Prepared for:
Turner, Collie & Braden, Inc.
5757 Woodway, Suite 101 West
Houston, TX 77057

PHASE II ENVIRONMENTAL SITE ASSESSMENT FOR THE BUNKER HILL PAVEMENT IMPROVEMENTS PROJECT HOUSTON, HARRIS COUNTY, TEXAS

WBS No. N-000767-0001-3

TWEI Project Number 07.12.034

October 2007

Prepared by:

Tolunay-Wong Engineers, Inc.
10710 S. Sam Houston Parkway W., Suite 100
Houston, Texas 77031
(713) 722-7064 Fax (713) 722-0319

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1 EXECUTIVE SUMMARY

Tolunay-Wong Engineers, Inc., (TWEI) was retained by Turner, Collie & Braden, Inc., (TC&B) to conduct a Phase II Environmental Site Assessment (ESA) for the Bunker Hill Pavement Improvements Project in Houston, Harris County, Texas. The Project Alignment is situated in the Houston Harris County Key Map on page 450, block X; page 490, block B.

The work was conducted by following, to the extent feasible, processes described in the *American Society for Testing and Materials (ASTM) Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM E-1903-97 Reapproved 2002)*. The Phase II ESA was also conducted in general accordance with TWEI's proposal P07-E021, Revision 3, dated June 12, 2007. The locations to be investigated by the Phase II ESA boring program are based upon the findings presented in TWEI's Phase I ESA Report No. 06.12.063, Revision 2, dated September 11, 2007.

Results of chemical analysis for all soil and water samples were below recordable limits (BRL). The field and laboratory data do not indicate that surface and subsurface media (soil, groundwater) along the areas of the Project Alignment included in the soil testing program have been adversely impacted by petroleum products, petroleum by-products, or volatile organic compounds (VOC).

TWEI does not recommend any additional environmental investigations at this time for the Bunker Hill Pavement Improvements Project.

2 INTRODUCTION

Tolunay-Wong Engineers, Inc., (TWEI) was retained by Turner, Collie & Braden, Inc., (TC&B) to conduct a Phase II Environmental Site Assessment (ESA) for the Bunker Hill Pavement Improvements Project in Houston, Harris County, Texas. The Project Alignment is situated in the Houston Harris County Key Map on page 450, block X; page 490, block B.

2.1 BACKGROUND

The work for TWEI's Phase I ESA Report No. 06.12.063, Revision 2, dated September 11, 2007 for the Bunker Hill Road Improvements Project discovered eleven RECs along the Project Alignment that required a Phase II ESA soil boring program to discover whether activities from these facilities have impacted the Project Alignment. The RECs investigated are listed in the following table:

REC	Address	Type
Hurricane Industries	9600 Old Katy Road	Voluntary Cleanup Program (VCP), No Further Action Planned (NFRAP)
Spring Branch Honda	9702 Old Katy Road	Historic waste generator (RCRA), Petroleum Storage Tank (PST), & Leaking PST (LPST)
Centre at Bunker Hill/ CostCo	1150 Bunker Hill Road	Current PST & RCRA
Daniel Industries	9720 Old Katy Road	Historic RCRA, VCP, & PST
Texaco Service Station	995 Bunker Hill Road	Historic RCRA, PST, & LPST
BKP Warehouse	9714 Old Katy Road	Emergency Response Notification System (ERNS)
Excel Auto/ Auto Discount Center	9831/9801 Long Point Road	Current and historic RCRA, historic LPST & PST
Korner Entry/ Your Kitchen Look Plaza	9847 Long Point Road	Historic RCRA, LPST, & PST
First South Falls	1375 Bunker Hill Road	Historic LPST & PST
Compass Bank/ Discount Tire & Brake	9669 Katy Road	Historic LPST & PST
AT&T-IS/ CEO Manufacturers	1111 Bunker Hill Road	Historic PST

2.2 PROJECT ALIGNMENT LOCATION AND DESCRIPTION

The proposed Bunker Hill Road Pavement Improvements Project is approximately 1.2 miles in length and begins at the intersection of Bunker Hill Road and Long Point Road and ends at the intersection of Bunker Hill Road and Old Katy Road. The improvements include a bridge replacement, full concrete curb and gutter boulevard section with underground waterline, storm sewer, and possibly sanitary sewer replacements. Maximum invert depth for the project is 15 ft. Bridge improvements may include increases of the existing road width from 25 ft to 62 ft and of

the existing Right-of-Way from 65 ft to 80 ft, and possibly, the installation of pilings to approximately 60 ft below grade surface. Additional sections of the Bunker Hill Pavement Improvements Project include a segment of Long Point Road, between its two intersections with Rollingwood Drive, a portion of Westview Road, approximately 500 ft east and west of Bunker Hill Road, and nine property acquisitions. Stub-outs to Rollingwood Drive are included on the section along Long Point Road. The Project Alignment is situated in the Houston Harris County Key Map on page 450, block X; page 490, block B. The Site and general vicinity are depicted in Figure 1– Project Alignment Map.

3 PURPOSE

The purpose of this Phase II ESA was to evaluate the recognized environmental conditions (RECs) identified in the Phase I ESA, specifically to discover, document, and report potential impacted soil and/or groundwater adjacent to or near RECs. This was done by following, to the extent feasible, processes described in the *American Society for Testing and Materials (ASTM) Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM E-1903-97 Reapproved 2002)*. The Phase II ESA was conducted in general accordance with TWEI's proposal P07-E021, Revision 3, dated June 12, 2007.

3.1 SCOPE OF WORK

TWEI conducted three days of auger stem drilling and sampling to evaluate subsurface conditions. Drilling was conducted on August 3, 4, and 6, 2007. Our environmental professionals mobilized to the Project Alignment before sampling to conduct a site reconnaissance to select boring locations. TWEI installed a total of nine soil borings. Boreholes were backfilled after completion with bentonite chips and soil cuttings and sealed with concrete. All sampling equipment was cleaned between boring locations.

We logged soil samples on 2-ft continuous intervals and described lithology, color, odor, and indicators of hazardous materials. When groundwater was encountered, we obtained one groundwater sample from each boring. We screened the samples for headspace organic vapors. Selected soil and/or groundwater samples were placed into lab-cleaned glass jars and packed into ice-filled chests for transport to Xenco Laboratories with chain of custody documentation.

3.1.1 Sampling Plan

The sampling plan consisted of drilling nine borings to depths ranging from 10 ft to 18 ft below ground surface (bgs) or to groundwater, whichever condition is shallower. Soil samples were collected from 2 ft intervals. Analytical testing included total petroleum hydrocarbons (TPH) and volatile organic compounds (VOC) analysis with the exception of EB-6, which needed only VOC analysis. Boring locations are shown on Figure 2. Groundwater samples were collected in the case that groundwater was encountered.

3.1.2 Chemical Testing Plan

It was requested that TWEI submit one (1) soil sample per boring location and, if possible, one (1) groundwater sample from each boring location for evaluation of the presence of contaminants. Selection of the particular boring sample submitted was to be based on visual observations, screening with a photoionization detector (PID), and olfactory sensation.

Soil and groundwater samples submitted were analyzed for total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs), with the exception of EB-6, which was analyzed for VOCs only. TPH was selected because it is a good, general indicator of gasoline, other fuels, lubricants, hydraulic oils, parts cleaning solvents, etc. VOC testing was selected because it was a known contaminant from Daniel Industries, a REC identified in the Phase I ESA, and because methyl-tert-butyl ether (MTBE) and benzene, toluene, ethylbenzene, and xylenes (BTEX) analysis is included in VOC analysis. MTBE and BTEX are constituents of gasoline.

4 FIELD METHODS AND EXPLORATION

4.1 SOIL BORINGS

We used an auger stem drilling rig. The cuttings were packed into the borings, followed by bentonite chips and concrete grout. The auger stem was detergent washed and rinsed with distilled water between borings to minimize the potential for cross contamination. New disposable bailers were used for groundwater collection at each boring.

4.1.1 Location of Sampling Points in Relation to Potential Sources

Boring locations were chosen based on the location of RECs identified in the Phase I ESA report and are shown on Figure 1. The following table describes the boring locations in relation to the RECs identified from the Phase I ESA:

Table 4: Boring Locations

Boring	Location	REC
EB-1	South side of Long Point west of Bunker Hill	Excel Auto (9801 Long Point)
EB-2	South side of Long Point at Bunker Hill	Excel Auto & Korner Entry (9847 Long Point)
EB-3	South side of Long Point east of Bunker Hill	Korner Entry
EB-4	East side of Bunker Hill south of Long Point	Excel Auto, Korner Entry, First South Falls (1375 Bunker Hill)
EB-5	West side of Bunker Hill south of Long Point	First South Falls

Boring	Location	REC
EB-6	West side of Bunker Hill at Pine Lake Drive	Daniel Industries (9270 Old Katy Road)
EB-7	West side of Bunker Hill at 1111 Bunker Hill	AT&T-IS (1111 Bunker Hill Road), CostCo (1150 Bunker Hill Road)
EB-8	East side of Bunker Hill at north of island	Spring Branch Honda (9702 Old Kay Road), CostCo
EB-9	East side of Bunker Hill north of Old Katy	Spring Branch Honda

4.1.2 Depths of Sampling

Borings were performed to depths ranging from 10 ft to 18 ft bgs. Depths of the borings were governed by the groundwater depths and location specific conditions. Sampling was conducted at 2-ft intervals and visually logged at each interval for soil type, color, and indications of contamination. The following table describes boring depths, depths of groundwater, and submitted sample depth:

Table 5: Boring Depths

Boring	Boring Depth (ft bgs)	Groundwater Depth (ft bgs)	Submitted Soil Sample Depth (ft bgs)
EB-1	18	N/A	16-18
EB-2	18	N/A	14-16
EB-3	18	N/A	16-18
EB-4	18	N/A	4-6
EB-5	18	N/A	6-8
EB-6	18	14	14-16
EB-7	10	9	6-8
EB-8	14	13	8-10
EB-9	12	10.5	4-6

4.1.3 Depths to Pertinent Strata

The upper portions of the soils generally consisted of grey and tan sandy lean clays. The soils underlying the clay consisted of light grey sand. Soil boring logs are presented in Appendix A.

5 SAMPLING AND CHEMICAL ANALYSES METHODS

5.1 SAMPLING METHODS

Sampling was conducted at 2-ft intervals and visually logged at each interval for soil type, color, and indications of contamination. Two samples were taken at each 2 ft interval to allow for adequate testing by the lab. Separate samples were taken at each interval for TPH and VOC analytical testing. A total of two-hundred and eighty-eight (288) soil samples were collected and placed into laboratory-cleaned, 2-oz or 4-oz glass jars, as supplied by Xenco. We obtained headspace readings on all soil samples using a 10.6 eV photoionization detector (PID) calibrated to isobutylene. Slight hydrocarbon odors were noted in borings EB-1 and EB-4. Based upon the lithology, visual observations and vapor screening of the soil samples collected, a total of 17 soil samples were submitted to the laboratory for testing. Samples from eight borings were analyzed for TPH and VOCs and a sample from one boring (EB-6) was analyzed for VOCs only. The soil samples were packed into an ice-filled chest for transport to Xenco with chain-of-custody documentation.

Groundwater was encountered at boring locations EB-6, EB-7, EB-8, and EB-9. Groundwater was pumped to the surface with a peristaltic pump and clean, disposable tubing, with the exception of EB-6. Although groundwater was encountered at EB-6, the volume was not sufficient to retrieve adequate groundwater samples. Minimal volumes of purge water were produced, less than 1 liter (a *de minimus* condition), and were allowed to go to ground; therefore, groundwater disposal was not a concern. The groundwater samples were placed into laboratory-cleaned, 40-mL vials, and packed into an ice-filled chest for transport to Xenco with chain-of-custody documentation. Three groundwater samples were collected for testing. Groundwater samples from boring locations EB-7, EB-8, and EB-9 were submitted to Xenco.

5.2 CHEMICAL ANALYTICAL METHODS USED

The following lists the methods used for each type of analysis:

- TPH: Texas Method 1005;
- VOC: EPA Method SW 8260B.

6 RESULTS OF CHEMICAL ANALYSES

Headspace readings are shown on the boring logs and recorded to one significant figure. All readings were zero (0). Results of chemical analysis for all soil and water samples were below recordable limits (BRL). The Xenco Analytical Reports are contained in Appendix B.

7 FINDINGS AND CONCLUSIONS

Tolunay-Wong Engineers, Inc., (TWEI) was retained by TC&B to conduct a Phase II Environmental Site Assessment (ESA) for the Bunker Hill Pavement Improvements Project in Houston, Harris County, Texas.

The field and laboratory data do not indicate that surface and subsurface media (soil, groundwater) along the areas of the Project Alignment included in the soil testing program have been adversely impacted by petroleum products, petroleum by-products, or VOCs.

8 RECOMMENDATIONS

TWEI does not recommend any additional environmental investigations at this time for the areas investigated by the Phase II ESA.

9 LIMITATIONS AND USER RELIANCE

9.1.1 Limitations of Assessment

The following were excluded from the scope-of-work for the Phase II ESA:

- Radon;
- Lead-based paint;
- Wetlands determination;
- Lead in drinking water;
- Geologic faulting;
- Ecological resources.

9.1.2 Limitations

No ESA can eliminate all uncertainty. Even when Phase II ESA work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not be representative of a larger population.

This Phase II ESA does not purport to include the level of specificity required of technical standards that govern full characterization of a site's environmental conditions. It is not intended to satisfy the level of inquiry that may be necessary to support remedial solutions for a site.

9.1.3 User Reliance

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client, unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions, recommendations, and conclusions contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. Environmental conditions may exist at the property that cannot be identified by visual observation. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

10 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The material and data in this Phase I and II Environmental Site Assessment of the Bunker Hill Improvements Project located in Houston, Harris County, Texas, were prepared under the supervision and direction of the undersigned.

TWE Project Number 07.12.034

October 30, 2007

Amy Kunza
Staff Biologist
Environmental Services Division

Paul R. Wild
Vice President
Environmental Services Division

11 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

The resumes of the environmental professionals who prepared this report are presented below.

AMY KUNZA
STAFF BIOLOGIST, ENVIRONMENTAL SERVICES DIVISION

SPECIALIZATION

Over 6 years experience in the education of coastal ecosystem functioning. Conducted research in wetland plant identification and plant diversity patterns of barrier island salt marshes. This research included work in the coastal marshes of the Texas Gulf Coast from Bolivar Peninsula to Port Aransas and required the accurate identification of over fifty coastal wetland plant species as well as knowledge of their ecological function. Research projects also included work with the Georgia Coastal Ecosystem chapter of the Long Term Ecological Research program. Has experience in Animal and Plant Taxonomy, and Animal and Plant Survey Methods. Field experience includes Phase I Environmental Site Assessments, Wetlands Determinations & Delineations, Threatened & Endangered Species File Review, Historical and Cultural Resources Survey, Phase II Environmental Site Assessments Soil and Water Testing.

PROFESSIONAL HISTORY

Tolunay-Wong Engineers, Inc., Houston, TX, May 2006 - Present
University of Houston, Houston, TX, August 2003 – August 2006
Kiawah Island Resort, Kiawah Island, SC, 2003
Outside Hilton Head, Hilton Head Island, SC, 2000-2001

EDUCATION

Bachelor of Science, University of Georgia, Botany, May 1999.
Master of Science, University of Houston, Biology, August 2006.
Thesis: Plant Diversity Patterns of Salt Water Marshes of Texas and Georgia.

PAUL R. WILD
VICE PRESIDENT - ENVIRONMENTAL SERVICES DIVISION

SPECIALIZATION

Conducts technical reviews of environmental management systems, and directs environmental compliance audits, risk assessments, environmental site assessments, and asbestos surveys. Manages RCRA Facility Investigations and Corrective Measures Studies. Manages all phases of underground storage tank release evaluations from initial investigation to remediation. Conducts Environmental Assessments under the National Environmental Policy Act. Evaluates analytical testing data and oversees contract laboratory quality asurance, including on-site auditing. Supervises drilling and sampling operations at hazardous waste sites and provides assessment of soil and groundwater contamination. Conducts chemical literature research and assesses waste treatment methods. Evaluate applicable or relevant and appropriate requirements (ARARs) in relation to remedial actions and air/water/waste permitting. Develops health and safety plans and monitors health and safety plan compliance. Evaluates census tract data, property ownership records, aerial photography, house-to-house survey data, and other publicly available data, including interviews with regulatory and governmental agency personnel, to assess possible or probable social and economic impacts to communities from construction and remediation projects.

PROFESSIONAL HISTORY

Tolunay-Wong Engineers, Inc., Houston, Texas, 2002 to Present
Washington Group International, Houston, Texas, 1985 - 2002, Manager of Environmental Services
Resource Engineering, Inc. (ENSR), Houston, Texas, 1985, Staff Chemist
McBride-Ratcliff and Associates, Inc., Houston, Texas, 1984 - 1985, Field Technician

EDUCATION

B.S. Chemistry (Zoology minor): Marshall University, 1983

CERTIFICATION

OSHA Certified for Hazardous Waste Site Work (OSHA 29 CFR 1910.120)
OSHA 29 CFR 1910.120 Supervisor Training
Asbestos Hazard Emergency Response Act (AHERA) building inspector and management planner
Illinois Licensed Asbestos Inspector #100-7145
TCEQ Corrective Action Project Manager Reg. #CAPM00385

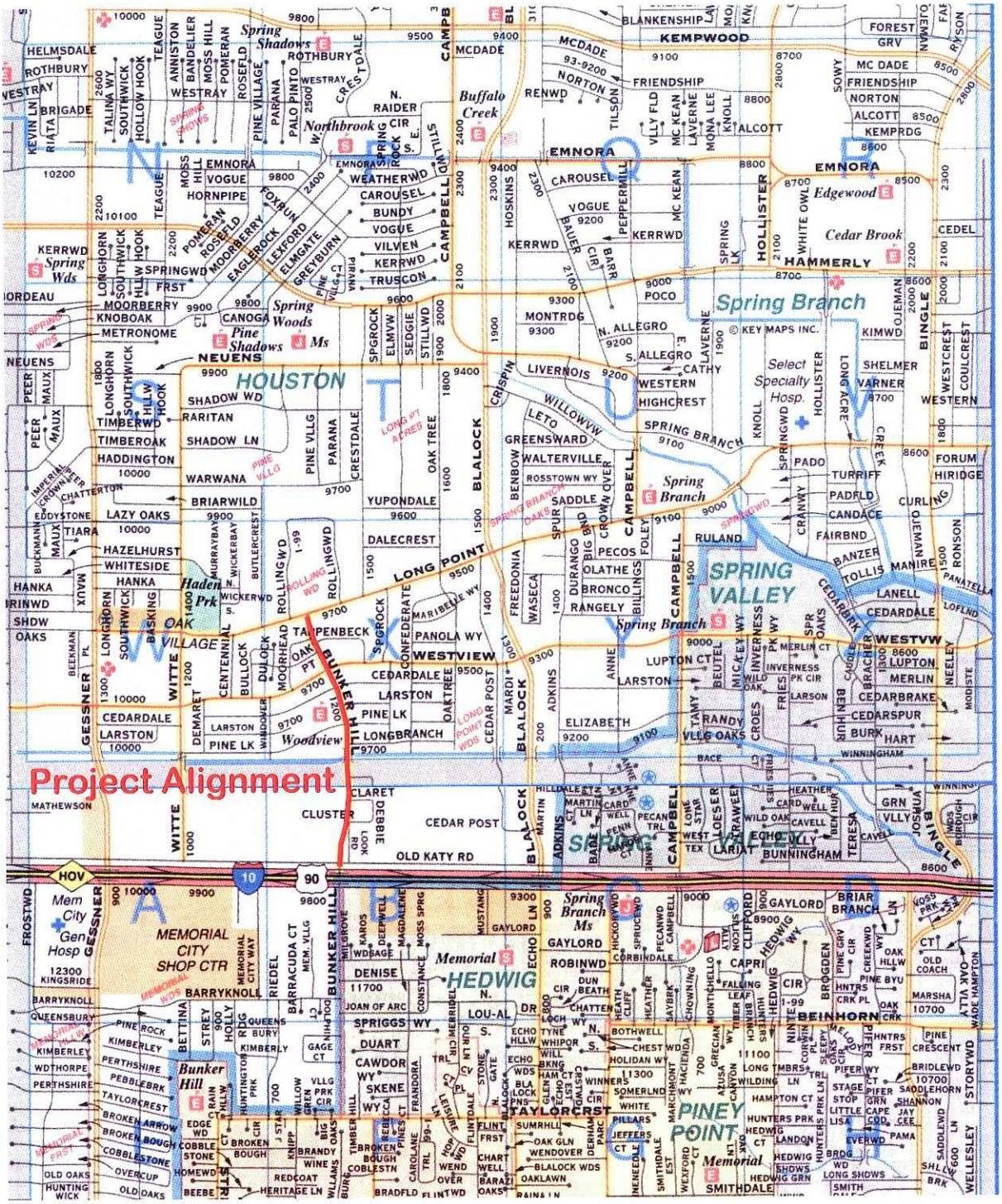
AFFILIATIONS

American Chemical Society

PUBLICATIONS

"A Contaminant-Resistant Slurry Trench," W. R. Tobin, co-author, presented at the First Annual Southern Regional Ground Water Conference, San Antonio, Texas, September 1985, pp. 193-208.
"Attapulgite: A Clay Liner Solution?" W. R. Tobin, co-author, Civil Engineering, Vol. 56, No. 2, February 1986, pp. 56-58.
"The Environmental Site Assessment as a Pre-Investment Security," presented at the Texas Section, American Society of Civil Engineers Spring Meeting, Dallas, Texas, April, 1987.

FIGURE 1: PROJECT ALIGNMENT MAP



PROJECT ALIGNMENT MAP

Source: Harris County Key Maps Pages 450 Block X and 490 Block B

Scale: 1" = ~2600'

N

Project: Environmental Services Bunker Hill Pavement Improvement Project Houston, Harris County, TX

Tolunay-Wong Engineers, Inc.
Houston, Texas

Project No.: 07.12.034

Client: Turner, Collie & Braden

FIGURE 2: BORING LOCATION MAP

BORING LOCATION MAP

SOURCE: Base Map- 2004 TNRIS IR Photograph
(http://www.tnris.state.tx.us/digital.htm)

Scale 1"=~665'

N

Environmental Services
Bunker Hill Pavement
Improvement Project
Houston, Harris County, TX

Tolunay-Wong Engineers, Inc.
Houston, Texas

Proposal No.: 07.12.034

Client:
Turner, Collie & Braden

APPENDIX A: SOIL BORING LOGS

LOG OF BORING EB-1

Project: Bunker Hill Pavement

Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-2-2007
Elevation:

Dry Augered: 0 **to** 18 **ft**
Washed Bored: **to** **ft**

Free Water During Drilling at: -
Water at:

Caving at:

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			8" Concrete		0	
			w/ hydrocarbon odor to 2'		0	
			Gray & tan FAT CLAY (CH)		0	
			Tan & gray SANDY LEAN CLAY (CL)			
5			Tan CLAYEY SAND (SC)		0	
			Light gray POORLY GRADED SAND (SP)		0	
			Tan & light gray SANDY LEAN CLAY (CL)		0	
10					0	
					0	
			-w/ hydrocarbon odor @ 14' - 18'		0	
15			Tan & light gray POORLY GRADED SAND (SP)		0	
			Boring terminated @ 18 ft			
20						
25						
30						

Note(s):

LOG OF BORING EB-2

Project: Bunker Hill Pavement

Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-2-2007
Elevation:

Dry Augered: 0 **to** 18 **ft** **Free Water During Drilling at:** -
Washed Bored: **to** **ft** **Water at:** **Caving at:**

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			8" Concrete		0	
			Gray POORLY GRADED SAND (SP)		0	
			Tan & light gray SANDY LEAN CLAY (CL)		0	
			Tan & light gray CLAYEY SAND (SC)		0	
5					0	
			-light gray @ 8' - 10'		0	
10			Tan & light gray SANDY LEAN CLAY (CL)		0	
					0	
			Tan POORLY GRADED SAND (SP)		0	
15					0	
			Boring terminated @ 18 ft			
20						
25						
30						

Note(s):

LOG OF BORING EB-3

Project: Bunker Hill Pavement

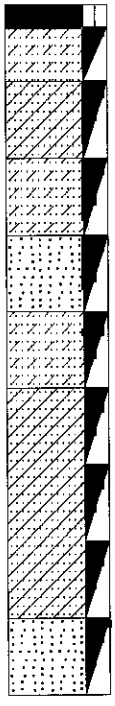
Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-3-2007
Elevation:

Dry Augered: 0 to 18 ft
Washed Bored: to ft

Free Water During Drilling at: -
Water at:

Caving at:

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			7" Concrete		0	
			Gray CLAYEY SAND (SC)		0	
			Tan & gray SANDY LEAN CLAY (CL)		0	
5			Tan & light gray CLAYEY SAND (SC) w/ sand pockets		0	
			Tan POORLY GRADED SAND (SP)		0	
			Tan CLAYEY SAND (SC)		0	
10			Tan & light gray SANDY LEAN CLAY (CL)		0	
			-tan, light gray & red @ 12' - 14'		0	
15			-w/ sand seams @ 14' - 16'		0	
			Light gray POORLY GRADED SAND (SP)		0	
			Boring terminated @ 18 ft			
20						
25						
30						

Note(s):

LOG OF BORING EB-4

Project: Bunker Hill Pavement

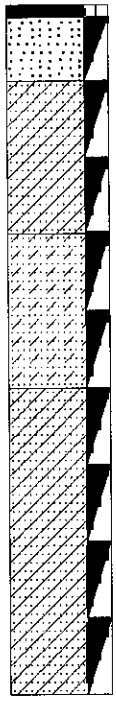
Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-3-2007
Elevation:

Dry Augered: 0 **to** 18 **ft**
Washed Bored: **to** **ft**

Free Water During Drilling at: -
Water at:

Caving at:

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			4" Asphalt		0	
			Brown POORLY GRADED SAND (SP)		0	
			Brown SANDY LEAN CLAY (CL)		0	
5			-tan & light gray w/ slight hydrocarbon odor @ 4' - 6'		0	
			Tan CLAYEY SAND (SC)		0	
					0	
10			Light gray & tan SANDY LEAN CLAY (CL)		0	
					0	
					0	
15					0	
			Boring terminated @ 18 ft			
20						
25						
30						

Note(s):

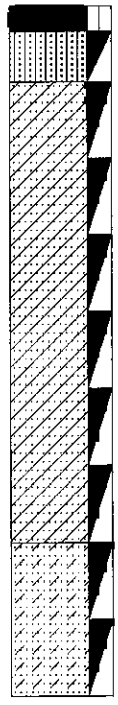
LOG OF BORING EB-5

Project: Bunker Hill Pavement

Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-3-2007
Elevation:

Dry Augered: 0 **to** 18 **ft** **Free Water During Drilling at:**
Washed Bored: **to** **ft** **Water at:** **Caving at:**

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			6" Asphalt + 2" Shell Asphalt		0	
			Gray SILTY SAND (SM)		0	
			Gray SANDY LEAN CLAY (CL)		0	
			-tan & light gray @ 4' - 14'		0	
5					0	
					0	
10					0	
					0	
			Light gray & tan CLAYEY SAND (SC)		0	
15					0	
			Boring terminated @ 18 ft			
20						
25						
30						

Note(s):

LOG OF BORING EB-6

Project: Bunker Hill Pavement

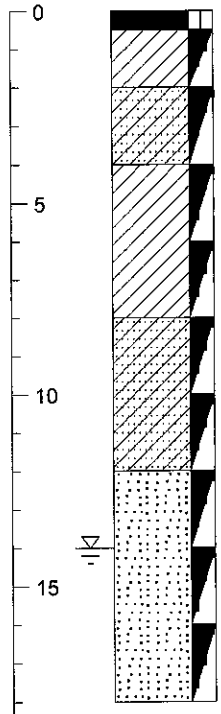
Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-3-2007
Elevation:

Dry Augered: 0 to 16 ft
Washed Bored: to ft

Free Water During Drilling at: 14 ft
Water at:

Caving at:

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			6" Asphalt		0	
			Dark gray LEAN CLAY (CL)		0	
			Dark gray SANDY LEAN CLAY (CL)		0	
5			Gray LEAN CLAY (CL) w/ sand pockets -w/ calcareous nodules @ 4' - 6' -gray & tan @ 6' - 8'		0 0	
			Tan & light gray SANDY LEAN CLAY (CL)		0	
10					0	
			Light gray POORLY GRADED SAND (SP)		0	
15					0	
			Boring terminated @ 18 ft			
20						
25						
30						

Note(s):

LOG OF BORING EB-7

Project: Bunker Hill Pavement

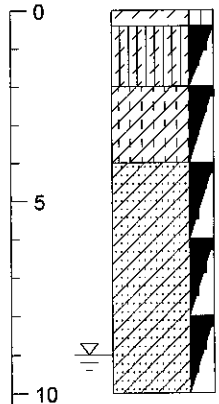
Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-6-2007
Elevation:

Dry Augered: 0 to 10 ft
Washed Bored: to ft

Free Water During Drilling at: 9 ft
Water at:

Caving at:

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			5" Asphalt		0	
			Dark gray CLAYEY SILT (ML)		0	
			Gray SILTY CLAY (CL-ML)		0	
5			Tan & light gray SANDY LEAN CLAY (CL)		0	
					0	
			-tan w/ calcareous nodules @ 8' - 10'		0	
10			Boring terminated @ 10 ft			
15						
20						
25						
30						

Note(s):

LOG OF BORING EB-8

Project: Bunker Hill Pavement

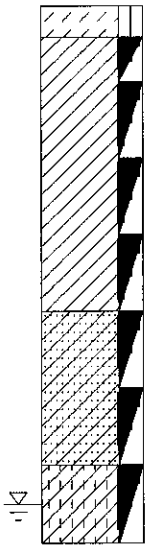
Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-6-2007
Elevation:

Dry Augered: 0 to 14 ft
Washed Bored: to ft

Free Water During Drilling at: 13 ft
Water at:

Caving at:

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			10" Asphalt		0	
			Dark gray LEAN CLAY (CL)		0	
			-dark gray & gray @ 2' - 4'		0	
5			-gray & tan w/ calcareous nodules @ 4' - 8'		0	
					0	
			Tan & light gray SANDY LEAN CLAY (CL)		0	
10			-w/ sand seams @ 10' - 12'		0	
			Red & light gray SILTY CLAY (CL-ML)		0	
			Boring terminated @ 14 ft			
15						
20						
25						
30						

Note(s):

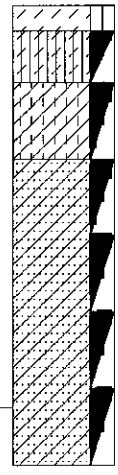
LOG OF BORING EB-9

Project: Bunker Hill Pavement

Client: TCB, Inc.

Project No.: 07.12.034
Date: 8-6-2007
Elevation:

Dry Augered: 0 **to** 10 **ft** **Free Water During Drilling at:** 10.5 ft
Washed Bored: **to** **ft** **Water at:** **Caving at:**

ELEVATION/ DEPTH	SOIL/SAMPLER SYMBOLS & FIELD DATA	POCKET PEN. (tsf) or SPT	DESCRIPTION	TPH (mg/kg)	PID (ppm)	BTEX (mg/kg)
0			5" Asphalt + 3" Shell		0	
			Dark gray CLAYEY SILT (ML)		0	
			Gray SILTY CLAY (CL-ML)		0	
5			Tan & light gray SANDY LEAN CLAY (CL) -w/ calcareous nodules @ 4' - 8'		0	
					0	
			-w/ sand seams @ 8' - 12'		0	
10					0	
			Boring terminated @ 12 ft			
15						
20						
25						
30						

Note(s):

APPENDIX B: XENCO LABORATORIES ANALYTICAL REPORT

Analytical Report 287255

for

Tolunay-Wong Engineers, Inc.

Project Manager: Amy Kunza

Bunker Hill Improvements Project

07.12.034

14-AUG-07

11381 Meadowglen, Suite L Houston, TX 77082 Ph:(281) 589-0692 Fax:(281) 589-0695

NELAC certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

14-AUG-07

Project Manager: **Amy Kunza**
Tolunay-Wong Engineers, Inc.
10710 S. Sam Houston Parkway W.,
Suite 100
Houston, TX 77031

Reference: XENCO Report No: **287255**
Bunker Hill Improvements Project
Project Address:

Amy Kunza:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 287255. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 287255 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Carlos A. Castro, Ph.D., MBA
Managing Director, Texas

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY
Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

Certificate of Analysis Summary 287255
Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-03-07 11:34 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested					
	Lab Id:	287255-001	287255-002	287255-003	287255-004
	Field Id:	EB-1	EB-1	EB-2	EB-2
	Depth:	16-18 ft	16-18 ft	14-16 ft	14-16 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL
	Sampled:	Aug-02-07 13:10	Aug-02-07 13:10	Aug-02-07 15:15	Aug-02-07 15:15
TPH by Texas1005	***Extracted:***	Aug-07-07 15:09		Aug-07-07 15:12	
	Analyzed:	Aug-07-07 19:23		Aug-07-07 19:56	
	Units/RL:	mg/kg RL		mg/kg RL	
C6-C12 Gasoline Range Hydrocarbons		BRL 49.6		BRL 49.2	
C12-C28 Diesel Range Hydrocarbons		BRL 49.6		BRL 49.2	
C28-C35 Oil Range Hydrocarbons		BRL 49.6		BRL 49.2	
Total TPH 1005		BRL		BRL	

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287255

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-03-07 11:34 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287255-001		287255-002		287255-003		287255-004	
	Field Id:	EB-1		EB-1		EB-2		EB-2	
	Depth:	16-18 ft		16-18 ft		14-16 ft		14-16 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-02-07 13:10		Aug-02-07 13:10		Aug-02-07 15:15		Aug-02-07 15:15	
VOAs by SW-846 8260B	*Extracted:*			Aug-10-07 13:21				Aug-10-07 13:23	
	Analyzed:			Aug-10-07 19:47				Aug-10-07 20:09	
	Units/RL:			mg/kg	RL			mg/kg	RL
Benzene				BRL	0.005			BRL	0.005
Bromobenzene				BRL	0.005			BRL	0.005
Bromochloromethane				BRL	0.005			BRL	0.005
Bromodichloromethane				BRL	0.005			BRL	0.005
Bromoform				BRL	0.005			BRL	0.005
Methyl bromide				BRL	0.005			BRL	0.005
MTBE				BRL	0.005			BRL	0.005
tert-Butylbenzene				BRL	0.005			BRL	0.005
Sec-Butylbenzene				BRL	0.005			BRL	0.005
n-Butylbenzene				BRL	0.005			BRL	0.005
Carbon Tetrachloride				BRL	0.005			BRL	0.005
Chlorobenzene				BRL	0.005			BRL	0.005
Chloroethane				BRL	0.010			BRL	0.010
Chloroform				BRL	0.005			BRL	0.005
Methyl Chloride				BRL	0.010			BRL	0.010
2-Chlorotoluene				BRL	0.005			BRL	0.005
4-Chlorotoluene				BRL	0.005			BRL	0.005
p-Cymene (p-Isopropyltoluene)				BRL	0.005			BRL	0.005
1,2-Dibromo-3-Chloropropane				BRL	0.005			BRL	0.005
Dibromochloromethane				BRL	0.005			BRL	0.005
Methylene bromide				BRL	0.005			BRL	0.005
1,2-Dichlorobenzene				BRL	0.005			BRL	0.005
1,3-Dichlorobenzene				BRL	0.005			BRL	0.005
1,4-Dichlorobenzene				BRL	0.005			BRL	0.005
Dichlorodifluoromethane				BRL	0.005			BRL	0.005
1,2-Dichloroethane				BRL	0.005			BRL	0.005
1,1-Dichloroethane				BRL	0.005			BRL	0.005
trans-1,2-dichloroethylene				BRL	0.005			BRL	0.005
cis-1,2-Dichloroethylene				BRL	0.005			BRL	0.005
1,1-Dichloroethene				BRL	0.005			BRL	0.005
2,2-Dichloropropane				BRL	0.005			BRL	0.005
1,3-Dichloropropane				BRL	0.005			BRL	0.005
1,2-Dichloropropane				BRL	0.005			BRL	0.005
trans-1,3-dichloropropene				BRL	0.005			BRL	0.005

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Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287255

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-03-07 11:34 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	287255-001	287255-002		287255-003		287255-004	
	Field Id:	EB-1	EB-1		EB-2		EB-2	
	Depth:	16-18 ft	16-18 ft		14-16 ft		14-16 ft	
	Matrix:	SOIL	SOIL		SOIL		SOIL	
	Sampled:	Aug-02-07 13:10	Aug-02-07 13:10		Aug-02-07 15:15		Aug-02-07 15:15	
VOAs by SW-846 8260B	*Extracted:*		Aug-10-07 13:21				Aug-10-07 13:23	
	Analyzed:		Aug-10-07 19:47				Aug-10-07 20:09	
	Units/RL:		mg/kg	RL			mg/kg	RL
1,1-Dichloropropene			BRL	0.005			BRL	0.005
cis-1,3-Dichloropropene			BRL	0.005			BRL	0.005
Ethylbenzene			BRL	0.005			BRL	0.005
Hexachlorobutadiene			BRL	0.005			BRL	0.005
isopropylbenzene			BRL	0.005			BRL	0.005
Methylene Chloride			BRL	0.020			BRL	0.020
Naphthalene			BRL	0.010			BRL	0.010
n-Propylbenzene			BRL	0.005			BRL	0.005
Styrene			BRL	0.005			BRL	0.005
1,1,1,2-Tetrachloroethane			BRL	0.005			BRL	0.005
1,1,2,2-Tetrachloroethane			BRL	0.005			BRL	0.005
Tetrachloroethylene			BRL	0.005			BRL	0.005
Toluene			BRL	0.005			BRL	0.005
1,2,4-Trichlorobenzene			BRL	0.005			BRL	0.005
1,2,3-Trichlorobenzene			BRL	0.005			BRL	0.005
1,1,2-Trichloroethane			BRL	0.005			BRL	0.005
1,1,1-Trichloroethane			BRL	0.005			BRL	0.005
Trichloroethylene			BRL	0.005			BRL	0.005
Trichlorofluoromethane			BRL	0.005			BRL	0.005
1,2,3-Trichloropropane			BRL	0.005			BRL	0.005
1,2,4-Trimethylbenzene			BRL	0.005			BRL	0.005
1,3,5-Trimethylbenzene			BRL	0.005			BRL	0.005
Vinyl Chloride			BRL	0.002			BRL	0.002
o-Xylene			BRL	0.005			BRL	0.005
m,p-Xylene			BRL	0.010			BRL	0.010

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287255 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 287255-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.2	111	70-135	
o-Terphenyl	58.9	49.6	119	70-135	

Lab Batch #: 701832 **Sample:** 287255-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	98.3	118	70-135	
o-Terphenyl	63.3	49.2	129	70-135	

Lab Batch #: 701832 **Sample:** 287390-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.1	114	70-135	
o-Terphenyl	53.5	49.6	108	70-135	

Lab Batch #: 701832 **Sample:** 287390-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.6	112	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 701832 **Sample:** 498021-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	39.4	50.0	79	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287255 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 498021-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	63.2	50.0	126	70-135	

Lab Batch #: 702037 **Sample:** 287255-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0505	0.0502	101	74-121	
Dibromofluoromethane	0.0513	0.0502	102	80-120	
1,2-Dichloroethane-D4	0.0484	0.0502	96	80-120	
Toluene-D8	0.0474	0.0502	94	81-117	

Lab Batch #: 702037 **Sample:** 287255-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0493	0.0500	99	74-121	
Dibromofluoromethane	0.0508	0.0500	102	80-120	
1,2-Dichloroethane-D4	0.0493	0.0500	99	80-120	
Toluene-D8	0.0494	0.0500	99	81-117	

Lab Batch #: 702037 **Sample:** 287473-006 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0472	0.0498	95	74-121	
Dibromofluoromethane	0.0391	0.0498	79	80-120	*
1,2-Dichloroethane-D4	0.0379	0.0498	76	80-120	*
Toluene-D8	0.0512	0.0498	103	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287255 **Project ID:** 07.12.034

Lab Batch #: 702037 **Sample:** 287473-006 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0528	0.0501	105	74-121	
Dibromofluoromethane	0.0451	0.0501	90	80-120	
1,2-Dichloroethane-D4	0.0478	0.0501	95	80-120	
Toluene-D8	0.0513	0.0501	102	81-117	

Lab Batch #: 702037 **Sample:** 498149-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0498	0.0500	100	74-121	
Dibromofluoromethane	0.0511	0.0500	102	80-120	
1,2-Dichloroethane-D4	0.0532	0.0500	106	80-120	
Toluene-D8	0.0484	0.0500	97	81-117	

Lab Batch #: 702037 **Sample:** 498149-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0517	0.0500	103	74-121	
Dibromofluoromethane	0.0484	0.0500	97	80-120	
1,2-Dichloroethane-D4	0.0493	0.0500	99	80-120	
Toluene-D8	0.0513	0.0500	103	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287255 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 498021-1-BKS **Matrix:** Solid

Date Analyzed: 08/08/2007 **Date Prepared:** 08/07/2007 **Analyst:** JAH

Reporting Units: mg/kg **Batch #:** 1

TPH by Texas1005 Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	0.000	1000	731	73	70-135	
C12-C28 Diesel Range Hydrocarbons	0.000	1000	862	86	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287255 **Project ID:** 07.12.034

Lab Batch #: 702037 **Sample:** 498149-1-BKS **Matrix:** Solid

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

VOAs by SW-846 8260B Analytes	BLANK /BLANK SPIKE RECOVERY STUDY					
	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	<0.005	0.050	0.048	96	66-142	
Bromobenzene	<0.005	0.050	0.048	96	75-125	
Bromochloromethane	<0.005	0.050	0.049	98	73-125	
Bromodichloromethane	<0.005	0.050	0.049	98	75-125	
Bromoform	<0.005	0.050	0.047	94	75-125	
Methyl bromide	<0.005	0.050	0.040	80	65-135	
MTBE	<0.005	0.050	0.056	112	75-125	
tert-Butylbenzene	<0.005	0.050	0.051	102	75-125	
Sec-Butylbenzene	<0.005	0.050	0.052	104	75-125	
n-Butylbenzene	<0.005	0.050	0.052	104	75-125	
Carbon Tetrachloride	<0.005	0.050	0.052	104	62-125	
Chlorobenzene	<0.005	0.050	0.049	98	60-133	
Chloroethane	<0.010	0.050	0.038	76	65-135	
Chloroform	<0.005	0.050	0.050	100	74-125	
Methyl Chloride	<0.010	0.050	0.047	94	65-135	
2-Chlorotoluene	<0.005	0.050	0.050	100	73-125	
4-Chlorotoluene	<0.005	0.050	0.048	96	74-125	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.053	106	75-125	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.058	116	59-125	
Dibromochloromethane	<0.005	0.050	0.050	100	73-125	
Methylene bromide	<0.005	0.050	0.053	106	69-127	
1,2-Dichlorobenzene	<0.005	0.050	0.051	102	75-125	
1,3-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
1,4-Dichlorobenzene	<0.005	0.050	0.048	96	75-125	
Dichlorodifluoromethane	<0.005	0.050	0.043	86	65-135	
1,2-Dichloroethane	<0.005	0.050	0.049	98	68-127	
1,1-Dichloroethane	<0.005	0.050	0.046	92	72-125	
trans-1,2-dichloroethylene	<0.005	0.050	0.044	88	75-125	
cis-1,2-Dichloroethylene	<0.005	0.050	0.048	96	75-125	
1,1-Dichloroethene	<0.005	0.050	0.045	90	59-172	
2,2-Dichloropropane	<0.005	0.050	0.050	100	75-125	
1,3-Dichloropropane	<0.005	0.050	0.048	96	75-125	
1,2-Dichloropropane	<0.005	0.050	0.050	100	74-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287255 **Project ID:** 07.12.034

Lab Batch #: 702037 **Sample:** 498149-1-BKS **Matrix:** Solid

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
trans-1,3-dichloropropene	<0.005	0.050	0.049	98	66-125	
1,1-Dichloropropene	<0.005	0.050	0.047	94	75-125	
cis-1,3-Dichloropropene	<0.005	0.050	0.052	104	74-125	
Ethylbenzene	<0.005	0.050	0.051	102	75-125	
Hexachlorobutadiene	<0.005	0.050	0.052	104	75-125	
isopropylbenzene	<0.005	0.050	0.057	114	75-125	
Methylene Chloride	<0.020	0.050	0.047	94	75-125	
Naphthalene	<0.010	0.050	0.062	124	75-125	
n-Propylbenzene	<0.005	0.050	0.050	100	75-125	
Styrene	<0.005	0.050	0.052	104	75-125	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.050	100	72-125	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.052	104	74-125	
Tetrachloroethylene	<0.005	0.050	0.045	90	71-125	
Toluene	<0.005	0.050	0.048	96	59-139	
1,2,4-Trichlorobenzene	<0.005	0.050	0.057	114	75-135	
1,2,3-Trichlorobenzene	<0.005	0.050	0.060	120	75-137	
1,1,2-Trichloroethane	<0.005	0.050	0.047	94	75-127	
1,1,1-Trichloroethane	<0.005	0.050	0.050	100	75-125	
Trichloroethylene	<0.005	0.050	0.046	92	62-137	
Trichlorofluoromethane	<0.005	0.050	0.047	94	67-125	
1,2,3-Trichloropropane	<0.005	0.050	0.058	116	75-125	
1,2,4-Trimethylbenzene	<0.005	0.050	0.051	102	75-125	
1,3,5-Trimethylbenzene	<0.005	0.050	0.053	106	70-130	
Vinyl Chloride	<0.002	0.050	0.050	100	65-135	
o-Xylene	<0.005	0.050	0.050	100	75-125	
m,p-Xylene	<0.010	0.100	0.098	98	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287255 **Project ID:** 07.12.034

Lab Batch ID: 701832 **QC- Sample ID:** 287390-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/07/2007 **Date Prepared:** 08/07/2007 **Analyst:** JAH

Reporting Units: mg/kg

TPH by Texas1005 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<50.0	991	1000	101	996	1000	100	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<50.0	991	888	90	996	855	86	5	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287255 **Project ID:** 07.12.034

Lab Batch ID: 702037 **QC- Sample ID:** 287473-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.006	0.060	0.057	95	0.060	0.059	98	3	66-142	21	
Bromobenzene	<0.006	0.060	0.056	93	0.060	0.062	103	10	75-125	25	
Bromochloromethane	<0.006	0.060	0.043	72	0.060	0.052	87	19	73-125	20	X
Bromodichloromethane	<0.006	0.060	0.048	80	0.060	0.054	90	12	75-125	20	
Bromoform	<0.006	0.060	0.048	80	0.060	0.059	98	20	75-125	20	
Methyl bromide	<0.006	0.060	0.042	70	0.060	0.046	77	10	65-135	20	
MTBE	<0.006	0.060	0.049	82	0.060	0.058	97	17	75-125	20	
tert-Butylbenzene	<0.006	0.060	0.077	128	0.060	0.078	130	2	75-125	25	X
Sec-Butylbenzene	<0.006	0.060	0.082	137	0.060	0.081	135	1	75-125	25	X
n-Butylbenzene	<0.006	0.060	0.079	132	0.060	0.079	132	0	75-125	25	X
Carbon Tetrachloride	<0.006	0.060	0.075	125	0.060	0.074	123	2	62-125	20	
Chlorobenzene	<0.006	0.060	0.057	95	0.060	0.060	100	5	60-133	21	
Chloroethane	<0.012	0.060	0.049	82	0.060	0.049	82	0	65-135	20	
Chloroform	<0.006	0.060	0.051	85	0.060	0.055	92	8	74-125	20	
Methyl Chloride	<0.012	0.060	0.053	88	0.060	0.056	93	6	65-135	20	
2-Chlorotoluene	<0.006	0.060	0.062	103	0.060	0.067	112	8	73-125	25	
4-Chlorotoluene	<0.006	0.060	0.061	102	0.060	0.064	107	5	74-125	25	
p-Cymene (p-Isopropyltoluene)	<0.006	0.060	0.077	128	0.060	0.079	132	3	75-125	25	X
1,2-Dibromo-3-Chloropropane	<0.006	0.060	0.079	132	0.060	0.088	147	11	59-125	28	X
Dibromochloromethane	<0.006	0.060	0.047	78	0.060	0.057	95	20	73-125	25	
Methylene bromide	<0.006	0.060	0.051	85	0.060	0.061	102	18	69-127	23	
1,2-Dichlorobenzene	<0.006	0.060	0.058	97	0.060	0.065	108	11	75-125	25	
1,3-Dichlorobenzene	<0.006	0.060	0.057	95	0.060	0.064	107	12	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287255 **Project ID:** 07.12.034

Lab Batch ID: 702037 **QC- Sample ID:** 287473-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.006	0.060	0.053	88	0.060	0.060	100	13	75-125	25	
Dichlorodifluoromethane	<0.006	0.060	0.064	107	0.060	0.061	102	5	65-135	23	
1,2-Dichloroethane	<0.006	0.060	0.045	75	0.060	0.052	87	15	68-127	20	
1,1-Dichloroethane	<0.006	0.060	0.049	82	0.060	0.051	85	4	72-125	20	
trans-1,2-dichloroethylene	<0.006	0.060	0.054	90	0.060	0.054	90	0	75-125	20	
cis-1,2-Dichloroethylene	<0.006	0.060	0.051	85	0.060	0.052	87	2	75-125	20	
1,1-Dichloroethene	<0.006	0.060	0.062	103	0.060	0.060	100	3	59-172	22	
2,2-Dichloropropane	<0.006	0.060	0.064	107	0.060	0.065	108	1	75-125	25	
1,3-Dichloropropane	<0.006	0.060	0.052	87	0.060	0.057	95	9	75-125	25	
1,2-Dichloropropane	<0.006	0.060	0.050	83	0.060	0.056	93	11	74-125	20	
trans-1,3-dichloropropene	<0.006	0.060	0.048	80	0.060	0.055	92	14	66-125	20	
1,1-Dichloropropene	<0.006	0.060	0.063	105	0.060	0.061	102	3	75-125	25	
cis-1,3-Dichloropropene	<0.006	0.060	0.049	82	0.060	0.056	93	13	74-125	20	
Ethylbenzene	<0.006	0.060	0.065	108	0.060	0.066	110	2	75-125	20	
Hexachlorobutadiene	<0.006	0.060	0.081	135	0.060	0.077	128	5	75-125	25	X
isopropylbenzene	<0.006	0.060	0.081	135	0.060	0.078	130	4	75-125	25	X
Methylene Chloride	<0.024	0.060	0.043	72	0.060	0.051	85	17	75-125	35	X
Naphthalene	<0.012	0.060	0.071	118	0.060	0.086	143	19	75-125	25	X
n-Propylbenzene	<0.006	0.060	0.072	120	0.060	0.075	125	4	75-125	25	
Styrene	<0.006	0.060	0.056	93	0.060	0.060	100	7	75-125	51	
1,1,1,2-Tetrachloroethane	<0.006	0.060	0.051	85	0.060	0.058	97	13	72-125	20	
1,1,2,2-Tetrachloroethane	<0.006	0.060	0.058	97	0.060	0.067	112	14	74-125	31	
Tetrachloroethylene	<0.006	0.060	0.070	117	0.060	0.065	108	8	71-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287255 **Project ID:** 07.12.034

Lab Batch ID: 702037 **QC- Sample ID:** 287473-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	<0.006	0.060	0.063	105	0.060	0.061	102	3	59-139	21	
1,2,4-Trichlorobenzene	<0.006	0.060	0.059	98	0.060	0.068	113	14	75-135	25	
1,2,3-Trichlorobenzene	<0.006	0.060	0.061	102	0.060	0.071	118	15	75-137	25	
1,1,2-Trichloroethane	<0.006	0.060	0.050	83	0.060	0.058	97	16	75-127	20	
1,1,1-Trichloroethane	<0.006	0.060	0.063	105	0.060	0.064	107	2	75-125	20	
Trichloroethylene	<0.006	0.060	0.060	100	0.060	0.061	102	2	62-137	24	
Trichlorofluoromethane	<0.006	0.060	0.066	110	0.060	0.062	103	7	67-125	20	
1,2,3-Trichloropropane	<0.006	0.060	0.070	117	0.060	0.079	132	12	75-125	20	X
1,2,4-Trimethylbenzene	<0.006	0.060	0.064	107	0.060	0.069	115	7	75-125	25	
1,3,5-Trimethylbenzene	<0.006	0.060	0.071	118	0.060	0.076	127	7	70-130	25	
Vinyl Chloride	<0.002	0.060	0.066	110	0.060	0.061	102	8	65-135	20	
o-Xylene	<0.006	0.060	0.063	105	0.060	0.062	103	2	75-125	20	
m,p-Xylene	<0.012	0.120	0.128	107	0.121	0.126	104	3	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO

11361 Meadowglen, Suite L, Houston TX 77082 281-589-0692
5309 Wurzbach, Suite 104, San Antonio, TX 78238 210-509-3334
11078 Morrison Lane, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

5757 N.W. 158th Street, Miami Lakes, Fl 33014 305-823-8500
2618 South Falkenburg Rd, Riverview, Fl 33569 813-620-2000

Lab Only: 287255-H

Serial #: 185016 Page 1 of 1

Company City: Tolunay-Wong Phone: 713-722-7064

TAT: 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific.
It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Project Name: Dunker Hill Improvements Project ☐ Previously performed at XENCO Site: Project ID: 07.12.034

Proj. Manager (PM): Amy Ikuma

Fax Results to: ☐ PM or Fax No:
e-mail to: aikuma@tweinc.com

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O
Bill to:

Quote No: P.O No: ☐ Call for a P.O.

Reg Program: CLP AFCEE TRRP DW UST State Other:

Target DLs (DW CRDL TRRP QAPP MDLs See Lab PM Attached Call)

TRRP PCLs: Tier 1 Tier 2 Residential Industrial

LPST No.:(Required)

Sampler Name Signature

	Sample ID	Sampling Date	Time	Depth ft' In" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives
1	EB-1	8/2/07	1310	16-18	S		X	1	2oz	J	—
2	EB-1		1320	16-18							
3	EB-2		1515	14-16							
4	EB-2	↓	1515	14-16	↓	↓	↓	↓	↓	↓	↓
5											
6											
7											
8											
9											
10											

	BTEX by 8021 8260 602 624 Other	BTEX-MTBE by 8021 8260 624 Other	TPH by TX1005 FL-Pro 1664 8015GRO 8015DRO 418.1	PAHs by 8270 8310	Metals by 6020 200.7 Tot Pb TCLP8 13PP 23TAL	VOCs by 8021 8260 624 VOA VOH PPs TCL	SVOCs by 8270 625 PAHs BN&A TCL PPs	FL Prebum - Revised: Virgin Non-Virgin
1			X					
2						X		
3			X					
4						X		

Standard

TAT 5h 12h 24h 48h 3d 5d 7d 10d 21d

Addn: PAH above mg/L W, mg/Kg S Highest Hit

Hold Disposal Hold Analysis (Surcharges will apply)

Remarks

Sample Clean-ups are pre-approved

Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	8/2/07 1730		8/2/07 1730
2	8/3/07 1030		9/3/07 11:04
3 8/3/07	11:34	Lab:	8/3/07 1134

Rush Charges are Pre-Approved upon requesting them.

Instructions:

All XENCO Standard Terms and Conditions Apply.

Containers Received: 4 Cooler Temperature: 2.0°C

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool,<4C) (C), None (NA), See Label (L), Other (O) _____

Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (5), Tedlar Bag (B), Wipe (W), Other _____ **Cont. Type:** Glass Amb (A), Glass Clear (C), Plastic (P), Other (O) _____

Matrix: Air (A), Product (P), Solid(S), Water (W)

SDBE Committed to Excellence in Service and Quality since 1990

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287255-H

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TWB

Date/ Time: 8/3/7

Lab ID # : 287255-11

Initials:

Sample Receipt Checklist

#1 Temperature of container/ cooler?	Yes	No	N/A	2.0°C
#2 Shipping container in good condition?	Yes	No	None	
#3 Samples received on ice?	Yes	No	N/A	Blue/Water
#4 Custody Seals intact on shipping container/ cooler?	Yes	No	N/A	
#5 Custody Seals intact on sample bottles/ container?	Yes	No		
#6 Chain of Custody present?	Yes	No		
#7 Sample instructions complete of Chain of Custody?	Yes	No		
#8 Any missing/extra samples?	Yes	No		
#9 Chain of Custody signed when relinquished/ received?	Yes	No		
#10 Chain of Custody agrees with sample label(s)?	Yes	No		
#11 Container label(s) legible and intact?	Yes	No		
#12 Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#13 Samples in proper container/ bottle?	Yes	No		
#14 Samples properly preserved?	Yes	No	N/A	
#15 Sample container intact?	Yes	No		
#16 Sufficient sample amount for indicated test(s)?	Yes	No		
#17 All samples received within sufficient hold time?	Yes	No		
#18 Subcontract of sample(s)?	Yes	No	N/A	
#19 VOC samples have zero headspace?	Yes	No	N/A	

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

☐ Client understands and would like to proceed with analysis

☐ Cooling process had begun shortly after sampling event

Analytical Report 287390

for

Tolunay-Wong Engineers, Inc.

Project Manager: Amy Kunza

Bunker Hill

07.12.034

16-AUG-07

11381 Meadowglen, Suite L Houston, TX 77082 Ph:(281) 589-0692 Fax:(281) 589-0695

NELAC certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

16-AUG-07

Project Manager: **Amy Kunza**
Tolunay-Wong Engineers, Inc.
10710 S. Sam Houston Parkway W.,
Suite 100
Houston, TX 77031

Reference: XENCO Report No: **287390**
Bunker Hill
Project Address:

Amy Kunza:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 287390. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 287390 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Carlos A. Castro, Ph.D., MBA
Managing Director, Texas

Certificate of Analysis Summary 287390

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested								
	Lab Id:	287390-001		287390-002	287390-003		287390-004	
	Field Id:	EB-7		EB-7	EB-8		EB-8	
	Depth:	6-8 ft		6-8 ft	8-10 ft		8-10 ft	
	Matrix:	SOIL		SOIL	SOIL		SOIL	
	Sampled:	Aug-06-07 09:40		Aug-06-07 09:40	Aug-06-07 10:46		Aug-06-07 10:46	
TPH by Texas1005	***Extracted:***	Aug-07-07 15:45			Aug-07-07 15:48			
	Analyzed:	Aug-07-07 19:23			Aug-07-07 19:56			
	Units/RL:	mg/kg	RL		mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		BRL	49.6		BRL	49.4		
C12-C28 Diesel Range Hydrocarbons		BRL	49.6		BRL	49.4		
C28-C35 Oil Range Hydrocarbons		BRL	49.6		BRL	49.4		
Total TPH 1005		BRL			BRL			

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287390

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287390-001		287390-002		287390-003		287390-004	
	Field Id:	EB-7		EB-7		EB-8		EB-8	
	Depth:	6-8 ft		6-8 ft		8-10 ft		8-10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-07 09:40		Aug-06-07 09:40		Aug-06-07 10:46		Aug-06-07 10:46	
VOAs by SW-846 8260B	***Extracted:***			Aug-13-07 11:30				Aug-13-07 11:38	
	Analyzed:			Aug-13-07 12:58				Aug-13-07 14:25	
	Units/RL:			mg/kg	RL			mg/kg	RL
Benzene				BRL	0.005			BRL	0.005
Bromobenzene				BRL	0.005			BRL	0.005
Bromochloromethane				BRL	0.005			BRL	0.005
Bromodichloromethane				BRL	0.005			BRL	0.005
Bromoform				BRL	0.005			BRL	0.005
Methyl bromide				BRL	0.005			BRL	0.005
MTBE				BRL	0.005			BRL	0.005
tert-Butylbenzene				BRL	0.005			BRL	0.005
Sec-Butylbenzene				BRL	0.005			BRL	0.005
n-Butylbenzene				BRL	0.005			BRL	0.005
Carbon Tetrachloride				BRL	0.005			BRL	0.005
Chlorobenzene				BRL	0.005			BRL	0.005
Chloroethane				BRL	0.010			BRL	0.010
Chloroform				BRL	0.005			BRL	0.005
Methyl Chloride				BRL	0.010			BRL	0.010
2-Chlorotoluene				BRL	0.005			BRL	0.005
4-Chlorotoluene				BRL	0.005			BRL	0.005
p-Cymene (p-Isopropyltoluene)				BRL	0.005			BRL	0.005
1,2-Dibromo-3-Chloropropane				BRL	0.005			BRL	0.005
Dibromochloromethane				BRL	0.005			BRL	0.005
Methylene bromide				BRL	0.005			BRL	0.005
1,2-Dichlorobenzene				BRL	0.005			BRL	0.005
1,3-Dichlorobenzene				BRL	0.005			BRL	0.005
1,4-Dichlorobenzene				BRL	0.005			BRL	0.005
Dichlorodifluoromethane				BRL	0.005			BRL	0.005
1,2-Dichloroethane				BRL	0.005			BRL	0.005
1,1-Dichloroethane				BRL	0.005			BRL	0.005
trans-1,2-dichloroethylene				BRL	0.005			BRL	0.005
cis-1,2-Dichloroethylene				BRL	0.005			BRL	0.005
1,1-Dichloroethene				BRL	0.005			BRL	0.005
2,2-Dichloropropane				BRL	0.005			BRL	0.005
1,3-Dichloropropane				BRL	0.005			BRL	0.005
1,2-Dichloropropane				BRL	0.005			BRL	0.005
trans-1,3-dichloropropene				BRL	0.005			BRL	0.005

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

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Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287390-001		287390-002		287390-003		287390-004	
	Field Id:	EB-7		EB-7		EB-8		EB-8	
	Depth:	6-8 ft		6-8 ft		8-10 ft		8-10 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-06-07 09:40		Aug-06-07 09:40		Aug-06-07 10:46		Aug-06-07 10:46	
VOAs by SW-846 8260B	***Extracted:***			Aug-13-07 11:30				Aug-13-07 11:38	
	Analyzed:			Aug-13-07 12:58				Aug-13-07 14:25	
	Units/RL:			mg/kg	RL			mg/kg	RL
1,1-Dichloropropene				BRL	0.005			BRL	0.005
cis-1,3-Dichloropropene				BRL	0.005			BRL	0.005
Ethylbenzene				BRL	0.005			BRL	0.005
Hexachlorobutadiene				BRL	0.005			BRL	0.005
isopropylbenzene				BRL	0.005			BRL	0.005
Methylene Chloride				BRL	0.020			BRL	0.020
Naphthalene				BRL	0.010			BRL	0.010
n-Propylbenzene				BRL	0.005			BRL	0.005
Styrene				BRL	0.005			BRL	0.005
1,1,1,2-Tetrachloroethane				BRL	0.005			BRL	0.005
1,1,2,2-Tetrachloroethane				BRL	0.005			BRL	0.005
Tetrachloroethylene				BRL	0.005			BRL	0.005
Toluene				BRL	0.005			BRL	0.005
1,2,4-Trichlorobenzene				BRL	0.005			BRL	0.005
1,2,3-Trichlorobenzene				BRL	0.005			BRL	0.005
1,1,2-Trichloroethane				BRL	0.005			BRL	0.005
1,1,1-Trichloroethane				BRL	0.005			BRL	0.005
Trichloroethylene				BRL	0.005			BRL	0.005
Trichlorofluoromethane				BRL	0.005			BRL	0.005
1,2,3-Trichloropropane				BRL	0.005			BRL	0.005
1,2,4-Trimethylbenzene				BRL	0.005			BRL	0.005
1,3,5-Trimethylbenzene				BRL	0.005			BRL	0.005
Vinyl Chloride				BRL	0.002			BRL	0.002
o-Xylene				BRL	0.005			BRL	0.005
m,p-Xylene				BRL	0.010			BRL	0.010

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

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Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested								
	Lab Id:	287390-005		287390-006	287390-007		287390-008	
	Field Id:	EB-9		EB-9	EB-7		EB-7	
	Depth:	4-6 ft		4-6 ft	ft		ft	
	Matrix:	SOIL		SOIL	WATER		WATER	
	Sampled:	Aug-06-07 11:55		Aug-06-07 11:55	Aug-06-07 10:00		Aug-06-07 10:00	
TPH by Texas1005	***Extracted:***	Aug-07-07 15:51			Aug-07-07 14:12			
	Analyzed:	Aug-07-07 20:28			Aug-07-07 19:41			
	Units/RL:	mg/kg	RL		mg/L	RL		
C6-C12 Gasoline Range Hydrocarbons		BRL	50.0		BRL	4.82		
C12-C28 Diesel Range Hydrocarbons		BRL	50.0		BRL	4.82		
C28-C35 Oil Range Hydrocarbons		BRL	50.0		BRL	4.82		
Total TPH 1005		BRL			BRL			

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Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287390-005		287390-006		287390-007		287390-008	
	Field Id:	EB-9		EB-9		EB-7		EB-7	
	Depth:	4-6 ft		4-6 ft		ft		ft	
	Matrix:	SOIL		SOIL		WATER		WATER	
	Sampled:	Aug-06-07 11:55		Aug-06-07 11:55		Aug-06-07 10:00		Aug-06-07 10:00	
VOAs by SW-846 8260B	***Extracted:***			Aug-13-07 11:40				Aug-08-07 12:58	
	Analyzed:			Aug-13-07 14:48				Aug-08-07 15:16	
	Units/RL:			mg/kg	RL			mg/L	RL
Benzene				BRL	0.005			BRL	0.005
Bromobenzene				BRL	0.005			BRL	0.005
Bromochloromethane				BRL	0.005			BRL	0.005
Bromodichloromethane				BRL	0.005			BRL	0.005
Bromoform				BRL	0.005			BRL	0.005
Methyl bromide				BRL	0.005			BRL	0.005
MTBE				BRL	0.005			BRL	0.005
tert-Butylbenzene				BRL	0.005			BRL	0.005
Sec-Butylbenzene				BRL	0.005			BRL	0.005
n-Butylbenzene				BRL	0.005			BRL	0.005
Carbon Tetrachloride				BRL	0.005			BRL	0.005
Chlorobenzene				BRL	0.005			BRL	0.005
Chloroethane				BRL	0.010			BRL	0.010
Chloroform				BRL	0.005			BRL	0.005
Methyl Chloride				BRL	0.010			BRL	0.010
2-Chlorotoluene				BRL	0.005			BRL	0.005
4-Chlorotoluene				BRL	0.005			BRL	0.005
p-Cymene (p-Isopropyltoluene)				BRL	0.005			BRL	0.005
1,2-Dibromo-3-Chloropropane				BRL	0.005			BRL	0.005
Dibromochloromethane				BRL	0.005			BRL	0.005
Methylene bromide				BRL	0.005			BRL	0.005
1,2-Dichlorobenzene				BRL	0.005			BRL	0.005
1,3-Dichlorobenzene				BRL	0.005			BRL	0.005
1,4-Dichlorobenzene				BRL	0.005			BRL	0.005
Dichlorodifluoromethane				BRL	0.005			BRL	0.005
1,2-Dichloroethane				BRL	0.005			BRL	0.005
1,1-Dichloroethane				BRL	0.005			BRL	0.005
trans-1,2-dichloroethylene				BRL	0.005			BRL	0.005
cis-1,2-Dichloroethylene				BRL	0.005			BRL	0.005
1,1-Dichloroethene				BRL	0.005			BRL	0.005
2,2-Dichloropropane				BRL	0.005			BRL	0.005
1,3-Dichloropropane				BRL	0.005			BRL	0.005
1,2-Dichloropropane				BRL	0.005			BRL	0.005
trans-1,3-dichloropropene				BRL	0.005			BRL	0.005

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Project Name: Bunker Hill

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	287390-005	287390-006		287390-007	287390-008	
	Field Id:	EB-9	EB-9		EB-7	EB-7	
	Depth:	4-6 ft	4-6 ft		ft	ft	
	Matrix:	SOIL	SOIL		WATER	WATER	
	Sampled:	Aug-06-07 11:55	Aug-06-07 11:55		Aug-06-07 10:00	Aug-06-07 10:00	
VOAs by SW-846 8260B	*Extracted:*		Aug-13-07 11:40			Aug-08-07 12:58	
	Analyzed:		Aug-13-07 14:48			Aug-08-07 15:16	
	Units/RL:		mg/kg	RL		mg/L	RL
1,1-Dichloropropene			BRL	0.005		BRL	0.005
cis-1,3-Dichloropropene			BRL	0.005		BRL	0.005
Ethylbenzene			BRL	0.005		BRL	0.005
Hexachlorobutadiene			BRL	0.005		BRL	0.005
isopropylbenzene			BRL	0.005		BRL	0.005
Methylene Chloride			BRL	0.020		BRL	0.005
Naphthalene			BRL	0.010		BRL	0.010
n-Propylbenzene			BRL	0.005		BRL	0.005
Styrene			BRL	0.005		BRL	0.005
1,1,1,2-Tetrachloroethane			BRL	0.005		BRL	0.005
1,1,2,2-Tetrachloroethane			BRL	0.005		BRL	0.005
Tetrachloroethylene			BRL	0.005		BRL	0.005
Toluene			BRL	0.005		BRL	0.005
1,2,4-Trichlorobenzene			BRL	0.005		BRL	0.005
1,2,3-Trichlorobenzene			BRL	0.005		BRL	0.005
1,1,2-Trichloroethane			BRL	0.005		BRL	0.005
1,1,1-Trichloroethane			BRL	0.005		BRL	0.005
Trichloroethylene			BRL	0.005		BRL	0.005
Trichlorofluoromethane			BRL	0.005		BRL	0.005
1,2,3-Trichloropropane			BRL	0.005		BRL	0.005
1,2,4-Trimethylbenzene			BRL	0.005		BRL	0.005
1,3,5-Trimethylbenzene			BRL	0.005		BRL	0.005
Vinyl Chloride			BRL	0.002		BRL	0.002
o-Xylene			BRL	0.005		BRL	0.005
m,p-Xylene			BRL	0.010		BRL	0.010

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Tolunay-Wong Engineers, Inc., Houston, TX

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Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287390-009		287390-010		287390-011		287390-012	
	Field Id:	EB-8		EB-8		EB-9		EB-9	
	Depth:	ft		ft		ft		ft	
	Matrix:	WATER		WATER		WATER		WATER	
	Sampled:	Aug-06-07 11:11		Aug-06-07 11:11		Aug-06-07 12:32		Aug-06-07 12:32	
TPH by Texas1005	***Extracted:***	Aug-07-07 14:15				Aug-07-07 14:18			
	Analyzed:	Aug-07-07 20:14				Aug-07-07 17:27			
	Units/RL:	mg/L	RL			mg/L	RL		
C6-C12 Gasoline Range Hydrocarbons		BRL	4.73			BRL	4.58		
C12-C28 Diesel Range Hydrocarbons		BRL	4.73			BRL	4.58		
C28-C35 Oil Range Hydrocarbons		BRL	4.73			BRL	4.58		
Total TPH 1005		BRL				BRL			

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Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested					
	Lab Id:	287390-009	287390-010	287390-011	287390-012
	Field Id:	EB-8	EB-8	EB-9	EB-9
	Depth:	ft	ft	ft	ft
	Matrix:	WATER	WATER	WATER	WATER
	Sampled:	Aug-06-07 11:11	Aug-06-07 11:11	Aug-06-07 12:32	Aug-06-07 12:32
VOAs by SW-846 8260B	***Extracted:***		Aug-08-07 14:51		Aug-08-07 14:53
	Analyzed:		Aug-08-07 18:13		Aug-08-07 18:35
	Units/RL:		mg/L RL		mg/L RL
Benzene			BRL 0.005		BRL 0.005
Bromobenzene			BRL 0.005		BRL 0.005
Bromochloromethane			BRL 0.005		BRL 0.005
Bromodichloromethane			BRL 0.005		BRL 0.005
Bromoform			BRL 0.005		BRL 0.005
Methyl bromide			BRL 0.005		BRL 0.005
MTBE			BRL 0.005		BRL 0.005
n-Butylbenzene			BRL 0.005		BRL 0.005
Sec-Butylbenzene			BRL 0.005		BRL 0.005
tert-Butylbenzene			BRL 0.005		BRL 0.005
Carbon Tetrachloride			BRL 0.005		BRL 0.005
Chlorobenzene			BRL 0.005		BRL 0.005
Chloroethane			BRL 0.010		BRL 0.010
Chloroform			BRL 0.005		BRL 0.005
Methyl Chloride			BRL 0.010		BRL 0.010
2-Chlorotoluene			BRL 0.005		BRL 0.005
4-Chlorotoluene			BRL 0.005		BRL 0.005
p-Cymene (p-Isopropyltoluene)			BRL 0.005		BRL 0.005
Dibromochloromethane			BRL 0.005		BRL 0.005
1,2-Dibromo-3-Chloropropane			BRL 0.005		BRL 0.005
Methylene bromide			BRL 0.005		BRL 0.005
1,2-Dichlorobenzene			BRL 0.005		BRL 0.005
1,3-Dichlorobenzene			BRL 0.005		BRL 0.005
1,4-Dichlorobenzene			BRL 0.005		BRL 0.005
Dichlorodifluoromethane			BRL 0.005		BRL 0.005
1,1-Dichloroethane			BRL 0.005		BRL 0.005
1,2-Dichloroethane			BRL 0.005		BRL 0.005
1,1-Dichloroethene			BRL 0.005		BRL 0.005
cis-1,2-Dichloroethylene			BRL 0.005		BRL 0.005
trans-1,2-dichloroethylene			BRL 0.005		BRL 0.005
1,2-Dichloropropane			BRL 0.005		BRL 0.005
1,3-Dichloropropane			BRL 0.005		BRL 0.005
2,2-Dichloropropane			BRL 0.005		BRL 0.005
1,1-Dichloropropene			BRL 0.005		BRL 0.005

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Managing Director, Texas

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Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-07-07 09:50 am
Report Date: 16-AUG-07
Project Manager: Debbie Simmons

Analysis Requested	*Lab Id:*	287390-009	287390-010		287390-011	287390-012	
	Field Id:	EB-8	EB-8		EB-9	EB-9	
	Depth:	ft	ft		ft	ft	
	Matrix:	WATER	WATER		WATER	WATER	
	Sampled:	Aug-06-07 11:11	Aug-06-07 11:11		Aug-06-07 12:32	Aug-06-07 12:32	
VOAs by SW-846 8260B	*Extracted:*		Aug-08-07 14:51			Aug-08-07 14:53	
	Analyzed:		Aug-08-07 18:13			Aug-08-07 18:35	
	Units/RL:		mg/L	RL		mg/L	RL
cis-1,3-Dichloropropene			BRL	0.005		BRL	0.005
trans-1,3-dichloropropene			BRL	0.005		BRL	0.005
Ethylbenzene			BRL	0.005		BRL	0.005
Hexachlorobutadiene			BRL	0.005		BRL	0.005
isopropylbenzene			BRL	0.005		BRL	0.005
Methylene Chloride			BRL	0.005		BRL	0.005
Naphthalene			BRL	0.010		BRL	0.010
n-Propylbenzene			BRL	0.005		BRL	0.005
Styrene			BRL	0.005		BRL	0.005
1,1,1,2-Tetrachloroethane			BRL	0.005		BRL	0.005
1,1,2,2-Tetrachloroethane			BRL	0.005		BRL	0.005
Tetrachloroethylene			BRL	0.005		BRL	0.005
Toluene			BRL	0.005		BRL	0.005
1,2,3-Trichlorobenzene			BRL	0.005		BRL	0.005
1,2,4-Trichlorobenzene			BRL	0.005		BRL	0.005
1,1,1-Trichloroethane			BRL	0.005		BRL	0.005
1,1,2-Trichloroethane			BRL	0.005		BRL	0.005
Trichloroethylene			BRL	0.005		BRL	0.005
Trichlorofluoromethane			BRL	0.005		BRL	0.005
1,2,3-Trichloropropane			BRL	0.005		BRL	0.005
1,2,4-Trimethylbenzene			BRL	0.005		BRL	0.005
1,3,5-Trimethylbenzene			BRL	0.005		BRL	0.005
o-Xylene			BRL	0.005		BRL	0.005
m,p-Xylene			BRL	0.010		BRL	0.010
Vinyl Chloride			BRL	0.002		BRL	0.002

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

XENCO Laboratories

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701812 **Sample:** 287390-007 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.1	9.65	115	70-135	
o-Terphenyl	5.96	4.82	124	70-135	

Lab Batch #: 701812 **Sample:** 287390-009 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.3	9.45	120	70-135	
o-Terphenyl	6.21	4.73	131	70-135	

Lab Batch #: 701812 **Sample:** 287390-011 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	9.40	9.16	103	70-135	
o-Terphenyl	5.31	4.58	116	70-135	

Lab Batch #: 701812 **Sample:** 498016-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.5	10.0	125	70-135	
o-Terphenyl	6.56	5.00	131	70-135	

Lab Batch #: 701812 **Sample:** 498016-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	11.5	10.0	115	70-135	
o-Terphenyl	6.20	5.00	124	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701812 **Sample:** 498016-1-BSD / BSD **Batch:** 1 **Matrix:** Water

Units: mg/L

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	12.3	10.0	123	70-135	
o-Terphenyl	6.68	5.00	134	70-135	

Lab Batch #: 701832 **Sample:** 287390-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.1	110	70-135	
o-Terphenyl	59.1	49.6	119	70-135	

Lab Batch #: 701832 **Sample:** 287390-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	98.7	109	70-135	
o-Terphenyl	57.2	49.4	116	70-135	

Lab Batch #: 701832 **Sample:** 287390-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	99.9	118	70-135	
o-Terphenyl	62.9	50.0	126	70-135	

Lab Batch #: 701832 **Sample:** 287390-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.1	114	70-135	
o-Terphenyl	53.5	49.6	108	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 287390-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.6	112	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

Lab Batch #: 701832 **Sample:** 498021-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	39.4	50.0	79	70-135	

Lab Batch #: 701832 **Sample:** 498021-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	63.2	50.0	126	70-135	

Lab Batch #: 701922 **Sample:** 287390-008 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0510	0.0500	102	86-115	
Dibromofluoromethane	0.0498	0.0500	100	86-118	
1,2-Dichloroethane-D4	0.0552	0.0500	110	80-120	
Toluene-D8	0.0498	0.0500	100	88-110	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701922 **Sample:** 287390-008 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0508	0.0500	102	86-115	
Dibromofluoromethane	0.0494	0.0500	99	86-118	
1,2-Dichloroethane-D4	0.0547	0.0500	109	80-120	
Toluene-D8	0.0507	0.0500	101	88-110	

Lab Batch #: 701922 **Sample:** 287390-008 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0503	0.0500	101	86-115	
Dibromofluoromethane	0.0496	0.0500	99	86-118	
1,2-Dichloroethane-D4	0.0534	0.0500	107	80-120	
Toluene-D8	0.0475	0.0500	95	88-110	

Lab Batch #: 701922 **Sample:** 287390-010 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0493	0.0500	99	86-115	
Dibromofluoromethane	0.0496	0.0500	99	86-118	
1,2-Dichloroethane-D4	0.0510	0.0500	102	80-120	
Toluene-D8	0.0494	0.0500	99	88-110	

Lab Batch #: 701922 **Sample:** 287390-012 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0490	0.0500	98	86-115	
Dibromofluoromethane	0.0503	0.0500	101	86-118	
1,2-Dichloroethane-D4	0.0505	0.0500	101	80-120	
Toluene-D8	0.0495	0.0500	99	88-110	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701922 **Sample:** 498085-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0530	0.0500	106	86-115	
Dibromofluoromethane	0.0510	0.0500	102	86-118	
1,2-Dichloroethane-D4	0.0537	0.0500	107	80-120	
Toluene-D8	0.0475	0.0500	95	88-110	

Lab Batch #: 701922 **Sample:** 498085-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0486	0.0500	97	86-115	
Dibromofluoromethane	0.0505	0.0500	101	86-118	
1,2-Dichloroethane-D4	0.0493	0.0500	99	80-120	
Toluene-D8	0.0474	0.0500	95	88-110	

Lab Batch #: 702176 **Sample:** 287390-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0512	0.0500	102	74-121	
Dibromofluoromethane	0.0547	0.0500	109	80-120	
1,2-Dichloroethane-D4	0.0514	0.0500	103	80-120	
Toluene-D8	0.0487	0.0500	97	81-117	

Lab Batch #: 702176 **Sample:** 287390-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0486	0.0499	97	74-121	
Dibromofluoromethane	0.0512	0.0499	103	80-120	
1,2-Dichloroethane-D4	0.0473	0.0499	95	80-120	
Toluene-D8	0.0468	0.0499	94	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 287390-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0539	0.0499	108	74-121	
Dibromofluoromethane	0.0522	0.0499	105	80-120	
1,2-Dichloroethane-D4	0.0499	0.0499	100	80-120	
Toluene-D8	0.0476	0.0499	95	81-117	

Lab Batch #: 702176 **Sample:** 287390-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0471	0.0500	94	74-121	
Dibromofluoromethane	0.0504	0.0500	101	80-120	
1,2-Dichloroethane-D4	0.0501	0.0500	100	80-120	
Toluene-D8	0.0474	0.0500	95	81-117	

Lab Batch #: 702176 **Sample:** 287390-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0502	0.0498	101	74-121	
Dibromofluoromethane	0.0482	0.0498	97	80-120	
1,2-Dichloroethane-D4	0.0491	0.0498	99	80-120	
Toluene-D8	0.0482	0.0498	97	81-117	

Lab Batch #: 702176 **Sample:** 498222-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0536	0.0500	107	74-121	
Dibromofluoromethane	0.0519	0.0500	104	80-120	
1,2-Dichloroethane-D4	0.0516	0.0500	103	80-120	
Toluene-D8	0.0466	0.0500	93	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 498222-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0501	0.0500	100	74-121	
Dibromofluoromethane	0.0507	0.0500	101	80-120	
1,2-Dichloroethane-D4	0.0482	0.0500	96	80-120	
Toluene-D8	0.0476	0.0500	95	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 498021-1-BKS **Matrix:** Solid

Date Analyzed: 08/08/2007 **Date Prepared:** 08/07/2007 **Analyst:** JAH

Reporting Units: mg/kg **Batch #:** 1

TPH by Texas1005 Analytes	BLANK /BLANK SPIKE RECOVERY STUDY					
	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C12 Gasoline Range Hydrocarbons	0.000	1000	731	73	70-135	
C12-C28 Diesel Range Hydrocarbons	0.000	1000	862	86	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701922 **Sample:** 498085-1-BKS **Matrix:** Water

Date Analyzed: 08/08/2007 **Date Prepared:** 08/08/2007 **Analyst:** JLA

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	<0.005	0.050	0.052	104	66-142	
Bromobenzene	<0.005	0.050	0.050	100	75-125	
Bromochloromethane	<0.005	0.050	0.052	104	73-125	
Bromodichloromethane	<0.005	0.050	0.053	106	75-125	
Bromoform	<0.005	0.050	0.048	96	75-125	
Methyl bromide	<0.005	0.050	0.033	66	70-130	L
MTBE	<0.005	0.050	0.059	118	75-125	
n-Butylbenzene	<0.005	0.050	0.055	110	75-125	
Sec-Butylbenzene	<0.005	0.050	0.055	110	75-125	
tert-Butylbenzene	<0.005	0.050	0.055	110	75-125	
Carbon Tetrachloride	<0.005	0.050	0.048	96	62-125	
Chlorobenzene	<0.005	0.050	0.048	96	60-133	
Chloroethane	<0.010	0.050	0.039	78	70-130	
Chloroform	<0.005	0.050	0.053	106	74-125	
Methyl Chloride	<0.010	0.050	0.043	86	70-130	
2-Chlorotoluene	<0.005	0.050	0.051	102	73-125	
4-Chlorotoluene	<0.005	0.050	0.053	106	74-125	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.056	112	75-125	
Dibromochloromethane	<0.005	0.050	0.049	98	73-125	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.059	118	59-125	
Methylene bromide	<0.005	0.050	0.054	108	69-127	
1,2-Dichlorobenzene	<0.005	0.050	0.054	108	75-125	
1,3-Dichlorobenzene	<0.005	0.050	0.051	102	75-125	
1,4-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
Dichlorodifluoromethane	<0.005	0.050	0.045	90	70-130	
1,1-Dichloroethane	<0.005	0.050	0.048	96	72-125	
1,2-Dichloroethane	<0.005	0.050	0.049	98	68-127	
1,1-Dichloroethene	<0.005	0.050	0.047	94	59-172	
cis-1,2-Dichloroethylene	<0.005	0.050	0.050	100	75-125	
trans-1,2-dichloroethylene	<0.005	0.050	0.046	92	75-125	
1,2-Dichloropropane	<0.005	0.050	0.054	108	74-125	
1,3-Dichloropropane	<0.005	0.050	0.050	100	75-125	
2,2-Dichloropropane	<0.005	0.050	0.050	100	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 701922 **Sample:** 498085-1-BKS **Matrix:** Water

Date Analyzed: 08/08/2007 **Date Prepared:** 08/08/2007 **Analyst:** JLA

Reporting Units: mg/L **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
1,1-Dichloropropene	<0.005	0.050	0.048	96	75-125	
cis-1,3-Dichloropropene	<0.005	0.050	0.054	108	74-125	
trans-1,3-dichloropropene	<0.005	0.050	0.050	100	66-125	
Ethylbenzene	<0.005	0.050	0.050	100	75-125	
Hexachlorobutadiene	<0.005	0.050	0.053	106	75-125	
isopropylbenzene	<0.005	0.050	0.055	110	75-125	
Methylene Chloride	<0.005	0.050	0.051	102	75-125	
Naphthalene	<0.010	0.050	0.066	132	75-125	H
n-Propylbenzene	<0.005	0.050	0.053	106	75-125	
Styrene	<0.005	0.050	0.051	102	75-125	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.048	96	72-125	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.053	106	74-125	
Tetrachloroethylene	<0.005	0.050	0.042	84	71-125	
Toluene	<0.005	0.050	0.051	102	59-139	
1,2,3-Trichlorobenzene	<0.005	0.050	0.061	122	75-137	
1,2,4-Trichlorobenzene	<0.005	0.050	0.058	116	75-135	
1,1,1-Trichloroethane	<0.005	0.050	0.048	96	75-125	
1,1,2-Trichloroethane	<0.005	0.050	0.051	102	75-127	
Trichloroethylene	<0.005	0.050	0.047	94	62-137	
Trichlorofluoromethane	<0.005	0.050	0.041	82	67-125	
1,2,3-Trichloropropane	<0.005	0.050	0.061	122	75-125	
1,2,4-Trimethylbenzene	<0.005	0.050	0.053	106	75-125	
1,3,5-Trimethylbenzene	<0.005	0.050	0.054	108	70-125	
o-Xylene	<0.005	0.050	0.049	98	75-125	
m,p-Xylene	<0.010	0.100	0.096	96	75-125	
Vinyl Chloride	<0.002	0.050	0.044	88	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 498222-1-BKS **Matrix:** Solid

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
			BLANK /BLANK SPIKE RECOVERY STUDY			
Benzene	<0.005	0.050	0.046	92	66-142	
Bromobenzene	<0.005	0.050	0.051	102	75-125	
Bromochloromethane	<0.005	0.050	0.048	96	73-125	
Bromodichloromethane	<0.005	0.050	0.052	104	75-125	
Bromoform	<0.005	0.050	0.049	98	75-125	
Methyl bromide	<0.005	0.050	0.037	74	65-135	
MTBE	<0.005	0.050	0.055	110	75-125	
tert-Butylbenzene	<0.005	0.050	0.050	100	75-125	
Sec-Butylbenzene	<0.005	0.050	0.050	100	75-125	
n-Butylbenzene	<0.005	0.050	0.047	94	75-125	
Carbon Tetrachloride	<0.005	0.050	0.052	104	62-125	
Chlorobenzene	<0.005	0.050	0.047	94	60-133	
Chloroethane	<0.010	0.050	0.039	78	65-135	
Chloroform	<0.005	0.050	0.049	98	74-125	
Methyl Chloride	<0.010	0.050	0.044	88	65-135	
2-Chlorotoluene	<0.005	0.050	0.049	98	73-125	
4-Chlorotoluene	<0.005	0.050	0.050	100	74-125	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.050	100	75-125	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.060	120	59-125	
Dibromochloromethane	<0.005	0.050	0.049	98	73-125	
Methylene bromide	<0.005	0.050	0.050	100	69-127	
1,2-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
1,3-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
1,4-Dichlorobenzene	<0.005	0.050	0.047	94	75-125	
Dichlorodifluoromethane	<0.005	0.050	0.038	76	65-135	
1,2-Dichloroethane	<0.005	0.050	0.049	98	68-127	
1,1-Dichloroethane	<0.005	0.050	0.043	86	72-125	
trans-1,2-dichloroethylene	<0.005	0.050	0.043	86	75-125	
cis-1,2-Dichloroethylene	<0.005	0.050	0.046	92	75-125	
1,1-Dichloroethene	<0.005	0.050	0.042	84	59-172	
2,2-Dichloropropane	<0.005	0.050	0.050	100	75-125	
1,3-Dichloropropane	<0.005	0.050	0.046	92	75-125	
1,2-Dichloropropane	<0.005	0.050	0.048	96	74-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill

Work Order #: 287390 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 498222-1-BKS **Matrix:** Solid

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
trans-1,3-dichloropropene	<0.005	0.050	0.048	96	66-125	
1,1-Dichloropropene	<0.005	0.050	0.043	86	75-125	
cis-1,3-Dichloropropene	<0.005	0.050	0.052	104	74-125	
Ethylbenzene	<0.005	0.050	0.047	94	75-125	
Hexachlorobutadiene	<0.005	0.050	0.038	76	75-125	
isopropylbenzene	<0.005	0.050	0.052	104	75-125	
Methylene Chloride	<0.020	0.050	0.043	86	75-125	
Naphthalene	<0.010	0.050	0.056	112	75-125	
n-Propylbenzene	<0.005	0.050	0.052	104	75-125	
Styrene	<0.005	0.050	0.048	96	75-125	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.047	94	72-125	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.050	100	74-125	
Tetrachloroethylene	<0.005	0.050	0.044	88	71-125	
Toluene	<0.005	0.050	0.046	92	59-139	
1,2,4-Trichlorobenzene	<0.005	0.050	0.049	98	75-135	
1,2,3-Trichlorobenzene	<0.005	0.050	0.051	102	75-137	
1,1,2-Trichloroethane	<0.005	0.050	0.046	92	75-127	
1,1,1-Trichloroethane	<0.005	0.050	0.051	102	75-125	
Trichloroethylene	<0.005	0.050	0.045	90	62-137	
Trichlorofluoromethane	<0.005	0.050	0.048	96	67-125	
1,2,3-Trichloropropane	<0.005	0.050	0.057	114	75-125	
1,2,4-Trimethylbenzene	<0.005	0.050	0.050	100	75-125	
1,3,5-Trimethylbenzene	<0.005	0.050	0.051	102	70-130	
Vinyl Chloride	<0.002	0.050	0.047	94	65-135	
o-Xylene	<0.005	0.050	0.047	94	75-125	
m,p-Xylene	<0.010	0.100	0.093	93	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Bunker Hill

Work Order #: 287390
Analyst: FKH
Lab Batch ID: 701812
Sample: 498016-1-BKS
Units: mg/L

Date Prepared: 08/07/2007
Batch #: 1

Project ID: 07.12.034
Date Analyzed: 08/07/2007
Matrix: Water

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<5.00	100	116	116	100.0	102	102	13	70-135	25	
C12-C28 Diesel Range Hydrocarbons	<5.00	100	101	101	100.0	104	104	3	70-135	25	

Relative Percent Difference RPD = 200*|(D-F)/(D+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 701832 **QC- Sample ID:** 287390-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/07/2007 **Date Prepared:** 08/07/2007 **Analyst:** JAH

Reporting Units: mg/kg

TPH by Texas1005 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<50.0	991	1000	101	996	1000	100	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<50.0	991	888	90	996	855	86	5	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 701922 **QC- Sample ID:** 287390-008 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/08/2007 **Date Prepared:** 08/08/2007 **Analyst:** JLA

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.005	0.050	0.047	94	0.050	0.046	92	2	66-142	21	
Bromobenzene	<0.005	0.050	0.047	94	0.050	0.046	92	2	75-125	20	
Bromochloromethane	<0.005	0.050	0.047	94	0.050	0.046	92	2	73-125	20	
Bromodichloromethane	<0.005	0.050	0.047	94	0.050	0.047	94	0	75-125	20	
Bromoform	<0.005	0.050	0.044	88	0.050	0.047	94	7	75-125	20	
Methyl bromide	<0.005	0.050	0.035	70	0.050	0.030	60	15	70-130	20	X
MTBE	<0.005	0.050	0.053	106	0.050	0.053	106	0	75-125	20	
n-Butylbenzene	<0.005	0.050	0.048	96	0.050	0.049	98	2	75-125	20	
Sec-Butylbenzene	<0.005	0.050	0.050	100	0.050	0.050	100	0	75-125	20	
tert-Butylbenzene	<0.005	0.050	0.050	100	0.050	0.049	98	2	75-125	20	
Carbon Tetrachloride	<0.005	0.050	0.046	92	0.050	0.046	92	0	62-125	20	
Chlorobenzene	<0.005	0.050	0.047	94	0.050	0.045	90	4	60-133	21	
Chloroethane	<0.010	0.050	0.035	70	0.050	0.037	74	6	70-130	20	
Chloroform	<0.005	0.050	0.047	94	0.050	0.046	92	2	74-125	20	
Methyl Chloride	<0.010	0.050	0.043	86	0.050	0.041	82	5	70-130	20	
2-Chlorotoluene	<0.005	0.050	0.047	94	0.050	0.046	92	2	73-125	20	
4-Chlorotoluene	<0.005	0.050	0.047	94	0.050	0.047	94	0	74-125	20	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.049	98	0.050	0.051	102	4	75-125	20	
Dibromochloromethane	<0.005	0.050	0.047	94	0.050	0.045	90	4	73-125	20	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.050	100	0.050	0.056	112	11	59-125	28	
Methylene bromide	<0.005	0.050	0.047	94	0.050	0.049	98	4	69-127	23	
1,2-Dichlorobenzene	<0.005	0.050	0.050	100	0.050	0.048	96	4	75-125	20	
1,3-Dichlorobenzene	<0.005	0.050	0.047	94	0.050	0.047	94	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 701922 **QC- Sample ID:** 287390-008 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/08/2007 **Date Prepared:** 08/08/2007 **Analyst:** JLA

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.005	0.050	0.046	92	0.050	0.045	90	2	75-125	20	
Dichlorodifluoromethane	<0.005	0.050	0.044	88	0.050	0.041	82	7	70-130	23	
1,1-Dichloroethane	<0.005	0.050	0.043	86	0.050	0.042	84	2	72-125	20	
1,2-Dichloroethane	<0.005	0.050	0.045	90	0.050	0.043	86	5	68-127	20	
1,1-Dichloroethene	<0.005	0.050	0.043	86	0.050	0.041	82	5	59-172	22	
cis-1,2-Dichloroethylene	<0.005	0.050	0.046	92	0.050	0.043	86	7	75-125	20	
trans-1,2-dichloroethylene	<0.005	0.050	0.042	84	0.050	0.041	82	2	75-125	20	
1,2-Dichloropropane	<0.005	0.050	0.048	96	0.050	0.048	96	0	74-125	20	
1,3-Dichloropropane	<0.005	0.050	0.047	94	0.050	0.045	90	4	75-125	20	
2,2-Dichloropropane	<0.005	0.050	0.047	94	0.050	0.045	90	4	75-125	20	
1,1-Dichloropropene	<0.005	0.050	0.044	88	0.050	0.043	86	2	75-125	20	
cis-1,3-Dichloropropene	<0.005	0.050	0.050	100	0.050	0.049	98	2	74-125	20	
trans-1,3-dichloropropene	<0.005	0.050	0.047	94	0.050	0.046	92	2	66-125	20	
Ethylbenzene	<0.005	0.050	0.047	94	0.050	0.046	92	2	75-125	20	
Hexachlorobutadiene	<0.005	0.050	0.046	92	0.050	0.050	100	8	75-125	20	
isopropylbenzene	<0.005	0.050	0.054	108	0.050	0.052	104	4	75-125	20	
Methylene Chloride	<0.005	0.050	0.046	92	0.050	0.046	92	0	75-125	35	
Naphthalene	<0.010	0.050	0.058	116	0.050	0.059	118	2	75-125	20	
n-Propylbenzene	<0.005	0.050	0.049	98	0.050	0.049	98	0	75-125	20	
Styrene	<0.005	0.050	0.048	96	0.050	0.047	94	2	75-125	51	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.048	96	0.050	0.046	92	4	72-125	20	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.050	100	0.050	0.052	104	4	74-125	31	
Tetrachloroethylene	<0.005	0.050	0.042	84	0.050	0.040	80	5	71-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 701922 **QC- Sample ID:** 287390-008 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 08/08/2007 **Date Prepared:** 08/08/2007 **Analyst:** JLA

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	<0.005	0.050	0.048	96	0.050	0.045	90	6	59-139	21	
1,2,3-Trichlorobenzene	<0.005	0.050	0.054	108	0.050	0.055	110	2	75-137	20	
1,2,4-Trichlorobenzene	<0.005	0.050	0.053	106	0.050	0.055	110	4	75-135	20	
1,1,1-Trichloroethane	<0.005	0.050	0.046	92	0.050	0.045	90	2	75-125	20	
1,1,2-Trichloroethane	<0.005	0.050	0.047	94	0.050	0.046	92	2	75-127	20	
Trichloroethylene	<0.005	0.050	0.043	86	0.050	0.042	84	2	62-137	24	
Trichlorofluoromethane	<0.005	0.050	0.043	86	0.050	0.041	82	5	67-125	20	
1,2,3-Trichloropropane	<0.005	0.050	0.056	112	0.050	0.056	112	0	75-125	20	
1,2,4-Trimethylbenzene	<0.005	0.050	0.049	98	0.050	0.048	96	2	75-125	20	
1,3,5-Trimethylbenzene	<0.005	0.050	0.051	102	0.050	0.050	100	2	70-125	20	
o-Xylene	<0.005	0.050	0.048	96	0.050	0.046	92	4	75-125	20	
m,p-Xylene	<0.010	0.100	0.092	92	0.100	0.089	89	3	75-125	20	
Vinyl Chloride	<0.002	0.050	0.045	90	0.050	0.042	84	7	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*(D-G)/(D+G)

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 702176 **QC- Sample ID:** 287390-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.005	0.050	0.046	92	0.050	0.049	98	6	66-142	21	
Bromobenzene	<0.005	0.050	0.049	98	0.050	0.053	106	8	75-125	25	
Bromochloromethane	<0.005	0.050	0.047	94	0.050	0.053	106	12	73-125	20	
Bromodichloromethane	<0.005	0.050	0.053	106	0.050	0.055	110	4	75-125	20	
Bromoform	<0.005	0.050	0.054	108	0.050	0.055	110	2	75-125	20	
Methyl bromide	<0.005	0.050	0.033	66	0.050	0.039	78	17	65-135	20	
MTBE	<0.005	0.050	0.058	116	0.050	0.059	118	2	75-125	20	
tert-Butylbenzene	<0.005	0.050	0.054	108	0.050	0.054	108	0	75-125	25	
Sec-Butylbenzene	<0.005	0.050	0.055	110	0.050	0.053	106	4	75-125	25	
n-Butylbenzene	<0.005	0.050	0.054	108	0.050	0.050	100	8	75-125	25	
Carbon Tetrachloride	<0.005	0.050	0.054	108	0.050	0.056	112	4	62-125	20	
Chlorobenzene	<0.005	0.050	0.048	96	0.050	0.050	100	4	60-133	21	
Chloroethane	<0.010	0.050	0.039	78	0.050	0.039	78	0	65-135	20	
Chloroform	<0.005	0.050	0.050	100	0.050	0.054	108	8	74-125	20	
Methyl Chloride	<0.010	0.050	0.041	82	0.050	0.044	88	7	65-135	20	
2-Chlorotoluene	<0.005	0.050	0.050	100	0.050	0.052	104	4	73-125	25	
4-Chlorotoluene	<0.005	0.050	0.048	96	0.050	0.049	98	2	74-125	25	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.055	110	0.050	0.054	108	2	75-125	25	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.070	140	0.050	0.070	140	0	59-125	28	X
Dibromochloromethane	<0.005	0.050	0.050	100	0.050	0.054	108	8	73-125	25	
Methylene bromide	<0.005	0.050	0.053	106	0.050	0.055	110	4	69-127	23	
1,2-Dichlorobenzene	<0.005	0.050	0.053	106	0.050	0.053	106	0	75-125	25	
1,3-Dichlorobenzene	<0.005	0.050	0.051	102	0.050	0.052	104	2	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO Laboratories

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 702176 **QC- Sample ID:** 287390-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.005	0.050	0.047	94	0.050	0.050	100	6	75-125	25	
Dichlorodifluoromethane	<0.005	0.050	0.039	78	0.050	0.039	78	0	65-135	23	
1,2-Dichloroethane	<0.005	0.050	0.049	98	0.050	0.052	104	6	68-127	20	
1,1-Dichloroethane	<0.005	0.050	0.043	86	0.050	0.046	92	7	72-125	20	
trans-1,2-dichloroethylene	<0.005	0.050	0.042	84	0.050	0.043	86	2	75-125	20	
cis-1,2-Dichloroethylene	<0.005	0.050	0.046	92	0.050	0.050	100	8	75-125	20	
1,1-Dichloroethene	<0.005	0.050	0.045	90	0.050	0.045	90	0	59-172	22	
2,2-Dichloropropane	<0.005	0.050	0.055	110	0.050	0.058	116	5	75-125	25	
1,3-Dichloropropane	<0.005	0.050	0.049	98	0.050	0.048	96	2	75-125	25	
1,2-Dichloropropane	<0.005	0.050	0.048	96	0.050	0.052	104	8	74-125	20	
trans-1,3-dichloropropene	<0.005	0.050	0.050	100	0.050	0.053	106	6	66-125	20	
1,1-Dichloropropene	<0.005	0.050	0.047	94	0.050	0.045	90	4	75-125	25	
cis-1,3-Dichloropropene	<0.005	0.050	0.050	100	0.050	0.053	106	6	74-125	20	
Ethylbenzene	<0.005	0.050	0.049	98	0.050	0.050	100	2	75-125	20	
Hexachlorobutadiene	<0.005	0.050	0.060	120	0.050	0.043	86	33	75-125	25	F
isopropylbenzene	<0.005	0.050	0.059	118	0.050	0.056	112	5	75-125	25	
Methylene Chloride	<0.020	0.050	0.043	86	0.050	0.047	94	9	75-125	35	
Naphthalene	<0.010	0.050	0.069	138	0.050	0.061	122	12	75-125	25	X
n-Propylbenzene	<0.005	0.050	0.052	104	0.050	0.053	106	2	75-125	25	
Styrene	<0.005	0.050	0.050	100	0.050	0.051	102	2	75-125	51	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.049	98	0.050	0.051	102	4	72-125	20	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.054	108	0.050	0.052	104	4	74-125	31	
Tetrachloroethylene	<0.005	0.050	0.045	90	0.050	0.044	88	2	71-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill

Work Order # : 287390 **Project ID:** 07.12.034

Lab Batch ID: 702176 **QC- Sample ID:** 287390-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	<0.005	0.050	0.048	96	0.050	0.048	96	0	59-139	21	
1,2,4-Trichlorobenzene	<0.005	0.050	0.061	122	0.050	0.051	102	18	75-135	25	
1,2,3-Trichlorobenzene	<0.005	0.050	0.065	130	0.050	0.053	106	20	75-137	25	
1,1,2-Trichloroethane	<0.005	0.050	0.048	96	0.050	0.050	100	4	75-127	20	
1,1,1-Trichloroethane	<0.005	0.050	0.052	104	0.050	0.055	110	6	75-125	20	
Trichloroethylene	<0.005	0.050	0.047	94	0.050	0.050	100	6	62-137	24	
Trichlorofluoromethane	<0.005	0.050	0.049	98	0.050	0.048	96	2	67-125	20	
1,2,3-Trichloropropane	<0.005	0.050	0.062	124	0.050	0.060	120	3	75-125	20	
1,2,4-Trimethylbenzene	<0.005	0.050	0.052	104	0.050	0.052	104	0	75-125	25	
1,3,5-Trimethylbenzene	<0.005	0.050	0.054	108	0.050	0.055	110	2	70-130	25	
Vinyl Chloride	<0.002	0.050	0.045	90	0.050	0.045	90	0	65-135	20	
o-Xylene	<0.005	0.050	0.051	102	0.050	0.050	100	2	75-125	20	
m,p-Xylene	<0.010	0.100	0.097	97	0.100	0.097	97	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO
☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☐ 5309 Wurzbach, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Lane, Suite D, Dallas, TX 75229 972-481-9999
☐ 5757 N.W. 158th Street, Miami Lakes, Fl 33014 305-823-8500
☐ 2618 South Falkenburg Rd, Riverview, Fl 33569 813-620-2000

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

LAB ONLY: 287390-H

Serial #: 186357 Page 1 of 2

Company City: Blumay-Wang Phone: 713-722-7064

TAT: 5h 12h 24h 48h 3d 5d 7d 10d 21d (Standard TAT is project specific.)
It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Project Name: Bunker Hill ☐Previously performed at XENCO Site

Project ID: 07.12.034

Proj. Manager (PM): A. Kunza

Fax Results to ☐ PM or Fax No:

e-mail to: akunza@tweinc.com

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O

Bill to:

Quote No: P.O No: ☐ Call for a P.O.

Reg Program: CLP AFCEE TRRP DW UST State Other:

Target DLs (DW CRDL TRRP QAPP MDLs See Lab PM Attached Call)

TRRP PCLs: Tier 1 Tier 2 Residential Industrial

LPST No.:(Required)

Sampler Name Signature

#	Sample ID	Sampling Date	Time	Depth ft In" m	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	BTEX by 8021 8260 602 624 Other	BTEX-MTBE by 8021 8260 624 Other	TPH by TX1005 FL-Pro 1664 8015GRO 8015DRO 418.1	PAHs by 8270 8310	Metals by 6020 200.8 8RCRA Tot Pb TCLP8 13PP 23TAL	VOCs by 8021 624 VOA VOH PPs TCL	SVOCs by 8270 625 PAHs BN&A TCL PPs	FL Prebum - Revised: Virgin Non-Virgin
1	EB-7	8/6/07	940	6-8	S		X	4	4	J	—			X					
2	EB-7		940	6-8				1									X		
3	EB-8		1046	8-10										X					
4	EB-8		1046	8-10													X		
5	EB-9		1155	4-6										X					
6	EB-9		1155	4-6													X		
7	EB-7		1000		W		X	2	V	C				X					
8	EB-7		1000					3	V	A							X		
9	EB-8		1111					2	V	C				X					
10	EB-8		1111					3	V	A							X		

Standard.

TAT 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn: PAH above mg/L W, mg/Kg S Highest Hit	Hold Disposal Hold Analysis (Surcharges will apply)	Sample Clean-ups are pre-approved

Remarks

Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	8/6 4:30		8/6 4:30
2	8/6/07 9:35		
3	8/6/07 9:50	Lab:	8/7/07 0950

Rush Charges are Pre-Approved upon requesting them.

Instructions:

All XENCO Standard Terms and Conditions Apply.

Containers Received: 21 Cooler Temperature: 1.8°C

Preservatives: Various (**V**), HCl pH<2 (**H**), H2SO4 pH<2 (**S**), HNO3 pH<2 (**N**), Asbc Acid&NaOH (**A**), ZnAc&NaOH (**Z**), (Cool,<4C) (**C**), None (**NA**), See Label (**L**), Other (**O**) _____

Cont. Size: 4oz (**4**), 8oz (**8**), 32oz (**32**), 40ml VOA (**V**), 1L (**1**), 500ml (**5**), Tedlar Bag (**B**), Wipe (**W**), Other _____ **Cont. Type:** Glass Amb (**A**), Glass Clear (**C**), Plastic (**P**), Other (**O**) _____

Matrix: Air (A), Product (P), Solid(S), Water (W)

287390-H

XENCO
☐ 11381 Meadowglen, Ste L, Houston TX 77082 281-589-0692
☐ 5309 Wurzbach Rd, Ste 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Ln, Ste D, Dallas, TX 75229 972-481-9999
☐ 5757 N.W. 158th Street, Miami Lakes, Fl 33014 305-823-8500
☐ 2618 South Falkenburg Rd, Riverview, Fl 33569 813-620-2000

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

Serial #: 146736

Lab Only: 287390-H

Company: Tolunay Wang	Phone: 713-722-7064
Project Name-State: Bunker Hill ☑ Previously done at XENCO	Project ID: 07.12.034
Site/Location	Proj. Manager (PM)
Fax Results to ☐ PM and / or	Fax No:
e-mail Final Report to: akunza@twcinc.com	
Invoice to ☐ Accounting ☐ Invoice with Final Report ☐ Invoice must have a P.O.	
Bill to:	
Quote No:	P.O No: ☐ Call for a P.O.
Reg Program: CLP AFCEE TRRP DW UST Other:	
Special DLs (GW DW TRRP QAPP MDLs See Lab PM Included Call PM)	
Specifications: Level I II III IV Custom with Raw Data EDD Dry Basis	
Sampler Name	Signature

TAT: 5h 12h 24h 48h 3d 5d 7d 10d 14d 21d Standard TAT is Quote Specific, please circle your required TAT.

#	Sample ID	Sampling Date	Time	Depth ft' in" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Container Type	Preservatives
1	EB-9	8/6/07	1232		W		X	2	V	C	—
2	EB-9	8/6/07	1232		W		X	3	V	A	—
3											
4											
5											
6											
7											
8											
9											
10											

#	BTEX by 8021 8260 602 624 Other	BTEX-MTBE by 8021 8260 624 Other	TPH by TX1005 FL-Pro 418.1 8015GRO 8015DRO 1664	PAHs by 8270 8100 8310	Metals by 6010 or 6020 8RCRA Tot Pb TCLP8 13PP 23TAL	VOCs by 8021 8260 624 VOA VOH PPs TCL TCLP	SVOCs by 8270 625 PAHs BN&A TCL PPs TCLP	FL Preburn or Revised Preburn
1			X					
2						X		

TAT 5h 12h 24h 48h 3d 5d 7d 10d 14d 21d

Addn: PAH above mg/L W, mg/Kg S Highest Hit

Hold: Analysis Disposal

Remarks

Addn: Date Rcv by: From:

Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	8/6 4:30		8/6 4:30
2	8/7/07 9:35		
3	8/7/07 9:50	Lab:	8/7/07 0952

Total Containers per COC: Cooler Temp:

Specific Fax Due Date: ☐ Rush Preliminary Results Cost Approved

☐ Rush Data Package cost preapproved

Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool,<4C) (C), None (NA), See Label (L), Other (O) _____

Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (5), Tedlar Bag (B), Wipe (W), Other _____ **Cont. Type:** Glass Amb (A), Glass Clear (C), Plastic (P), Other (O) _____

Matrix: Air (A), Product (P), Solid(S), Water (W)

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: FWR

Date/ Time: 8/7/17

Lab ID # : 287390-17

Initials:

Sample Receipt Checklist

#1 Temperature of container/ cooler?	(Yes)	No	N/A	1.8 °C
#2 Shipping container in good condition?	(Yes)	No	None	
#3 Samples received on ice?	(Yes)	No	N/A	Blue/Water
#4 Custody Seals intact on shipping container/ cooler?	(Yes)	No	N/A	
#5 Custody Seals intact on sample bottles/ container?	Yes	(No)		
#6 Chain of Custody present?	(Yes)	No		
#7 Sample instructions complete of Chain of Custody?	(Yes)	No		
#8 Any missing/extra samples?	Yes	(No)		
#9 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#10 Chain of Custody agrees with sample label(s)?	(Yes)	No		
#11 Container label(s) legible and intact?	(Yes)	No		
#12 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#13 Samples in proper container/ bottle?	(Yes)	No		
#14 Samples properly preserved?	(Yes)	No	N/A	
#15 Sample container intact?	(Yes)	No		
#16 Sufficient sample amount for indicated test(s)?	(Yes)	No		
#17 All samples received within sufficient hold time?	(Yes)	No		
#18 Subcontract of sample(s)?	Yes	No	N/A	
#19 VOC samples have zero headspace?	(Yes)	No	N/A	

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

☐ Client understands and would like to proceed with analysis

☐ Cooling process had begun shortly after sampling event

(City) (State) (Zip Code)

(f) Name and address of offeror's cognizant Government Defense Contract Audit Agency (DCAA) office.

(Name of Cognizant Government DCAA Office)

(Street Address)

(City) (State) (Zip Code)

(g) Name and address of offeror's cognizant Government DCMAO Office.

(Name of Cognizant Government DCMAO Office)

(Street Address)

(City) (State) (Zip Code)

K.4 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, ETC. (Jan 2001) (Based on FAR 52.209-5)

(a) (1) The Offeror certifies, to the best of its knowledge and belief, that --

(i) The Offeror and/or any of its Principals --

(A) **Are** [ ] are **not** [ ] presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) **Have** [ ] **have not** [ ], within the three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) **Are** [ ] are **not** [ ] presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a) (1) (i) (B) of this provision; and

(ii)

(A) The offeror, aside from the offenses enumerated in paragraphs (a)(1)(i)(A), (B), and (C) of this provision, **has** [ ] **has not** [ ] within the past three years, relative to tax, labor and employment, environmental, antitrust, or consumer protection laws --

(1) Been convicted of a Federal or state felony (or has any Federal or state felony indictments currently pending against them); or

Analytical Report 287312

for

Tolunay-Wong Engineers, Inc.

Project Manager: Amy Kunza

Bunker Hill Improvements Project

07.12.034

14-AUG-07

11381 Meadowglen, Suite L Houston, TX 77082 Ph:(281) 589-0692 Fax:(281) 589-0695

NELAC certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

14-AUG-07

Project Manager: **Amy Kunza**
Tolunay-Wong Engineers, Inc.
10710 S. Sam Houston Parkway W.,
Suite 100
Houston, TX 77031

Reference: XENCO Report No: **287312**
Bunker Hill Improvements Project
Project Address:

Amy Kunza:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 287312. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 287312 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Carlos A. Castro, Ph.D., MBA
Managing Director, Texas

Certificate of Analysis Summary 287312

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-04-07 11:09 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287312-001		287312-002		287312-003		287312-004	
	Field Id:	EB-3		EB-3		EB-4		EB-4	
	Depth:	16-18 ft		16-18 ft		4-6 ft		4-6 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-03-07 12:22		Aug-03-07 12:22		Aug-03-07 13:02		Aug-03-07 13:02	
TPH by Texas1005	***Extracted:***	Aug-07-07 15:21				Aug-07-07 15:24			
	Analyzed:	Aug-07-07 21:32				Aug-07-07 22:04			
	Units/RL:	mg/kg	RL			mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		BRL	49.9			BRL	50.0		
C12-C28 Diesel Range Hydrocarbons		BRL	49.9			BRL	50.0		
C28-C35 Oil Range Hydrocarbons		BRL	49.9			BRL	50.0		
Total TPH 1005		BRL				BRL			

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287312
Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-04-07 11:09 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287312-001		287312-002		287312-003		287312-004	
	Field Id:	EB-3		EB-3		EB-4		EB-4	
	Depth:	16-18 ft		16-18 ft		4-6 ft		4-6 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-03-07 12:22		Aug-03-07 12:22		Aug-03-07 13:02		Aug-03-07 13:02	
VOAs by SW-846 8260B	***Extracted:***			Aug-13-07 11:42				Aug-13-07 11:44	
	Analyzed:			Aug-13-07 15:10				Aug-13-07 15:32	
	Units/RL:			mg/kg	RL			mg/kg	RL
Benzene				BRL	0.005			BRL	0.005
Bromobenzene				BRL	0.005			BRL	0.005
Bromochloromethane				BRL	0.005			BRL	0.005
Bromodichloromethane				BRL	0.005			BRL	0.005
Bromoform				BRL	0.005			BRL	0.005
Methyl bromide				BRL	0.005			BRL	0.005
MTBE				BRL	0.005			BRL	0.005
tert-Butylbenzene				BRL	0.005			BRL	0.005
Sec-Butylbenzene				BRL	0.005			BRL	0.005
n-Butylbenzene				BRL	0.005			BRL	0.005
Carbon Tetrachloride				BRL	0.005			BRL	0.005
Chlorobenzene				BRL	0.005			BRL	0.005
Chloroethane				BRL	0.010			BRL	0.010
Chloroform				BRL	0.005			BRL	0.005
Methyl Chloride				BRL	0.010			BRL	0.010
2-Chlorotoluene				BRL	0.005			BRL	0.005
4-Chlorotoluene				BRL	0.005			BRL	0.005
p-Cymene (p-Isopropyltoluene)				BRL	0.005			BRL	0.005
1,2-Dibromo-3-Chloropropane				BRL	0.005			BRL	0.005
Dibromochloromethane				BRL	0.005			BRL	0.005
Methylene bromide				BRL	0.005			BRL	0.005
1,2-Dichlorobenzene				BRL	0.005			BRL	0.005
1,3-Dichlorobenzene				BRL	0.005			BRL	0.005
1,4-Dichlorobenzene				BRL	0.005			BRL	0.005
Dichlorodifluoromethane				BRL	0.005			BRL	0.005
1,2-Dichloroethane				BRL	0.005			BRL	0.005
1,1-Dichloroethane				BRL	0.005			BRL	0.005
trans-1,2-dichloroethylene				BRL	0.005			BRL	0.005
cis-1,2-Dichloroethylene				BRL	0.005			BRL	0.005
1,1-Dichloroethene				BRL	0.005			BRL	0.005
2,2-Dichloropropane				BRL	0.005			BRL	0.005
1,3-Dichloropropane				BRL	0.005			BRL	0.005
1,2-Dichloropropane				BRL	0.005			BRL	0.005
trans-1,3-dichloropropene				BRL	0.005			BRL	0.005

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287312
Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-04-07 11:09 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287312-001		287312-002		287312-003		287312-004	
	Field Id:	EB-3		EB-3		EB-4		EB-4	
	Depth:	16-18 ft		16-18 ft		4-6 ft		4-6 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-03-07 12:22		Aug-03-07 12:22		Aug-03-07 13:02		Aug-03-07 13:02	
VOAs by SW-846 8260B	***Extracted:***			Aug-13-07 11:42				Aug-13-07 11:44	
	Analyzed:			Aug-13-07 15:10				Aug-13-07 15:32	
	Units/RL:			mg/kg	RL			mg/kg	RL
1,1-Dichloropropene				BRL	0.005			BRL	0.005
cis-1,3-Dichloropropene				BRL	0.005			BRL	0.005
Ethylbenzene				BRL	0.005			BRL	0.005
Hexachlorobutadiene				BRL	0.005			BRL	0.005
isopropylbenzene				BRL	0.005			BRL	0.005
Methylene Chloride				BRL	0.020			BRL	0.020
Naphthalene				BRL	0.010			BRL	0.010
n-Propylbenzene				BRL	0.005			BRL	0.005
Styrene				BRL	0.005			BRL	0.005
1,1,1,2-Tetrachloroethane				BRL	0.005			BRL	0.005
1,1,2,2-Tetrachloroethane				BRL	0.005			BRL	0.005
Tetrachloroethylene				BRL	0.005			BRL	0.005
Toluene				BRL	0.005			BRL	0.005
1,2,4-Trichlorobenzene				BRL	0.005			BRL	0.005
1,2,3-Trichlorobenzene				BRL	0.005			BRL	0.005
1,1,2-Trichloroethane				BRL	0.005			BRL	0.005
1,1,1-Trichloroethane				BRL	0.005			BRL	0.005
Trichloroethylene				BRL	0.005			BRL	0.005
Trichlorofluoromethane				BRL	0.005			BRL	0.005
1,2,3-Trichloropropane				BRL	0.005			BRL	0.005
1,2,4-Trimethylbenzene				BRL	0.005			BRL	0.005
1,3,5-Trimethylbenzene				BRL	0.005			BRL	0.005
Vinyl Chloride				BRL	0.002			BRL	0.002
o-Xylene				BRL	0.005			BRL	0.005
m,p-Xylene				BRL	0.010			BRL	0.010

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287312

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-04-07 11:09 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested									
	Lab Id:	287312-005		287312-006		287312-007			
	Field Id:	EB-5		EB-5		EB-6			
	Depth:	6-8 ft		6-8 ft		14-16 ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Aug-03-07 14:12		Aug-03-07 14:12		Aug-03-07 15:39			
TPH by Texas1005	***Extracted:***	Aug-07-07 15:27							
	Analyzed:	Aug-07-07 22:37							
	Units/RL:	mg/kg	RL						
C6-C12 Gasoline Range Hydrocarbons		BRL	49.6						
C12-C28 Diesel Range Hydrocarbons		BRL	49.6						
C28-C35 Oil Range Hydrocarbons		BRL	49.6						
Total TPH 1005		BRL							

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287312
Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-04-07 11:09 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested								
	Lab Id:	287312-005		287312-006		287312-007		
	Field Id:	EB-5		EB-5		EB-6		
	Depth:	6-8 ft		6-8 ft		14-16 ft		
	Matrix:	SOIL		SOIL		SOIL		
	Sampled:	Aug-03-07 14:12		Aug-03-07 14:12		Aug-03-07 15:39		
VOAs by SW-846 8260B	***Extracted:***			Aug-10-07 13:29		Aug-13-07 11:46		
	Analyzed:			Aug-10-07 21:15		Aug-13-07 15:54		
	Units/RL:			mg/kg	RL	mg/kg	RL	
Benzene				BRL	0.005	BRL	0.005	
Bromobenzene				BRL	0.005	BRL	0.005	
Bromochloromethane				BRL	0.005	BRL	0.005	
Bromodichloromethane				BRL	0.005	BRL	0.005	
Bromoform				BRL	0.005	BRL	0.005	
Methyl bromide				BRL	0.005	BRL	0.005	
MTBE				BRL	0.005	BRL	0.005	
tert-Butylbenzene				BRL	0.005	BRL	0.005	
Sec-Butylbenzene				BRL	0.005	BRL	0.005	
n-Butylbenzene				BRL	0.005	BRL	0.005	
Carbon Tetrachloride				BRL	0.005	BRL	0.005	
Chlorobenzene				BRL	0.005	BRL	0.005	
Chloroethane				BRL	0.010	BRL	0.010	
Chloroform				BRL	0.005	BRL	0.005	
Methyl Chloride				BRL	0.010	BRL	0.010	
2-Chlorotoluene				BRL	0.005	BRL	0.005	
4-Chlorotoluene				BRL	0.005	BRL	0.005	
p-Cymene (p-Isopropyltoluene)				BRL	0.005	BRL	0.005	
1,2-Dibromo-3-Chloropropane				BRL	0.005	BRL	0.005	
Dibromochloromethane				BRL	0.005	BRL	0.005	
Methylene bromide				BRL	0.005	BRL	0.005	
1,2-Dichlorobenzene				BRL	0.005	BRL	0.005	
1,3-Dichlorobenzene				BRL	0.005	BRL	0.005	
1,4-Dichlorobenzene				BRL	0.005	BRL	0.005	
Dichlorodifluoromethane				BRL	0.005	BRL	0.005	
1,2-Dichloroethane				BRL	0.005	BRL	0.005	
1,1-Dichloroethane				BRL	0.005	BRL	0.005	
trans-1,2-dichloroethylene				BRL	0.005	BRL	0.005	
cis-1,2-Dichloroethylene				BRL	0.005	BRL	0.005	
1,1-Dichloroethene				BRL	0.005	BRL	0.005	
2,2-Dichloropropane				BRL	0.005	BRL	0.005	
1,3-Dichloropropane				BRL	0.005	BRL	0.005	
1,2-Dichloropropane				BRL	0.005	BRL	0.005	
trans-1,3-dichloropropene				BRL	0.005	BRL	0.005	

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Certificate of Analysis Summary 287312

Tolunay-Wong Engineers, Inc., Houston, TX

Project Name: Bunker Hill Improvements Project

Project Id: 07.12.034
Contact: Amy Kunza
Project Location:

Date Received in Lab: Aug-04-07 11:09 am
Report Date: 14-AUG-07
Project Manager: Debbie Simmons

Analysis Requested								
	Lab Id:	287312-005		287312-006		287312-007		
	Field Id:	EB-5		EB-5		EB-6		
	Depth:	6-8 ft		6-8 ft		14-16 ft		
	Matrix:	SOIL		SOIL		SOIL		
	Sampled:	Aug-03-07 14:12		Aug-03-07 14:12		Aug-03-07 15:39		
VOAs by SW-846 8260B	***Extracted:***			Aug-10-07 13:29		Aug-13-07 11:46		
	Analyzed:			Aug-10-07 21:15		Aug-13-07 15:54		
	Units/RL:			mg/kg	RL	mg/kg	RL	
1,1-Dichloropropene				BRL	0.005	BRL	0.005	
cis-1,3-Dichloropropene				BRL	0.005	BRL	0.005	
Ethylbenzene				BRL	0.005	BRL	0.005	
Hexachlorobutadiene				BRL	0.005	BRL	0.005	
isopropylbenzene				BRL	0.005	BRL	0.005	
Methylene Chloride				BRL	0.020	BRL	0.020	
Naphthalene				BRL	0.010	BRL	0.010	
n-Propylbenzene				BRL	0.005	BRL	0.005	
Styrene				BRL	0.005	BRL	0.005	
1,1,1,2-Tetrachloroethane				BRL	0.005	BRL	0.005	
1,1,2,2-Tetrachloroethane				BRL	0.005	BRL	0.005	
Tetrachloroethylene				BRL	0.005	BRL	0.005	
Toluene				BRL	0.005	BRL	0.005	
1,2,4-Trichlorobenzene				BRL	0.005	BRL	0.005	
1,2,3-Trichlorobenzene				BRL	0.005	BRL	0.005	
1,1,2-Trichloroethane				BRL	0.005	BRL	0.005	
1,1,1-Trichloroethane				BRL	0.005	BRL	0.005	
Trichloroethylene				BRL	0.005	BRL	0.005	
Trichlorofluoromethane				BRL	0.005	BRL	0.005	
1,2,3-Trichloropropane				BRL	0.005	BRL	0.005	
1,2,4-Trimethylbenzene				BRL	0.005	BRL	0.005	
1,3,5-Trimethylbenzene				BRL	0.005	BRL	0.005	
Vinyl Chloride				BRL	0.002	BRL	0.002	
o-Xylene				BRL	0.005	BRL	0.005	
m,p-Xylene				BRL	0.010	BRL	0.010	

Carlos A. Castro, ~~Ph.D.~~, MBA
Managing Director, Texas

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 287312-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.8	117	70-135	
o-Terphenyl	63.8	49.9	128	70-135	

Lab Batch #: 701832 **Sample:** 287312-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	63.1	50.0	126	70-135	

Lab Batch #: 701832 **Sample:** 287312-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.2	118	70-135	
o-Terphenyl	63.3	49.6	128	70-135	

Lab Batch #: 701832 **Sample:** 287390-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.1	114	70-135	
o-Terphenyl	53.5	49.6	108	70-135	

Lab Batch #: 701832 **Sample:** 287390-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.6	112	70-135	
o-Terphenyl	51.9	49.8	104	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 498021-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.0	100	83	70-135	
o-Terphenyl	39.4	50.0	79	70-135	

Lab Batch #: 701832 **Sample:** 498021-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	63.2	50.0	126	70-135	

Lab Batch #: 702037 **Sample:** 287312-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0504	0.0501	101	74-121	
Dibromofluoromethane	0.0428	0.0501	85	80-120	
1,2-Dichloroethane-D4	0.0508	0.0501	101	80-120	
Toluene-D8	0.0494	0.0501	99	81-117	

Lab Batch #: 702037 **Sample:** 287473-006 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0472	0.0498	95	74-121	
Dibromofluoromethane	0.0391	0.0498	79	80-120	*
1,2-Dichloroethane-D4	0.0379	0.0498	76	80-120	*
Toluene-D8	0.0512	0.0498	103	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702037 **Sample:** 287473-006 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0528	0.0501	105	74-121	
Dibromofluoromethane	0.0451	0.0501	90	80-120	
1,2-Dichloroethane-D4	0.0478	0.0501	95	80-120	
Toluene-D8	0.0513	0.0501	102	81-117	

Lab Batch #: 702037 **Sample:** 498149-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0498	0.0500	100	74-121	
Dibromofluoromethane	0.0511	0.0500	102	80-120	
1,2-Dichloroethane-D4	0.0532	0.0500	106	80-120	
Toluene-D8	0.0484	0.0500	97	81-117	

Lab Batch #: 702037 **Sample:** 498149-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0517	0.0500	103	74-121	
Dibromofluoromethane	0.0484	0.0500	97	80-120	
1,2-Dichloroethane-D4	0.0493	0.0500	99	80-120	
Toluene-D8	0.0513	0.0500	103	81-117	

Lab Batch #: 702176 **Sample:** 287312-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0522	0.0500	104	74-121	
Dibromofluoromethane	0.0506	0.0500	101	80-120	
1,2-Dichloroethane-D4	0.0501	0.0500	100	80-120	
Toluene-D8	0.0473	0.0500	95	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 287312-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0529	0.0499	106	74-121	
Dibromofluoromethane	0.0448	0.0499	90	80-120	
1,2-Dichloroethane-D4	0.0526	0.0499	105	80-120	
Toluene-D8	0.0490	0.0499	98	81-117	

Lab Batch #: 702176 **Sample:** 287312-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0499	0.0500	100	74-121	
Dibromofluoromethane	0.0518	0.0500	104	80-120	
1,2-Dichloroethane-D4	0.0516	0.0500	103	80-120	
Toluene-D8	0.0456	0.0500	91	81-117	

Lab Batch #: 702176 **Sample:** 287390-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0486	0.0499	97	74-121	
Dibromofluoromethane	0.0512	0.0499	103	80-120	
1,2-Dichloroethane-D4	0.0473	0.0499	95	80-120	
Toluene-D8	0.0468	0.0499	94	81-117	

Lab Batch #: 702176 **Sample:** 287390-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0539	0.0499	108	74-121	
Dibromofluoromethane	0.0522	0.0499	105	80-120	
1,2-Dichloroethane-D4	0.0499	0.0499	100	80-120	
Toluene-D8	0.0476	0.0499	95	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 498222-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0536	0.0500	107	74-121	
Dibromofluoromethane	0.0519	0.0500	104	80-120	
1,2-Dichloroethane-D4	0.0516	0.0500	103	80-120	
Toluene-D8	0.0466	0.0500	93	81-117	

Lab Batch #: 702176 **Sample:** 498222-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

VOAs by SW-846 8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0501	0.0500	100	74-121	
Dibromofluoromethane	0.0507	0.0500	101	80-120	
1,2-Dichloroethane-D4	0.0482	0.0500	96	80-120	
Toluene-D8	0.0476	0.0500	95	81-117	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 701832 **Sample:** 498021-1-BKS **Matrix:** Solid

Date Analyzed: 08/08/2007 **Date Prepared:** 08/07/2007 **Analyst:** JAH

Reporting Units: mg/kg **Batch #:** 1

TPH by Texas1005 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
C6-C12 Gasoline Range Hydrocarbons	0.000	1000	731	73	70-135	
C12-C28 Diesel Range Hydrocarbons	0.000	1000	862	86	70-135	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702037 **Sample:** 498149-1-BKS **Matrix:** Solid

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	<0.005	0.050	0.048	96	66-142	
Bromobenzene	<0.005	0.050	0.048	96	75-125	
Bromochloromethane	<0.005	0.050	0.049	98	73-125	
Bromodichloromethane	<0.005	0.050	0.049	98	75-125	
Bromoform	<0.005	0.050	0.047	94	75-125	
Methyl bromide	<0.005	0.050	0.040	80	65-135	
MTBE	<0.005	0.050	0.056	112	75-125	
tert-Butylbenzene	<0.005	0.050	0.051	102	75-125	
Sec-Butylbenzene	<0.005	0.050	0.052	104	75-125	
n-Butylbenzene	<0.005	0.050	0.052	104	75-125	
Carbon Tetrachloride	<0.005	0.050	0.052	104	62-125	
Chlorobenzene	<0.005	0.050	0.049	98	60-133	
Chloroethane	<0.010	0.050	0.038	76	65-135	
Chloroform	<0.005	0.050	0.050	100	74-125	
Methyl Chloride	<0.010	0.050	0.047	94	65-135	
2-Chlorotoluene	<0.005	0.050	0.050	100	73-125	
4-Chlorotoluene	<0.005	0.050	0.048	96	74-125	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.053	106	75-125	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.058	116	59-125	
Dibromochloromethane	<0.005	0.050	0.050	100	73-125	
Methylene bromide	<0.005	0.050	0.053	106	69-127	
1,2-Dichlorobenzene	<0.005	0.050	0.051	102	75-125	
1,3-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
1,4-Dichlorobenzene	<0.005	0.050	0.048	96	75-125	
Dichlorodifluoromethane	<0.005	0.050	0.043	86	65-135	
1,2-Dichloroethane	<0.005	0.050	0.049	98	68-127	
1,1-Dichloroethane	<0.005	0.050	0.046	92	72-125	
trans-1,2-dichloroethylene	<0.005	0.050	0.044	88	75-125	
cis-1,2-Dichloroethylene	<0.005	0.050	0.048	96	75-125	
1,1-Dichloroethene	<0.005	0.050	0.045	90	59-172	
2,2-Dichloropropane	<0.005	0.050	0.050	100	75-125	
1,3-Dichloropropane	<0.005	0.050	0.048	96	75-125	
1,2-Dichloropropane	<0.005	0.050	0.050	100	74-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702037 **Sample:** 498149-1-BKS **Matrix:** Solid

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
trans-1,3-dichloropropene	<0.005	0.050	0.049	98	66-125	
1,1-Dichloropropene	<0.005	0.050	0.047	94	75-125	
cis-1,3-Dichloropropene	<0.005	0.050	0.052	104	74-125	
Ethylbenzene	<0.005	0.050	0.051	102	75-125	
Hexachlorobutadiene	<0.005	0.050	0.052	104	75-125	
isopropylbenzene	<0.005	0.050	0.057	114	75-125	
Methylene Chloride	<0.020	0.050	0.047	94	75-125	
Naphthalene	<0.010	0.050	0.062	124	75-125	
n-Propylbenzene	<0.005	0.050	0.050	100	75-125	
Styrene	<0.005	0.050	0.052	104	75-125	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.050	100	72-125	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.052	104	74-125	
Tetrachloroethylene	<0.005	0.050	0.045	90	71-125	
Toluene	<0.005	0.050	0.048	96	59-139	
1,2,4-Trichlorobenzene	<0.005	0.050	0.057	114	75-135	
1,2,3-Trichlorobenzene	<0.005	0.050	0.060	120	75-137	
1,1,2-Trichloroethane	<0.005	0.050	0.047	94	75-127	
1,1,1-Trichloroethane	<0.005	0.050	0.050	100	75-125	
Trichloroethylene	<0.005	0.050	0.046	92	62-137	
Trichlorofluoromethane	<0.005	0.050	0.047	94	67-125	
1,2,3-Trichloropropane	<0.005	0.050	0.058	116	75-125	
1,2,4-Trimethylbenzene	<0.005	0.050	0.051	102	75-125	
1,3,5-Trimethylbenzene	<0.005	0.050	0.053	106	70-130	
Vinyl Chloride	<0.002	0.050	0.050	100	65-135	
o-Xylene	<0.005	0.050	0.050	100	75-125	
m,p-Xylene	<0.010	0.100	0.098	98	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 498222-1-BKS **Matrix:** Solid

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	<0.005	0.050	0.046	92	66-142	
Bromobenzene	<0.005	0.050	0.051	102	75-125	
Bromochloromethane	<0.005	0.050	0.048	96	73-125	
Bromodichloromethane	<0.005	0.050	0.052	104	75-125	
Bromoform	<0.005	0.050	0.049	98	75-125	
Methyl bromide	<0.005	0.050	0.037	74	65-135	
MTBE	<0.005	0.050	0.055	110	75-125	
tert-Butylbenzene	<0.005	0.050	0.050	100	75-125	
Sec-Butylbenzene	<0.005	0.050	0.050	100	75-125	
n-Butylbenzene	<0.005	0.050	0.047	94	75-125	
Carbon Tetrachloride	<0.005	0.050	0.052	104	62-125	
Chlorobenzene	<0.005	0.050	0.047	94	60-133	
Chloroethane	<0.010	0.050	0.039	78	65-135	
Chloroform	<0.005	0.050	0.049	98	74-125	
Methyl Chloride	<0.010	0.050	0.044	88	65-135	
2-Chlorotoluene	<0.005	0.050	0.049	98	73-125	
4-Chlorotoluene	<0.005	0.050	0.050	100	74-125	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.050	100	75-125	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.060	120	59-125	
Dibromochloromethane	<0.005	0.050	0.049	98	73-125	
Methylene bromide	<0.005	0.050	0.050	100	69-127	
1,2-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
1,3-Dichlorobenzene	<0.005	0.050	0.050	100	75-125	
1,4-Dichlorobenzene	<0.005	0.050	0.047	94	75-125	
Dichlorodifluoromethane	<0.005	0.050	0.038	76	65-135	
1,2-Dichloroethane	<0.005	0.050	0.049	98	68-127	
1,1-Dichloroethane	<0.005	0.050	0.043	86	72-125	
trans-1,2-dichloroethylene	<0.005	0.050	0.043	86	75-125	
cis-1,2-Dichloroethylene	<0.005	0.050	0.046	92	75-125	
1,1-Dichloroethene	<0.005	0.050	0.042	84	59-172	
2,2-Dichloropropane	<0.005	0.050	0.050	100	75-125	
1,3-Dichloropropane	<0.005	0.050	0.046	92	75-125	
1,2-Dichloropropane	<0.005	0.050	0.048	96	74-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Bunker Hill Improvements Project

Work Order #: 287312 **Project ID:** 07.12.034

Lab Batch #: 702176 **Sample:** 498222-1-BKS **Matrix:** Solid

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg **Batch #:** 1

VOAs by SW-846 8260B Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
trans-1,3-dichloropropene	<0.005	0.050	0.048	96	66-125	
1,1-Dichloropropene	<0.005	0.050	0.043	86	75-125	
cis-1,3-Dichloropropene	<0.005	0.050	0.052	104	74-125	
Ethylbenzene	<0.005	0.050	0.047	94	75-125	
Hexachlorobutadiene	<0.005	0.050	0.038	76	75-125	
isopropylbenzene	<0.005	0.050	0.052	104	75-125	
Methylene Chloride	<0.020	0.050	0.043	86	75-125	
Naphthalene	<0.010	0.050	0.056	112	75-125	
n-Propylbenzene	<0.005	0.050	0.052	104	75-125	
Styrene	<0.005	0.050	0.048	96	75-125	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.047	94	72-125	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.050	100	74-125	
Tetrachloroethylene	<0.005	0.050	0.044	88	71-125	
Toluene	<0.005	0.050	0.046	92	59-139	
1,2,4-Trichlorobenzene	<0.005	0.050	0.049	98	75-135	
1,2,3-Trichlorobenzene	<0.005	0.050	0.051	102	75-137	
1,1,2-Trichloroethane	<0.005	0.050	0.046	92	75-127	
1,1,1-Trichloroethane	<0.005	0.050	0.051	102	75-125	
Trichloroethylene	<0.005	0.050	0.045	90	62-137	
Trichlorofluoromethane	<0.005	0.050	0.048	96	67-125	
1,2,3-Trichloropropane	<0.005	0.050	0.057	114	75-125	
1,2,4-Trimethylbenzene	<0.005	0.050	0.050	100	75-125	
1,3,5-Trimethylbenzene	<0.005	0.050	0.051	102	70-130	
Vinyl Chloride	<0.002	0.050	0.047	94	65-135	
o-Xylene	<0.005	0.050	0.047	94	75-125	
m,p-Xylene	<0.010	0.100	0.093	93	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 701832 **QC- Sample ID:** 287390-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/07/2007 **Date Prepared:** 08/07/2007 **Analyst:** JAH

Reporting Units: mg/kg

TPH by Texas1005 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	<50.0	991	1000	101	996	1000	100	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<50.0	991	888	90	996	855	86	5	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 702037 **QC- Sample ID:** 287473-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.006	0.060	0.057	95	0.060	0.059	98	3	66-142	21	
Bromobenzene	<0.006	0.060	0.056	93	0.060	0.062	103	10	75-125	25	
Bromochloromethane	<0.006	0.060	0.043	72	0.060	0.052	87	19	73-125	20	X
Bromodichloromethane	<0.006	0.060	0.048	80	0.060	0.054	90	12	75-125	20	
Bromoform	<0.006	0.060	0.048	80	0.060	0.059	98	20	75-125	20	
Methyl bromide	<0.006	0.060	0.042	70	0.060	0.046	77	10	65-135	20	
MTBE	<0.006	0.060	0.049	82	0.060	0.058	97	17	75-125	20	
tert-Butylbenzene	<0.006	0.060	0.077	128	0.060	0.078	130	2	75-125	25	X
Sec-Butylbenzene	<0.006	0.060	0.082	137	0.060	0.081	135	1	75-125	25	X
n-Butylbenzene	<0.006	0.060	0.079	132	0.060	0.079	132	0	75-125	25	X
Carbon Tetrachloride	<0.006	0.060	0.075	125	0.060	0.074	123	2	62-125	20	
Chlorobenzene	<0.006	0.060	0.057	95	0.060	0.060	100	5	60-133	21	
Chloroethane	<0.012	0.060	0.049	82	0.060	0.049	82	0	65-135	20	
Chloroform	<0.006	0.060	0.051	85	0.060	0.055	92	8	74-125	20	
Methyl Chloride	<0.012	0.060	0.053	88	0.060	0.056	93	6	65-135	20	
2-Chlorotoluene	<0.006	0.060	0.062	103	0.060	0.067	112	8	73-125	25	
4-Chlorotoluene	<0.006	0.060	0.061	102	0.060	0.064	107	5	74-125	25	
p-Cymene (p-Isopropyltoluene)	<0.006	0.060	0.077	128	0.060	0.079	132	3	75-125	25	X
1,2-Dibromo-3-Chloropropane	<0.006	0.060	0.079	132	0.060	0.088	147	11	59-125	28	X
Dibromochloromethane	<0.006	0.060	0.047	78	0.060	0.057	95	20	73-125	25	
Methylene bromide	<0.006	0.060	0.051	85	0.060	0.061	102	18	69-127	23	
1,2-Dichlorobenzene	<0.006	0.060	0.058	97	0.060	0.065	108	11	75-125	25	
1,3-Dichlorobenzene	<0.006	0.060	0.057	95	0.060	0.064	107	12	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 702037 **QC- Sample ID:** 287473-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.006	0.060	0.053	88	0.060	0.060	100	13	75-125	25	
Dichlorodifluoromethane	<0.006	0.060	0.064	107	0.060	0.061	102	5	65-135	23	
1,2-Dichloroethane	<0.006	0.060	0.045	75	0.060	0.052	87	15	68-127	20	
1,1-Dichloroethane	<0.006	0.060	0.049	82	0.060	0.051	85	4	72-125	20	
trans-1,2-dichloroethylene	<0.006	0.060	0.054	90	0.060	0.054	90	0	75-125	20	
cis-1,2-Dichloroethylene	<0.006	0.060	0.051	85	0.060	0.052	87	2	75-125	20	
1,1-Dichloroethene	<0.006	0.060	0.062	103	0.060	0.060	100	3	59-172	22	
2,2-Dichloropropane	<0.006	0.060	0.064	107	0.060	0.065	108	1	75-125	25	
1,3-Dichloropropane	<0.006	0.060	0.052	87	0.060	0.057	95	9	75-125	25	
1,2-Dichloropropane	<0.006	0.060	0.050	83	0.060	0.056	93	11	74-125	20	
trans-1,3-dichloropropene	<0.006	0.060	0.048	80	0.060	0.055	92	14	66-125	20	
1,1-Dichloropropene	<0.006	0.060	0.063	105	0.060	0.061	102	3	75-125	25	
cis-1,3-Dichloropropene	<0.006	0.060	0.049	82	0.060	0.056	93	13	74-125	20	
Ethylbenzene	<0.006	0.060	0.065	108	0.060	0.066	110	2	75-125	20	
Hexachlorobutadiene	<0.006	0.060	0.081	135	0.060	0.077	128	5	75-125	25	X
isopropylbenzene	<0.006	0.060	0.081	135	0.060	0.078	130	4	75-125	25	X
Methylene Chloride	<0.024	0.060	0.043	72	0.060	0.051	85	17	75-125	35	X
Naphthalene	<0.012	0.060	0.071	118	0.060	0.086	143	19	75-125	25	X
n-Propylbenzene	<0.006	0.060	0.072	120	0.060	0.075	125	4	75-125	25	
Styrene	<0.006	0.060	0.056	93	0.060	0.060	100	7	75-125	51	
1,1,1,2-Tetrachloroethane	<0.006	0.060	0.051	85	0.060	0.058	97	13	72-125	20	
1,1,2,2-Tetrachloroethane	<0.006	0.060	0.058	97	0.060	0.067	112	14	74-125	31	
Tetrachloroethylene	<0.006	0.060	0.070	117	0.060	0.065	108	8	71-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 702037 **QC- Sample ID:** 287473-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/10/2007 **Date Prepared:** 08/10/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	<0.006	0.060	0.063	105	0.060	0.061	102	3	59-139	21	
1,2,4-Trichlorobenzene	<0.006	0.060	0.059	98	0.060	0.068	113	14	75-135	25	
1,2,3-Trichlorobenzene	<0.006	0.060	0.061	102	0.060	0.071	118	15	75-137	25	
1,1,2-Trichloroethane	<0.006	0.060	0.050	83	0.060	0.058	97	16	75-127	20	
1,1,1-Trichloroethane	<0.006	0.060	0.063	105	0.060	0.064	107	2	75-125	20	
Trichloroethylene	<0.006	0.060	0.060	100	0.060	0.061	102	2	62-137	24	
Trichlorofluoromethane	<0.006	0.060	0.066	110	0.060	0.062	103	7	67-125	20	
1,2,3-Trichloropropane	<0.006	0.060	0.070	117	0.060	0.079	132	12	75-125	20	X
1,2,4-Trimethylbenzene	<0.006	0.060	0.064	107	0.060	0.069	115	7	75-125	25	
1,3,5-Trimethylbenzene	<0.006	0.060	0.071	118	0.060	0.076	127	7	70-130	25	
Vinyl Chloride	<0.002	0.060	0.066	110	0.060	0.061	102	8	65-135	20	
o-Xylene	<0.006	0.060	0.063	105	0.060	0.062	103	2	75-125	20	
m,p-Xylene	<0.012	0.120	0.128	107	0.121	0.126	104	3	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 702176 **QC- Sample ID:** 287390-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.005	0.050	0.046	92	0.050	0.049	98	6	66-142	21	
Bromobenzene	<0.005	0.050	0.049	98	0.050	0.053	106	8	75-125	25	
Bromochloromethane	<0.005	0.050	0.047	94	0.050	0.053	106	12	73-125	20	
Bromodichloromethane	<0.005	0.050	0.053	106	0.050	0.055	110	4	75-125	20	
Bromoform	<0.005	0.050	0.054	108	0.050	0.055	110	2	75-125	20	
Methyl bromide	<0.005	0.050	0.033	66	0.050	0.039	78	17	65-135	20	
MTBE	<0.005	0.050	0.058	116	0.050	0.059	118	2	75-125	20	
tert-Butylbenzene	<0.005	0.050	0.054	108	0.050	0.054	108	0	75-125	25	
Sec-Butylbenzene	<0.005	0.050	0.055	110	0.050	0.053	106	4	75-125	25	
n-Butylbenzene	<0.005	0.050	0.054	108	0.050	0.050	100	8	75-125	25	
Carbon Tetrachloride	<0.005	0.050	0.054	108	0.050	0.056	112	4	62-125	20	
Chlorobenzene	<0.005	0.050	0.048	96	0.050	0.050	100	4	60-133	21	
Chloroethane	<0.010	0.050	0.039	78	0.050	0.039	78	0	65-135	20	
Chloroform	<0.005	0.050	0.050	100	0.050	0.054	108	8	74-125	20	
Methyl Chloride	<0.010	0.050	0.041	82	0.050	0.044	88	7	65-135	20	
2-Chlorotoluene	<0.005	0.050	0.050	100	0.050	0.052	104	4	73-125	25	
4-Chlorotoluene	<0.005	0.050	0.048	96	0.050	0.049	98	2	74-125	25	
p-Cymene (p-Isopropyltoluene)	<0.005	0.050	0.055	110	0.050	0.054	108	2	75-125	25	
1,2-Dibromo-3-Chloropropane	<0.005	0.050	0.070	140	0.050	0.070	140	0	59-125	28	X
Dibromochloromethane	<0.005	0.050	0.050	100	0.050	0.054	108	8	73-125	25	
Methylene bromide	<0.005	0.050	0.053	106	0.050	0.055	110	4	69-127	23	
1,2-Dichlorobenzene	<0.005	0.050	0.053	106	0.050	0.053	106	0	75-125	25	
1,3-Dichlorobenzene	<0.005	0.050	0.051	102	0.050	0.052	104	2	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 702176 **QC- Sample ID:** 287390-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,4-Dichlorobenzene	<0.005	0.050	0.047	94	0.050	0.050	100	6	75-125	25	
Dichlorodifluoromethane	<0.005	0.050	0.039	78	0.050	0.039	78	0	65-135	23	
1,2-Dichloroethane	<0.005	0.050	0.049	98	0.050	0.052	104	6	68-127	20	
1,1-Dichloroethane	<0.005	0.050	0.043	86	0.050	0.046	92	7	72-125	20	
trans-1,2-dichloroethylene	<0.005	0.050	0.042	84	0.050	0.043	86	2	75-125	20	
cis-1,2-Dichloroethylene	<0.005	0.050	0.046	92	0.050	0.050	100	8	75-125	20	
1,1-Dichloroethene	<0.005	0.050	0.045	90	0.050	0.045	90	0	59-172	22	
2,2-Dichloropropane	<0.005	0.050	0.055	110	0.050	0.058	116	5	75-125	25	
1,3-Dichloropropane	<0.005	0.050	0.049	98	0.050	0.048	96	2	75-125	25	
1,2-Dichloropropane	<0.005	0.050	0.048	96	0.050	0.052	104	8	74-125	20	
trans-1,3-dichloropropene	<0.005	0.050	0.050	100	0.050	0.053	106	6	66-125	20	
1,1-Dichloropropene	<0.005	0.050	0.047	94	0.050	0.045	90	4	75-125	25	
cis-1,3-Dichloropropene	<0.005	0.050	0.050	100	0.050	0.053	106	6	74-125	20	
Ethylbenzene	<0.005	0.050	0.049	98	0.050	0.050	100	2	75-125	20	
Hexachlorobutadiene	<0.005	0.050	0.060	120	0.050	0.043	86	33	75-125	25	F
isopropylbenzene	<0.005	0.050	0.059	118	0.050	0.056	112	5	75-125	25	
Methylene Chloride	<0.020	0.050	0.043	86	0.050	0.047	94	9	75-125	35	
Naphthalene	<0.010	0.050	0.069	138	0.050	0.061	122	12	75-125	25	X
n-Propylbenzene	<0.005	0.050	0.052	104	0.050	0.053	106	2	75-125	25	
Styrene	<0.005	0.050	0.050	100	0.050	0.051	102	2	75-125	51	
1,1,1,2-Tetrachloroethane	<0.005	0.050	0.049	98	0.050	0.051	102	4	72-125	20	
1,1,2,2-Tetrachloroethane	<0.005	0.050	0.054	108	0.050	0.052	104	4	74-125	31	
Tetrachloroethylene	<0.005	0.050	0.045	90	0.050	0.044	88	2	71-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Bunker Hill Improvements Project

Work Order # : 287312 **Project ID:** 07.12.034

Lab Batch ID: 702176 **QC- Sample ID:** 287390-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/13/2007 **Date Prepared:** 08/13/2007 **Analyst:** JLA

Reporting Units: mg/kg

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Toluene	<0.005	0.050	0.048	96	0.050	0.048	96	0	59-139	21	
1,2,4-Trichlorobenzene	<0.005	0.050	0.061	122	0.050	0.051	102	18	75-135	25	
1,2,3-Trichlorobenzene	<0.005	0.050	0.065	130	0.050	0.053	106	20	75-137	25	
1,1,2-Trichloroethane	<0.005	0.050	0.048	96	0.050	0.050	100	4	75-127	20	
1,1,1-Trichloroethane	<0.005	0.050	0.052	104	0.050	0.055	110	6	75-125	20	
Trichloroethylene	<0.005	0.050	0.047	94	0.050	0.050	100	6	62-137	24	
Trichlorofluoromethane	<0.005	0.050	0.049	98	0.050	0.048	96	2	67-125	20	
1,2,3-Trichloropropane	<0.005	0.050	0.062	124	0.050	0.060	120	3	75-125	20	
1,2,4-Trimethylbenzene	<0.005	0.050	0.052	104	0.050	0.052	104	0	75-125	25	
1,3,5-Trimethylbenzene	<0.005	0.050	0.054	108	0.050	0.055	110	2	70-130	25	
Vinyl Chloride	<0.002	0.050	0.045	90	0.050	0.045	90	0	65-135	20	
o-Xylene	<0.005	0.050	0.051	102	0.050	0.050	100	2	75-125	20	
m,p-Xylene	<0.010	0.100	0.097	97	0.100	0.097	97	0	75-125	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

XENCO

☑ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☐ 5309 Wurzbach, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Lane, Suite D, Dallas, TX 75229 972-481-9999
☐ 5757 N.W. 158th Street, Miami Lakes, Fl 33014 305-823-8500
☐ 2618 South Falkenburg Rd, Riverview, Fl 33569 813-620-2000

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

LAB ONLY: 28732-H

Serial #: 181327 Page 1 of 1

Company City: ToCunay Wang Phone: 713-722-7064
TAT: 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10+ Working days for level III and IV data.

Project Name: Bunker Hill Improvements Project ☐ Previously performed at XENCO Site
Project ID: 07.12.034
Proj. Manager (PM): A. Kunza
Fax Results to ☐ PM or Fax No:
e-mail to: akunza@tweinc.com
Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O
Bill to:
Quote No: P.O No: ☐ Call for a P.O.
Reg Program: CLP AFCEE TRRP DW UST State Other:
Target DLs (DW CRDL TRRP QAPP MDLs See Lab PM Attached Call)
TRRP PCLs: Tier 1 Tier 2 Residential Industrial
LPST No.:(Required)
Sampler Name: Chris Marlene Signature: X

	Sample ID	Sampling Date	Time	Depth (ft)	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	BTEX by 8021 8260 602 624 Other	BTEX-MTBE by 8021 8260 624 Other	TPH by TX1005 PI-Pro 1664 8015GRO 8015DRO 418.1	PAHs by 8270 8310	Metals by 6020 200.8 8RCRA Tot Pb TCLP8 13PP 23TAL	VOCs by 8021 8260 624 VOA VOH PPs TCL	SVOCs by 8270 625 PAHs BN&A TCL PPs	FL Prebum - Revised: Virgin Non-Virgin
1	EB-3	8/3/07	12:22	16-18	S		X	1	2	G				X			X		
2	EB-3	8/3/07	12:22	16-18				1	2	G				X			X		
3	EB-4	8/3/07	13:02	4-6				1	2	G				X			X		
4	EB-4	8/3/07	13:02	4-6				1	2	G							X		
5	EB-5	8/3/07	14:12	6-8				1	4	G				X			X		
6	EB-5	8/3/07	14:12	6-8				1	4	G							X		
7	EB-6	8/3/07	15:09	14-16				1	4	G				X			X		
7A	EB-6	8/3/07	15:09	14-16				1	4	G							X		
9																			
10																			

TAT 5h 12h 24h 48h 3d 5d 7d 10d 21d → STANDARD
Addn: PAH above mg/L W, mg/Kg S Highest Hit
Hold Disposal Hold Analysis (Surcharges will apply)
Sample Clean-ups are pre-approved

Remarks: Also disregard EB-6 for TPH Rest EB-6 only for VOCs

	Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1	[signature]	8/3/07 1700	[signature]	1700
2	[signature]	8/4/07 1109		
3			Lab [signature]	8/4/07 1109

Rush Charges are Pre-Approved upon requesting them.
Instructions:
All XENCO Standard Terms and Conditions Apply.
Containers Received: 7 Cooler Temperature: 1-6°C

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asbc Acid&NaOH (A), ZnAc&NaOH (Z), (Cool,<4C) (C), None (NA), See Label (L), Other (O) _____
Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (5), Tedlar Bag (B), Wipe (W), Other _____ **Cont. Type:** Glass Amb (A), Glass Clear (C), Plastic (P), Other (O) _____

Matrix: Air (A), Product (P), Solid(S), Water (W)

SDBE Committed to Excellence in Service and Quality since 1990 www.xenco.com

28732-H

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: TWE

Date/ Time: 8/4/17

Lab ID # : 297312-17

Initials: TB

Sample Receipt Checklist

#1 Temperature of container/ cooler?	Yes	No	N/A	4.6 °C
#2 Shipping container in good condition?	Yes	No	None	
#3 Samples received on ice?	Yes	No	N/A	Blue/Water
#4 Custody Seals intact on shipping container/ cooler?	Yes	No	N/A	
#5 Custody Seals intact on sample bottles/ container?	Yes	No		
#6 Chain of Custody present?	Yes	No		
#7 Sample instructions complete of Chain of Custody?	Yes	No		
#8 Any missing/extra samples?	Yes	No		
#9 Chain of Custody signed when relinquished/ received?	Yes	No		
#10 Chain of Custody agrees with sample label(s)?	Yes	No		
#11 Container label(s) legible and intact?	Yes	No		
#12 Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#13 Samples in proper container/ bottle?	Yes	No		
#14 Samples properly preserved?	Yes	No	N/A	
#15 Sample container intact?	Yes	No		
#16 Sufficient sample amount for indicated test(s)?	Yes	No		
#17 All samples received within sufficient hold time?	Yes	No		
#18 Subcontract of sample(s)?	Yes	No	N/A	
#19 VOC samples have zero headspace?	Yes	No	N/A	

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

☐ Client understands and would like to proceed with analysis

☐ Cooling process had begun shortly after sampling event