	8.1	77	125
106-46-7	1,4-Dichlorobenzene	4719	95.8	11.8	60	131
123-91-1	1,4-Dioxane	2656	96.5	8.6	71	122
540-84-1	2,2,4-Trimethylpentane [Isooctane]	3008	94.3	8.8	68	121
78-93-3	2-Butanone [MEK]	4635	98.4	10.4	67	130
95-49-8	2-Chlorotoluene	1092	101.9	9.2	74	130
591-78-6	2-Hexanone	4600	95.4	11	62	128
67-63-0	2-Propanol [Isopropyl alcohol]	3069	88.4	12.3	52	125
622-96-8	4-Ethyltoluene	4673	97.9	10.3	67	129
108-10-1	4-Methyl-2-pentanone [MIBK]	4646	98.5	10.5	67	130
67-64-1	Acetone	4600	92.7	11.6	58	128
75-05-8	Acetonitrile	1999	97.3	11.6	63	132
107-02-8	Acrolein [Propenal]	2469	93.8	10.6	62	126
107-13-1	Acrylonitrile	2105	103.7	10.9	71	137
107-05-1	Allyl chloride	2980	101.1	10.1	71	131
98-83-9	alpha-Methylstyrene	1976	97.3	10.2	67	128
71-43-2	Benzene	5436	93.8	8.4	69	119
100-44-7	Benzyl chloride	4419	98.7	16.2	50	147
75-27-4	Bromodichloromethane	4682	99.9	9.3	72	128
75-25-2	Bromoform	4638	102.3	12.1	66	139
74-83-9	Bromomethane	2657	98.6	11.8	63	134
106-97-8	Butane	587	96.2	10.9	64	129
75-15-0	Carbon disulfide	4756	95.6	12.7	57	134

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 3. LCS Control Limits – Method TO-15 Gas Matrix

CAS ID	Analyte	N Records	Mean	Standard Deviation	Lower Control Limit	Upper Control Limit
56-23-5	Carbon tetrachloride	4202	99.6	10.7	68	132
108-90-7	Chlorobenzene	4652	94.5	8	70	119
124-48-1	Chlorodibromomethane	4628	99.9	10	70	130
75-45-6	Chlorodifluoromethane	559	102.1	14.3	59	145
75-00-3	Chloroethane	5370	94.7	10.6	63	127
67-66-3	Chloroform	5481	95.3	9.3	68	123
74-87-3	Chloromethane	4540	95.2	12.2	59	132
156-59-2	cis-1,2-Dichloroethene	5320	95.6	8.4	70	121
10061-01-5	cis-1,3-Dichloropropene	4691	98.8	9.7	70	128
110-82-7	Cyclohexane	3178	93.5	7.7	70	117
124-18-5	Decane	1982	93.8	7.9	70	118
75-71-8	Dichlorodifluoromethane [Freon-12]	5307	93.6	11.5	59	128
108-20-3	Diisopropyl ether	2309	93.5	8	70	117
64-17-5	Ethanol	2981	91.8	11.1	59	125
141-78-6	Ethyl acetate	2835	96.4	10.5	65	128
100-41-4	Ethylbenzene	5420	96.8	9	70	124
142-82-5	Heptane	3163	95.7	8.9	69	123
87-68-3	Hexachlorobutadiene	4551	96.7	13.7	56	138
110-54-3	Hexane	3150	91.6	9.5	63	120
98-82-8	Isopropylbenzene	3022	95.6	9.3	68	124
179601-23-1	m/p-Xylene [3/4-Xylene]	5019	97.3	12.3	61	134
80-62-6	Methyl methacrylate	3037	98.9	9.7	70	128
1634-04-4	Methyl tert-butyl ether [MTBE]	4681	95.5	10	66	126
75-09-2	Methylene chloride	5314	88.8	8.9	62	115
71-36-3	n-Butyl alcohol	1981	97.5	11.7	62	133
104-51-8	n-Butylbenzene	2656	97.7	10.6	66	130
112-40-3	n-Dodecane	1932	104.4	14.1	62	147
103-65-1	n-Propylbenzene	2570	95.7	9	69	123
91-20-3	Naphthalene	2439	97.5	13.4	57	138
111-84-2	Nonane	2617	95.4	10.8	63	128
95-47-6	o-Xylene	5334	96.3	9.7	67	125
111-65-9	Octane	2514	95	8.7	69	121
99-87-6	p-Isopropyltoluene [p-Cymene]	2694	98.1	10.5	67	130
109-66-0	Pentane	712	96.7	11.3	63	131
115-07-1	Propene	3193	96.6	13.3	57	136
135-98-8	sec-Butylbenzene	2665	96.4	9.6	68	125
100-42-5	Styrene	4735	100.1	9	73	127
75-65-0	tert-Butyl alcohol	2997	86.8	20.9	24	150
98-06-6	tert-Butylbenzene	2710	94.3	9.8	65	124
127-18-4	Tetrachloroethene	5432	95.2	9.7	66	124
109-99-9	Tetrahydrofuran	3192	93.7	9.8	64	123
108-88-3	Toluene	5406	92.7	8.8	66	119
156-60-5	trans-1,2-Dichloroethene	5411	95.5	9.5	67	124

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 3. LCS Control Limits – Method TO-15 Gas Matrix

CAS ID	Analyte	N Records	Mean	Standard Deviation	Lower Control Limit	Upper Control Limit
10061-02-6	trans-1,3-Dichloropropene	4621	104	9.6	75	133
79-01-6	Trichloroethene	5478	96.7	8.7	71	123
75-69-4	Trichlorofluoromethane [Freon-11]	5376	93.7	10.6	62	126
1120-21-4	Undecane	1976	96.1	9	69	123
108-05-4	Vinyl acetate	4599	97.4	13.7	56	139
593-60-2	Vinyl bromide	1054	98.4	9.2	71	126
75-01-4	Vinyl chloride	5445	95.1	10.4	64	127

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 4. Quality Control Requirements – GC/MS Analysis of Air Samples

QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action	Flagging Criteria	Comments
Canister Cleanliness Check	Each canister prior to shipment.	No reported analytes detected > ½ LOQ.	Correct problem, then repeat cleaning of canister and recertify.	Flagging is not appropriate.	Applicable only when laboratory supplies sampling canisters to client.
Tune Check	Prior to ICAL and prior to each 24-hour period of sample analysis.	Specific ion abundance criteria of BFB from method.	Retune instrument and verify.	Flagging is not appropriate.	No samples shall be analyzed without a valid tune.
Initial calibration (ICAL) for all analytes	At instrument set-up, prior to sample analysis	Calculated %RSD for the RRF of each analyte in the calibration must be less than 30%; Or Linear least squares regression for each analyte: r2 ≥ 0.99; Or Non-linear least squares regression (quadratic) for each analyte: r2 ≥ 0.99.	Correct problem then repeat ICAL.	Flagging is not appropriate.	Minimum 5 levels for linear and 6 levels for quadratic with one calibration point at the same concentration as the daily CCV. The lowest calibration standard concentration at or below the LOQ. No samples shall be analyzed until ICAL has passed.
Retention Time window position establishment	Once per ICAL and at the beginning of the analytical sequence.	Position shall be set using the midpoint standard of the ICAL curve when ICAL s performed. On days when ICAL is not performed, the initial CCV is used.	NA.	NA.	Calculated for each analyte.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 4. Quality Control Requirements – GC/MS Analysis of Air Samples

QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action	Flagging Criteria	Comments
Evaluation of Relative Retention Times(RRT)	With each sample.	RRT of each reported analyte within ± 0.06 RRT units of the mean RRT of the calibration standards. RRTs may be updated based on the daily CCV	Correct problem, then rerun ICAL.	NA	RRTs shall be compared with the most recently updated RRTs. After maintenance is performed which may affect retention times, RRTs may be updated based on the daily CCV.
Initial Calibration Verification (ICV)	Once after each ICAL, analysis of a second source standard prior to sample analysis	All reported analytes within ± 30% of true value.	Correct problem. Rerun ICV. If that fails, repeat ICAL.	Flagging is not appropriate.	No samples shall be analyzed until calibration has been verified with a second source.
Continuing Calibration Verification (CCV)	Daily before sample analysis; after every 24 hours of analysis time; and at the end of the analytical batch run.	Concentration the same as the mid-point calibration standard (or lower). All reported analytes and surrogates within ± 30% of true value.	Immediately analyze two additional consecutive CCVs. If both pass, samples may be reported without reanalysis. If either fails or if two consecutive CCVs cannot be run, perform corrective action(s) until a passing CCV is attained, and r then reanalyze all affected samples since the last acceptable CCV. Alternatively, perform an ICAL (including appropriate instrument QC) if necessary; then reanalyze all associated samples since the last acceptable CCV	If reanalysis cannot be performed, data must be qualified and explained in the case narrative. Apply Q-flag to all results for the specific analyte(s) in all samples since last acceptable calibration verification.	Results may not be reported without a valid CCV. Flagging is only appropriate in cases where the samples cannot be reanalyzed. If the specific version of a method requires additional evaluation (e.g., average RFs) these additional requirements must also be met.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 4. Quality Control Requirements – GC/MS Analysis of Air Samples

QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action	Flagging Criteria	Comments
Internal standards (IS)	Every field sample, standard and QC sample.	**ICAL Standards** The area response for each internal standard must be within 40% of the mean area response of the calibration standards for each internal standard. The retention time shift for each internal standard at each calibration level must be within 20 seconds of the mean retention time of the calibration standards for each internal standard. **Field Samples, Blanks & QC** RT of each IS must be within +/-0.33 minutes of the most recent initial calibration.	Inspect mass spectrometer and GC for malfunctions and correct problem. Reanalysis of samples analyzed while system was malfunctioning is mandatory.	If corrective action fails in field samples, data must be qualified and explained in the case narrative. Apply Q-flag to analytes associated with the non-compliant IS. Flagging is not appropriate for failed standards.	Must include at a minimum bromochloromethane, Chlorobenzene-d5, and 1, 4-difluorobenzene.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 4. Quality Control Requirements – GC/MS Analysis of Air Samples

QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action	Flagging Criteria	Comments
Method Blank (MB)	One per analytical batch (after the first CCV), prior to analysis of any field samples.	No analytes detected > ½ LOQ or > 1/10 the amount measured in any sample or 1/10 the regulatory limit, whichever is greater. Common contaminants must not be detected > LOQ.	Conduct investigation to determine the source of the contamination and take appropriate corrective actions. Rerun MB and all associated samples. If required, reprep and reanalyze MB and all QC samples and field samples processed with the contaminated blank.	If reanalysis cannot be performed, data must be qualified and explained in the case narrative. Apply B-flag to all results for the specific analyte(s) in all samples in the associated preparatory batch. Flagging is only appropriate in cases where the samples cannot be reanalyzed	The MB is a certified clean canister of the same type as the sample that has not left the laboratory. The blank has been pressurized with humidified zero air and carried through the same analytical procedures as a field sample. Results may not be reported without a valid method blank. If a TIC search is required for any samples, then a TIC search is also required for the associated Method Blank.

Pace Analytical®
National Center for Testing & Innovation

STANDARD OPERATING PROCEDURE
TITLE: Measurement of Volatile Organic Compounds and Gasoline Range Components in Ambient Air by Gas Chromatography/Mass Spectrometry (EPA TO-15 and EPA Method 18-Modified)
ISSUER: Pace National – Mt. Juliet, Tennessee

© 2019 Pace Analytical Services, LLC.

Table 4. Quality Control Requirements – GC/MS Analysis of Air Samples

QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action	Flagging Criteria	Comments
Laboratory Control Sample (LCS)	One per preparatory batch.	One canister standard is analyzed two times in the analytical run. A laboratory must use the limits in Table 3 for batch control if project limits are not specified. If the analyte(s) are not listed, use in-house LCS limits (see the LIMS) if project limits are not specified. RPD between the LCS and LCS Replicate for each target analyte must be < 30%.	Correct problem, then reprep and reanalyze the LCS and all samples in the associated analytical batch for failed analytes, if sufficient sample material is available	If reanalysis cannot be performed, data must be qualified and explained in the case narrative. Apply Q-flag to specific analyte(s) in all samples in the associated preparatory batch.	Must contain all surrogates and all analytes to be reported. Results may not be reported without a valid LCS. Flagging is only appropriate in cases where the samples cannot be reanalyzed. If the daily CCV is prepared in a canister, then the initial and closing CCVs can serve as the LCS and LCS Replicate as well. Both the CCV and LCS acceptance criteria would apply.

APPENDIX K

SITE MANAGEMENT FORMS

SITE INSPECTION FORM

I. SITE INFORMATION	
Site Name: Former Gulf Oil Terminal	**Date of Inspection:**
Location: 1 Industrial Place, Oceanside, NY	**NYSDEC Site No.:** 130165
Inspector (Firm/Individual):	**Weather/Temperature:**

Attachments: Sample results Annotated site map Other

Item	Condition			Comments
	Good	Needs Maintenance/Damaged	N/A	
GENERAL SITE CONDITIONS				
Asphalt				
Concrete Sidewalks				
Building Interior - Floors				
Other:				
GROUNDWATER MONITORING WELLS				
Flush mount well covers				
Lockable J plugs/locks				
Overburden casings/seal				
Functionality				
SSD SYSTEM – PIPING INSPECTION				
Riser Piping/Supports				
Pipe Labels				
Ball Valves (confirm open)				
Sample Ports (confirm closed)				
Wind Turbines (confirm spinning)				
Leaks from Riser Piping?				

OVERALL OBSERVATIONS

Arcadis U.S., Inc.
50 Milestone Road
East Windsor
New Jersey 08520
Phone: 609 860 0590
www.arcadis.com

Arcadis U.S., Inc.

2100 Georgetown Drive

Suite 402

Sewickley, Pennsylvania 15143

Tel 724 742 9180

Fax 724 742 9189

www.arcadis.com