



## Phase II Environmental Site Assessment

NICTD Double Track NWI (DT-NWI)  
Milepost (MP) 58.8 to 32.2

*Gary to Michigan City, IN*

August 18, 2017



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# NICTD Double Track – Phase II Environmental Site Assessment Technical Memorandum

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## Acronyms and Abbreviations

Acronym/Abbreviation	Definition
<b>DT-NWI</b>	Double Track Northwest Indiana
<b>ESA</b>	Environmental Site Assessment
<b>IDEM</b>	Indiana Department of Environmental Management
<b>MP</b>	milepost
<b>NICTD</b>	Northern Indiana Commuter Transportation District
<b>REC</b>	Recognized Environmental Condition
<b>SSL</b>	South Shore Line
<b>VOC</b>	Volatile organic compound
<b>SVOC</b>	Semi-volatile organic compound
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>OLQ</b>	Office of Land Quality



## 1.0 SUMMARY

Northern Indiana Commuter Transportation District (NICTD), in cooperation with the Federal Transit Administration, contracted HDR Engineering, Inc. (HDR) to perform a Phase II Environmental Site Assessment (Phase II ESA) to provide information regarding the potential location and severity of suspected contamination located within the Double Track-Northwest Indiana (DT-NWI) Project (Project Area). After conducting corridor-wide and individual Phase I studies in the Project Area, findings indicated that Phase II ESA's should be conducted on four properties near the Gary/Miller Station in Gary, Indiana which were assigned as sites with Recognized Environmental Conditions (RECs) (in the prior Hazardous and Regulated Materials Technical Memorandum prepared by Metric Environmental for NICTD) based on their historic uses as automobile repair facilities and filling stations (see **Table 2-1**).

HDR performed the field investigation portion of this Phase II ESA on July 6 and 7, 2017, in accordance with the scope of work agreed to by HDR and NICTD.

The scope of this Phase II ESA included verification of environmental impacts concerning current, former, or historic site uses at four locations along U.S. 12 in Gary, Indiana (see **Table 2-1**). Eight soil borings were advanced to depths of 8 to 12 feet below ground surface, into the groundwater surface. Two soil samples were collected from each boring, and one groundwater sample was collected from each site. Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and total and dissolved Resource Conservation and Recovery Act (RCRA) metals.

HDR has concluded the following based on the results of this Phase II ESA:

- VOCs, SVOCs, and metals were not detected at concentrations exceeding their respective 2017 Indiana Department of Environmental Management (IDEM) Office of Land Quality (OLQ) Commercial/Industrial or Excavation Screening Levels in the soil and groundwater samples collected from the four locations.

The conclusions listed above are the result of investigative procedures outlined in **Section 4.0** of this report and the contracted scope of work. These conclusions led to the following recommendation:

- As a protective measure for contaminants not noted during this Phase II ESA, HDR recommends that all construction contractors be instructed to stop all subsurface activities in the event that odors or significantly stained soil are discovered during construction. Contractors should be instructed to follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process.

## 2.0 INTRODUCTION

### 2.1 PURPOSE AND SCOPE

This Phase II ESA's purpose is to provide NICTD with information regarding the potential location and severity of environmental impacts, if present, from operations at four former and historic automobile filling stations and service stations located along U.S. 12 in Gary, Indiana (referred to as REC locations throughout this report). These four locations are on properties to be acquired by NICTD for the proposed DT-NWI project. The proposed project limits are defined by railroad mileposts (MPs) beginning in Gary, Indiana at MP 58.8, west of Virginia Street, ending at MP 32.2, near Carroll Avenue in Michigan City, Indiana. The total distance is 26.6 miles. The four REC locations evaluated as part of this Phase II ESA are located near the Gary/Miller Station, at MP 55.

The scope included advancement of eight soil borings to a depth of 8 to 12 feet below ground surface, into the groundwater surface. The selection of the specific boring locations was based on the layout of the historic facilities listed in **Table 2-1**. An HDR geologist collected two discrete soil samples from each boring (16 total soil samples), and four discrete groundwater samples (one from each REC location). **Table 2-1** provides the site locations HDR investigated within the Project Area in this Phase II ESA.

**Table 2-1. Summary of Site Locations**

REC ID	Facility Name	Parcel(s)	Address	Owner
1-1	E. T. Doyne (Former Auto Repair)	C12, C13, and C73	5813 E Dunes Hwy	Dunes Properties LLC
1-3	Former Filling Station	C6	5601 E Dunes Hwy	Dunes Miller LLC
1-6	Former Auto Body Paint and Repair Shop	C8 and C9	5705 E Dunes Hwy	Dunes Miller LLC
1-7	Former Filling Station/Auto Repair Facility	C2	5401 E Dunes Hwy	Chicago Plank and Pine, Inc.

## 2.2 LIMITATIONS

HDR has prepared this Phase II ESA, which is based on a NICTD-approved scope of work, for use by NICTD. As with any investigation that uses a limited number of sampling points to characterize a larger area, it is possible that the sampling locations did not intersect all potentially impacted areas. HDR determined that eight sampling locations would be sufficient to characterize the areas for the listed contaminants of concern. Based upon the size of the area and the laboratory results reported, HDR is confident that the Project Area has been adequately characterized within the limitations described in **Section 2.1**.

In addition, some substances may be present in the Project Area, or in the vicinity, in quantities below those categorized as actionable by current environmental regulations. HDR cannot be responsible if regulatory standards are changed in the future, in a manner that renders the current Project Area conditions actionable.

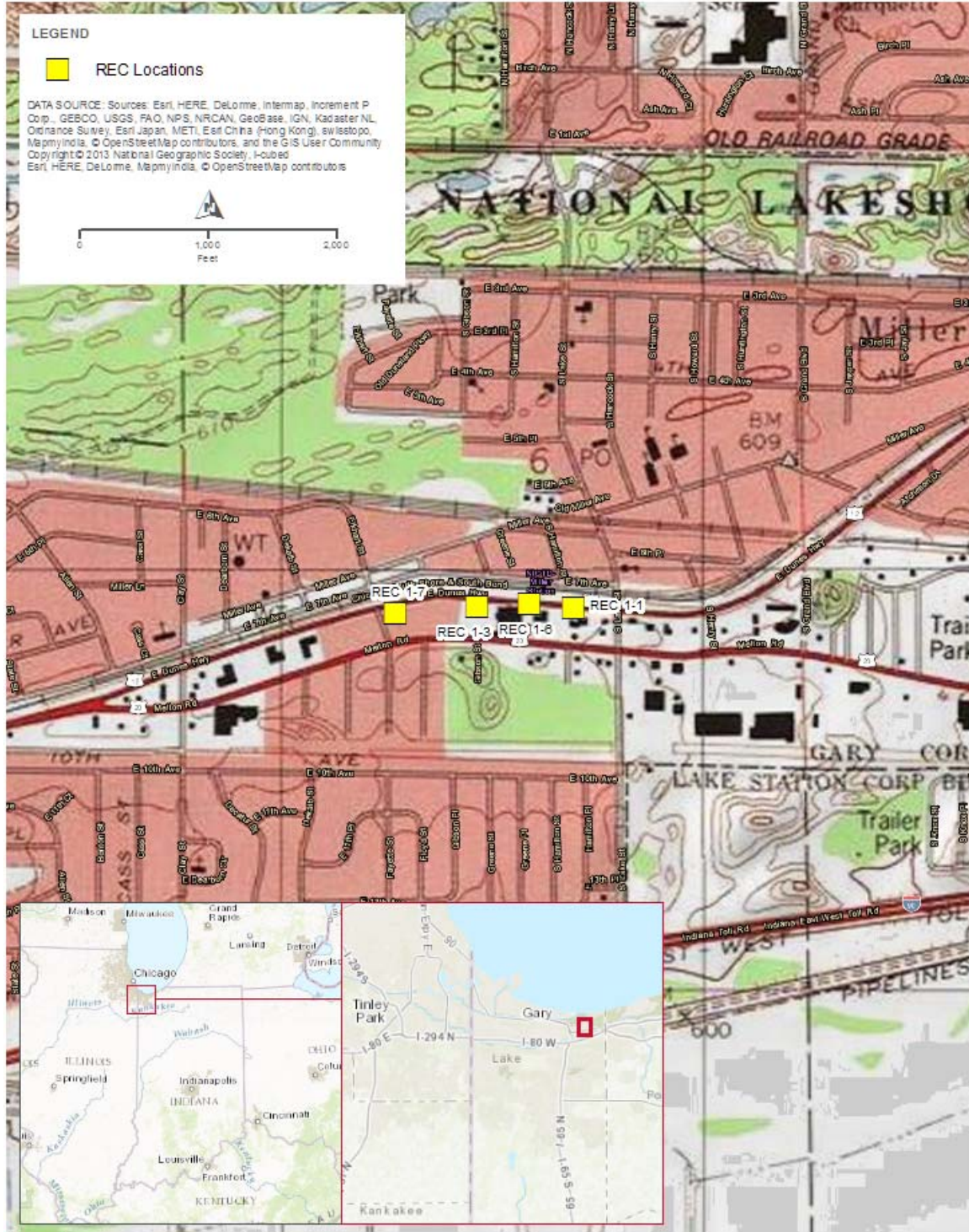
## 3.0 BACKGROUND

### 3.1 PROJECT AREA DESCRIPTION AND FEATURES

NICTD, in cooperation with the Federal Transit Administration, proposes the Double Track Project (Project), which will provide improvements and expansion of a 26.6-mile segment of the SSL between Gary and Michigan City, Indiana. The SSL is an important component of northwest Indiana’s transportation system, and double tracking would provide a more competitive transportation option between northwest Indiana and Chicago. The proposed improvements would better connect the region by providing faster, more frequent, and more reliable train service.

Four locations were assigned REC IDs prior to this Phase II ESA in a Hazardous and Regulated Materials Technical Memorandum prepared by Metric Environmental for NICTD, based on their historic uses as automobile repair facilities and filling stations. **Table 2-1** provides a summary of the four site locations within the Project Area included in this Phase II ESA. **Figure 2-1** provides a Site Location Map.

Figure 2-1. Site Location Map





### 3.2 PHYSICAL SETTING

Unconsolidated material in the Project Area includes glacial drift sediment, composed of sand, gravel, and clay that ranges from 15 to 210 feet thick in Lake County. This material was deposited during the Pleistocene Epoch by either glaciers or processes associated with glaciation (for example, meltwater-driven fluvial deposition).

No known karst features have been documented in the Project Area (IGS 2016). The bedrock geology in the Project Area is primarily limestone, dolomite, sandstone, and shale of the Cambrian through Mississippi age. The regional economic mineral resources in the Project Area are derived from unconsolidated sediments. Mineral resources in Lake County include sand and gravel, lake clays, clay-rich tills, dolomite, peat, and slag.

### 4.0 WORK PERFORMED AND RATIONALE

Alt & Witzig Engineering (A&W) of Carmel, Indiana, performed the drilling operations using a Geoprobe®. A&W installed the borings to a maximum depth of 12 feet below ground surface, using direct push technology and a Dual Tube Soil Sampling System. Soil samples were collected continuously in single-use 4-foot-long acetate liners. A&W collected groundwater using a Geoprobe® Screen Point 15 Groundwater Sampler and a peristaltic pump. A&W decontaminated the Screen Point 15 Groundwater Sampler prior to collecting each groundwater sample, using a non-phosphate detergent wash and deionized water rinse.

An HDR geologist screened the soil samples with a photoionization detector (PID), then collected laboratory soil samples directly from the acetate liners as quickly as possible (as described by IDEM guidance) at the desired depth intervals. Samples were containerized in the following pre-cleaned glassware provided by the analytical laboratory (TestAmerica):

- One Terra-Core sampling kit (preserved with deionized water, methanol, and sodium bisulfate) for volatile organic compound (VOC) analysis; and
- One 8-ounce glass jar (unpreserved) submitted for semi-volatile organic compounds (SVOCs) and RCRA metals.

An HDR geologist collected laboratory groundwater samples from single use tubing connected to the peristaltic pump, and containerized them in the following pre-cleaned glassware provided by TestAmerica:

- Three 40-milliliter (mL) vials preserved with hydrochloric acid submitted for VOC analysis;
- Two 250 mL amber glass jars (unpreserved) submitted for SVOC analysis; and
- Two 250 mL plastic jars preserved with nitric acid for total/dissolved RCRA metals analyses.

All samples were field-preserved on ice, in hard containers, and shipped to the TestAmerica laboratory under chain-of-custody protocols.

HDR directed the completion of the soil borings and groundwater collection at borings installed on the four REC locations (shown in Figures 2 through 5). Appendix B provides a photographic log of the fieldwork performed during this investigation.



Figure 2-2. Sample Location Map: REC 1-1



**SAMPLE LOCATION MAP: REC 1-1**  
**PHASE II ENVIRONMENTAL SITE ASSESSMENT**  
FIGURE 2

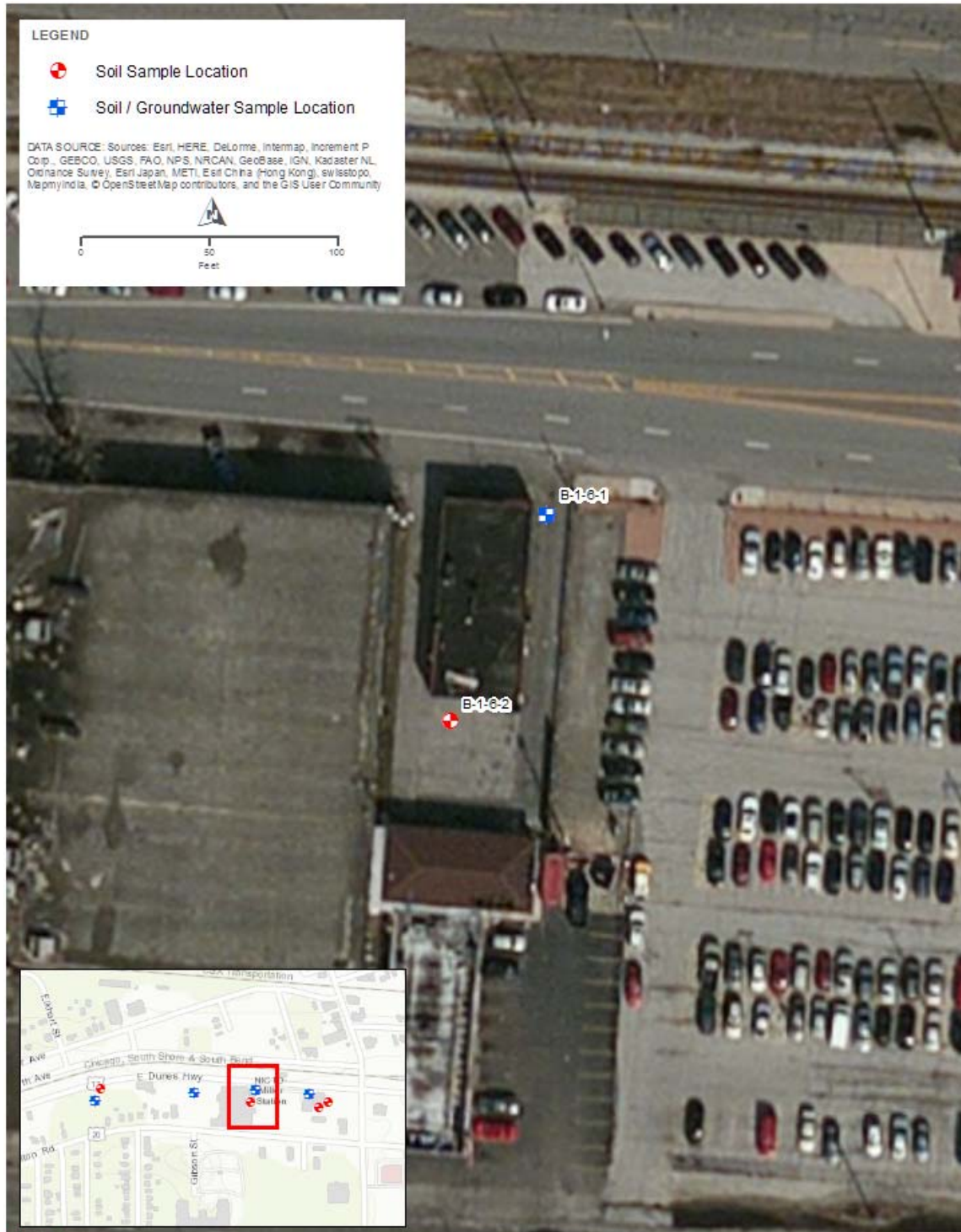
Figure 2-3. Sample Location Map: REC 1-3



SAMPLE LOCATION MAP: REC 1-3  
PHASE II ENVIRONMENTAL SITE ASSESSMENT

FIGURE 3

Figure 2-4. Sample Location Map: REC 1-6



SAMPLE LOCATION MAP: REC 1-6  
PHASE II ENVIRONMENTAL SITE ASSESSMENT

FIGURE 4







#### 4.1 CHEMICAL ANALYTICAL METHODS

HDR collected two soil samples from each boring, and one groundwater sample from each site. Samples were shipped under chain of custody protocols to TestAmerica laboratory, located in University Park, Illinois. HDR selected analyses based on historic and current operations at each specific location, including the following analytical methods:

- VOCs via US Environmental Protection Agency (USEPA) Method 8260B for soil and groundwater;
- SVOCs via USEPA Method 8270D for soil and groundwater; and
- RCRA Metals via USEPA Methods 6010B/7471A for soil, and 6010B/7470A for groundwater.

HDR selected soil samples for laboratory analysis based on elevated PID readings and/or visual observations. PID values and visual observations are noted in the boring logs (**Appendix C**).

#### 5.0 PRESENTATION AND EVALUATION OF RESULTS

##### 5.1 SUBSURFACE CONDITIONS

An HDR geologist performed soil characterization for all soil borings completed during this Phase II ESA. The soils at the site locations generally contained fill material near the ground surface, and fine grained to fine-medium grained sand throughout. **Appendix C** contains soil boring logs.

##### 5.1.1 SOIL ANALYTICAL RESULTS

###### VOLATILE ORGANIC COMPOUNDS (VOCs)

One detection was noted for VOCs, in one sample. The soil sample collected from boring B-1-7-2 (5- to 7-foot interval) contained a detectable concentration of VOCs (acetone). Acetone did not exceed its Direct Contact Screening Level for Commercial/Industrial Use. Acetone is also a common laboratory contaminant, appearing in minor concentrations due to cross-contamination that frequently occurs during the extraction process.

###### SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)

Seven soil samples contained detectable concentrations of 12 SVOCs, all of which were detected in concentrations below their respective Direct Contact Screening Levels for Commercial/Industrial Use.

###### METALS

All 16 soil samples contained detectable concentrations of seven metals, none of which exceeded their respective concentrations for Direct Contact Screening Levels for Commercial/Industrial Use.

##### 5.1.2 GROUNDWATER ANALYTICAL RESULTS

All four groundwater samples contained detectable concentrations of three metals, none of which have respective Commercial/Industrial Screening Levels.

VOCs and SVOCs were not detected in any groundwater samples.



## 5.2 ANALYTICAL RESULTS

HDR compared soil analytical results to their respective Soil Exposure – Direct Contact Screening Levels for Commercial/Industrial and Excavation. Groundwater analytical results were compared to their respective Vapor Exposure – Ground Water Screening Levels for Commercial/Industrial, as specified in the 2017 IDEM OLQ Screening Levels. HDR selected the aforementioned screening levels for comparison of analytical results due to proposed construction in the Project Area, and future site use. **Appendix A** provides concentrations of analytes detected in soil and groundwater laboratory samples. **Appendix D** includes the TestAmerica laboratory reports.

## 5.3 CONCLUSIONS

Based on the results of this Phase II ESA, HDR concludes the following:

- VOCs, SVOCs, and metals were not detected at concentrations exceeding their respective 2017 IDEM OLQ Commercial/Industrial or Excavation Screening Levels in soil and groundwater samples collected from the four REC locations.

## 6.0 RECOMMENDATIONS

The Findings and Conclusions listed above are the result of investigative procedures outlined in Section 2.1 of this report and contracted scope of work. These conclusions led to the following recommendation:

- As a protective measure for contaminants not noted during this Phase II ESA, HDR recommends that all construction contractors be instructed to stop all subsurface activities in the event that odors or significantly stained soil are discovered during construction. Contractors should be instructed to follow all applicable regulations regarding discovery and response for hazardous materials encountered during the construction process.

## 7.0 REFERENCES

Indiana Department of Environmental Management. 2017. "2017 IDEM Screening and Closure Level Tables." Indianapolis, IN.

IGS. 2016. IGS IndianaMAP. Available at <http://maps.indiana.edu/index.html>.

Metric Environmental. 2017. "NICTD Double Track NWI (DT-NWI) Milepost (MP) 58.8 to MP 32.2." Hazardous and Regulated Materials Memorandum, Indianapolis, IN.

TestAmerica Laboratories, Inc. 2017. "100349259 NICTD DT-NWI (TestAmerica Job ID: 500-130677-1)." Analytical Report, University Park, IL.

TestAmerica Laboratories, Inc. 2017. "100349259 NICTD DT-NWI (TestAmerica Job ID: 500-130678-1)." Analytical Report, University Park, IL.



## **Appendix A: Data Tables**





**Table A-1: Summary of Analytes Detected in Soil Samples**

Analyte	B-1-1-1_N_01.0-02.0_20170706	B-1-1-1_N_05.0-06.0_20170706	B-1-1-2_N_02.0-04.0_20170707	B-1-1-2_N_06.0-07.0_20170707	B-1-1-3_N_01.0-02.0_20170706	B-1-1-3_N_06.0-07.0_20170706	B-1-3-1_N_01.0-02.0_20170706	B-1-3-1_N_04.0-05.0_20170706	B-1-6-1_N_00.0-01.0_20170706	B-1-6-1_N_05.0-06.0_20170706	B-1-6-2_N_01.0-02.0_20170706	B-1-6-2_N_06.0-07.0_20170706	B-1-7-1_N_00.0-02.0_20170706	B-1-7-1_N_03.0-04.5_20170706	B-1-7-2_N_00.0-01.0_20170706	B-1-7-2_N_05.0-07.0_20170706	Soil Exposure - Direct Contact Screening Levels for Commercial/Industrial Use	Soil Exposure - Direct Contact Screening Levels for Excavation
<b>Volatile Organic Compounds (VOCs)</b>																		
Acetone	< 0.020	< 0.020	< 0.021	< 0.020	< 0.022	< 0.020	< 0.020	< 0.020	< 0.020	< 0.022	< 0.017	< 0.022	< 0.023	< 0.021	< 0.025	0.027	100000	100000
<b>Semi-Volatile Organic Compounds (SVOCs)</b>																		
2-Methylnaphthalene	< 0.066	< 0.067	< 0.069	< 0.070	< 0.068	< 0.072	< 0.069	< 0.076	< 0.069	< 0.075	< 0.07	< 0.076	0.093	< 0.079	0.26	< 0.089	3000	6800
Benzo[a]anthracene	< 0.033	< 0.033	0.039	< 0.035	< 0.034	< 0.036	< 0.034	< 0.037	0.034	< 0.037	0.13	< 0.038	0.071	< 0.039	0.094	< 0.044	2.9	160
Benzo[a]pyrene	< 0.033	< 0.033	< 0.034	< 0.035	< 0.034	< 0.036	< 0.034	< 0.037	< 0.034	< 0.037	0.17	< 0.038	< 0.036	< 0.039	0.082	< 0.044	2.9	160
Benzo[b]fluoranthene	< 0.033	< 0.033	0.070	< 0.035	< 0.034	< 0.036	0.060	< 0.037	0.040	< 0.037	0.27	< 0.038	0.10	< 0.039	0.15	< 0.044	29	1600
Benzo[g,h,i]perylene	< 0.033	< 0.033	< 0.034	< 0.035	< 0.034	< 0.036	< 0.034	< 0.037	< 0.034	< 0.037	0.055	< 0.038	< 0.036	< 0.039	0.043	< 0.044	NS	NS
Benzo[k]fluoranthene	< 0.033	< 0.033	< 0.034	< 0.035	< 0.034	< 0.036	< 0.034	< 0.037	< 0.034	< 0.037	0.10	< 0.038	0.043	< 0.039	< 0.037	< 0.044	290	16000
Butylbenzylphthalate	< 0.17	< 0.17	< 0.17	< 0.18	< 0.17	< 0.18	< 0.17	< 0.19	< 0.17	< 0.19	1.3	< 0.19	< 0.18	< 0.2	< 0.18	< 0.22	NS	NS
Chrysene	< 0.033	< 0.033	0.050	< 0.035	< 0.034	< 0.036	0.042	< 0.037	0.051	< 0.037	0.16	< 0.038	0.089	< 0.039	0.16	< 0.044	2900	100000
Fluoranthene	< 0.033	< 0.033	0.063	< 0.035	0.035	< 0.036	0.052	< 0.037	0.048	< 0.037	0.17	< 0.038	0.095	< 0.039	0.14	< 0.044	30000	68000
Indeno[1,2,3-cd]pyrene	< 0.033	< 0.033	< 0.034	< 0.035	< 0.034	< 0.036	< 0.034	< 0.037	< 0.034	< 0.037	0.068	< 0.038	0.042	< 0.039	0.042	< 0.044	29	1600
Phenanthrene	< 0.033	< 0.033	0.038	< 0.035	< 0.034	< 0.036	0.042	< 0.037	0.13	< 0.037	0.069	< 0.038	0.19	< 0.039	0.35	< 0.044	NS	NS
Pyrene	< 0.033	< 0.033	0.075	< 0.035	< 0.034	< 0.036	0.041	< 0.037	0.057	< 0.037	0.19	< 0.038	0.11	< 0.039	0.15	< 0.044	23000	51000
<b>Metals</b>																		
Arsenic	1.0	1.0	22	2.6	< 0.99	0.98	1.6	< 1.1	1.2	< 1.1	1.8	< 0.97	7.3	< 1.0	5.0	3.1	30	920
Barium	4.3	3.3	29	3.8	5.8	3.9	74	2.5	14	2.8	60	3.5	70	2.6	120	12	100000	100000
Cadmium	< 0.19	< 0.18	0.75	< 0.19	< 0.2	< 0.2	0.45	< 0.22	< 0.19	< 0.21	0.9	< 0.19	0.58	< 0.2	0.69	0.29	980	1900
Chromium	1.8	1.8	14	1.9	1.7	2.5	6.2	2.0	2.4	1.6	7.3	2.1	7.2	1.8	14	3.7	63	2700
Lead	1.8	1.2	33	0.95	2.5	1.1	100	1.0	8.7	0.98	80	1.0	29	1.2	75	9.5	800	1000
Mercury	< 0.016	< 0.017	0.028	< 0.017	< 0.017	< 0.016	0.02	< 0.019	< 0.017	< 0.018	0.023	0.02	0.024	< 0.019	0.031	< 0.022	3.1	3.1
Selenium	< 0.95	< 0.88	< 0.95	< 0.93	< 0.99	< 0.98	< 0.98	< 1.1	< 0.97	< 1.1	0.92	< 0.97	1.1	< 1	< 1	< 1.2	5800	9800

**Note:**

All values given in mg/kg  
Standards for Chromium (VI) have been used to compare Chromium results

**Table A-2: Summary of Analytes Detected in Groundwater Samples**

Analyte	G-1-1-1_N_10.0_20170706	G-1-3-1_N_07.5_20170706	G-1-6-1_N_08.0_20170706	G-1-7-2_N_09.0_20170706	Vapor Exposure - Ground Water Screening Levels for Commercial / Industrial Use
<b>Total Metals</b>					
Barium	14	49	28	28	NS
Chromium	<10	16	<10	17	NS
Lead	< 5	7.4	<5	7	NS
<b>Dissolved Metals</b>					
Barium	13	< 10	21	15	NS

**Note:**

All values are in µg/L



## **Appendix B: Photograph Log**



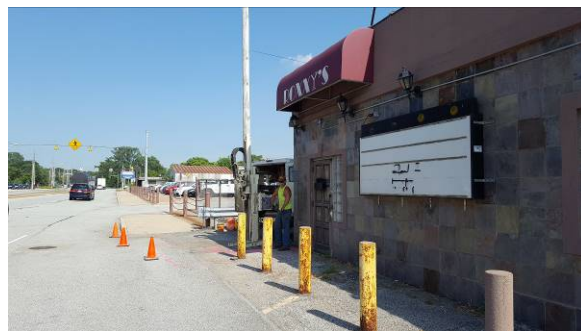
**Photograph 1. A&W drilling Boring B-1-1-3, view to the northwest**



**Photograph 2. A&W preparing to drill Boring B-1-1-1, view to the west**



**Photograph 3. A&W preparing to pump groundwater for a grab sample at Boring B-1-3-1, view to the north**



**Photograph 4. A&W drilling Boring B-1-6-1, view to the west along East Dunes Highway**



**Photograph 5. View of location B-1-7-1, view to the east along East Dunes Highway**



**Photograph 6. View of location B-1-7-2, view to the south from East Dunes Highway**



**Photograph 7. A&W drilling Boring 1-1-2, view to the southeast**



## **Appendix C: Boring Logs**



**B-1-1-1**

**B-1-1-2**

**B-1-1-3**

**B-1-3-1**

**B-1-6-1**

**B-1-6-2**

**B-1-7-1**

**B-1-7-2**



# Boring Log

Project NICTD Double Track NWI Phase II LSI  
 Location Gary, Indiana

Well ID B-1-1-1  
 Project No. 10034929



Logged By Matthew T. Keaveney  
 Start Date 7/6/2017  
 Completion Date 7/6/2017

Boring Depth (ft.): 12.0  
 Boring Dia. (in): 2.0  
 Boring Location: REC 1-1

Drilling Contractor Alt & Witzig Drill Rig GeoProbe®  
 Northing 2312770 Easting 2902330

Analysis:  
VOCs, SVOCs, Metals  
 --

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
8.2	SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2); dry; mostly SAND, fine, subangular.	8.2			
13.7			1045	1.0 - 2.0	B-1-1-1_N_01.0-02.0_20170706	
13.4			13.4			
9.0			9.0			
10			10			
5			11.8	1045	5.0 - 6.0	B-1-1-1_N_05.0-06.0_20170706
9.3			9.3			
5.2	SP	Poorly-graded SAND (SP); medium dense; light brownish gray (10yr 6/2); wet; mostly SAND, fine, subangular.	5.2			
2.3						
1.1						
0.9						
4.6						
10						
15						
20						
25						
30						

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-1-2



Location Gary, Indiana

Project No. 10034929

Logged By Matthew T. Keaveney

Boring Depth (ft.): 12.0

Start Date 7/7/2017

Boring Dia. (in): 2.0

Completion Date 7/7/2017

Boring Location:  
REC 1-1

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312680

Easting 2902400

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
3.4	SP	Poorly-graded SAND (SP); loose; very dark grayish brown (10yr 3/2); dry; mostly SAND, fine, subangular.	3.4			
3.4				0750	2.0 - 4.0	B-1-1-2_N_02.0-04.0_20170707
3.2						
5.9	SP	Poorly-graded SAND (SP); loose; brownish yellow (10yr 6/6); dry; mostly SAND, fine, subangular.	5.9			
5.4				0750	6.0 - 7.0	B-1-1-2_N_06.0-07.0_20170707
3.0						
7.7	SP	Poorly-graded SAND (SP); loose; brownish yellow (10yr 6/6); wet; mostly SAND, fine, subangular.	7.7			
8.7						
8.9						
9.5						
15						
20						
25						
30						

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-1-3



Location Gary, Indiana

Project No. 10034929

Logged By Matthew T. Keaveney

Boring Depth (ft.): 12.0

Start Date 7/6/2017

Boring Dia. (in): 2.0

Completion Date 7/6/2017

Boring Location:  
REC 1-1

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312720

Easting 2902460

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
0.0 - 1.0	SP	Well-graded GRAVEL (GW); loose; dry; mostly GRAVEL.	10.2			
1.0 - 2.0	SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2); dry; mostly SAND, fine, subangular.	10.7	1200	1.0 - 2.0	B-1-1-3_N_01.0-02.0_20170706
2.0 - 3.0			11.2			
3.0 - 4.0			6.2			
4.0 - 5.0			120			
5.0 - 6.0			13.1			
6.0 - 7.0			12.9	1200	6.0 - 7.0	B-1-1-3_N_06.0-07.0_20170706
7.0 - 8.0			12.9			
8.0 - 9.0	SP	Poorly-graded SAND (SP); medium dense; light brownish gray (10yr 6/2); wet; mostly SAND, fine, subangular.	6.7			
9.0 - 10.0			3.7			
10.0 - 11.0			3.3			
11.0 - 12.0			0.0			
12.0 - 13.0						
13.0 - 14.0						
14.0 - 15.0						
15.0 - 16.0						
16.0 - 17.0						
17.0 - 18.0						
18.0 - 19.0						
19.0 - 20.0						
20.0 - 21.0						
21.0 - 22.0						
22.0 - 23.0						
23.0 - 24.0						
24.0 - 25.0						
25.0 - 26.0						
26.0 - 27.0						
27.0 - 28.0						
28.0 - 29.0						
29.0 - 30.0						

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-3-1



Location Gary, Indiana

Project No. 10034929

Logged By Matthew T. Keaveney

Boring Depth (ft.): 12.0

Start Date 7/6/2017

Boring Dia. (in): 2.0

Completion Date 7/6/2017

Boring Location:  
REC 1-3

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312770

Easting 2901590

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
5.3	ML	SANDY SILT with GRAVEL (ML); loose; gray (10yr 6/1); dry; mostly SILT; some SAND, fine, subangular; little GRAVEL.	5.3			
11.5	SP	Poorly-graded SAND (SP); loose; grayish brown (10yr 5/2); dry; mostly SAND, fine-medium, subrounded.	11.5	1515	1.0 - 2.0	B-1-3-1_N_01.0-02.0_20170706
11.1	SP	Poorly-graded SAND (SP); loose; pale brown (10yr 6/3); dry; mostly SAND, fine-medium, subrounded.	11.1			
14.7	SP	Poorly-graded SAND (SP); loose; pale brown (10yr 6/3); dry; mostly SAND, fine-medium, subrounded.	14.7			
14.4	SP	Poorly-graded SAND (SP); loose; pale brown (10yr 6/3); dry; mostly SAND, fine-medium, subrounded; little brick fragments.	14.4	1515	4.0 - 5.0	B-1-3-1_N_04.0-05.0_20170706
12.1	SP	Poorly-graded SAND (SP); loose; pale brown (10yr 6/3); moist; mostly SAND, fine-medium, subrounded.	12.1			
11.7	SP	Poorly-graded SAND (SP); loose; pale brown (10yr 6/3); wet; mostly SAND, fine-medium, subrounded.	11.7			
12.4			12.4			
5.9			5.9			
7.2			7.2			
7.2			7.2			
8.0			8.0			

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-6-1

Location Gary, Indiana

Project No. 10034929



Logged By Matthew T. Keaveney

Boring Depth (ft.): 12.0

Start Date 7/6/2017

Boring Dia. (in): 2.0

Completion Date 7/6/2017

Boring Location:  
REC 1-6

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312800

Easting 2901990

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED	
5 10 15 20 25 30	ASPHALT	Asphalt.	2.2	1615	0.0 - 1.0	B-1-6-1_N_00.0-01.0_20170706	
	SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2); dry; mostly SAND, fine-medium, subrounded, millimeter-sized laminations.	3.3				
			4.6				
			4.3				
			2.5				
			1.4	1615	5.0 - 6.0	B-1-6-1_N_05.0-06.0_20170706	
		SP	2.9				
			3.0				
		SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2); wet; mostly SAND, fine-medium, subrounded, millimeter-sized laminations.	4.4			
				3.2			
			3.4				
			5.4				

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-6-2

Location Gary, Indiana

Project No. 10034929



Logged By Matthew T. Keaveney

Boring Depth (ft.): 8.0

Start Date 7/6/2017

Boring Dia. (in): 2.0

Completion Date 7/6/2017

Boring Location:  
REC 1-6

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312720

Easting 2901950

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
8.5	ASPHALT	Asphalt.	8.5			
13.0	SW	Well-graded SAND (SW); loose, black (10yr 2/1); dry; mostly SAND, medium, subrounded.	13.0	1630	1.0 - 2.0	B-1-6-2_N_01.0-02.0_20170706
10.2	SW	Well-graded SAND with GRAVEL (SW); loose, light brownish gray (10yr 6/2); dry; mostly SAND, fine-medium, subrounded; little GRAVEL.	10.2			
8.4			8.4			
4.9			4.9			
4.2	SW	Well-graded SAND (SW); loose, black (10yr 2/1); moist; mostly SAND, fine-medium, subrounded.	4.2			
2.7	SP	Poorly-graded SAND (SP); medium dense; light brownish gray (10yr 6/2); moist; mostly SAND, fine-medium, subrounded.	2.7	1630	6.0 - 7.0	B-1-6-2_N_06.0-07.0_20170706
3.1			3.1			
10						
15						
20						
25						
30						

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-7-1

Location Gary, Indiana

Project No. 10034929



Logged By Matthew T. Keaveney

Boring Depth (ft.): 8.0

Start Date 7/6/2017

Boring Dia. (in): 2.0

Completion Date 7/6/2017

Boring Location:  
REC 1-7

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312810

Easting 2900980

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
11.6	+	ASPHALT	11.6	1415	0.0 - 2.0	B-1-7-1_N_00.0-02.0_20170706
7.9			7.9			
6.8			6.8			
6.8	SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2); dry; mostly SAND, fine-medium, subrounded.	6.8	1415	3.0 - 4.5	B-1-7-1_N_03.0-04.5_20170706
3.8	SP	Poorly-graded SAND (SP); medium dense; light brownish gray (10yr 6/2); dry; mostly SAND, fine-medium, subrounded.	3.8			
4.1	SP	Poorly-graded SAND (SP); medium dense; light brownish gray (10yr 6/2); wet; mostly SAND, fine-medium, subrounded.	4.1			
5.0			5.0			
5.2			5.2			
10						
15						
20						
25						
30						

# Boring Log

Project NICTD Double Track NWI Phase II LSI

Well ID B-1-7-2

Location Gary, Indiana

Project No. 10034929



Logged By Matthew T. Keaveney

Boring Depth (ft.): 12.0

Start Date 7/6/2017

Boring Dia. (in): 2.0

Completion Date 7/6/2017

Boring Location:  
REC 1-7

Drilling Contractor Alt & Witzig

Drill Rig GeoProbe®

Analysis:

Northing 2312730

Easting 2900940

VOCs, SVOCs, Metals

--

DEPTH (ft.)	STRATIGRAPHY (USCS)	SOIL / ROCK DESCRIPTION	PID Reading (ppm)	TIME	SAMPLE INTERVAL (ft.)	SAMPLE COLLECTED
0.0	ASPHALT	Asphalt and SAND mixture; black (10yr 2/1).	34.5	1320	0.0 - 1.0	B-1-7-2_N_00.0-01.0_20170706
1.3			13.6			
4.0	SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2) and brown (10yr 4/3); dry; mostly SAND, fine-medium, subrounded.	8.8			
5.0			4.0			
7.0	SP	Poorly-graded SAND (SP); loose; light brownish gray (10yr 6/2) and brown (10yr 4/3); wet; mostly SAND, fine-medium, subrounded.	1.3	1320	4.0 - 7.0	B-1-7-2_N_04.0-07.0_20170706
9.6			9.6			
10.0			2.1			
10.5			7.2			
11.0			4.2			
15.0						
20.0						
25.0						
30.0						





## **Appendix D: Laboratory Reports**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-130678-1  
Client Project/Site: 10034929 NICTD DT-NWI

For:  
HDR Engineering, Inc.  
701 Xenia Ave South  
Suite 600  
Minneapolis, Minnesota 55416

Attn: Hong Spores



Authorized for release by:  
7/14/2017 4:33:16 PM

Diana Mockler, Project Manager I  
(219)252-7570  
[diana.mockler@testamericainc.com](mailto:diana.mockler@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Job ID: 500-130678-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-130678-1**

### Comments

No additional comments.

### Receipt

The samples were received on 7/7/2017 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.4° C and 3.7° C.

### Receipt Exceptions

Received the 8oz jar for sample 5 with ID of B-1-7-1\_N\_00.0-01.0\_20170706 and time of 1415. Chain of Custody has B-1-7-2\_N\_00.0-01.0\_02170706 with a time of 1320. Logged in per chain.

Received the 8oz jar for sample 6 with a time of 1200. Chain of custody has 1045. Logged in per chain.

### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### GC/MS Semi VOA

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-392521 and analytical batch 500-392556 were outside control limits. Hexachlorocyclopentadiene recovered at 0% in the MSD. There were several RPD's outside of limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8270D: The following sample contained one acid surrogate outside acceptance limits: B-1-7-2\_N\_05.0-07.0\_20170706 (500-130678-4). The laboratory's SOP allows one acid and/or one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706

## Lab Sample ID: 500-130678-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	2.6		1.0		mg/Kg	1	☼	6010B	Total/NA
Chromium	1.8		1.0		mg/Kg	1	☼	6010B	Total/NA
Lead	1.2		0.51		mg/Kg	1	☼	6010B	Total/NA

## Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706

## Lab Sample ID: 500-130678-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	60		34		ug/Kg	1	☼	8270D	Total/NA
Chrysene	42		34		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	52		34		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	42		34		ug/Kg	1	☼	8270D	Total/NA
Pyrene	41		34		ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.6		0.98		mg/Kg	1	☼	6010B	Total/NA
Barium	74		0.98		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.45		0.20		mg/Kg	1	☼	6010B	Total/NA
Chromium	6.2		0.98		mg/Kg	1	☼	6010B	Total/NA
Lead	100		0.49		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.020		0.016		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706

## Lab Sample ID: 500-130678-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	71		36		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	100		36		ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	43		36		ug/Kg	1	☼	8270D	Total/NA
Chrysene	89		36		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	95		36		ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	42		36		ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	93		73		ug/Kg	1	☼	8270D	Total/NA
Naphthalene	50		36		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	190		36		ug/Kg	1	☼	8270D	Total/NA
Pyrene	110		36		ug/Kg	1	☼	8270D	Total/NA
Arsenic	7.3		1.1		mg/Kg	1	☼	6010B	Total/NA
Barium	70		1.1		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.58		0.21		mg/Kg	1	☼	6010B	Total/NA
Chromium	7.2		1.1		mg/Kg	1	☼	6010B	Total/NA
Lead	29		0.54		mg/Kg	1	☼	6010B	Total/NA
Selenium	1.1		1.1		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.024		0.018		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706

## Lab Sample ID: 500-130678-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	27		23		ug/Kg	1	☼	8260B	Total/NA
Arsenic	3.1		1.2		mg/Kg	1	☼	6010B	Total/NA
Barium	12		1.2		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.29		0.24		mg/Kg	1	☼	6010B	Total/NA
Chromium	3.7		1.2		mg/Kg	1	☼	6010B	Total/NA
Lead	9.5		0.60		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Detection Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	94		37		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	82		37		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	150		37		ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	43		37		ug/Kg	1	☼	8270D	Total/NA
Chrysene	160		37		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	140		37		ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	42		37		ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	260		74		ug/Kg	1	☼	8270D	Total/NA
Naphthalene	130		37		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	350		37		ug/Kg	1	☼	8270D	Total/NA
Pyrene	150		37		ug/Kg	1	☼	8270D	Total/NA
Arsenic	5.0		1.0		mg/Kg	1	☼	6010B	Total/NA
Barium	120		1.0		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.69		0.21		mg/Kg	1	☼	6010B	Total/NA
Chromium	14		1.0		mg/Kg	1	☼	6010B	Total/NA
Lead	75		0.52		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.031		0.018		mg/Kg	1	☼	7471A	Total/NA

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.0		0.88		mg/Kg	1	☼	6010B	Total/NA
Barium	3.3		0.88		mg/Kg	1	☼	6010B	Total/NA
Chromium	1.8		0.88		mg/Kg	1	☼	6010B	Total/NA
Lead	1.2		0.44		mg/Kg	1	☼	6010B	Total/NA

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.0		0.95		mg/Kg	1	☼	6010B	Total/NA
Barium	4.3		0.95		mg/Kg	1	☼	6010B	Total/NA
Chromium	1.8		0.95		mg/Kg	1	☼	6010B	Total/NA
Lead	1.8		0.47		mg/Kg	1	☼	6010B	Total/NA

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.98		0.98		mg/Kg	1	☼	6010B	Total/NA
Barium	3.9		0.98		mg/Kg	1	☼	6010B	Total/NA
Chromium	2.5		0.98		mg/Kg	1	☼	6010B	Total/NA
Lead	1.1		0.49		mg/Kg	1	☼	6010B	Total/NA

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	35		34		ug/Kg	1	☼	8270D	Total/NA
Barium	5.8		0.99		mg/Kg	1	☼	6010B	Total/NA
Chromium	1.7		0.99		mg/Kg	1	☼	6010B	Total/NA
Lead	2.5		0.50		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Detection Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706

## Lab Sample ID: 500-130678-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	3.5		0.97		mg/Kg	1	☼	6010B	Total/NA
Chromium	2.1		0.97		mg/Kg	1	☼	6010B	Total/NA
Lead	1.0		0.49		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.020		0.018		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706

## Lab Sample ID: 500-130678-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	130		35		ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	170		35		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	270		35		ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	55		35		ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	100		35		ug/Kg	1	☼	8270D	Total/NA
Butyl benzyl phthalate	1300		180		ug/Kg	1	☼	8270D	Total/NA
Chrysene	160		35		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	170		35		ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	68		35		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	69		35		ug/Kg	1	☼	8270D	Total/NA
Pyrene	190		35		ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.8		0.91		mg/Kg	1	☼	6010B	Total/NA
Barium	60		0.91		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.90		0.18		mg/Kg	1	☼	6010B	Total/NA
Chromium	7.3		0.91		mg/Kg	1	☼	6010B	Total/NA
Lead	80		0.45		mg/Kg	1	☼	6010B	Total/NA
Selenium	0.92		0.91		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.023		0.016		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706

## Lab Sample ID: 500-130678-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	2.8		1.1		mg/Kg	1	☼	6010B	Total/NA
Chromium	1.6		1.1		mg/Kg	1	☼	6010B	Total/NA
Lead	0.98		0.53		mg/Kg	1	☼	6010B	Total/NA

## Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706

## Lab Sample ID: 500-130678-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	34		34		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	40		34		ug/Kg	1	☼	8270D	Total/NA
Chrysene	51		34		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	48		34		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	130		34		ug/Kg	1	☼	8270D	Total/NA
Pyrene	57		34		ug/Kg	1	☼	8270D	Total/NA
Arsenic	1.2		0.97		mg/Kg	1	☼	6010B	Total/NA
Barium	14		0.97		mg/Kg	1	☼	6010B	Total/NA
Chromium	2.4		0.97		mg/Kg	1	☼	6010B	Total/NA
Lead	8.7		0.49		mg/Kg	1	☼	6010B	Total/NA

## Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706

## Lab Sample ID: 500-130678-14

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago



# Detection Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706 (Continued)

Lab Sample ID: 500-130678-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	2.5		1.1		mg/Kg	1	☼	6010B	Total/NA
Chromium	2.0		1.1		mg/Kg	1	☼	6010B	Total/NA
Lead	1.0		0.55		mg/Kg	1	☼	6010B	Total/NA

## Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707

Lab Sample ID: 500-130678-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	39		34		ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	70		34		ug/Kg	1	☼	8270D	Total/NA
Chrysene	50		34		ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	63		34		ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	38		34		ug/Kg	1	☼	8270D	Total/NA
Pyrene	75		34		ug/Kg	1	☼	8270D	Total/NA
Arsenic	22		0.95		mg/Kg	1	☼	6010B	Total/NA
Barium	29		0.95		mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.75		0.19		mg/Kg	1	☼	6010B	Total/NA
Chromium	14		0.95		mg/Kg	1	☼	6010B	Total/NA
Lead	33		0.47		mg/Kg	1	☼	6010B	Total/NA
Mercury	0.028		0.016		mg/Kg	1	☼	7471A	Total/NA

## Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707

Lab Sample ID: 500-130678-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.6		0.93		mg/Kg	1	☼	6010B	Total/NA
Barium	3.8		0.93		mg/Kg	1	☼	6010B	Total/NA
Chromium	1.9		0.93		mg/Kg	1	☼	6010B	Total/NA
Lead	0.95		0.47		mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
7471A	Mercury (CVAA)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

**Protocol References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Sample Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-130678-1	B-1-7-1_N_03.0-04.5_20170706	Solid	07/06/17 14:15	07/07/17 10:10
500-130678-2	B-1-3-1_N_01.0-02.0_20170706	Solid	07/06/17 15:15	07/07/17 10:10
500-130678-3	B-1-7-1_N_00.0-02.0_20170706	Solid	07/06/17 14:15	07/07/17 10:10
500-130678-4	B-1-7-2_N_05.0-07.0_20170706	Solid	07/06/17 13:20	07/07/17 10:10
500-130678-5	B-1-7-2_N_00.0-01.0_20170706	Solid	07/06/17 13:20	07/07/17 10:10
500-130678-6	B-1-1-1_N_05.0-06.0_20170706	Solid	07/06/17 10:45	07/07/17 10:10
500-130678-7	B-1-1-1_N_01.0-02.0_20170706	Solid	07/06/17 10:45	07/07/17 10:10
500-130678-8	B-1-1-3_N_06.0-07.0_20170706	Solid	07/06/17 12:00	07/07/17 10:10
500-130678-9	B-1-1-3_N_01.0-02.0_20170706	Solid	07/06/17 12:00	07/07/17 10:10
500-130678-10	B-1-6-2_N_06.0-07.0_20170706	Solid	07/06/17 16:30	07/07/17 10:10
500-130678-11	B-1-6-2_N_01.0-02.0_20170706	Solid	07/06/17 16:30	07/07/17 10:10
500-130678-12	B-1-6-1_N_05.0-06.0_20170706	Solid	07/06/17 16:15	07/07/17 10:10
500-130678-13	B-1-6-1_N_00.0-01.0_20170706	Solid	07/06/17 16:15	07/07/17 10:10
500-130678-14	B-1-3-1_N_04.0-05.0_20170706	Solid	07/06/17 15:15	07/07/17 10:10
500-130678-15	B-1-1-2_N_02.0-04.0_20170707	Solid	07/07/17 07:50	07/07/17 10:10
500-130678-16	B-1-1-2_N_06.0-07.0_20170707	Solid	07/07/17 07:50	07/07/17 10:10

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Lab Sample ID: 500-130678-1**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 83.5**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<21		21		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Benzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Bromobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Bromochloromethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Bromodichloromethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Bromoform	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Bromomethane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Carbon disulfide	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Carbon tetrachloride	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Chlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Chloroethane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Chloroform	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Chloromethane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
2-Chlorotoluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
4-Chlorotoluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
cis-1,2-Dichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
cis-1,3-Dichloropropene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Dibromochloromethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2-Dibromo-3-Chloropropane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2-Dibromoethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Dibromomethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,3-Dichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,4-Dichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2-Dichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Dichlorodifluoromethane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,1-Dichloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2-Dichloroethane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,1-Dichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
2,2-Dichloropropane	<21		21		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2-Dichloropropane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,3-Dichloropropane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,1-Dichloropropene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Ethylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Hexachlorobutadiene	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
2-Hexanone	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Isopropylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Methylene Chloride	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Methyl Ethyl Ketone	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
methyl isobutyl ketone	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Methyl tert-butyl ether	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
m&p-Xylene	<4.2		4.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Naphthalene	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
n-Butylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
N-Propylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
o-Xylene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
p-Isopropyltoluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
sec-Butylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Styrene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
tert-Butylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Lab Sample ID: 500-130678-1**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 83.5**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,1,2,2-Tetrachloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Tetrachloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Toluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
trans-1,2-Dichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
trans-1,3-Dichloropropene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2,4-Trichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2,3-Trichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,1,1-Trichloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,1,2-Trichloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Trichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Trichlorofluoromethane	<5.2		5.2		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2,3-Trichloropropane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,3,5-Trimethylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
1,2,4-Trimethylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1
Vinyl chloride	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	07/07/17 15:20	07/10/17 13:36	1
Dibromofluoromethane	91		75 - 126	07/07/17 15:20	07/10/17 13:36	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	07/07/17 15:20	07/10/17 13:36	1
Toluene-d8 (Surr)	87		75 - 124	07/07/17 15:20	07/10/17 13:36	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Acenaphthylene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Anthracene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzo[a]anthracene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzo[a]pyrene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzo[b]fluoranthene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzo[g,h,i]perylene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzoic acid	<2000	F2	2000		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzo[k]fluoranthene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Benzyl alcohol	<790		790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Bis(2-chloroethoxy)methane	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Bis(2-chloroethyl)ether	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Bis(2-ethylhexyl) phthalate	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4-Bromophenyl phenyl ether	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Butyl benzyl phthalate	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Carbazole	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4-Chloroaniline	<790		790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4-Chloro-3-methylphenol	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2-Chloronaphthalene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2-Chlorophenol	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4-Chlorophenyl phenyl ether	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Chrysene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Dibenz(a,h)anthracene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Dibenzofuran	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
1,3-Dichlorobenzene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1

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# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Lab Sample ID: 500-130678-1**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 83.5**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
1,2-Dichlorobenzene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
3,3'-Dichlorobenzidine	<200	F1	200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,4-Dichlorophenol	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Diethyl phthalate	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,4-Dimethylphenol	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Dimethyl phthalate	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Di-n-butyl phthalate	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4,6-Dinitro-2-methylphenol	<790	F2	790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,4-Dinitrophenol	<790	F2	790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,6-Dinitrotoluene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,4-Dinitrotoluene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Di-n-octyl phthalate	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Fluoranthene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Fluorene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Hexachlorobenzene	<79		79		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Hexachlorobutadiene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Hexachlorocyclopentadiene	<790	F1	790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Hexachloroethane	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Indeno[1,2,3-cd]pyrene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Isophorone	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2-Methylnaphthalene	<79		79		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2-Methylphenol	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
3 & 4 Methylphenol	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Naphthalene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2-Nitroaniline	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
3-Nitroaniline	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4-Nitroaniline	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Nitrobenzene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2-Nitrophenol	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
4-Nitrophenol	<790		790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
N-Nitrosodi-n-propylamine	<79		79		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
N-Nitrosodiphenylamine	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,2'-oxybis[1-chloropropane]	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Pentachlorophenol	<790		790		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Phenanthrene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Phenol	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
Pyrene	<39		39		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
1,2,4-Trichlorobenzene	<200		200		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,4,6-Trichlorophenol	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1
2,4,5-Trichlorophenol	<390		390		ug/Kg	☼	07/10/17 18:05	07/11/17 11:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	76		46 - 133	07/10/17 18:05	07/11/17 11:39	1
Phenol-d5 (Surr)	51		46 - 125	07/10/17 18:05	07/11/17 11:39	1
Nitrobenzene-d5 (Surr)	80		41 - 120	07/10/17 18:05	07/11/17 11:39	1
2-Fluorobiphenyl (Surr)	78		44 - 121	07/10/17 18:05	07/11/17 11:39	1
2,4,6-Tribromophenol (Surr)	83		25 - 139	07/10/17 18:05	07/11/17 11:39	1
Terphenyl-d14 (Surr)	109		35 - 160	07/10/17 18:05	07/11/17 11:39	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Lab Sample ID: 500-130678-1**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 83.5**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.0		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1
<b>Barium</b>	<b>2.6</b>		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1
Cadmium	<0.20		0.20		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1
<b>Chromium</b>	<b>1.8</b>		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1
<b>Lead</b>	<b>1.2</b>		0.51		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1
Selenium	<1.0		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1
Silver	<0.51		0.51		mg/Kg	☼	07/10/17 08:05	07/10/17 17:12	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.019		0.019		mg/Kg	☼	07/12/17 10:10	07/12/17 16:33	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-2**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.5**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Bromomethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Carbon disulfide	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Chloroethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Chloromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Dichlorodifluoromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2-Dichloroethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
2,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Hexachlorobutadiene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
2-Hexanone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Methylene Chloride	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Methyl Ethyl Ketone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
methyl isobutyl ketone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
m&p-Xylene	<4.0		4.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Naphthalene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-2**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.5**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Trichlorofluoromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	07/07/17 15:20	07/10/17 14:01	1
Dibromofluoromethane	90		75 - 126	07/07/17 15:20	07/10/17 14:01	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	07/07/17 15:20	07/10/17 14:01	1
Toluene-d8 (Surr)	88		75 - 124	07/07/17 15:20	07/10/17 14:01	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Acenaphthylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Benzo[a]anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Benzo[a]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
<b>Benzo[b]fluoranthene</b>	<b>60</b>		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Benzo[g,h,i]perylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Benzoic acid	<1700		1700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Benzo[k]fluoranthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Benzyl alcohol	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Butyl benzyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Carbazole	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4-Chloroaniline	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4-Chloro-3-methylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2-Chloronaphthalene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2-Chlorophenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
<b>Chrysene</b>	<b>42</b>		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Dibenz(a,h)anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Dibenzofuran	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
1,3-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-2**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.5**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
1,2-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,4-Dichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Diethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,4-Dimethylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Dimethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Di-n-butyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4,6-Dinitro-2-methylphenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,4-Dinitrophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,6-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,4-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Di-n-octyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
<b>Fluoranthene</b>	<b>52</b>		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Fluorene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Hexachlorobenzene	<69		69		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Hexachlorobutadiene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Hexachlorocyclopentadiene	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Hexachloroethane	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Indeno[1,2,3-cd]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Isophorone	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2-Methylnaphthalene	<69		69		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2-Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
3 & 4 Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Naphthalene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2-Nitroaniline	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
3-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Nitrobenzene	<34		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2-Nitrophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
4-Nitrophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
N-Nitrosodi-n-propylamine	<69		69		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
N-Nitrosodiphenylamine	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Pentachlorophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
<b>Phenanthrene</b>	<b>42</b>		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
Phenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
<b>Pyrene</b>	<b>41</b>		34		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,4,6-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1
2,4,5-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/13/17 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	53		46 - 133	07/10/17 18:05	07/11/17 16:10	10
2-Fluorophenol (Surr)	70		46 - 133	07/10/17 18:05	07/13/17 17:30	1
Phenol-d5 (Surr)	51		46 - 125	07/10/17 18:05	07/11/17 16:10	10
Phenol-d5 (Surr)	59		46 - 125	07/10/17 18:05	07/13/17 17:30	1
Nitrobenzene-d5 (Surr)	48		41 - 120	07/10/17 18:05	07/11/17 16:10	10
Nitrobenzene-d5 (Surr)	65		41 - 120	07/10/17 18:05	07/13/17 17:30	1
2-Fluorobiphenyl (Surr)	52		44 - 121	07/10/17 18:05	07/11/17 16:10	10

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-2**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.5**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		44 - 121	07/10/17 18:05	07/13/17 17:30	1
2,4,6-Tribromophenol (Surr)	51		25 - 139	07/10/17 18:05	07/11/17 16:10	10
2,4,6-Tribromophenol (Surr)	76		25 - 139	07/10/17 18:05	07/13/17 17:30	1
Terphenyl-d14 (Surr)	63		35 - 160	07/10/17 18:05	07/11/17 16:10	10
Terphenyl-d14 (Surr)	88		35 - 160	07/10/17 18:05	07/13/17 17:30	1

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1
Barium	74		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1
Cadmium	0.45		0.20		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1
Chromium	6.2		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1
Lead	100		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1
Selenium	<0.98		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1
Silver	<0.49		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 17:40	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.016		mg/Kg	☼	07/12/17 10:10	07/12/17 16:35	1

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**

**Lab Sample ID: 500-130678-3**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 89.9**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<23		23		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Benzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Bromobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Bromochloromethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Bromodichloromethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Bromoform	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Bromomethane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Carbon disulfide	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Carbon tetrachloride	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Chlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Chloroethane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Chloroform	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Chloromethane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
2-Chlorotoluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
4-Chlorotoluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
cis-1,2-Dichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
cis-1,3-Dichloropropene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Dibromochloromethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2-Dibromo-3-Chloropropane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2-Dibromoethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Dibromomethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,3-Dichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,4-Dichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2-Dichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Dichlorodifluoromethane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,1-Dichloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2-Dichloroethane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,1-Dichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
2,2-Dichloropropane	<23		23		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2-Dichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,3-Dichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,1-Dichloropropene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Ethylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Hexachlorobutadiene	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
2-Hexanone	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Isopropylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Methylene Chloride	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Methyl Ethyl Ketone	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
methyl isobutyl ketone	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Methyl tert-butyl ether	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
m&p-Xylene	<4.7		4.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Naphthalene	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
n-Butylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
N-Propylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
o-Xylene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
p-Isopropyltoluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
sec-Butylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Styrene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
tert-Butylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**

**Lab Sample ID: 500-130678-3**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 89.9**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,1,2,2-Tetrachloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Tetrachloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Toluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
trans-1,2-Dichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
trans-1,3-Dichloropropene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2,4-Trichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2,3-Trichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,1,1-Trichloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,1,2-Trichloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Trichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Trichlorofluoromethane	<5.9		5.9		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2,3-Trichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,3,5-Trimethylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
1,2,4-Trimethylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1
Vinyl chloride	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	07/07/17 15:20	07/10/17 14:26	1
Dibromofluoromethane	90		75 - 126	07/07/17 15:20	07/10/17 14:26	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 14:26	1
Toluene-d8 (Surr)	89		75 - 124	07/07/17 15:20	07/10/17 14:26	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Acenaphthylene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Anthracene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Benzo[a]anthracene</b>	<b>71</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Benzo[a]pyrene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Benzo[b]fluoranthene</b>	<b>100</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Benzo[g,h,i]perylene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Benzoic acid	<1800		1800		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Benzo[k]fluoranthene</b>	<b>43</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Benzyl alcohol	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Bis(2-chloroethoxy)methane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Bis(2-chloroethyl)ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Bis(2-ethylhexyl) phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4-Bromophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Butyl benzyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Carbazole	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4-Chloroaniline	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4-Chloro-3-methylphenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2-Chloronaphthalene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2-Chlorophenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4-Chlorophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Chrysene</b>	<b>89</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Dibenz(a,h)anthracene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Dibenzofuran	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
1,3-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**

**Lab Sample ID: 500-130678-3**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 89.9**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
1,2-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
3,3'-Dichlorobenzidine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,4-Dichlorophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Diethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,4-Dimethylphenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Dimethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Di-n-butyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4,6-Dinitro-2-methylphenol	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,4-Dinitrophenol	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,6-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,4-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Di-n-octyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Fluoranthene</b>	<b>95</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Fluorene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Hexachlorobenzene	<73		73		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Hexachlorobutadiene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Hexachlorocyclopentadiene	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Hexachloroethane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>42</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Isophorone	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>2-Methylnaphthalene</b>	<b>93</b>		73		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2-Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
3 & 4 Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Naphthalene</b>	<b>50</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2-Nitroaniline	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
3-Nitroaniline	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4-Nitroaniline	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Nitrobenzene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2-Nitrophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
4-Nitrophenol	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
N-Nitrosodi-n-propylamine	<73		73		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
N-Nitrosodiphenylamine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,2'-oxybis[1-chloropropane]	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Pentachlorophenol	<730		730		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Phenanthrene</b>	<b>190</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
Phenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
<b>Pyrene</b>	<b>110</b>		36		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
1,2,4-Trichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,4,6-Trichlorophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1
2,4,5-Trichlorophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	62		46 - 133	07/10/17 18:05	07/11/17 14:56	1
Phenol-d5 (Surr)	63		46 - 125	07/10/17 18:05	07/11/17 14:56	1
Nitrobenzene-d5 (Surr)	74		41 - 120	07/10/17 18:05	07/11/17 14:56	1
2-Fluorobiphenyl (Surr)	79		44 - 121	07/10/17 18:05	07/11/17 14:56	1
2,4,6-Tribromophenol (Surr)	70		25 - 139	07/10/17 18:05	07/11/17 14:56	1
Terphenyl-d14 (Surr)	85		35 - 160	07/10/17 18:05	07/11/17 14:56	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**

**Lab Sample ID: 500-130678-3**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 89.9**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.3		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1
Barium	70		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1
Cadmium	0.58		0.21		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1
Chromium	7.2		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1
Lead	29		0.54		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1
Selenium	1.1		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1
Silver	<0.54		0.54		mg/Kg	☼	07/10/17 08:05	07/10/17 17:44	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024		0.018		mg/Kg	☼	07/12/17 10:10	07/12/17 16:36	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706**

**Lab Sample ID: 500-130678-4**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 72.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	27		23		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Benzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Bromobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Bromochloromethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Bromodichloromethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Bromoform	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Bromomethane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Carbon disulfide	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Carbon tetrachloride	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Chlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Chloroethane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Chloroform	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Chloromethane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
2-Chlorotoluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
4-Chlorotoluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
cis-1,2-Dichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
cis-1,3-Dichloropropene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Dibromochloromethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2-Dibromo-3-Chloropropane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2-Dibromoethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Dibromomethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,3-Dichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,4-Dichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2-Dichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Dichlorodifluoromethane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,1-Dichloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2-Dichloroethane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,1-Dichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
2,2-Dichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2-Dichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,3-Dichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,1-Dichloropropene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Ethylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Hexachlorobutadiene	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
2-Hexanone	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Isopropylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Methylene Chloride	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Methyl Ethyl Ketone	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
methyl isobutyl ketone	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Methyl tert-butyl ether	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
m&p-Xylene	<4.5		4.5		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Naphthalene	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
n-Butylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
N-Propylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
o-Xylene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
p-Isopropyltoluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
sec-Butylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Styrene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
tert-Butylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706**

**Lab Sample ID: 500-130678-4**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 72.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,1,2,2-Tetrachloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Tetrachloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Toluene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
trans-1,2-Dichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
trans-1,3-Dichloropropene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2,4-Trichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2,3-Trichlorobenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,1,1-Trichloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,1,2-Trichloroethane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Trichloroethene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Trichlorofluoromethane	<5.7		5.7		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2,3-Trichloropropane	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,3,5-Trimethylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
1,2,4-Trimethylbenzene	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1
Vinyl chloride	<2.3		2.3		ug/Kg	☼	07/07/17 15:20	07/10/17 14:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	07/07/17 15:20	07/10/17 14:52	1
Dibromofluoromethane	92		75 - 126	07/07/17 15:20	07/10/17 14:52	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 14:52	1
Toluene-d8 (Surr)	90		75 - 124	07/07/17 15:20	07/10/17 14:52	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Acenaphthylene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Anthracene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzo[a]anthracene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzo[a]pyrene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzo[b]fluoranthene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzo[g,h,i]perylene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzoic acid	<2200		2200		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzo[k]fluoranthene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Benzyl alcohol	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Bis(2-chloroethoxy)methane	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Bis(2-chloroethyl)ether	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Bis(2-ethylhexyl) phthalate	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4-Bromophenyl phenyl ether	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Butyl benzyl phthalate	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Carbazole	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4-Chloroaniline	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4-Chloro-3-methylphenol	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2-Chloronaphthalene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2-Chlorophenol	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4-Chlorophenyl phenyl ether	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Chrysene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Dibenz(a,h)anthracene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Dibenzofuran	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
1,3-Dichlorobenzene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1

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# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706**

**Lab Sample ID: 500-130678-4**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 72.0**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
1,2-Dichlorobenzene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
3,3'-Dichlorobenzidine	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,4-Dichlorophenol	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Diethyl phthalate	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,4-Dimethylphenol	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Dimethyl phthalate	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Di-n-butyl phthalate	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4,6-Dinitro-2-methylphenol	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,4-Dinitrophenol	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,6-Dinitrotoluene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,4-Dinitrotoluene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Di-n-octyl phthalate	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Fluoranthene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Fluorene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Hexachlorobenzene	<89		89		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Hexachlorobutadiene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Hexachlorocyclopentadiene	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Hexachloroethane	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Indeno[1,2,3-cd]pyrene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Isophorone	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2-Methylnaphthalene	<89		89		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2-Methylphenol	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
3 & 4 Methylphenol	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Naphthalene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2-Nitroaniline	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
3-Nitroaniline	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4-Nitroaniline	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Nitrobenzene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2-Nitrophenol	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
4-Nitrophenol	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
N-Nitrosodi-n-propylamine	<89		89		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
N-Nitrosodiphenylamine	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,2'-oxybis[1-chloropropane]	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Pentachlorophenol	<890		890		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Phenanthrene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Phenol	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
Pyrene	<44		44		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
1,2,4-Trichlorobenzene	<220		220		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,4,6-Trichlorophenol	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1
2,4,5-Trichlorophenol	<440		440		ug/Kg	☼	07/10/17 18:05	07/11/17 20:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	49		46 - 133	07/10/17 18:05	07/11/17 20:42	1
Phenol-d5 (Surr)	31	X	46 - 125	07/10/17 18:05	07/11/17 20:42	1
Nitrobenzene-d5 (Surr)	42		41 - 120	07/10/17 18:05	07/11/17 20:42	1
2-Fluorobiphenyl (Surr)	47		44 - 121	07/10/17 18:05	07/11/17 20:42	1
2,4,6-Tribromophenol (Surr)	55		25 - 139	07/10/17 18:05	07/11/17 20:42	1
Terphenyl-d14 (Surr)	61		35 - 160	07/10/17 18:05	07/11/17 20:42	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706**

**Lab Sample ID: 500-130678-4**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 72.0**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.1		1.2		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1
Barium	12		1.2		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1
Cadmium	0.29		0.24		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1
Chromium	3.7		1.2		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1
Lead	9.5		0.60		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1
Selenium	<1.2		1.2		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1
Silver	<0.60		0.60		mg/Kg	☼	07/10/17 08:05	07/10/17 17:48	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.022		0.022		mg/Kg	☼	07/12/17 10:10	07/12/17 16:43	1

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 88.8**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<25		25		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Benzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Bromobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Bromochloromethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Bromodichloromethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Bromoform	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Bromomethane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Carbon disulfide	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Carbon tetrachloride	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Chlorobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Chloroethane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Chloroform	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Chloromethane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
2-Chlorotoluene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
4-Chlorotoluene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
cis-1,2-Dichloroethene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
cis-1,3-Dichloropropene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Dibromochloromethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2-Dibromo-3-Chloropropane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2-Dibromoethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Dibromomethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,3-Dichlorobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,4-Dichlorobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2-Dichlorobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Dichlorodifluoromethane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,1-Dichloroethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2-Dichloroethane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,1-Dichloroethene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
2,2-Dichloropropane	<25		25		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2-Dichloropropane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,3-Dichloropropane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,1-Dichloropropene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Ethylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Hexachlorobutadiene	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
2-Hexanone	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Isopropylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Methylene Chloride	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Methyl Ethyl Ketone	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
methyl isobutyl ketone	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Methyl tert-butyl ether	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
m&p-Xylene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Naphthalene	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
n-Butylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
N-Propylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
o-Xylene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
p-Isopropyltoluene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
sec-Butylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Styrene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
tert-Butylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 88.8**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,1,2,2-Tetrachloroethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Tetrachloroethene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Toluene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
trans-1,2-Dichloroethene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
trans-1,3-Dichloropropene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2,4-Trichlorobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2,3-Trichlorobenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,1,1-Trichloroethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,1,2-Trichloroethane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Trichloroethene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Trichlorofluoromethane	<6.3		6.3		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2,3-Trichloropropane	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,3,5-Trimethylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
1,2,4-Trimethylbenzene	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1
Vinyl chloride	<2.5		2.5		ug/Kg	☼	07/07/17 15:20	07/10/17 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	07/07/17 15:20	07/10/17 15:17	1
Dibromofluoromethane	92		75 - 126	07/07/17 15:20	07/10/17 15:17	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	07/07/17 15:20	07/10/17 15:17	1
Toluene-d8 (Surr)	89		75 - 124	07/07/17 15:20	07/10/17 15:17	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Acenaphthylene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Benzo[a]anthracene</b>	<b>94</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Benzo[a]pyrene</b>	<b>82</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Benzo[b]fluoranthene</b>	<b>150</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Benzo[g,h,i]perylene</b>	<b>43</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Benzoic acid	<1800		1800		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Benzo[k]fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Benzyl alcohol	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Bis(2-chloroethoxy)methane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Bis(2-chloroethyl)ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Bis(2-ethylhexyl) phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4-Bromophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Butyl benzyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Carbazole	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4-Chloroaniline	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4-Chloro-3-methylphenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2-Chloronaphthalene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2-Chlorophenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4-Chlorophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Chrysene</b>	<b>160</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Dibenz(a,h)anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Dibenzofuran	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
1,3-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 88.8**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
1,2-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
3,3'-Dichlorobenzidine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,4-Dichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Diethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,4-Dimethylphenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Dimethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Di-n-butyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4,6-Dinitro-2-methylphenol	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,4-Dinitrophenol	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,6-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,4-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Di-n-octyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Fluoranthene</b>	<b>140</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Fluorene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Hexachlorobenzene	<74		74		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Hexachlorobutadiene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Hexachlorocyclopentadiene	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Hexachloroethane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>42</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Isophorone	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>2-Methylnaphthalene</b>	<b>260</b>		74		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2-Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
3 & 4 Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Naphthalene</b>	<b>130</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2-Nitroaniline	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
3-Nitroaniline	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4-Nitroaniline	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Nitrobenzene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2-Nitrophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
4-Nitrophenol	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
N-Nitrosodi-n-propylamine	<74		74		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
N-Nitrosodiphenylamine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,2'-oxybis[1-chloropropane]	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Pentachlorophenol	<740		740		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Phenanthrene</b>	<b>350</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
Phenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
<b>Pyrene</b>	<b>150</b>		37		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
1,2,4-Trichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,4,6-Trichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1
2,4,5-Trichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	75		46 - 133	07/10/17 18:05	07/11/17 15:46	1
Phenol-d5 (Surr)	78		46 - 125	07/10/17 18:05	07/11/17 15:46	1
Nitrobenzene-d5 (Surr)	94		41 - 120	07/10/17 18:05	07/11/17 15:46	1
2-Fluorobiphenyl (Surr)	93		44 - 121	07/10/17 18:05	07/11/17 15:46	1
2,4,6-Tribromophenol (Surr)	86		25 - 139	07/10/17 18:05	07/11/17 15:46	1
Terphenyl-d14 (Surr)	107		35 - 160	07/10/17 18:05	07/11/17 15:46	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 88.8**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1
Barium	120		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1
Cadmium	0.69		0.21		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1
Chromium	14		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1
Lead	75		0.52		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1
Selenium	<1.0		1.0		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1
Silver	<0.52		0.52		mg/Kg	☼	07/10/17 08:05	07/10/17 17:52	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.031		0.018		mg/Kg	☼	07/12/17 10:10	07/12/17 16:44	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.8**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Bromomethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Carbon disulfide	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Chloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Chloromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2-Dibromo-3-Chloropropane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Dichlorodifluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2-Dichloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
2,2-Dichloropropane	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Hexachlorobutadiene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
2-Hexanone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Methylene Chloride	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Methyl Ethyl Ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
methyl isobutyl ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
m&p-Xylene	<4.1		4.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Naphthalene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.8**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Trichlorofluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	07/07/17 15:20	07/10/17 15:42	1
Dibromofluoromethane	91		75 - 126	07/07/17 15:20	07/10/17 15:42	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 15:42	1
Toluene-d8 (Surr)	90		75 - 124	07/07/17 15:20	07/10/17 15:42	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Acenaphthylene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Anthracene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzo[a]anthracene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzo[a]pyrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzo[b]fluoranthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzo[g,h,i]perylene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzoic acid	<1700		1700		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzo[k]fluoranthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Benzyl alcohol	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Butyl benzyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Carbazole	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4-Chloroaniline	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4-Chloro-3-methylphenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2-Chloronaphthalene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2-Chlorophenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Chrysene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Dibenz(a,h)anthracene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Dibenzofuran	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
1,3-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.8**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
1,2-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,4-Dichlorophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Diethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,4-Dimethylphenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Dimethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Di-n-butyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4,6-Dinitro-2-methylphenol	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,4-Dinitrophenol	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,6-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,4-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Di-n-octyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Fluoranthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Fluorene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Hexachlorobenzene	<67		67		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Hexachlorobutadiene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Hexachlorocyclopentadiene	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Hexachloroethane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Indeno[1,2,3-cd]pyrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Isophorone	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2-Methylnaphthalene	<67		67		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2-Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
3 & 4 Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Naphthalene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2-Nitroaniline	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
3-Nitroaniline	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4-Nitroaniline	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Nitrobenzene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2-Nitrophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
4-Nitrophenol	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
N-Nitrosodi-n-propylamine	<67		67		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
N-Nitrosodiphenylamine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Pentachlorophenol	<670		670		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Phenanthrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Phenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
Pyrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,4,6-Trichlorophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1
2,4,5-Trichlorophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	79		46 - 133	07/10/17 18:05	07/11/17 12:28	1
Phenol-d5 (Surr)	67		46 - 125	07/10/17 18:05	07/11/17 12:28	1
Nitrobenzene-d5 (Surr)	81		41 - 120	07/10/17 18:05	07/11/17 12:28	1
2-Fluorobiphenyl (Surr)	86		44 - 121	07/10/17 18:05	07/11/17 12:28	1
2,4,6-Tribromophenol (Surr)	84		25 - 139	07/10/17 18:05	07/11/17 12:28	1
Terphenyl-d14 (Surr)	113		35 - 160	07/10/17 18:05	07/11/17 12:28	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.8**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.0</b>		0.88		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1
<b>Barium</b>	<b>3.3</b>		0.88		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1
Cadmium	<0.18		0.18		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1
<b>Chromium</b>	<b>1.8</b>		0.88		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1
<b>Lead</b>	<b>1.2</b>		0.44		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1
Selenium	<0.88		0.88		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1
Silver	<0.44		0.44		mg/Kg	☼	07/10/17 08:05	07/10/17 17:56	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017		mg/Kg	☼	07/12/17 10:10	07/12/17 16:49	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.3**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Bromomethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Carbon disulfide	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Chloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Chloromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2-Dibromo-3-Chloropropane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Dichlorodifluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2-Dichloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
2,2-Dichloropropane	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Hexachlorobutadiene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
2-Hexanone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Methylene Chloride	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Methyl Ethyl Ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
methyl isobutyl ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
m&p-Xylene	<4.1		4.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Naphthalene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.3**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Trichlorofluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		75 - 131	07/07/17 15:20	07/10/17 16:07	1
Dibromofluoromethane	92		75 - 126	07/07/17 15:20	07/10/17 16:07	1
1,2-Dichloroethane-d4 (Surr)	90		70 - 134	07/07/17 15:20	07/10/17 16:07	1
Toluene-d8 (Surr)	90		75 - 124	07/07/17 15:20	07/10/17 16:07	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Acenaphthylene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Anthracene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzo[a]anthracene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzo[a]pyrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzo[b]fluoranthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzo[g,h,i]perylene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzoic acid	<1700		1700		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzo[k]fluoranthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Benzyl alcohol	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Butyl benzyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Carbazole	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4-Chloroaniline	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4-Chloro-3-methylphenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2-Chloronaphthalene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2-Chlorophenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Chrysene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Dibenz(a,h)anthracene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Dibenzofuran	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
1,3-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.3**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
1,2-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,4-Dichlorophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Diethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,4-Dimethylphenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Dimethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Di-n-butyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4,6-Dinitro-2-methylphenol	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,4-Dinitrophenol	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,6-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,4-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Di-n-octyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Fluoranthene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Fluorene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Hexachlorobenzene	<66		66		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Hexachlorobutadiene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Hexachlorocyclopentadiene	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Hexachloroethane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Indeno[1,2,3-cd]pyrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Isophorone	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2-Methylnaphthalene	<66		66		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2-Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
3 & 4 Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Naphthalene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2-Nitroaniline	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
3-Nitroaniline	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4-Nitroaniline	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Nitrobenzene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2-Nitrophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
4-Nitrophenol	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
N-Nitrosodi-n-propylamine	<66		66		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
N-Nitrosodiphenylamine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Pentachlorophenol	<660		660		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Phenanthrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Phenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
Pyrene	<33		33		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,4,6-Trichlorophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1
2,4,5-Trichlorophenol	<330		330		ug/Kg	☼	07/10/17 18:05	07/11/17 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	83		46 - 133	07/10/17 18:05	07/11/17 12:53	1
Phenol-d5 (Surr)	75		46 - 125	07/10/17 18:05	07/11/17 12:53	1
Nitrobenzene-d5 (Surr)	84		41 - 120	07/10/17 18:05	07/11/17 12:53	1
2-Fluorobiphenyl (Surr)	89		44 - 121	07/10/17 18:05	07/11/17 12:53	1
2,4,6-Tribromophenol (Surr)	82		25 - 139	07/10/17 18:05	07/11/17 12:53	1
Terphenyl-d14 (Surr)	114		35 - 160	07/10/17 18:05	07/11/17 12:53	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.3**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.0</b>		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1
<b>Barium</b>	<b>4.3</b>		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1
Cadmium	<0.19		0.19		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1
<b>Chromium</b>	<b>1.8</b>		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1
<b>Lead</b>	<b>1.8</b>		0.47		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1
Selenium	<0.95		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1
Silver	<0.47		0.47		mg/Kg	☼	07/10/17 08:05	07/10/17 18:00	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.016		0.016		mg/Kg	☼	07/12/17 10:10	07/12/17 16:50	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 92.4**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Bromomethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Carbon disulfide	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Chloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Chloromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2-Dibromo-3-Chloropropane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Dichlorodifluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2-Dichloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
2,2-Dichloropropane	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Hexachlorobutadiene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
2-Hexanone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Methylene Chloride	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Methyl Ethyl Ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
methyl isobutyl ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
m&p-Xylene	<4.1		4.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Naphthalene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 92.4**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Trichlorofluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 16:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		75 - 131	07/07/17 15:20	07/10/17 16:32	1
Dibromofluoromethane	90		75 - 126	07/07/17 15:20	07/10/17 16:32	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	07/07/17 15:20	07/10/17 16:32	1
Toluene-d8 (Surr)	88		75 - 124	07/07/17 15:20	07/10/17 16:32	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Acenaphthylene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Anthracene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzo[a]anthracene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzo[a]pyrene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzo[b]fluoranthene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzo[g,h,i]perylene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzoic acid	<1800		1800		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzo[k]fluoranthene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Benzyl alcohol	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Bis(2-chloroethoxy)methane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Bis(2-chloroethyl)ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Bis(2-ethylhexyl) phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4-Bromophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Butyl benzyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Carbazole	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4-Chloroaniline	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4-Chloro-3-methylphenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2-Chloronaphthalene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2-Chlorophenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4-Chlorophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Chrysene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Dibenz(a,h)anthracene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Dibenzofuran	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
1,3-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 92.4**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
1,2-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
3,3'-Dichlorobenzidine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,4-Dichlorophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Diethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,4-Dimethylphenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Dimethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Di-n-butyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4,6-Dinitro-2-methylphenol	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,4-Dinitrophenol	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,6-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,4-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Di-n-octyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Fluoranthene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Fluorene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Hexachlorobenzene	<72		72		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Hexachlorobutadiene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Hexachlorocyclopentadiene	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Hexachloroethane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Indeno[1,2,3-cd]pyrene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Isophorone	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2-Methylnaphthalene	<72		72		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2-Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
3 & 4 Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Naphthalene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2-Nitroaniline	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
3-Nitroaniline	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4-Nitroaniline	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Nitrobenzene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2-Nitrophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
4-Nitrophenol	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
N-Nitrosodi-n-propylamine	<72		72		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
N-Nitrosodiphenylamine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,2'-oxybis[1-chloropropane]	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Pentachlorophenol	<720		720		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Phenanthrene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Phenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
Pyrene	<36		36		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
1,2,4-Trichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,4,6-Trichlorophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1
2,4,5-Trichlorophenol	<360		360		ug/Kg	☼	07/10/17 18:05	07/11/17 13:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	73		46 - 133	07/10/17 18:05	07/11/17 13:17	1
Phenol-d5 (Surr)	49		46 - 125	07/10/17 18:05	07/11/17 13:17	1
Nitrobenzene-d5 (Surr)	76		41 - 120	07/10/17 18:05	07/11/17 13:17	1
2-Fluorobiphenyl (Surr)	75		44 - 121	07/10/17 18:05	07/11/17 13:17	1
2,4,6-Tribromophenol (Surr)	84		25 - 139	07/10/17 18:05	07/11/17 13:17	1
Terphenyl-d14 (Surr)	109		35 - 160	07/10/17 18:05	07/11/17 13:17	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 92.4**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.98</b>		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1
<b>Barium</b>	<b>3.9</b>		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1
Cadmium	<0.20		0.20		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1
<b>Chromium</b>	<b>2.5</b>		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1
<b>Lead</b>	<b>1.1</b>		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1
Selenium	<0.98		0.98		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1
Silver	<0.49		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 18:12	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.016		0.016		mg/Kg	☼	07/12/17 10:10	07/12/17 16:52	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 96.3**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<22		22		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Benzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Bromobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Bromochloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Bromodichloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Bromoform	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Bromomethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Carbon disulfide	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Carbon tetrachloride	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Chlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Chloroethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Chloroform	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Chloromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
2-Chlorotoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
4-Chlorotoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
cis-1,2-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
cis-1,3-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Dibromochloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2-Dibromo-3-Chloropropane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2-Dibromoethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Dibromomethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,3-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,4-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Dichlorodifluoromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,1-Dichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2-Dichloroethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,1-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
2,2-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,3-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,1-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Ethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Hexachlorobutadiene	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
2-Hexanone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Isopropylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Methylene Chloride	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Methyl Ethyl Ketone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
methyl isobutyl ketone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Methyl tert-butyl ether	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
m&p-Xylene	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Naphthalene	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
n-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
N-Propylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
o-Xylene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
p-Isopropyltoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
sec-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Styrene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
tert-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 96.3**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,1,2,2-Tetrachloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Tetrachloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Toluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
trans-1,2-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
trans-1,3-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2,4-Trichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2,3-Trichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,1,1-Trichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,1,2-Trichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Trichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Trichlorofluoromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2,3-Trichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,3,5-Trimethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
1,2,4-Trimethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1
Vinyl chloride	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 16:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	07/07/17 15:20	07/10/17 16:57	1
Dibromofluoromethane	93		75 - 126	07/07/17 15:20	07/10/17 16:57	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 134	07/07/17 15:20	07/10/17 16:57	1
Toluene-d8 (Surr)	88		75 - 124	07/07/17 15:20	07/10/17 16:57	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Acenaphthylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzo[a]anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzo[a]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzo[b]fluoranthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzo[g,h,i]perylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzoic acid	<1700		1700		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzo[k]fluoranthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Benzyl alcohol	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Butyl benzyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Carbazole	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4-Chloroaniline	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4-Chloro-3-methylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2-Chloronaphthalene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2-Chlorophenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Chrysene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Dibenz(a,h)anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Dibenzofuran	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
1,3-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 96.3**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
1,2-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,4-Dichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Diethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,4-Dimethylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Dimethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Di-n-butyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4,6-Dinitro-2-methylphenol	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,4-Dinitrophenol	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,6-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,4-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Di-n-octyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
<b>Fluoranthene</b>	<b>35</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Fluorene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Hexachlorobenzene	<68		68		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Hexachlorobutadiene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Hexachlorocyclopentadiene	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Hexachloroethane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Indeno[1,2,3-cd]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Isophorone	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2-Methylnaphthalene	<68		68		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2-Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
3 & 4 Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Naphthalene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2-Nitroaniline	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
3-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Nitrobenzene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2-Nitrophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
4-Nitrophenol	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
N-Nitrosodi-n-propylamine	<68		68		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
N-Nitrosodiphenylamine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Pentachlorophenol	<680		680		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Phenanthrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Phenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
Pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,4,6-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1
2,4,5-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	79		46 - 133	07/10/17 18:05	07/11/17 13:42	1
Phenol-d5 (Surr)	51		46 - 125	07/10/17 18:05	07/11/17 13:42	1
Nitrobenzene-d5 (Surr)	83		41 - 120	07/10/17 18:05	07/11/17 13:42	1
2-Fluorobiphenyl (Surr)	83		44 - 121	07/10/17 18:05	07/11/17 13:42	1
2,4,6-Tribromophenol (Surr)	81		25 - 139	07/10/17 18:05	07/11/17 13:42	1
Terphenyl-d14 (Surr)	108		35 - 160	07/10/17 18:05	07/11/17 13:42	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 96.3**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.99		0.99		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1
<b>Barium</b>	<b>5.8</b>		0.99		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1
Cadmium	<0.20		0.20		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1
<b>Chromium</b>	<b>1.7</b>		0.99		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1
<b>Lead</b>	<b>2.5</b>		0.50		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1
Selenium	<0.99		0.99		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1
Silver	<0.50		0.50		mg/Kg	☼	07/10/17 08:05	07/10/17 18:16	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017		mg/Kg	☼	07/12/17 10:10	07/12/17 16:53	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-10**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.6**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<22		22		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Benzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Bromobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Bromochloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Bromodichloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Bromoform	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Bromomethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Carbon disulfide	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Carbon tetrachloride	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Chlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Chloroethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Chloroform	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Chloromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
2-Chlorotoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
4-Chlorotoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
cis-1,2-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
cis-1,3-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Dibromochloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2-Dibromo-3-Chloropropane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2-Dibromoethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Dibromomethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,3-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,4-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Dichlorodifluoromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,1-Dichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2-Dichloroethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,1-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
2,2-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,3-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,1-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Ethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Hexachlorobutadiene	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
2-Hexanone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Isopropylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Methylene Chloride	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Methyl Ethyl Ketone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
methyl isobutyl ketone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Methyl tert-butyl ether	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
m&p-Xylene	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Naphthalene	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
n-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
N-Propylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
o-Xylene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
p-Isopropyltoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
sec-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Styrene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
tert-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-10**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.6**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,1,2,2-Tetrachloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Tetrachloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Toluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
trans-1,2-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
trans-1,3-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2,4-Trichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2,3-Trichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,1,1-Trichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,1,2-Trichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Trichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Trichlorofluoromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2,3-Trichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,3,5-Trimethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
1,2,4-Trimethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1
Vinyl chloride	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 17:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		75 - 131	07/07/17 15:20	07/10/17 17:22	1
Dibromofluoromethane	92		75 - 126	07/07/17 15:20	07/10/17 17:22	1
1,2-Dichloroethane-d4 (Surr)	89		70 - 134	07/07/17 15:20	07/10/17 17:22	1
Toluene-d8 (Surr)	93		75 - 124	07/07/17 15:20	07/10/17 17:22	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Acenaphthylene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Anthracene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzo[a]anthracene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzo[a]pyrene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzo[b]fluoranthene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzo[g,h,i]perylene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzoic acid	<1900		1900		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzo[k]fluoranthene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Benzyl alcohol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Bis(2-chloroethoxy)methane	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Bis(2-chloroethyl)ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Bis(2-ethylhexyl) phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4-Bromophenyl phenyl ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Butyl benzyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Carbazole	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4-Chloroaniline	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4-Chloro-3-methylphenol	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2-Chloronaphthalene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2-Chlorophenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4-Chlorophenyl phenyl ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Chrysene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Dibenz(a,h)anthracene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Dibenzofuran	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
1,3-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-10**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.6**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
1,2-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
3,3'-Dichlorobenzidine	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,4-Dichlorophenol	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Diethyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,4-Dimethylphenol	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Dimethyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Di-n-butyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4,6-Dinitro-2-methylphenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,4-Dinitrophenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,6-Dinitrotoluene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,4-Dinitrotoluene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Di-n-octyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Fluoranthene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Fluorene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Hexachlorobenzene	<76		76		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Hexachlorobutadiene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Hexachlorocyclopentadiene	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Hexachloroethane	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Indeno[1,2,3-cd]pyrene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Isophorone	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2-Methylnaphthalene	<76		76		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2-Methylphenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
3 & 4 Methylphenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Naphthalene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2-Nitroaniline	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
3-Nitroaniline	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4-Nitroaniline	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Nitrobenzene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2-Nitrophenol	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
4-Nitrophenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
N-Nitrosodi-n-propylamine	<76		76		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
N-Nitrosodiphenylamine	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,2'-oxybis[1-chloropropane]	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Pentachlorophenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Phenanthrene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Phenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
Pyrene	<38		38		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
1,2,4-Trichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,4,6-Trichlorophenol	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1
2,4,5-Trichlorophenol	<380		380		ug/Kg	☼	07/10/17 18:05	07/11/17 14:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	69		46 - 133	07/10/17 18:05	07/11/17 14:07	1
Phenol-d5 (Surr)	70		46 - 125	07/10/17 18:05	07/11/17 14:07	1
Nitrobenzene-d5 (Surr)	78		41 - 120	07/10/17 18:05	07/11/17 14:07	1
2-Fluorobiphenyl (Surr)	76		44 - 121	07/10/17 18:05	07/11/17 14:07	1
2,4,6-Tribromophenol (Surr)	85		25 - 139	07/10/17 18:05	07/11/17 14:07	1
Terphenyl-d14 (Surr)	98		35 - 160	07/10/17 18:05	07/11/17 14:07	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-10**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.6**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.97		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1
<b>Barium</b>	<b>3.5</b>		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1
Cadmium	<0.19		0.19		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1
<b>Chromium</b>	<b>2.1</b>		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1
<b>Lead</b>	<b>1.0</b>		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1
Selenium	<0.97		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1
Silver	<0.49		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 18:20	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.020</b>		0.018		mg/Kg	☼	07/12/17 10:10	07/12/17 16:55	1

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-11**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 93.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<17		17		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Benzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Bromobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Bromochloromethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Bromodichloromethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Bromoform	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Bromomethane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Carbon disulfide	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Carbon tetrachloride	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Chlorobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Chloroethane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Chloroform	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Chloromethane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
2-Chlorotoluene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
4-Chlorotoluene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
cis-1,2-Dichloroethene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
cis-1,3-Dichloropropene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Dibromochloromethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2-Dibromo-3-Chloropropane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2-Dibromoethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Dibromomethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,3-Dichlorobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,4-Dichlorobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2-Dichlorobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Dichlorodifluoromethane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,1-Dichloroethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2-Dichloroethane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,1-Dichloroethene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
2,2-Dichloropropane	<17		17		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2-Dichloropropane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,3-Dichloropropane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,1-Dichloropropene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Ethylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Hexachlorobutadiene	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
2-Hexanone	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Isopropylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Methylene Chloride	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Methyl Ethyl Ketone	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
methyl isobutyl ketone	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Methyl tert-butyl ether	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
m&p-Xylene	<3.5		3.5		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Naphthalene	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
n-Butylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
N-Propylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
o-Xylene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
p-Isopropyltoluene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
sec-Butylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Styrene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
tert-Butylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-11**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 93.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,1,2,2-Tetrachloroethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Tetrachloroethene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Toluene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
trans-1,2-Dichloroethene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
trans-1,3-Dichloropropene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2,4-Trichlorobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2,3-Trichlorobenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,1,1-Trichloroethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,1,2-Trichloroethane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Trichloroethene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Trichlorofluoromethane	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2,3-Trichloropropane	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,3,5-Trimethylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
1,2,4-Trimethylbenzene	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1
Vinyl chloride	<1.7		1.7		ug/Kg	☼	07/07/17 15:20	07/10/17 17:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		75 - 131	07/07/17 15:20	07/10/17 17:47	1
Dibromofluoromethane	89		75 - 126	07/07/17 15:20	07/10/17 17:47	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 17:47	1
Toluene-d8 (Surr)	92		75 - 124	07/07/17 15:20	07/10/17 17:47	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Acenaphthylene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Anthracene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Benzo[a]anthracene</b>	<b>130</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Benzo[a]pyrene</b>	<b>170</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Benzo[b]fluoranthene</b>	<b>270</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Benzo[g,h,i]perylene</b>	<b>55</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Benzoic acid	<1800		1800		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Benzo[k]fluoranthene</b>	<b>100</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Benzyl alcohol	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Bis(2-chloroethoxy)methane	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Bis(2-chloroethyl)ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Bis(2-ethylhexyl) phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4-Bromophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Butyl benzyl phthalate</b>	<b>1300</b>		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Carbazole	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4-Chloroaniline	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4-Chloro-3-methylphenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2-Chloronaphthalene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2-Chlorophenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4-Chlorophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Chrysene</b>	<b>160</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Dibenz(a,h)anthracene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Dibenzofuran	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
1,3-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-11**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 93.0**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
1,2-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
3,3'-Dichlorobenzidine	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,4-Dichlorophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Diethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,4-Dimethylphenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Dimethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Di-n-butyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4,6-Dinitro-2-methylphenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,4-Dinitrophenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,6-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,4-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Di-n-octyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Fluoranthene</b>	<b>170</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Fluorene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Hexachlorobenzene	<70		70		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Hexachlorobutadiene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Hexachlorocyclopentadiene	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Hexachloroethane	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>68</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Isophorone	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2-Methylnaphthalene	<70		70		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2-Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
3 & 4 Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Naphthalene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2-Nitroaniline	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
3-Nitroaniline	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4-Nitroaniline	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Nitrobenzene	<35		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2-Nitrophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
4-Nitrophenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
N-Nitrosodi-n-propylamine	<70		70		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
N-Nitrosodiphenylamine	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,2'-oxybis[1-chloropropane]	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Pentachlorophenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Phenanthrene</b>	<b>69</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
Phenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
<b>Pyrene</b>	<b>190</b>		35		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
1,2,4-Trichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,4,6-Trichlorophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1
2,4,5-Trichlorophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/13/17 17:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	72		46 - 133	07/10/17 18:05	07/13/17 17:53	1
Phenol-d5 (Surr)	62		46 - 125	07/10/17 18:05	07/13/17 17:53	1
Nitrobenzene-d5 (Surr)	73		41 - 120	07/10/17 18:05	07/13/17 17:53	1
2-Fluorobiphenyl (Surr)	76		44 - 121	07/10/17 18:05	07/13/17 17:53	1
2,4,6-Tribromophenol (Surr)	84		25 - 139	07/10/17 18:05	07/13/17 17:53	1
Terphenyl-d14 (Surr)	110		35 - 160	07/10/17 18:05	07/13/17 17:53	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-11**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 93.0**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8		0.91		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1
Barium	60		0.91		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1
Cadmium	0.90		0.18		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1
Chromium	7.3		0.91		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1
Lead	80		0.45		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1
Selenium	0.92		0.91		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1
Silver	<0.45		0.45		mg/Kg	☼	07/10/17 08:05	07/10/17 18:24	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.023		0.016		mg/Kg	☼	07/12/17 10:10	07/12/17 16:56	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-12**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.2**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<22		22		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Benzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Bromobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Bromochloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Bromodichloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Bromoform	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Bromomethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Carbon disulfide	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Carbon tetrachloride	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Chlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Chloroethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Chloroform	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Chloromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
2-Chlorotoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
4-Chlorotoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
cis-1,2-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
cis-1,3-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Dibromochloromethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2-Dibromo-3-Chloropropane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2-Dibromoethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Dibromomethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,3-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,4-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2-Dichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Dichlorodifluoromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,1-Dichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2-Dichloroethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,1-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
2,2-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,3-Dichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,1-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Ethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Hexachlorobutadiene	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
2-Hexanone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Isopropylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Methylene Chloride	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Methyl Ethyl Ketone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
methyl isobutyl ketone	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Methyl tert-butyl ether	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
m&p-Xylene	<4.4		4.4		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Naphthalene	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
n-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
N-Propylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
o-Xylene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
p-Isopropyltoluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
sec-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Styrene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
tert-Butylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-12**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.2**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,1,2,2-Tetrachloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Tetrachloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Toluene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
trans-1,2-Dichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
trans-1,3-Dichloropropene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2,4-Trichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2,3-Trichlorobenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,1,1-Trichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,1,2-Trichloroethane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Trichloroethene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Trichlorofluoromethane	<5.5		5.5		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2,3-Trichloropropane	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,3,5-Trimethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
1,2,4-Trimethylbenzene	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1
Vinyl chloride	<2.2		2.2		ug/Kg	☼	07/07/17 15:20	07/10/17 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	07/07/17 15:20	07/10/17 18:12	1
Dibromofluoromethane	88		75 - 126	07/07/17 15:20	07/10/17 18:12	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 18:12	1
Toluene-d8 (Surr)	90		75 - 124	07/07/17 15:20	07/10/17 18:12	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Acenaphthylene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzo[a]anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzo[a]pyrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzo[b]fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzo[g,h,i]perylene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzoic acid	<1900		1900		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzo[k]fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Benzyl alcohol	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Bis(2-chloroethoxy)methane	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Bis(2-chloroethyl)ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Bis(2-ethylhexyl) phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4-Bromophenyl phenyl ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Butyl benzyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Carbazole	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4-Chloroaniline	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4-Chloro-3-methylphenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2-Chloronaphthalene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2-Chlorophenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4-Chlorophenyl phenyl ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Chrysene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Dibenz(a,h)anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Dibenzofuran	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
1,3-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1

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# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-12**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.2**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
1,2-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
3,3'-Dichlorobenzidine	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,4-Dichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Diethyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,4-Dimethylphenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Dimethyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Di-n-butyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4,6-Dinitro-2-methylphenol	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,4-Dinitrophenol	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,6-Dinitrotoluene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,4-Dinitrotoluene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Di-n-octyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Fluorene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Hexachlorobenzene	<75		75		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Hexachlorobutadiene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Hexachlorocyclopentadiene	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Hexachloroethane	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Indeno[1,2,3-cd]pyrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Isophorone	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2-Methylnaphthalene	<75		75		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2-Methylphenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
3 & 4 Methylphenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Naphthalene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2-Nitroaniline	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
3-Nitroaniline	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4-Nitroaniline	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Nitrobenzene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2-Nitrophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
4-Nitrophenol	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
N-Nitrosodi-n-propylamine	<75		75		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
N-Nitrosodiphenylamine	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,2'-oxybis[1-chloropropane]	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Pentachlorophenol	<750		750		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Phenanthrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Phenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
Pyrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
1,2,4-Trichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,4,6-Trichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1
2,4,5-Trichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 12:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	95		46 - 133	07/10/17 18:05	07/11/17 12:44	1
Phenol-d5 (Surr)	95		46 - 125	07/10/17 18:05	07/11/17 12:44	1
Nitrobenzene-d5 (Surr)	69		41 - 120	07/10/17 18:05	07/11/17 12:44	1
2-Fluorobiphenyl (Surr)	71		44 - 121	07/10/17 18:05	07/11/17 12:44	1
2,4,6-Tribromophenol (Surr)	45		25 - 139	07/10/17 18:05	07/11/17 12:44	1
Terphenyl-d14 (Surr)	121		35 - 160	07/10/17 18:05	07/11/17 12:44	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-12**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.2**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.1		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1
<b>Barium</b>	<b>2.8</b>		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1
Cadmium	<0.21		0.21		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1
<b>Chromium</b>	<b>1.6</b>		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1
<b>Lead</b>	<b>0.98</b>		0.53		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1
Selenium	<1.1		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1
Silver	<0.53		0.53		mg/Kg	☼	07/10/17 08:05	07/10/17 18:28	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.018		0.018		mg/Kg	☼	07/12/17 10:10	07/12/17 16:58	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.7**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Bromomethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Carbon disulfide	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Chloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Chloromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2-Dibromo-3-Chloropropane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Dichlorodifluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2-Dichloroethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
2,2-Dichloropropane	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Hexachlorobutadiene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
2-Hexanone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Methylene Chloride	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Methyl Ethyl Ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
methyl isobutyl ketone	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
m&p-Xylene	<4.1		4.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Naphthalene	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.7**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Trichlorofluoromethane	<5.1		5.1		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 18:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		75 - 131	07/07/17 15:20	07/10/17 18:38	1
Dibromofluoromethane	91		75 - 126	07/07/17 15:20	07/10/17 18:38	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 18:38	1
Toluene-d8 (Surr)	91		75 - 124	07/07/17 15:20	07/10/17 18:38	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Acenaphthylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
<b>Benzo[a]anthracene</b>	<b>34</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Benzo[a]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
<b>Benzo[b]fluoranthene</b>	<b>40</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Benzo[g,h,i]perylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Benzoic acid	<1700		1700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Benzo[k]fluoranthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Benzyl alcohol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Butyl benzyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Carbazole	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4-Chloroaniline	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4-Chloro-3-methylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2-Chloronaphthalene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2-Chlorophenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
<b>Chrysene</b>	<b>51</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Dibenz(a,h)anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Dibenzofuran	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
1,3-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.7**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
1,2-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,4-Dichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Diethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,4-Dimethylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Dimethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Di-n-butyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4,6-Dinitro-2-methylphenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,4-Dinitrophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,6-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,4-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Di-n-octyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
<b>Fluoranthene</b>	<b>48</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Fluorene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Hexachlorobenzene	<69		69		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Hexachlorobutadiene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Hexachlorocyclopentadiene	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Hexachloroethane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Indeno[1,2,3-cd]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Isophorone	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2-Methylnaphthalene	<69		69		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2-Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
3 & 4 Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Naphthalene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2-Nitroaniline	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
3-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Nitrobenzene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2-Nitrophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
4-Nitrophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
N-Nitrosodi-n-propylamine	<69		69		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
N-Nitrosodiphenylamine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Pentachlorophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
<b>Phenanthrene</b>	<b>130</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
Phenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
<b>Pyrene</b>	<b>57</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,4,6-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1
2,4,5-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 14:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	105		46 - 133	07/10/17 18:05	07/11/17 14:31	1
Phenol-d5 (Surr)	96		46 - 125	07/10/17 18:05	07/11/17 14:31	1
Nitrobenzene-d5 (Surr)	71		41 - 120	07/10/17 18:05	07/11/17 14:31	1
2-Fluorobiphenyl (Surr)	83		44 - 121	07/10/17 18:05	07/11/17 14:31	1
2,4,6-Tribromophenol (Surr)	75		25 - 139	07/10/17 18:05	07/11/17 14:31	1
Terphenyl-d14 (Surr)	119		35 - 160	07/10/17 18:05	07/11/17 14:31	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.7**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>1.2</b>		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1
<b>Barium</b>	<b>14</b>		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1
Cadmium	<0.19		0.19		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1
<b>Chromium</b>	<b>2.4</b>		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1
<b>Lead</b>	<b>8.7</b>		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1
Selenium	<0.97		0.97		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1
Silver	<0.49		0.49		mg/Kg	☼	07/10/17 08:05	07/10/17 18:32	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017		mg/Kg	☼	07/12/17 10:10	07/12/17 16:59	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706**

**Lab Sample ID: 500-130678-14**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 85.8**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Bromomethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Carbon disulfide	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Chloroethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Chloromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Dichlorodifluoromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2-Dichloroethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
2,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Hexachlorobutadiene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
2-Hexanone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Methylene Chloride	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Methyl Ethyl Ketone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
methyl isobutyl ketone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
m&p-Xylene	<4.0		4.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Naphthalene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706**

**Lab Sample ID: 500-130678-14**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 85.8**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Trichlorofluoromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	07/07/17 15:20	07/10/17 19:03	1
Dibromofluoromethane	91		75 - 126	07/07/17 15:20	07/10/17 19:03	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 134	07/07/17 15:20	07/10/17 19:03	1
Toluene-d8 (Surr)	90		75 - 124	07/07/17 15:20	07/10/17 19:03	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Acenaphthylene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzo[a]anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzo[a]pyrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzo[b]fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzo[g,h,i]perylene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzoic acid	<1900		1900		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzo[k]fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Benzyl alcohol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Bis(2-chloroethoxy)methane	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Bis(2-chloroethyl)ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Bis(2-ethylhexyl) phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4-Bromophenyl phenyl ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Butyl benzyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Carbazole	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4-Chloroaniline	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4-Chloro-3-methylphenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2-Chloronaphthalene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2-Chlorophenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4-Chlorophenyl phenyl ether	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Chrysene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Dibenz(a,h)anthracene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Dibenzofuran	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
1,3-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706**

**Lab Sample ID: 500-130678-14**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 85.8**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
1,2-Dichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
3,3'-Dichlorobenzidine	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,4-Dichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Diethyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,4-Dimethylphenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Dimethyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Di-n-butyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4,6-Dinitro-2-methylphenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,4-Dinitrophenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,6-Dinitrotoluene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,4-Dinitrotoluene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Di-n-octyl phthalate	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Fluoranthene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Fluorene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Hexachlorobenzene	<76		76		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Hexachlorobutadiene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Hexachlorocyclopentadiene	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Hexachloroethane	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Indeno[1,2,3-cd]pyrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Isophorone	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2-Methylnaphthalene	<76		76		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2-Methylphenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
3 & 4 Methylphenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Naphthalene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2-Nitroaniline	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
3-Nitroaniline	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4-Nitroaniline	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Nitrobenzene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2-Nitrophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
4-Nitrophenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
N-Nitrosodi-n-propylamine	<76		76		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
N-Nitrosodiphenylamine	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,2'-oxybis[1-chloropropane]	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Pentachlorophenol	<760		760		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Phenanthrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Phenol	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
Pyrene	<37		37		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
1,2,4-Trichlorobenzene	<190		190		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,4,6-Trichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1
2,4,5-Trichlorophenol	<370		370		ug/Kg	☼	07/10/17 18:05	07/11/17 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	94		46 - 133	07/10/17 18:05	07/11/17 13:10	1
Phenol-d5 (Surr)	93		46 - 125	07/10/17 18:05	07/11/17 13:10	1
Nitrobenzene-d5 (Surr)	64		41 - 120	07/10/17 18:05	07/11/17 13:10	1
2-Fluorobiphenyl (Surr)	69		44 - 121	07/10/17 18:05	07/11/17 13:10	1
2,4,6-Tribromophenol (Surr)	45		25 - 139	07/10/17 18:05	07/11/17 13:10	1
Terphenyl-d14 (Surr)	117		35 - 160	07/10/17 18:05	07/11/17 13:10	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706**

**Lab Sample ID: 500-130678-14**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 85.8**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.1		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1
<b>Barium</b>	<b>2.5</b>		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1
Cadmium	<0.22		0.22		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1
<b>Chromium</b>	<b>2.0</b>		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1
<b>Lead</b>	<b>1.0</b>		0.55		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1
Selenium	<1.1		1.1		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1
Silver	<0.55		0.55		mg/Kg	☼	07/10/17 08:05	07/10/17 18:36	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.019		0.019		mg/Kg	☼	07/12/17 10:10	07/12/17 17:01	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707**

**Lab Sample ID: 500-130678-15**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.5**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<21		21		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Benzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Bromobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Bromochloromethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Bromodichloromethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Bromoform	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Bromomethane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Carbon disulfide	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Carbon tetrachloride	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Chlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Chloroethane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Chloroform	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Chloromethane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
2-Chlorotoluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
4-Chlorotoluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
cis-1,2-Dichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
cis-1,3-Dichloropropene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Dibromochloromethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2-Dibromo-3-Chloropropane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2-Dibromoethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Dibromomethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,3-Dichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,4-Dichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2-Dichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Dichlorodifluoromethane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,1-Dichloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2-Dichloroethane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,1-Dichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
2,2-Dichloropropane	<21		21		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2-Dichloropropane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,3-Dichloropropane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,1-Dichloropropene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Ethylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Hexachlorobutadiene	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
2-Hexanone	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Isopropylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Methylene Chloride	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Methyl Ethyl Ketone	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
methyl isobutyl ketone	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Methyl tert-butyl ether	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
m&p-Xylene	<4.3		4.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Naphthalene	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
n-Butylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
N-Propylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
o-Xylene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
p-Isopropyltoluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
sec-Butylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Styrene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
tert-Butylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707**

**Lab Sample ID: 500-130678-15**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.5**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,1,2,2-Tetrachloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Tetrachloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Toluene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
trans-1,2-Dichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
trans-1,3-Dichloropropene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2,4-Trichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2,3-Trichlorobenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,1,1-Trichloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,1,2-Trichloroethane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Trichloroethene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Trichlorofluoromethane	<5.3		5.3		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2,3-Trichloropropane	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,3,5-Trimethylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
1,2,4-Trimethylbenzene	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1
Vinyl chloride	<2.1		2.1		ug/Kg	☼	07/07/17 15:20	07/10/17 19:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		75 - 131	07/07/17 15:20	07/10/17 19:28	1
Dibromofluoromethane	90		75 - 126	07/07/17 15:20	07/10/17 19:28	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	07/07/17 15:20	07/10/17 19:28	1
Toluene-d8 (Surr)	89		75 - 124	07/07/17 15:20	07/10/17 19:28	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Acenaphthylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
<b>Benzo[a]anthracene</b>	<b>39</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Benzo[a]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
<b>Benzo[b]fluoranthene</b>	<b>70</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Benzo[g,h,i]perylene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Benzoic acid	<1700		1700		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Benzo[k]fluoranthene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Benzyl alcohol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Butyl benzyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Carbazole	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4-Chloroaniline	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4-Chloro-3-methylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2-Chloronaphthalene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2-Chlorophenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
<b>Chrysene</b>	<b>50</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Dibenz(a,h)anthracene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Dibenzofuran	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
1,3-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707**

**Lab Sample ID: 500-130678-15**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.5**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
1,2-Dichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,4-Dichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Diethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,4-Dimethylphenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Dimethyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Di-n-butyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4,6-Dinitro-2-methylphenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,4-Dinitrophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,6-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,4-Dinitrotoluene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Di-n-octyl phthalate	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
<b>Fluoranthene</b>	<b>63</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Fluorene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Hexachlorobenzene	<69		69		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Hexachlorobutadiene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Hexachlorocyclopentadiene	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Hexachloroethane	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Indeno[1,2,3-cd]pyrene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Isophorone	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2-Methylnaphthalene	<69		69		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2-Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
3 & 4 Methylphenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Naphthalene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2-Nitroaniline	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
3-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4-Nitroaniline	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Nitrobenzene	<34		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2-Nitrophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
4-Nitrophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
N-Nitrosodi-n-propylamine	<69		69		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
N-Nitrosodiphenylamine	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Pentachlorophenol	<690		690		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
<b>Phenanthrene</b>	<b>38</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
Phenol	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
<b>Pyrene</b>	<b>75</b>		34		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,4,6-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1
2,4,5-Trichlorophenol	<340		340		ug/Kg	☼	07/10/17 18:05	07/11/17 13:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	105		46 - 133	07/10/17 18:05	07/11/17 13:37	1
Phenol-d5 (Surr)	90		46 - 125	07/10/17 18:05	07/11/17 13:37	1
Nitrobenzene-d5 (Surr)	76		41 - 120	07/10/17 18:05	07/11/17 13:37	1
2-Fluorobiphenyl (Surr)	75		44 - 121	07/10/17 18:05	07/11/17 13:37	1
2,4,6-Tribromophenol (Surr)	59		25 - 139	07/10/17 18:05	07/11/17 13:37	1
Terphenyl-d14 (Surr)	115		35 - 160	07/10/17 18:05	07/11/17 13:37	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707**

**Lab Sample ID: 500-130678-15**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.5**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	22		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1
Barium	29		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1
Cadmium	0.75		0.19		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1
Chromium	14		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1
Lead	33		0.47		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1
Selenium	<0.95		0.95		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1
Silver	<0.47		0.47		mg/Kg	☼	07/10/17 08:05	07/10/17 18:40	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.028		0.016		mg/Kg	☼	07/12/17 10:10	07/12/17 17:55	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707**

**Lab Sample ID: 500-130678-16**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.6**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Benzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Bromobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Bromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Bromodichloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Bromoform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Bromomethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Carbon disulfide	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Carbon tetrachloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Chlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Chloroethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Chloroform	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Chloromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
2-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
4-Chlorotoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Dibromochloromethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Dibromomethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Dichlorodifluoromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2-Dichloroethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
2,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Ethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Hexachlorobutadiene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
2-Hexanone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Isopropylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Methylene Chloride	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Methyl Ethyl Ketone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
methyl isobutyl ketone	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
m&p-Xylene	<4.0		4.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Naphthalene	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
n-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
N-Propylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
o-Xylene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
sec-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Styrene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
tert-Butylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1

TestAmerica Chicago



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707**

**Lab Sample ID: 500-130678-16**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.6**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Tetrachloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Toluene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Trichloroethene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Trichlorofluoromethane	<5.0		5.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1
Vinyl chloride	<2.0		2.0		ug/Kg	☼	07/07/17 15:20	07/10/17 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131	07/07/17 15:20	07/10/17 19:53	1
Dibromofluoromethane	89		75 - 126	07/07/17 15:20	07/10/17 19:53	1
1,2-Dichloroethane-d4 (Surr)	87		70 - 134	07/07/17 15:20	07/10/17 19:53	1
Toluene-d8 (Surr)	89		75 - 124	07/07/17 15:20	07/10/17 19:53	1

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Acenaphthylene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Anthracene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzo[a]anthracene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzo[a]pyrene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzo[b]fluoranthene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzo[g,h,i]perylene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzoic acid	<1800		1800		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzo[k]fluoranthene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Benzyl alcohol	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Bis(2-chloroethoxy)methane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Bis(2-chloroethyl)ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Bis(2-ethylhexyl) phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4-Bromophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Butyl benzyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Carbazole	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4-Chloroaniline	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4-Chloro-3-methylphenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2-Chloronaphthalene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2-Chlorophenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4-Chlorophenyl phenyl ether	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Chrysene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Dibenz(a,h)anthracene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Dibenzofuran	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
1,3-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1

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# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707**

**Lab Sample ID: 500-130678-16**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.6**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
1,2-Dichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
3,3'-Dichlorobenzidine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,4-Dichlorophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Diethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,4-Dimethylphenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Dimethyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Di-n-butyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4,6-Dinitro-2-methylphenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,4-Dinitrophenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,6-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,4-Dinitrotoluene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Di-n-octyl phthalate	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Fluoranthene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Fluorene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Hexachlorobenzene	<70		70		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Hexachlorobutadiene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Hexachlorocyclopentadiene	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Hexachloroethane	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Indeno[1,2,3-cd]pyrene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Isophorone	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2-Methylnaphthalene	<70		70		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2-Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
3 & 4 Methylphenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Naphthalene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2-Nitroaniline	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
3-Nitroaniline	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4-Nitroaniline	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Nitrobenzene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2-Nitrophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
4-Nitrophenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
N-Nitrosodi-n-propylamine	<70		70		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
N-Nitrosodiphenylamine	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,2'-oxybis[1-chloropropane]	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Pentachlorophenol	<700		700		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Phenanthrene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Phenol	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
Pyrene	<35		35		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
1,2,4-Trichlorobenzene	<180		180		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,4,6-Trichlorophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1
2,4,5-Trichlorophenol	<350		350		ug/Kg	☼	07/10/17 18:05	07/11/17 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	113		46 - 133	07/10/17 18:05	07/11/17 14:04	1
Phenol-d5 (Surr)	101		46 - 125	07/10/17 18:05	07/11/17 14:04	1
Nitrobenzene-d5 (Surr)	82		41 - 120	07/10/17 18:05	07/11/17 14:04	1
2-Fluorobiphenyl (Surr)	92		44 - 121	07/10/17 18:05	07/11/17 14:04	1
2,4,6-Tribromophenol (Surr)	68		25 - 139	07/10/17 18:05	07/11/17 14:04	1
Terphenyl-d14 (Surr)	127		35 - 160	07/10/17 18:05	07/11/17 14:04	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707**

**Lab Sample ID: 500-130678-16**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.6**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>2.6</b>		0.93		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1
<b>Barium</b>	<b>3.8</b>		0.93		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1
Cadmium	<0.19		0.19		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1
<b>Chromium</b>	<b>1.9</b>		0.93		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1
<b>Lead</b>	<b>0.95</b>		0.47		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1
Selenium	<0.93		0.93		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1
Silver	<0.47		0.47		mg/Kg	☼	07/10/17 08:05	07/10/17 18:44	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017		mg/Kg	☼	07/12/17 10:10	07/12/17 17:56	1



# Definitions/Glossary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-392378/7**  
**Matrix: Solid**  
**Analysis Batch: 392378**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<20		20		ug/Kg			07/10/17 12:20	1
Benzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Bromobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Bromochloromethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Bromodichloromethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Bromoform	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Bromomethane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
Carbon disulfide	<5.0		5.0		ug/Kg			07/10/17 12:20	1
Carbon tetrachloride	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Chlorobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Chloroethane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
Chloroform	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Chloromethane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
2-Chlorotoluene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
4-Chlorotoluene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
cis-1,2-Dichloroethene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
cis-1,3-Dichloropropene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Dibromochloromethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
1,2-Dibromoethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Dibromomethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,3-Dichlorobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,4-Dichlorobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,2-Dichlorobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Dichlorodifluoromethane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
1,1-Dichloroethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,2-Dichloroethane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
1,1-Dichloroethene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
2,2-Dichloropropane	<20		20		ug/Kg			07/10/17 12:20	1
1,2-Dichloropropane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,3-Dichloropropane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,1-Dichloropropene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Ethylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Hexachlorobutadiene	<5.0		5.0		ug/Kg			07/10/17 12:20	1
2-Hexanone	<5.0		5.0		ug/Kg			07/10/17 12:20	1
Isopropylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Methylene Chloride	<5.0		5.0		ug/Kg			07/10/17 12:20	1
Methyl Ethyl Ketone	<5.0		5.0		ug/Kg			07/10/17 12:20	1
methyl isobutyl ketone	<5.0		5.0		ug/Kg			07/10/17 12:20	1
Methyl tert-butyl ether	<2.0		2.0		ug/Kg			07/10/17 12:20	1
m&p-Xylene	<4.0		4.0		ug/Kg			07/10/17 12:20	1
Naphthalene	<5.0		5.0		ug/Kg			07/10/17 12:20	1
n-Butylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
N-Propylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
o-Xylene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
p-Isopropyltoluene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
sec-Butylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Styrene	<2.0		2.0		ug/Kg			07/10/17 12:20	1

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-392378/7**  
**Matrix: Solid**  
**Analysis Batch: 392378**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,1,1,2-Tetrachloroethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,1,1,2,2-Tetrachloroethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Tetrachloroethene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Toluene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
trans-1,2-Dichloroethene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
trans-1,3-Dichloropropene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,2,4-Trichlorobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,2,3-Trichlorobenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,1,1-Trichloroethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,1,2-Trichloroethane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Trichloroethene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Trichlorofluoromethane	<5.0		5.0		ug/Kg			07/10/17 12:20	1
1,2,3-Trichloropropane	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,3,5-Trimethylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
1,2,4-Trimethylbenzene	<2.0		2.0		ug/Kg			07/10/17 12:20	1
Vinyl chloride	<2.0		2.0		ug/Kg			07/10/17 12:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		75 - 131		07/10/17 12:20	1
Dibromofluoromethane	90		75 - 126		07/10/17 12:20	1
1,2-Dichloroethane-d4 (Surr)	80		70 - 134		07/10/17 12:20	1
Toluene-d8 (Surr)	87		75 - 124		07/10/17 12:20	1

**Lab Sample ID: LCS 500-392378/5**  
**Matrix: Solid**  
**Analysis Batch: 392378**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	49.4		ug/Kg		99	40 - 150
Benzene	50.0	45.9		ug/Kg		92	70 - 125
Bromobenzene	50.0	46.6		ug/Kg		93	70 - 125
Bromochloromethane	50.0	48.6		ug/Kg		97	70 - 125
Bromodichloromethane	50.0	46.5		ug/Kg		93	67 - 129
Bromoform	50.0	44.9		ug/Kg		90	68 - 136
Bromomethane	50.0	47.5		ug/Kg		95	70 - 130
Carbon disulfide	50.0	47.1		ug/Kg		94	70 - 129
Carbon tetrachloride	50.0	48.4		ug/Kg		97	75 - 125
Chlorobenzene	50.0	45.3		ug/Kg		91	50 - 150
Chloroethane	50.0	43.1		ug/Kg		86	75 - 125
Chloroform	50.0	47.0		ug/Kg		94	57 - 135
Chloromethane	50.0	52.5		ug/Kg		105	70 - 125
2-Chlorotoluene	50.0	46.2		ug/Kg		92	75 - 123
4-Chlorotoluene	50.0	45.7		ug/Kg		91	75 - 122
cis-1,2-Dichloroethene	50.0	47.5		ug/Kg		95	70 - 125
cis-1,3-Dichloropropene	50.0	42.5		ug/Kg		85	70 - 125
Dibromochloromethane	50.0	46.7		ug/Kg		93	69 - 125
1,2-Dibromo-3-Chloropropane	50.0	42.7		ug/Kg		85	60 - 136

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392378/5**

**Matrix: Solid**

**Analysis Batch: 392378**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	50.0	46.2		ug/Kg		92	70 - 125
Dibromomethane	50.0	47.7		ug/Kg		95	48 - 150
1,3-Dichlorobenzene	50.0	45.4		ug/Kg		91	70 - 125
1,4-Dichlorobenzene	50.0	44.8		ug/Kg		90	70 - 125
1,2-Dichlorobenzene	50.0	46.0		ug/Kg		92	70 - 125
Dichlorodifluoromethane	50.0	53.0		ug/Kg		106	75 - 125
1,1-Dichloroethane	50.0	45.6		ug/Kg		91	70 - 125
1,2-Dichloroethane	50.0	46.2		ug/Kg		92	70 - 130
1,1-Dichloroethene	50.0	43.9		ug/Kg		88	70 - 120
2,2-Dichloropropane	50.0	47.1		ug/Kg		94	54 - 140
1,2-Dichloropropane	50.0	46.6		ug/Kg		93	70 - 125
1,3-Dichloropropane	50.0	46.0		ug/Kg		92	70 - 125
1,1-Dichloropropene	50.0	44.4		ug/Kg		89	75 - 125
Ethylbenzene	50.0	46.1		ug/Kg		92	61 - 136
Hexachlorobutadiene	50.0	43.5		ug/Kg		87	70 - 125
2-Hexanone	50.0	45.4		ug/Kg		91	48 - 146
Isopropylbenzene	50.0	45.6		ug/Kg		91	70 - 125
Methylene Chloride	50.0	46.6		ug/Kg		93	70 - 126
Methyl Ethyl Ketone	50.0	40.0		ug/Kg		80	47 - 138
methyl isobutyl ketone	50.0	42.4		ug/Kg		85	50 - 148
Methyl tert-butyl ether	50.0	49.1		ug/Kg		98	50 - 140
m&p-Xylene	50.0	45.6		ug/Kg		91	53 - 147
Naphthalene	50.0	45.0		ug/Kg		90	75 - 128
n-Butylbenzene	50.0	44.9		ug/Kg		90	75 - 125
N-Propylbenzene	50.0	46.4		ug/Kg		93	70 - 125
o-Xylene	50.0	45.6		ug/Kg		91	75 - 125
p-Isopropyltoluene	50.0	45.0		ug/Kg		90	49 - 139
sec-Butylbenzene	50.0	46.1		ug/Kg		92	75 - 128
Styrene	50.0	44.8		ug/Kg		90	70 - 125
tert-Butylbenzene	50.0	45.3		ug/Kg		91	75 - 127
1,1,1,2-Tetrachloroethane	50.0	45.3		ug/Kg		91	70 - 125
1,1,2,2-Tetrachloroethane	50.0	46.2		ug/Kg		92	70 - 122
Tetrachloroethene	50.0	44.3		ug/Kg		89	70 - 124
Toluene	50.0	44.4		ug/Kg		89	70 - 125
trans-1,2-Dichloroethene	50.0	46.6		ug/Kg		93	70 - 125
trans-1,3-Dichloropropene	50.0	42.6		ug/Kg		85	70 - 125
1,2,4-Trichlorobenzene	50.0	44.8		ug/Kg		90	65 - 128
1,2,3-Trichlorobenzene	50.0	45.5		ug/Kg		91	70 - 125
1,1,1-Trichloroethane	50.0	47.1		ug/Kg		94	70 - 128
1,1,2-Trichloroethane	50.0	46.4		ug/Kg		93	70 - 125
Trichloroethene	50.0	46.0		ug/Kg		92	70 - 125
Trichlorofluoromethane	50.0	49.3		ug/Kg		99	70 - 134
1,2,3-Trichloropropane	50.0	47.0		ug/Kg		94	60 - 129
1,3,5-Trimethylbenzene	50.0	46.0		ug/Kg		92	75 - 122
1,2,4-Trimethylbenzene	50.0	45.6		ug/Kg		91	75 - 125
Vinyl chloride	50.0	47.3		ug/Kg		95	70 - 125

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392378/5**  
**Matrix: Solid**  
**Analysis Batch: 392378**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	90		75 - 126
1,2-Dichloroethane-d4 (Surr)	84		70 - 134
Toluene-d8 (Surr)	89		75 - 124

**Lab Sample ID: LCSD 500-392378/6**  
**Matrix: Solid**  
**Analysis Batch: 392378**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
							Limits		
Acetone	50.0	50.0		ug/Kg		100	40 - 150	1	30
Benzene	50.0	46.8		ug/Kg		94	70 - 125	2	30
Bromobenzene	50.0	46.7		ug/Kg		93	70 - 125	0	30
Bromochloromethane	50.0	49.0		ug/Kg		98	70 - 125	1	30
Bromodichloromethane	50.0	48.7		ug/Kg		97	67 - 129	5	30
Bromoform	50.0	45.7		ug/Kg		91	68 - 136	2	30
Bromomethane	50.0	50.8		ug/Kg		102	70 - 130	7	30
Carbon disulfide	50.0	49.4		ug/Kg		99	70 - 129	5	30
Carbon tetrachloride	50.0	48.9		ug/Kg		98	75 - 125	1	30
Chlorobenzene	50.0	46.6		ug/Kg		93	50 - 150	3	30
Chloroethane	50.0	44.2		ug/Kg		88	75 - 125	3	30
Chloroform	50.0	49.2		ug/Kg		98	57 - 135	4	30
Chloromethane	50.0	54.8		ug/Kg		110	70 - 125	4	30
2-Chlorotoluene	50.0	47.4		ug/Kg		95	75 - 123	3	30
4-Chlorotoluene	50.0	47.1		ug/Kg		94	75 - 122	3	30
cis-1,2-Dichloroethene	50.0	49.5		ug/Kg		99	70 - 125	4	30
cis-1,3-Dichloropropene	50.0	42.8		ug/Kg		86	70 - 125	1	30
Dibromochloromethane	50.0	46.9		ug/Kg		94	69 - 125	0	30
1,2-Dibromo-3-Chloropropane	50.0	42.6		ug/Kg		85	60 - 136	0	30
1,2-Dibromoethane	50.0	45.5		ug/Kg		91	70 - 125	1	30
Dibromomethane	50.0	48.1		ug/Kg		96	48 - 150	1	30
1,3-Dichlorobenzene	50.0	47.3		ug/Kg		95	70 - 125	4	30
1,4-Dichlorobenzene	50.0	48.0		ug/Kg		96	70 - 125	7	30
1,2-Dichlorobenzene	50.0	48.2		ug/Kg		96	70 - 125	5	30
Dichlorodifluoromethane	50.0	59.1		ug/Kg		118	75 - 125	11	30
1,1-Dichloroethane	50.0	47.8		ug/Kg		96	70 - 125	5	30
1,2-Dichloroethane	50.0	46.4		ug/Kg		93	70 - 130	1	30
1,1-Dichloroethene	50.0	45.6		ug/Kg		91	70 - 120	4	30
2,2-Dichloropropane	50.0	48.5		ug/Kg		97	54 - 140	3	30
1,2-Dichloropropane	50.0	48.6		ug/Kg		97	70 - 125	4	30
1,3-Dichloropropane	50.0	46.2		ug/Kg		92	70 - 125	0	30
1,1-Dichloropropene	50.0	45.1		ug/Kg		90	75 - 125	2	30
Ethylbenzene	50.0	45.8		ug/Kg		92	61 - 136	1	30
Hexachlorobutadiene	50.0	47.0		ug/Kg		94	70 - 125	8	30
2-Hexanone	50.0	43.0		ug/Kg		86	48 - 146	5	30
Isopropylbenzene	50.0	47.2		ug/Kg		94	70 - 125	3	30
Methylene Chloride	50.0	47.8		ug/Kg		96	70 - 126	3	30
Methyl Ethyl Ketone	50.0	44.4		ug/Kg		89	47 - 138	11	30

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCSD 500-392378/6**  
**Matrix: Solid**  
**Analysis Batch: 392378**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
methyl isobutyl ketone	50.0	42.0		ug/Kg		84	50 - 148	1	30
Methyl tert-butyl ether	50.0	49.4		ug/Kg		99	50 - 140	1	30
m&p-Xylene	50.0	46.6		ug/Kg		93	53 - 147	2	30
Naphthalene	50.0	47.3		ug/Kg		95	75 - 128	5	30
n-Butylbenzene	50.0	47.3		ug/Kg		95	75 - 125	5	30
N-Propylbenzene	50.0	47.1		ug/Kg		94	70 - 125	1	30
o-Xylene	50.0	47.1		ug/Kg		94	75 - 125	3	30
p-Isopropyltoluene	50.0	46.3		ug/Kg		93	49 - 139	3	30
sec-Butylbenzene	50.0	46.7		ug/Kg		93	75 - 128	1	30
Styrene	50.0	46.8		ug/Kg		94	70 - 125	4	30
tert-Butylbenzene	50.0	46.1		ug/Kg		92	75 - 127	2	30
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/Kg		93	70 - 125	3	30
1,1,2,2-Tetrachloroethane	50.0	45.5		ug/Kg		91	70 - 122	2	30
Tetrachloroethene	50.0	44.7		ug/Kg		89	70 - 124	1	30
Toluene	50.0	44.9		ug/Kg		90	70 - 125	1	30
trans-1,2-Dichloroethene	50.0	49.6		ug/Kg		99	70 - 125	6	30
trans-1,3-Dichloropropene	50.0	42.2		ug/Kg		84	70 - 125	1	30
1,2,4-Trichlorobenzene	50.0	47.3		ug/Kg		95	65 - 128	5	30
1,2,3-Trichlorobenzene	50.0	48.3		ug/Kg		97	70 - 125	6	30
1,1,1-Trichloroethane	50.0	48.3		ug/Kg		97	70 - 128	3	30
1,1,2-Trichloroethane	50.0	46.4		ug/Kg		93	70 - 125	0	30
Trichloroethene	50.0	47.2		ug/Kg		94	70 - 125	3	30
Trichlorofluoromethane	50.0	53.3		ug/Kg		107	70 - 134	8	30
1,2,3-Trichloropropane	50.0	46.2		ug/Kg		92	60 - 129	2	30
1,3,5-Trimethylbenzene	50.0	46.9		ug/Kg		94	75 - 122	2	30
1,2,4-Trimethylbenzene	50.0	46.6		ug/Kg		93	75 - 125	2	30
Vinyl chloride	50.0	50.5		ug/Kg		101	70 - 125	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
4-Bromofluorobenzene (Surr)	86		75 - 131
Dibromofluoromethane	92		75 - 126
1,2-Dichloroethane-d4 (Surr)	83		70 - 134
Toluene-d8 (Surr)	89		75 - 124

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-392521/1-A**  
**Matrix: Solid**  
**Analysis Batch: 392533**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Acenaphthylene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Anthracene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Benzo[a]anthracene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Benzo[a]pyrene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Benzo[b]fluoranthene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Benzo[g,h,i]perylene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-392521/1-A**  
**Matrix: Solid**  
**Analysis Batch: 392533**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	<1700		1700		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Benzo[k]fluoranthene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Benzyl alcohol	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Bis(2-chloroethoxy)methane	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Bis(2-chloroethyl)ether	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Bis(2-ethylhexyl) phthalate	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
4-Bromophenyl phenyl ether	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Butyl benzyl phthalate	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Carbazole	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
4-Chloroaniline	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
4-Chloro-3-methylphenol	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2-Chloronaphthalene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2-Chlorophenol	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
4-Chlorophenyl phenyl ether	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Chrysene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Dibenz(a,h)anthracene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Dibenzofuran	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
1,3-Dichlorobenzene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
1,4-Dichlorobenzene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
1,2-Dichlorobenzene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
3,3'-Dichlorobenzidine	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,4-Dichlorophenol	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Diethyl phthalate	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,4-Dimethylphenol	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Dimethyl phthalate	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Di-n-butyl phthalate	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
4,6-Dinitro-2-methylphenol	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,4-Dinitrophenol	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,6-Dinitrotoluene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,4-Dinitrotoluene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Di-n-octyl phthalate	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Fluoranthene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Fluorene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Hexachlorobenzene	<67		67		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Hexachlorobutadiene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Hexachlorocyclopentadiene	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Hexachloroethane	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Indeno[1,2,3-cd]pyrene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Isophorone	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2-Methylnaphthalene	<67		67		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2-Methylphenol	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
3 & 4 Methylphenol	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Naphthalene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2-Nitroaniline	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
3-Nitroaniline	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
4-Nitroaniline	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Nitrobenzene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2-Nitrophenol	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-392521/1-A**  
**Matrix: Solid**  
**Analysis Batch: 392533**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
N-Nitrosodi-n-propylamine	<67		67		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
N-Nitrosodiphenylamine	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,2'-oxybis[1-chloropropane]	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Pentachlorophenol	<670		670		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Phenanthrene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Phenol	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
Pyrene	<33		33		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
1,2,4-Trichlorobenzene	<170		170		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,4,6-Trichlorophenol	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1
2,4,5-Trichlorophenol	<330		330		ug/Kg		07/10/17 18:05	07/11/17 10:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	125		46 - 133	07/10/17 18:05	07/11/17 10:20	1
Phenol-d5 (Surr)	109		46 - 125	07/10/17 18:05	07/11/17 10:20	1
Nitrobenzene-d5 (Surr)	92		41 - 120	07/10/17 18:05	07/11/17 10:20	1
2-Fluorobiphenyl (Surr)	99		44 - 121	07/10/17 18:05	07/11/17 10:20	1
2,4,6-Tribromophenol (Surr)	75		25 - 139	07/10/17 18:05	07/11/17 10:20	1
Terphenyl-d14 (Surr)	119		35 - 160	07/10/17 18:05	07/11/17 10:20	1

**Lab Sample ID: LCS 500-392521/2-A**  
**Matrix: Solid**  
**Analysis Batch: 392533**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	1330	1180		ug/Kg		88	58 - 110
Acenaphthylene	1330	1320		ug/Kg		99	60 - 110
Anthracene	1330	1300		ug/Kg		98	63 - 110
Benzo[a]anthracene	1330	1360		ug/Kg		102	63 - 110
Benzo[a]pyrene	1330	1360		ug/Kg		102	61 - 120
Benzo[b]fluoranthene	1330	1360		ug/Kg		102	62 - 120
Benzo[g,h,i]perylene	1330	1230		ug/Kg		92	64 - 120
Benzoic acid	2670	1010	J	ug/Kg		38	10 - 100
Benzo[k]fluoranthene	1330	1380		ug/Kg		104	65 - 120
Benzyl alcohol	1330	1090		ug/Kg		82	21 - 139
Bis(2-chloroethoxy)methane	1330	1240		ug/Kg		93	60 - 112
Bis(2-chloroethyl)ether	1330	1110		ug/Kg		83	55 - 111
Bis(2-ethylhexyl) phthalate	1330	1450		ug/Kg		109	63 - 118
4-Bromophenyl phenyl ether	1330	1280		ug/Kg		96	63 - 110
Butyl benzyl phthalate	1330	1430		ug/Kg		107	61 - 116
Carbazole	1330	1330		ug/Kg		100	59 - 158
4-Chloroaniline	1330	1140		ug/Kg		85	30 - 150
4-Chloro-3-methylphenol	1330	1170		ug/Kg		88	61 - 114
2-Chloronaphthalene	1330	1310		ug/Kg		98	64 - 110
2-Chlorophenol	1330	1250		ug/Kg		94	64 - 110
4-Chlorophenyl phenyl ether	1330	1180		ug/Kg		88	63 - 110
Chrysene	1330	1340		ug/Kg		100	63 - 120
Dibenz(a,h)anthracene	1330	1240		ug/Kg		93	64 - 119

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392521/2-A**  
**Matrix: Solid**  
**Analysis Batch: 392533**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenzofuran	1330	1290		ug/Kg		97	64 - 110
1,3-Dichlorobenzene	1330	1210		ug/Kg		91	60 - 110
1,4-Dichlorobenzene	1330	1220		ug/Kg		92	61 - 110
1,2-Dichlorobenzene	1330	1190		ug/Kg		89	62 - 110
3,3'-Dichlorobenzidine	1330	1360		ug/Kg		102	49 - 112
2,4-Dichlorophenol	1330	1300		ug/Kg		98	58 - 120
Diethyl phthalate	1330	1260		ug/Kg		94	58 - 120
2,4-Dimethylphenol	1330	1230		ug/Kg		92	60 - 110
Dimethyl phthalate	1330	1210		ug/Kg		91	64 - 110
Di-n-butyl phthalate	1330	1230		ug/Kg		93	65 - 120
4,6-Dinitro-2-methylphenol	2670	1190		ug/Kg		45	10 - 110
2,4-Dinitrophenol	2670	620	J	ug/Kg		23	10 - 100
2,6-Dinitrotoluene	1330	1290		ug/Kg		97	67 - 120
2,4-Dinitrotoluene	1330	1240		ug/Kg		93	62 - 117
Di-n-octyl phthalate	1330	966		ug/Kg		72	63 - 119
Fluoranthene	1330	1200		ug/Kg		90	62 - 120
Fluorene	1330	1240		ug/Kg		93	62 - 120
Hexachlorobenzene	1330	1380		ug/Kg		103	55 - 117
Hexachlorobutadiene	1330	1260		ug/Kg		95	56 - 120
Hexachlorocyclopentadiene	1330	<190		ug/Kg		10	10 - 106
Hexachloroethane	1330	1240		ug/Kg		93	61 - 110
Indeno[1,2,3-cd]pyrene	1330	1240		ug/Kg		93	57 - 127
Isophorone	1330	1130		ug/Kg		84	55 - 110
2-Methylnaphthalene	1330	1260		ug/Kg		95	62 - 110
2-Methylphenol	1330	1190		ug/Kg		89	60 - 120
3 & 4 Methylphenol	1330	1250		ug/Kg		94	57 - 120
Naphthalene	1330	1280		ug/Kg		96	63 - 110
2-Nitroaniline	1330	1250		ug/Kg		93	57 - 124
3-Nitroaniline	1330	996		ug/Kg		75	40 - 122
4-Nitroaniline	1330	1220		ug/Kg		91	60 - 160
Nitrobenzene	1330	1280		ug/Kg		96	60 - 116
2-Nitrophenol	1330	1420		ug/Kg		106	60 - 120
4-Nitrophenol	2670	1300		ug/Kg		49	30 - 122
N-Nitrosodi-n-propylamine	1330	1320		ug/Kg		99	56 - 118
N-Nitrosodiphenylamine	1330	1280		ug/Kg		96	65 - 112
2,2'-oxybis[1-chloropropane]	1330	1500		ug/Kg		112	40 - 124
Pentachlorophenol	2670	1050		ug/Kg		39	13 - 112
Phenanthrene	1330	1280		ug/Kg		96	62 - 120
Phenol	1330	1190		ug/Kg		90	56 - 122
Pyrene	1330	1590		ug/Kg		119	63 - 120
1,2,4-Trichlorobenzene	1330	1280		ug/Kg		96	62 - 110
2,4,6-Trichlorophenol	1330	1210		ug/Kg		91	57 - 120
2,4,5-Trichlorophenol	1330	1110		ug/Kg		84	50 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	120		46 - 133
Phenol-d5 (Surr)	102		46 - 125
Nitrobenzene-d5 (Surr)	90		41 - 120

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392521/2-A**  
**Matrix: Solid**  
**Analysis Batch: 392533**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	94		44 - 121
2,4,6-Tribromophenol (Surr)	97		25 - 139
Terphenyl-d14 (Surr)	122		35 - 160

**Lab Sample ID: 500-130678-1 MS**  
**Matrix: Solid**  
**Analysis Batch: 392556**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**  
**Prep Type: Total/NA**  
**Prep Batch: 392521**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	<39		1560	1140		ug/Kg	☼	73	58 - 110
Acenaphthylene	<39		1560	1350		ug/Kg	☼	87	60 - 110
Anthracene	<39		1560	1350		ug/Kg	☼	86	63 - 110
Benzo[a]anthracene	<39		1560	1500		ug/Kg	☼	96	63 - 110
Benzo[a]pyrene	<39		1560	1270		ug/Kg	☼	82	61 - 120
Benzo[b]fluoranthene	<39		1560	1200		ug/Kg	☼	77	62 - 120
Benzo[g,h,i]perylene	<39		1560	1440		ug/Kg	☼	92	64 - 120
Benzoic acid	<2000	F2	3120	2570		ug/Kg	☼	82	10 - 100
Benzo[k]fluoranthene	<39		1560	1450		ug/Kg	☼	93	65 - 120
Benzyl alcohol	<790		1560	979		ug/Kg	☼	63	21 - 139
Bis(2-chloroethoxy)methane	<200		1560	1190		ug/Kg	☼	76	60 - 112
Bis(2-chloroethyl)ether	<200		1560	1090		ug/Kg	☼	70	55 - 111
Bis(2-ethylhexyl) phthalate	<200		1560	1250		ug/Kg	☼	80	63 - 118
4-Bromophenyl phenyl ether	<200		1560	1310		ug/Kg	☼	84	63 - 110
Butyl benzyl phthalate	<200		1560	1310		ug/Kg	☼	84	61 - 116
Carbazole	<200		1560	2260		ug/Kg	☼	145	59 - 158
4-Chloroaniline	<790		1560	1230		ug/Kg	☼	79	30 - 150
4-Chloro-3-methylphenol	<390		1560	1300		ug/Kg	☼	83	61 - 114
2-Chloronaphthalene	<200		1560	1250		ug/Kg	☼	80	64 - 110
2-Chlorophenol	<200		1560	1280		ug/Kg	☼	82	64 - 110
4-Chlorophenyl phenyl ether	<200		1560	1280		ug/Kg	☼	82	63 - 110
Chrysene	<39		1560	1590		ug/Kg	☼	102	63 - 120
Dibenz(a,h)anthracene	<39		1560	1300		ug/Kg	☼	83	64 - 119
Dibenzofuran	<200		1560	1430		ug/Kg	☼	92	64 - 110
1,3-Dichlorobenzene	<200		1560	1160		ug/Kg	☼	75	60 - 110
1,4-Dichlorobenzene	<200		1560	1190		ug/Kg	☼	76	61 - 110
1,2-Dichlorobenzene	<200		1560	1240		ug/Kg	☼	79	62 - 110
3,3'-Dichlorobenzidine	<200	F1	1560	1920	F1	ug/Kg	☼	123	49 - 112
2,4-Dichlorophenol	<390		1560	1430		ug/Kg	☼	92	58 - 120
Diethyl phthalate	<200		1560	1390		ug/Kg	☼	89	58 - 120
2,4-Dimethylphenol	<390		1560	1190		ug/Kg	☼	76	60 - 110
Dimethyl phthalate	<200		1560	1370		ug/Kg	☼	88	64 - 110
Di-n-butyl phthalate	<200		1560	1310		ug/Kg	☼	84	65 - 120
4,6-Dinitro-2-methylphenol	<790	F2	3120	2310		ug/Kg	☼	74	10 - 110
2,4-Dinitrophenol	<790	F2	3120	1500		ug/Kg	☼	48	10 - 100
2,6-Dinitrotoluene	<200		1560	1440		ug/Kg	☼	92	67 - 120
2,4-Dinitrotoluene	<200		1560	1500		ug/Kg	☼	96	62 - 117
Di-n-octyl phthalate	<200		1560	1220		ug/Kg	☼	78	63 - 119
Fluoranthene	<39		1560	1290		ug/Kg	☼	83	62 - 120

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 500-130678-1 MS**

**Matrix: Solid**

**Analysis Batch: 392556**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Prep Type: Total/NA**

**Prep Batch: 392521**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Fluorene	<39		1560	1320		ug/Kg	☼	85	62 - 120
Hexachlorobenzene	<79		1560	1430		ug/Kg	☼	91	55 - 117
Hexachlorobutadiene	<200		1560	1640		ug/Kg	☼	105	56 - 120
Hexachlorocyclopentadiene	<790	F1	1560	<780		ug/Kg	☼	19	10 - 106
Hexachloroethane	<200		1560	1180		ug/Kg	☼	76	61 - 110
Indeno[1,2,3-cd]pyrene	<39		1560	1320		ug/Kg	☼	84	57 - 127
Isophorone	<200		1560	1250		ug/Kg	☼	80	55 - 110
2-Methylnaphthalene	<79		1560	1400		ug/Kg	☼	90	62 - 110
2-Methylphenol	<200		1560	1510		ug/Kg	☼	97	60 - 120
3 & 4 Methylphenol	<200		1560	1150		ug/Kg	☼	74	57 - 120
Naphthalene	<39		1560	1330		ug/Kg	☼	85	63 - 110
2-Nitroaniline	<200		1560	1300		ug/Kg	☼	83	57 - 124
3-Nitroaniline	<390		1560	1750		ug/Kg	☼	112	40 - 122
4-Nitroaniline	<390		1560	1280		ug/Kg	☼	82	60 - 160
Nitrobenzene	<39		1560	1420		ug/Kg	☼	91	60 - 116
2-Nitrophenol	<390		1560	1350		ug/Kg	☼	86	60 - 120
4-Nitrophenol	<790		3120	1980		ug/Kg	☼	63	30 - 122
N-Nitrosodi-n-propylamine	<79		1560	1430		ug/Kg	☼	91	56 - 118
N-Nitrosodiphenylamine	<200		1560	1480		ug/Kg	☼	95	65 - 112
2,2'-oxybis[1-chloropropane]	<200		1560	1600		ug/Kg	☼	102	40 - 124
Pentachlorophenol	<790		3120	1800		ug/Kg	☼	58	13 - 112
Phenanthrene	<39		1560	1330		ug/Kg	☼	85	62 - 120
Phenol	<200		1560	1250		ug/Kg	☼	80	56 - 122
Pyrene	<39		1560	1450		ug/Kg	☼	93	63 - 120
1,2,4-Trichlorobenzene	<200		1560	1420		ug/Kg	☼	91	62 - 110
2,4,6-Trichlorophenol	<390		1560	1280		ug/Kg	☼	82	57 - 120
2,4,5-Trichlorophenol	<390		1560	1240		ug/Kg	☼	79	50 - 120

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
2-Fluorophenol (Surr)	80		46 - 133
Phenol-d5 (Surr)	85		46 - 125
Nitrobenzene-d5 (Surr)	86		41 - 120
2-Fluorobiphenyl (Surr)	87		44 - 121
2,4,6-Tribromophenol (Surr)	91		25 - 139
Terphenyl-d14 (Surr)	103		35 - 160

**Lab Sample ID: 500-130678-1 MSD**

**Matrix: Solid**

**Analysis Batch: 392556**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Prep Type: Total/NA**

**Prep Batch: 392521**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Acenaphthene	<39		1520	1180		ug/Kg	☼	78	58 - 110	4	30
Acenaphthylene	<39		1520	1370		ug/Kg	☼	90	60 - 110	1	30
Anthracene	<39		1520	1330		ug/Kg	☼	87	63 - 110	2	30
Benzo[a]anthracene	<39		1520	1530		ug/Kg	☼	100	63 - 110	2	30
Benzo[a]pyrene	<39		1520	1280		ug/Kg	☼	84	61 - 120	0	30
Benzo[b]fluoranthene	<39		1520	1270		ug/Kg	☼	83	62 - 120	5	30
Benzo[g,h,i]perylene	<39		1520	1420		ug/Kg	☼	93	64 - 120	1	30

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-130678-1 MSD

Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 392556

Prep Batch: 392521

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Benzoic acid	<2000	F2	3050	<1900	F2	ug/Kg	☼	61	10 - 100	33	30
Benzo[k]fluoranthene	<39		1520	1360		ug/Kg	☼	89	65 - 120	6	30
Benzyl alcohol	<790		1520	980		ug/Kg	☼	64	21 - 139	0	30
Bis(2-chloroethoxy)methane	<200		1520	1170		ug/Kg	☼	77	60 - 112	1	30
Bis(2-chloroethyl)ether	<200		1520	1110		ug/Kg	☼	72	55 - 111	2	30
Bis(2-ethylhexyl) phthalate	<200		1520	1330		ug/Kg	☼	87	63 - 118	6	30
4-Bromophenyl phenyl ether	<200		1520	1310		ug/Kg	☼	86	63 - 110	0	30
Butyl benzyl phthalate	<200		1520	1410		ug/Kg	☼	93	61 - 116	7	30
Carbazole	<200		1520	2230		ug/Kg	☼	146	59 - 158	1	30
4-Chloroaniline	<790		1520	1260		ug/Kg	☼	83	30 - 150	2	30
4-Chloro-3-methylphenol	<390		1520	1320		ug/Kg	☼	87	61 - 114	2	30
2-Chloronaphthalene	<200		1520	1250		ug/Kg	☼	82	64 - 110	0	30
2-Chlorophenol	<200		1520	1290		ug/Kg	☼	84	64 - 110	0	30
4-Chlorophenyl phenyl ether	<200		1520	1310		ug/Kg	☼	86	63 - 110	2	30
Chrysene	<39		1520	1620		ug/Kg	☼	106	63 - 120	2	30
Dibenz(a,h)anthracene	<39		1520	1280		ug/Kg	☼	84	64 - 119	1	30
Dibenzofuran	<200		1520	1440		ug/Kg	☼	94	64 - 110	1	30
1,3-Dichlorobenzene	<200		1520	1170		ug/Kg	☼	77	60 - 110	0	30
1,4-Dichlorobenzene	<200		1520	1160		ug/Kg	☼	76	61 - 110	2	30
1,2-Dichlorobenzene	<200		1520	1220		ug/Kg	☼	80	62 - 110	1	30
3,3'-Dichlorobenzidine	<200	F1	1520	1930	F1	ug/Kg	☼	127	49 - 112	1	30
2,4-Dichlorophenol	<390		1520	1390		ug/Kg	☼	91	58 - 120	3	30
Diethyl phthalate	<200		1520	1440		ug/Kg	☼	94	58 - 120	3	30
2,4-Dimethylphenol	<390		1520	1190		ug/Kg	☼	78	60 - 110	1	30
Dimethyl phthalate	<200		1520	1390		ug/Kg	☼	91	64 - 110	1	30
Di-n-butyl phthalate	<200		1520	1320		ug/Kg	☼	86	65 - 120	0	30
4,6-Dinitro-2-methylphenol	<790	F2	3050	1380	F2	ug/Kg	☼	45	10 - 110	51	30
2,4-Dinitrophenol	<790	F2	3050	<770	F2	ug/Kg	☼	25	10 - 100	67	30
2,6-Dinitrotoluene	<200		1520	1450		ug/Kg	☼	95	67 - 120	1	30
2,4-Dinitrotoluene	<200		1520	1500		ug/Kg	☼	99	62 - 117	0	30
Di-n-octyl phthalate	<200		1520	1300		ug/Kg	☼	85	63 - 119	7	30
Fluoranthene	<39		1520	1290		ug/Kg	☼	85	62 - 120	0	30
Fluorene	<39		1520	1340		ug/Kg	☼	88	62 - 120	1	30
Hexachlorobenzene	<79		1520	1430		ug/Kg	☼	94	55 - 117	0	30
Hexachlorobutadiene	<200		1520	1580		ug/Kg	☼	104	56 - 120	4	30
Hexachlorocyclopentadiene	<790	F1	1520	<770	F1	ug/Kg	☼	0	10 - 106	NC	30
Hexachloroethane	<200		1520	1160		ug/Kg	☼	76	61 - 110	2	30
Indeno[1,2,3-cd]pyrene	<39		1520	1300		ug/Kg	☼	85	57 - 127	1	30
Isophorone	<200		1520	1240		ug/Kg	☼	81	55 - 110	1	30
2-Methylnaphthalene	<79		1520	1380		ug/Kg	☼	90	62 - 110	1	30
2-Methylphenol	<200		1520	1520		ug/Kg	☼	100	60 - 120	1	30
3 & 4 Methylphenol	<200		1520	1190		ug/Kg	☼	78	57 - 120	3	30
Naphthalene	<39		1520	1340		ug/Kg	☼	88	63 - 110	1	30
2-Nitroaniline	<200		1520	1260		ug/Kg	☼	82	57 - 124	3	30
3-Nitroaniline	<390		1520	1720		ug/Kg	☼	113	40 - 122	2	30
4-Nitroaniline	<390		1520	1290		ug/Kg	☼	85	60 - 160	1	30
Nitrobenzene	<39		1520	1340		ug/Kg	☼	88	60 - 116	6	30
2-Nitrophenol	<390		1520	1300		ug/Kg	☼	86	60 - 120	3	30

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 500-130678-1 MSD**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 392556**

**Prep Batch: 392521**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
4-Nitrophenol	<790		3050	1980		ug/Kg	☼	65	30 - 122	0	30
N-Nitrosodi-n-propylamine	<79		1520	1460		ug/Kg	☼	96	56 - 118	2	30
N-Nitrosodiphenylamine	<200		1520	1480		ug/Kg	☼	97	65 - 112	0	30
2,2'-oxybis[1-chloropropane]	<200		1520	1630		ug/Kg	☼	107	40 - 124	2	30
Pentachlorophenol	<790		3050	1570		ug/Kg	☼	51	13 - 112	14	30
Phenanthrene	<39		1520	1310		ug/Kg	☼	86	62 - 120	2	30
Phenol	<200		1520	1340		ug/Kg	☼	88	56 - 122	7	30
Pyrene	<39		1520	1460		ug/Kg	☼	96	63 - 120	1	30
1,2,4-Trichlorobenzene	<200		1520	1390		ug/Kg	☼	91	62 - 110	2	30
2,4,6-Trichlorophenol	<390		1520	1280		ug/Kg	☼	84	57 - 120	0	30
2,4,5-Trichlorophenol	<390		1520	1320		ug/Kg	☼	87	50 - 120	6	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorophenol (Surr)	82		46 - 133
Phenol-d5 (Surr)	91		46 - 125
Nitrobenzene-d5 (Surr)	81		41 - 120
2-Fluorobiphenyl (Surr)	88		44 - 121
2,4,6-Tribromophenol (Surr)	94		25 - 139
Terphenyl-d14 (Surr)	107		35 - 160

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 500-392379/1-A**

**Client Sample ID: Method Blank**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 392549**

**Prep Batch: 392379**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<1.0		1.0		mg/Kg		07/10/17 08:05	07/10/17 17:00	1
Barium	<1.0		1.0		mg/Kg		07/10/17 08:05	07/10/17 17:00	1
Cadmium	<0.20		0.20		mg/Kg		07/10/17 08:05	07/10/17 17:00	1
Chromium	<1.0		1.0		mg/Kg		07/10/17 08:05	07/10/17 17:00	1
Lead	<0.50		0.50		mg/Kg		07/10/17 08:05	07/10/17 17:00	1
Selenium	<1.0		1.0		mg/Kg		07/10/17 08:05	07/10/17 17:00	1
Silver	<0.50		0.50		mg/Kg		07/10/17 08:05	07/10/17 17:00	1

**Lab Sample ID: LCS 500-392379/2-A**

**Client Sample ID: Lab Control Sample**

**Matrix: Solid**

**Prep Type: Total/NA**

**Analysis Batch: 392549**

**Prep Batch: 392379**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Arsenic	10.0	9.45		mg/Kg		95	80 - 120	
Barium	200	190		mg/Kg		95	80 - 120	
Cadmium	5.00	4.68		mg/Kg		94	80 - 120	
Chromium	20.0	19.3		mg/Kg		97	80 - 120	
Lead	10.0	9.36		mg/Kg		94	80 - 120	
Selenium	10.0	8.47		mg/Kg		85	80 - 120	
Silver	5.00	4.63		mg/Kg		93	80 - 120	

TestAmerica Chicago



# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 500-130678-1 MS**

**Matrix: Solid**  
**Analysis Batch: 392549**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Prep Type: Total/NA**  
**Prep Batch: 392379**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Arsenic	<1.0		10.1	10.1		mg/Kg	☼	96	75 - 125
Barium	2.6		201	194		mg/Kg	☼	95	75 - 125
Cadmium	<0.20		5.03	4.66		mg/Kg	☼	91	75 - 125
Chromium	1.8		20.1	21.5		mg/Kg	☼	98	75 - 125
Lead	1.2		10.1	11.3		mg/Kg	☼	100	75 - 125
Selenium	<1.0		10.1	8.59		mg/Kg	☼	85	75 - 125
Silver	<0.51		5.03	4.54		mg/Kg	☼	90	75 - 125

**Lab Sample ID: 500-130678-1 MSD**

**Matrix: Solid**  
**Analysis Batch: 392549**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Prep Type: Total/NA**  
**Prep Batch: 392379**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Arsenic	<1.0		10.2	10.1		mg/Kg	☼	94	75 - 125	0	20
Barium	2.6		205	197		mg/Kg	☼	95	75 - 125	1	20
Cadmium	<0.20		5.12	4.72		mg/Kg	☼	91	75 - 125	1	20
Chromium	1.8		20.5	21.4		mg/Kg	☼	96	75 - 125	1	20
Lead	1.2		10.2	11.2		mg/Kg	☼	97	75 - 125	1	20
Selenium	<1.0		10.2	8.68		mg/Kg	☼	85	75 - 125	1	20
Silver	<0.51		5.12	4.63		mg/Kg	☼	90	75 - 125	2	20

**Lab Sample ID: 500-130678-1 DU**

**Matrix: Solid**  
**Analysis Batch: 392549**

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Prep Type: Total/NA**  
**Prep Batch: 392379**

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Arsenic	<1.0		<1.1		mg/Kg	☼	NC	20
Barium	2.6		3.21	F5	mg/Kg	☼	22	20
Cadmium	<0.20		<0.21		mg/Kg	☼	NC	20
Chromium	1.8		1.68		mg/Kg	☼	5	20
Lead	1.2		1.43		mg/Kg	☼	18	20
Selenium	<1.0		<1.1		mg/Kg	☼	NC	20
Silver	<0.51		<0.53		mg/Kg	☼	NC	20

## Method: 7471A - Mercury (CVAA)

**Lab Sample ID: MB 500-392737/12-A**

**Matrix: Solid**  
**Analysis Batch: 392863**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 392737**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.017		0.017		mg/Kg		07/12/17 10:10	07/12/17 16:30	1

**Lab Sample ID: LCS 500-392737/13-A**

**Matrix: Solid**  
**Analysis Batch: 392863**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**  
**Prep Batch: 392737**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Mercury	0.167	0.163		mg/Kg		98	80 - 120

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Lab Sample ID: 500-130678-3 MS**  
**Matrix: Solid**  
**Analysis Batch: 392863**

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**  
**Prep Type: Total/NA**  
**Prep Batch: 392737**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	0.024		0.0890	0.116		mg/Kg	☼	104	75 - 125

**Lab Sample ID: 500-130678-3 MSD**  
**Matrix: Solid**  
**Analysis Batch: 392863**

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**  
**Prep Type: Total/NA**  
**Prep Batch: 392737**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.024		0.0861	0.111		mg/Kg	☼	102	75 - 125	4	20

**Lab Sample ID: 500-130678-3 DU**  
**Matrix: Solid**  
**Analysis Batch: 392863**

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**  
**Prep Type: Total/NA**  
**Prep Batch: 392737**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	0.024		0.0260		mg/Kg	☼	10	20



# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Date Collected: 07/06/17 14:15**

**Date Received: 07/07/17 10:10**

**Lab Sample ID: 500-130678-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-7-1\_N\_03.0-04.5\_20170706**

**Date Collected: 07/06/17 14:15**

**Date Received: 07/07/17 10:10**

**Lab Sample ID: 500-130678-1**

**Matrix: Solid**

**Percent Solids: 83.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 13:36	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 11:39	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 17:12	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:33	MJD	TAL CHI

**Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706**

**Date Collected: 07/06/17 15:15**

**Date Received: 07/07/17 10:10**

**Lab Sample ID: 500-130678-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-3-1\_N\_01.0-02.0\_20170706**

**Date Collected: 07/06/17 15:15**

**Date Received: 07/07/17 10:10**

**Lab Sample ID: 500-130678-2**

**Matrix: Solid**

**Percent Solids: 94.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 14:01	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		10	392556	07/11/17 16:10	AJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392869	07/13/17 17:30	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 17:40	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:35	MJD	TAL CHI

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**

**Lab Sample ID: 500-130678-3**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-7-1\_N\_00.0-02.0\_20170706**

**Lab Sample ID: 500-130678-3**

**Date Collected: 07/06/17 14:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 89.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 14:26	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 14:56	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 17:44	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:36	MJD	TAL CHI

**Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706**

**Lab Sample ID: 500-130678-4**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-7-2\_N\_05.0-07.0\_20170706**

**Lab Sample ID: 500-130678-4**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 72.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 14:52	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 20:42	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 17:48	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:43	MJD	TAL CHI

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-7-2\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-5**

**Date Collected: 07/06/17 13:20**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 88.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 15:17	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 15:46	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 17:52	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:44	MJD	TAL CHI

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-1-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-6**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 15:42	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 12:28	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 17:56	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:49	MJD	TAL CHI

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-1\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-7**

**Date Collected: 07/06/17 10:45**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 16:07	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 12:53	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:00	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:50	MJD	TAL CHI

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-1-3\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-8**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 92.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 16:32	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 13:17	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:12	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:52	MJD	TAL CHI

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-3\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-9**

**Date Collected: 07/06/17 12:00**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 96.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	392378	07/10/17 16:57	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 13:42	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:16	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:53	MJD	TAL CHI

**Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-10**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-6-2\_N\_06.0-07.0\_20170706**

**Lab Sample ID: 500-130678-10**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 17:22	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392556	07/11/17 14:07	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:20	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:55	MJD	TAL CHI

**Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-11**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-6-2\_N\_01.0-02.0\_20170706**

**Lab Sample ID: 500-130678-11**

**Date Collected: 07/06/17 16:30**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 93.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 17:47	DJD	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392869	07/13/17 17:53	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:24	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:56	MJD	TAL CHI

**Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-12**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-6-1\_N\_05.0-06.0\_20170706**

**Lab Sample ID: 500-130678-12**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 87.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 18:12	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392533	07/11/17 12:44	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:28	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 16:58	MJD	TAL CHI

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 18:38	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392533	07/11/17 14:31	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:32	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI

TestAmerica Chicago



# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-6-1\_N\_00.0-01.0\_20170706**

**Lab Sample ID: 500-130678-13**

**Date Collected: 07/06/17 16:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	392863	07/12/17 16:59	MJD	TAL CHI

**Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706**

**Lab Sample ID: 500-130678-14**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-3-1\_N\_04.0-05.0\_20170706**

**Lab Sample ID: 500-130678-14**

**Date Collected: 07/06/17 15:15**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 19:03	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392533	07/11/17 13:10	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:36	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 17:01	MJD	TAL CHI

**Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707**

**Lab Sample ID: 500-130678-15**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-1-2\_N\_02.0-04.0\_20170707**

**Lab Sample ID: 500-130678-15**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 95.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 19:28	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392533	07/11/17 13:37	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:40	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 17:55	MJD	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

**Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707**

**Lab Sample ID: 500-130678-16**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	392449	07/10/17 13:14	LWN	TAL CHI

**Client Sample ID: B-1-1-2\_N\_06.0-07.0\_20170707**

**Lab Sample ID: 500-130678-16**

**Date Collected: 07/07/17 07:50**

**Matrix: Solid**

**Date Received: 07/07/17 10:10**

**Percent Solids: 94.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			392357	07/07/17 15:20	WRE	TAL CHI
Total/NA	Analysis	8260B		1	392378	07/10/17 19:53	DJD	TAL CHI
Total/NA	Prep	3541			392521	07/10/17 18:05	JP1	TAL CHI
Total/NA	Analysis	8270D		1	392533	07/11/17 14:04	AJD	TAL CHI
Total/NA	Prep	3050B			392379	07/10/17 08:05	EEN	TAL CHI
Total/NA	Analysis	6010B		1	392549	07/10/17 18:44	PJ1	TAL CHI
Total/NA	Prep	7471A			392737	07/12/17 10:10	PFK	TAL CHI
Total/NA	Analysis	7471A		1	392863	07/12/17 17:56	MJD	TAL CHI

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130678-1

## Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
7471A	7471A	Solid	Mercury
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



**TestAmerica Chicago**

2417 Bond Street  
 University Park, IL 60484  
 Phone (708) 534-5200 Fax (708) 534-5211

**Chain of Custody Record**

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Sampler: <u>Matthew T Keaveney</u>		Lab PM: Mockler, Diana J		Carrier Tracking No(s):		COC No: 500-54830-26917.1	
Client Contact: Mr. Matthew Keaveney		Phone: <u>8457322463 / 261 3359382</u>		E-Mail: <u>diana.mockler@testamericainc.com</u>				Page: Page 1 of 2	
Company: HDR Engineering, Inc.		Address: 1 International Blvd 10th Floor, Suite 1000		Due Date Requested:		<b>Analysis Requested</b>		Job #: <u>500-130678</u>	
City: Mahwah		State, Zip: NJ, 07495		TAT Requested (days): <u>1 week</u>				Preservation Codes:	
Phone: 201-335-9382(Tel) 500-130678 COC		Email: <u>matthew.keaveney@hdrinc.com</u>		PO #: Purchase Order Requested				A - HCL M - Hexane	
Project Name: HDR Engineering		Project #: 50013525		WO #: 10034929-12.9				B - NaOH N - None	
Site:		SSOW#:						C - Zn Acetate O - AsNaO2	
								D - Nitric Acid P - Na2O4S	
								E - NaHSO4 Q - Na2SO3	
								F - MeOH R - Na2S2O3	
								G - Amchlor S - H2SO4	
								H - Ascorbic Acid T - TSP Dodecahydrate	
								I - Ice U - Acetone	
								J - DI Water V - MCAA	
								K - EDTA W - pH 4-5	
								L - EDA Z - other (specify)	
								Other:	
								Special Instructions/Note:	
<b>Sample Identification</b>		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Field Filtered Sample (Yes or No)	
								Perform: MS/MSD (Yes or No)	
								8260B - VOCs	
								6010B, 7471A, 8270D	
								8260B - VOCs	
								Total Number of Containers:	
								Preservation Code:	
								N A	
1 B-1-7-1_N_03.0-04.5_20170706		7/6/17		1415		G		Solid	
2 B-1-3-1_N_01.0-02.0_20170706		7/6/17		1515		G		Solid	
3 B-1-7-1_N_00.0-02.0_20170706		7/6/17		1415		G		Solid	
4 B-1-7-2_N_05.0-07.0_20170706		7/6/17		1320		G		Solid	
5 B-1-7-2_N_00.0-01.0_20170706		7/6/17		1320		G		Solid	
6 B-1-1-1_N_05.0-06.0_20170706		7/6/17		1045		G		Solid	
7 B-1-1-1_N_01.0-02.0_20170706		7/6/17		1045		G		Solid	
8 B-1-1-3_N_06.0-07.0_20170706		7/6/17		1200		G		Solid	
9 B-1-1-3_N_01.0-02.0_20170706		7/6/17		1200		G		Solid	
10 B-1-6-2_N_06.0-07.0_20170706		7/6/17		1630		G		Solid	
11 B-1-6-2_N_01.0-02.0_20170706		7/6/17		1630		G		Solid	
<b>Possible Hazard Identification</b>					<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>				
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify) <u>PDF, Equis EOD</u>					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>7/7/17 0836</u>		Company: <u>HDR</u>		Received by: <u>Chris Emerice</u>		Date/Time: <u>7-7-17 0836</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>7-7-17 0900</u>		Company: <u>JPL</u>		Received by: <u>[Signature]</u>		Date/Time: <u>7/7/17 0900</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>7/7/17 1010</u>		Company: <u>TA</u>		Received by: <u>[Signature]</u>		Date/Time: <u>7/7/17 1010</u>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>34.3, 7</u>		7/14/2017			

### Chain of Custody Record

<b>Client Information</b>	Sampler: <b>Matthew T Keaveney</b>	Lab PM: <b>Mockler, Diana J</b>	Carrier Tracking No(s):	COC No: <b>500-54830-26917.2</b>
Client Contact: <b>Mr. Matthew Keaveney</b>	Phone: <b>845 332 2463 / 201 375 9982</b>	E-Mail: <b>diana.mockler@testamericainc.com</b>		Page: <b>Page 2 of 2</b>

Company: <b>HDR Engineering, Inc.</b>	<b>Analysis Requested</b>				Job #: <b>500-130678</b>		
Address: <b>1 International Blvd 10th Floor, Suite 1000</b>	Due Date Requested:		<table border="0" style="width:100%;"> <tr> <td style="width:50%; vertical-align: top;">           Preservation Codes:            A - HCL                M - Hexane            B - NaOH              N - None            C - Zn Acetate        O - AsNaO2            D - Nitric Acid        P - Na2O4S            E - NaHSO4            Q - Na2SO3            F - MeOH              R - Na2S2O3            G - Amchlor          S - H2SO4            H - Ascorbic Acid    T - TSP Dodecahydrate            I - Ice                  U - Acetone            J - DI Water          V - MCAA            K - EDTA              W - pH 4-5            L - EDA                Z - other (specify)         </td> <td style="width:50%; vertical-align: top;">           Other:         </td> </tr> </table>			Preservation Codes: A - HCL                M - Hexane B - NaOH              N - None C - Zn Acetate        O - AsNaO2 D - Nitric Acid        P - Na2O4S E - NaHSO4            Q - Na2SO3 F - MeOH              R - Na2S2O3 G - Amchlor          S - H2SO4 H - Ascorbic Acid    T - TSP Dodecahydrate I - Ice                  U - Acetone J - DI Water          V - MCAA K - EDTA              W - pH 4-5 L - EDA                Z - other (specify)	Other:
Preservation Codes: A - HCL                M - Hexane B - NaOH              N - None C - Zn Acetate        O - AsNaO2 D - Nitric Acid        P - Na2O4S E - NaHSO4            Q - Na2SO3 F - MeOH              R - Na2S2O3 G - Amchlor          S - H2SO4 H - Ascorbic Acid    T - TSP Dodecahydrate I - Ice                  U - Acetone J - DI Water          V - MCAA K - EDTA              W - pH 4-5 L - EDA                Z - other (specify)	Other:						
City: <b>Mahwah</b>	TAT Requested (days): <b>1 week</b>						
State, Zip: <b>NJ, 07495</b>	PO #: Purchase Order Requested						
Phone: <b>201-335-9382(Tel)</b>	WO #: <b>10034929-12.9</b>						
Email: <b>matthew.keaveney@hdrinc.com</b>	Project #: <b>50013525</b>						
Project Name: <b>HDR Engineering</b>	SSOW#:						
Site:							

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<b>12</b> B-1-6-1-N_05.0-06.0_20170706	7/6/17	1615	G	Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N	A
<b>13</b> B-1-6-1-N_00.0-01.0_20170706	7/6/17	1615	G	Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<del>B-1-7-1-N_03.0-07.0_20170706</del>	<del>7/6/17</del>	<del>1415</del>	<del>G</del>	<del>Solid</del>	<del><input checked="" type="checkbox"/></del>	<del><input checked="" type="checkbox"/></del>		
<b>14</b> B-1-3-1-N_04.0-05.0_20170706	7/6/17	1515	G	Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<b>15</b> B-1-1-2-N_02.0-04.0_20170707	7/7/17	0750	G	Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<b>16</b> B-1-1-2-N_06.0-07.0_20170707	7/7/17	0750	G	Solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) <b>PDF Equis EMD</b>	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 7/7/17 0836	Company: HDR	Received by: <b>Chris Emerald</b>
Relinquished by: <b>Chris Emerald</b>	Date/Time: 7.7.17 0900	Company: HDR	Received by:
Relinquished by:	Date/Time: 7/7/17 1010	Company: HDR	Received by: <b>Shawn Scott</b>

Custody Seals Intact:  Yes  No      Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

# Login Sample Receipt Checklist

Client: HDR Engineering, Inc.

Job Number: 500-130678-1

**Login Number: 130678**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4,3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-130677-1  
Client Project/Site: 10034929 NICTD DT-NWI

For:  
HDR Engineering, Inc.  
701 Xenia Ave South  
Suite 600  
Minneapolis, Minnesota 55416

Attn: Hong Spores



Authorized for release by:  
7/14/2017 10:52:47 AM

Diana Mockler, Project Manager I  
(219)252-7570  
[diana.mockler@testamericainc.com](mailto:diana.mockler@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Job ID: 500-130677-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative**  
**500-130677-1**

### Comments

No additional comments.

### Receipt

The samples were received on 7/7/2017 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

### GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for 392756 recovered outside control limits for the following analyte: Bromomethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Client Sample ID: G-1-1-1\_N\_10.0\_20170706

## Lab Sample ID: 500-130677-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.014		0.010		mg/L	1		6010B	Total/NA
Barium, Dissolved	0.013		0.010		mg/L	1		6010B	Dissolved

## Client Sample ID: G-1-7-2\_N\_09.0\_20170706

## Lab Sample ID: 500-130677-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.010		mg/L	1		6010B	Total/NA
Chromium	0.017		0.010		mg/L	1		6010B	Total/NA
Lead	0.0070		0.0050		mg/L	1		6010B	Total/NA
Barium, Dissolved	0.015		0.010		mg/L	1		6010B	Dissolved

## Client Sample ID: G-1-3-1\_N\_07.5\_20170706

## Lab Sample ID: 500-130677-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.049		0.010		mg/L	1		6010B	Total/NA
Chromium	0.016		0.010		mg/L	1		6010B	Total/NA
Lead	0.0074		0.0050		mg/L	1		6010B	Total/NA

## Client Sample ID: G-1-6-1\_N\_08.0\_20170706

## Lab Sample ID: 500-130677-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.028		0.010		mg/L	1		6010B	Total/NA
Barium, Dissolved	0.021		0.010		mg/L	1		6010B	Dissolved

## Client Sample ID: TB-20170706

## Lab Sample ID: 500-130677-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



# Sample Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-130677-1	G-1-1-1_N_10.0_20170706	Water	07/06/17 11:15	07/07/17 10:10
500-130677-2	G-1-7-2_N_09.0_20170706	Water	07/06/17 13:50	07/07/17 10:10
500-130677-3	G-1-3-1_N_07.5_20170706	Water	07/06/17 15:30	07/07/17 10:10
500-130677-4	G-1-6-1_N_08.0_20170706	Water	07/06/17 16:20	07/07/17 10:10
500-130677-5	TB-20170706	Water	07/06/17 00:00	07/07/17 10:10

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# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-1-1\_N\_10.0\_20170706**

**Lab Sample ID: 500-130677-1**

**Date Collected: 07/06/17 11:15**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5.0		5.0		ug/L			07/12/17 17:25	1
Benzene	<0.50		0.50		ug/L			07/12/17 17:25	1
Bromobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
Bromochloromethane	<1.0		1.0		ug/L			07/12/17 17:25	1
Bromodichloromethane	<1.0		1.0		ug/L			07/12/17 17:25	1
Bromoform	<1.0		1.0		ug/L			07/12/17 17:25	1
Bromomethane	<2.0 *		2.0		ug/L			07/12/17 17:25	1
Carbon disulfide	<2.0		2.0		ug/L			07/12/17 17:25	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/12/17 17:25	1
Chlorobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
Chloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
Chloroform	<2.0		2.0		ug/L			07/12/17 17:25	1
Chloromethane	<1.0		1.0		ug/L			07/12/17 17:25	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 17:25	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 17:25	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 17:25	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 17:25	1
Dibromochloromethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			07/12/17 17:25	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/12/17 17:25	1
Dibromomethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
Dichlorodifluoromethane	<2.0		2.0		ug/L			07/12/17 17:25	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/12/17 17:25	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/12/17 17:25	1
Ethylbenzene	<0.50		0.50		ug/L			07/12/17 17:25	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/12/17 17:25	1
2-Hexanone	<5.0		5.0		ug/L			07/12/17 17:25	1
Isopropylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
Methylene Chloride	<5.0		5.0		ug/L			07/12/17 17:25	1
Methyl Ethyl Ketone	<5.0		5.0		ug/L			07/12/17 17:25	1
methyl isobutyl ketone	<5.0		5.0		ug/L			07/12/17 17:25	1
Methyl tert-butyl ether	<1.0		1.0		ug/L			07/12/17 17:25	1
m&p-Xylene	<1.0		1.0		ug/L			07/12/17 17:25	1
Naphthalene	<1.0		1.0		ug/L			07/12/17 17:25	1
n-Butylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
N-Propylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
o-Xylene	<0.50		0.50		ug/L			07/12/17 17:25	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/12/17 17:25	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
Styrene	<1.0		1.0		ug/L			07/12/17 17:25	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-1-1\_N\_10.0\_20170706**

**Lab Sample ID: 500-130677-1**

**Date Collected: 07/06/17 11:15**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
Tetrachloroethene	<1.0		1.0		ug/L			07/12/17 17:25	1
Toluene	<0.50		0.50		ug/L			07/12/17 17:25	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 17:25	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/12/17 17:25	1
Trichloroethene	<0.50		0.50		ug/L			07/12/17 17:25	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/12/17 17:25	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 17:25	1
Vinyl chloride	<0.50		0.50		ug/L			07/12/17 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		72 - 124		07/12/17 17:25	1
Dibromofluoromethane	93		75 - 120		07/12/17 17:25	1
1,2-Dichloroethane-d4 (Surr)	86		75 - 126		07/12/17 17:25	1
Toluene-d8 (Surr)	93		75 - 120		07/12/17 17:25	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Acenaphthylene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Anthracene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzo[a]anthracene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzo[a]pyrene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzo[b]fluoranthene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzo[g,h,i]perylene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzoic acid	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzo[k]fluoranthene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Benzyl alcohol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Bis(2-chloroethoxy)methane	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
Bis(2-chloroethyl)ether	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
Bis(2-ethylhexyl) phthalate	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
4-Bromophenyl phenyl ether	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
Butyl benzyl phthalate	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
Carbazole	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
4-Chloroaniline	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
4-Chloro-3-methylphenol	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
2-Chloronaphthalene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
2-Chlorophenol	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
4-Chlorophenyl phenyl ether	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
Chrysene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Dibenz(a,h)anthracene	<0.25		0.25		ug/L		07/10/17 07:48	07/10/17 23:04	1
Dibenzofuran	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
1,3-Dichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-1-1\_N\_10.0\_20170706**

**Lab Sample ID: 500-130677-1**

**Date Collected: 07/06/17 11:15**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
1,2-Dichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
3,3'-Dichlorobenzidine	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,4-Dichlorophenol	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
Diethyl phthalate	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,4-Dimethylphenol	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
Dimethyl phthalate	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
Di-n-butyl phthalate	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
4,6-Dinitro-2-methylphenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,4-Dinitrophenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,6-Dinitrotoluene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,4-Dinitrotoluene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Di-n-octyl phthalate	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
Fluoranthene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Fluorene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Hexachlorobenzene	<0.42		0.42		ug/L		07/10/17 07:48	07/10/17 23:04	1
Hexachlorobutadiene	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
Hexachlorocyclopentadiene	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Hexachloroethane	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
Indeno[1,2,3-cd]pyrene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Isophorone	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
2-Methylnaphthalene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
2-Methylphenol	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
3 & 4 Methylphenol	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
Naphthalene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
2-Nitroaniline	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
3-Nitroaniline	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
4-Nitroaniline	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
Nitrobenzene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
2-Nitrophenol	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1
4-Nitrophenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
N-Nitrosodi-n-propylamine	<0.42		0.42		ug/L		07/10/17 07:48	07/10/17 23:04	1
N-Nitrosodiphenylamine	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,2'-oxybis[1-chloropropane]	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
Pentachlorophenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:04	1
Phenanthrene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
Phenol	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
Pyrene	<0.84		0.84		ug/L		07/10/17 07:48	07/10/17 23:04	1
1,2,4-Trichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,4,6-Trichlorophenol	<4.2		4.2		ug/L		07/10/17 07:48	07/10/17 23:04	1
2,4,5-Trichlorophenol	<8.4		8.4		ug/L		07/10/17 07:48	07/10/17 23:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	61		27 - 110	07/10/17 07:48	07/10/17 23:04	1
Phenol-d5 (Surr)	43		20 - 100	07/10/17 07:48	07/10/17 23:04	1
Nitrobenzene-d5 (Surr)	84		36 - 120	07/10/17 07:48	07/10/17 23:04	1
2-Fluorobiphenyl (Surr)	74		34 - 110	07/10/17 07:48	07/10/17 23:04	1
2,4,6-Tribromophenol (Surr)	99		40 - 145	07/10/17 07:48	07/10/17 23:04	1
Terphenyl-d14 (Surr)	102		40 - 145	07/10/17 07:48	07/10/17 23:04	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-1-1\_N\_10.0\_20170706**

**Lab Sample ID: 500-130677-1**

**Date Collected: 07/06/17 11:15**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:31	1
<b>Barium</b>	<b>0.014</b>		0.010		mg/L		07/10/17 10:00	07/10/17 22:31	1
Cadmium	<0.0020		0.0020		mg/L		07/10/17 10:00	07/10/17 22:31	1
Chromium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:31	1
Lead	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:31	1
Selenium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:31	1
Silver	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:31	1

**Method: 6010B - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:37	1
<b>Barium, Dissolved</b>	<b>0.013</b>		0.010		mg/L		07/13/17 08:11	07/13/17 16:37	1
Cadmium, Dissolved	<0.0020		0.0020		mg/L		07/13/17 08:11	07/13/17 16:37	1
Chromium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:37	1
Lead, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:37	1
Selenium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:37	1
Silver, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:37	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 13:31	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 13:55	1



# Client Sample Results

Client: HDR Engineering, Inc.  
 Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-7-2\_N\_09.0\_20170706**

**Lab Sample ID: 500-130677-2**

**Date Collected: 07/06/17 13:50**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5.0		5.0		ug/L			07/12/17 17:52	1
Benzene	<0.50		0.50		ug/L			07/12/17 17:52	1
Bromobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
Bromochloromethane	<1.0		1.0		ug/L			07/12/17 17:52	1
Bromodichloromethane	<1.0		1.0		ug/L			07/12/17 17:52	1
Bromoform	<1.0		1.0		ug/L			07/12/17 17:52	1
Bromomethane	<2.0 *		2.0		ug/L			07/12/17 17:52	1
Carbon disulfide	<2.0		2.0		ug/L			07/12/17 17:52	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/12/17 17:52	1
Chlorobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
Chloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
Chloroform	<2.0		2.0		ug/L			07/12/17 17:52	1
Chloromethane	<1.0		1.0		ug/L			07/12/17 17:52	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 17:52	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 17:52	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 17:52	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 17:52	1
Dibromochloromethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			07/12/17 17:52	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/12/17 17:52	1
Dibromomethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
Dichlorodifluoromethane	<2.0		2.0		ug/L			07/12/17 17:52	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/12/17 17:52	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/12/17 17:52	1
Ethylbenzene	<0.50		0.50		ug/L			07/12/17 17:52	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/12/17 17:52	1
2-Hexanone	<5.0		5.0		ug/L			07/12/17 17:52	1
Isopropylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
Methylene Chloride	<5.0		5.0		ug/L			07/12/17 17:52	1
Methyl Ethyl Ketone	<5.0		5.0		ug/L			07/12/17 17:52	1
methyl isobutyl ketone	<5.0		5.0		ug/L			07/12/17 17:52	1
Methyl tert-butyl ether	<1.0		1.0		ug/L			07/12/17 17:52	1
m&p-Xylene	<1.0		1.0		ug/L			07/12/17 17:52	1
Naphthalene	<1.0		1.0		ug/L			07/12/17 17:52	1
n-Butylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
N-Propylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
o-Xylene	<0.50		0.50		ug/L			07/12/17 17:52	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/12/17 17:52	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
Styrene	<1.0		1.0		ug/L			07/12/17 17:52	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-7-2\_N\_09.0\_20170706**

**Lab Sample ID: 500-130677-2**

**Date Collected: 07/06/17 13:50**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
Tetrachloroethene	<1.0		1.0		ug/L			07/12/17 17:52	1
Toluene	<0.50		0.50		ug/L			07/12/17 17:52	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 17:52	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/12/17 17:52	1
Trichloroethene	<0.50		0.50		ug/L			07/12/17 17:52	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/12/17 17:52	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 17:52	1
Vinyl chloride	<0.50		0.50		ug/L			07/12/17 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		72 - 124		07/12/17 17:52	1
Dibromofluoromethane	93		75 - 120		07/12/17 17:52	1
1,2-Dichloroethane-d4 (Surr)	84		75 - 126		07/12/17 17:52	1
Toluene-d8 (Surr)	93		75 - 120		07/12/17 17:52	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Acenaphthylene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Anthracene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzo[a]anthracene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzo[a]pyrene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzo[b]fluoranthene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzo[g,h,i]perylene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzoic acid	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzo[k]fluoranthene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Benzyl alcohol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Bis(2-chloroethoxy)methane	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
Bis(2-chloroethyl)ether	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
Bis(2-ethylhexyl) phthalate	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
4-Bromophenyl phenyl ether	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
Butyl benzyl phthalate	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
Carbazole	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
4-Chloroaniline	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
4-Chloro-3-methylphenol	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
2-Chloronaphthalene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
2-Chlorophenol	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
4-Chlorophenyl phenyl ether	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
Chrysene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Dibenz(a,h)anthracene	<0.25		0.25		ug/L		07/10/17 07:48	07/10/17 23:30	1
Dibenzofuran	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
1,3-Dichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-7-2\_N\_09.0\_20170706**

**Lab Sample ID: 500-130677-2**

**Date Collected: 07/06/17 13:50**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
1,2-Dichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
3,3'-Dichlorobenzidine	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,4-Dichlorophenol	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
Diethyl phthalate	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,4-Dimethylphenol	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
Dimethyl phthalate	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
Di-n-butyl phthalate	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
4,6-Dinitro-2-methylphenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,4-Dinitrophenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,6-Dinitrotoluene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,4-Dinitrotoluene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Di-n-octyl phthalate	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
Fluoranthene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Fluorene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Hexachlorobenzene	<0.41		0.41		ug/L		07/10/17 07:48	07/10/17 23:30	1
Hexachlorobutadiene	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
Hexachlorocyclopentadiene	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Hexachloroethane	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
Indeno[1,2,3-cd]pyrene	<0.17		0.17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Isophorone	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
2-Methylnaphthalene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
2-Methylphenol	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
3 & 4 Methylphenol	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
Naphthalene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
2-Nitroaniline	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
3-Nitroaniline	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
4-Nitroaniline	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
Nitrobenzene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
2-Nitrophenol	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1
4-Nitrophenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
N-Nitrosodi-n-propylamine	<0.41		0.41		ug/L		07/10/17 07:48	07/10/17 23:30	1
N-Nitrosodiphenylamine	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,2'-oxybis[1-chloropropane]	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
Pentachlorophenol	<17		17		ug/L		07/10/17 07:48	07/10/17 23:30	1
Phenanthrene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
Phenol	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
Pyrene	<0.83		0.83		ug/L		07/10/17 07:48	07/10/17 23:30	1
1,2,4-Trichlorobenzene	<1.7		1.7		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,4,6-Trichlorophenol	<4.1		4.1		ug/L		07/10/17 07:48	07/10/17 23:30	1
2,4,5-Trichlorophenol	<8.3		8.3		ug/L		07/10/17 07:48	07/10/17 23:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	56		27 - 110	07/10/17 07:48	07/10/17 23:30	1
Phenol-d5 (Surr)	39		20 - 100	07/10/17 07:48	07/10/17 23:30	1
Nitrobenzene-d5 (Surr)	80		36 - 120	07/10/17 07:48	07/10/17 23:30	1
2-Fluorobiphenyl (Surr)	71		34 - 110	07/10/17 07:48	07/10/17 23:30	1
2,4,6-Tribromophenol (Surr)	94		40 - 145	07/10/17 07:48	07/10/17 23:30	1
Terphenyl-d14 (Surr)	96		40 - 145	07/10/17 07:48	07/10/17 23:30	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-7-2\_N\_09.0\_20170706**

**Lab Sample ID: 500-130677-2**

**Date Collected: 07/06/17 13:50**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:35	1
<b>Barium</b>	<b>0.028</b>		0.010		mg/L		07/10/17 10:00	07/10/17 22:35	1
Cadmium	<0.0020		0.0020		mg/L		07/10/17 10:00	07/10/17 22:35	1
<b>Chromium</b>	<b>0.017</b>		0.010		mg/L		07/10/17 10:00	07/10/17 22:35	1
<b>Lead</b>	<b>0.0070</b>		0.0050		mg/L		07/10/17 10:00	07/10/17 22:35	1
Selenium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:35	1
Silver	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:35	1

**Method: 6010B - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:41	1
<b>Barium, Dissolved</b>	<b>0.015</b>		0.010		mg/L		07/13/17 08:11	07/13/17 16:41	1
Cadmium, Dissolved	<0.0020		0.0020		mg/L		07/13/17 08:11	07/13/17 16:41	1
Chromium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:41	1
Lead, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:41	1
Selenium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:41	1
Silver, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:41	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 13:57	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 13:35	1

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-3-1\_N\_07.5\_20170706**

**Lab Sample ID: 500-130677-3**

**Date Collected: 07/06/17 15:30**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5.0		5.0		ug/L			07/12/17 18:18	1
Benzene	<0.50		0.50		ug/L			07/12/17 18:18	1
Bromobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
Bromochloromethane	<1.0		1.0		ug/L			07/12/17 18:18	1
Bromodichloromethane	<1.0		1.0		ug/L			07/12/17 18:18	1
Bromoform	<1.0		1.0		ug/L			07/12/17 18:18	1
Bromomethane	<2.0 *		2.0		ug/L			07/12/17 18:18	1
Carbon disulfide	<2.0		2.0		ug/L			07/12/17 18:18	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/12/17 18:18	1
Chlorobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
Chloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
Chloroform	<2.0		2.0		ug/L			07/12/17 18:18	1
Chloromethane	<1.0		1.0		ug/L			07/12/17 18:18	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 18:18	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 18:18	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 18:18	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 18:18	1
Dibromochloromethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			07/12/17 18:18	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/12/17 18:18	1
Dibromomethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
Dichlorodifluoromethane	<2.0		2.0		ug/L			07/12/17 18:18	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/12/17 18:18	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/12/17 18:18	1
Ethylbenzene	<0.50		0.50		ug/L			07/12/17 18:18	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/12/17 18:18	1
2-Hexanone	<5.0		5.0		ug/L			07/12/17 18:18	1
Isopropylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
Methylene Chloride	<5.0		5.0		ug/L			07/12/17 18:18	1
Methyl Ethyl Ketone	<5.0		5.0		ug/L			07/12/17 18:18	1
methyl isobutyl ketone	<5.0		5.0		ug/L			07/12/17 18:18	1
Methyl tert-butyl ether	<1.0		1.0		ug/L			07/12/17 18:18	1
m&p-Xylene	<1.0		1.0		ug/L			07/12/17 18:18	1
Naphthalene	<1.0		1.0		ug/L			07/12/17 18:18	1
n-Butylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
N-Propylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
o-Xylene	<0.50		0.50		ug/L			07/12/17 18:18	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/12/17 18:18	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
Styrene	<1.0		1.0		ug/L			07/12/17 18:18	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-3-1\_N\_07.5\_20170706**

**Lab Sample ID: 500-130677-3**

**Date Collected: 07/06/17 15:30**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
Tetrachloroethene	<1.0		1.0		ug/L			07/12/17 18:18	1
Toluene	<0.50		0.50		ug/L			07/12/17 18:18	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 18:18	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/12/17 18:18	1
Trichloroethene	<0.50		0.50		ug/L			07/12/17 18:18	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/12/17 18:18	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 18:18	1
Vinyl chloride	<0.50		0.50		ug/L			07/12/17 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		07/12/17 18:18	1
Dibromofluoromethane	92		75 - 120		07/12/17 18:18	1
1,2-Dichloroethane-d4 (Surr)	83		75 - 126		07/12/17 18:18	1
Toluene-d8 (Surr)	94		75 - 120		07/12/17 18:18	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Acenaphthylene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Anthracene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzo[a]anthracene	<0.15		0.15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzo[a]pyrene	<0.15		0.15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzo[b]fluoranthene	<0.15		0.15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzo[g,h,i]perylene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzoic acid	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzo[k]fluoranthene	<0.15		0.15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Benzyl alcohol	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Bis(2-chloroethoxy)methane	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
Bis(2-chloroethyl)ether	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
Bis(2-ethylhexyl) phthalate	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
4-Bromophenyl phenyl ether	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
Butyl benzyl phthalate	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
Carbazole	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
4-Chloroaniline	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
4-Chloro-3-methylphenol	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
2-Chloronaphthalene	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
2-Chlorophenol	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
4-Chlorophenyl phenyl ether	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
Chrysene	<0.15		0.15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Dibenz(a,h)anthracene	<0.23		0.23		ug/L		07/10/17 07:48	07/10/17 23:57	1
Dibenzofuran	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
1,3-Dichlorobenzene	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-3-1\_N\_07.5\_20170706**

**Lab Sample ID: 500-130677-3**

**Date Collected: 07/06/17 15:30**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
1,2-Dichlorobenzene	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
3,3'-Dichlorobenzidine	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,4-Dichlorophenol	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
Diethyl phthalate	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,4-Dimethylphenol	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
Dimethyl phthalate	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
Di-n-butyl phthalate	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
4,6-Dinitro-2-methylphenol	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,4-Dinitrophenol	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,6-Dinitrotoluene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,4-Dinitrotoluene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Di-n-octyl phthalate	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
Fluoranthene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Fluorene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Hexachlorobenzene	<0.39		0.39		ug/L		07/10/17 07:48	07/10/17 23:57	1
Hexachlorobutadiene	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
Hexachlorocyclopentadiene	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Hexachloroethane	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
Indeno[1,2,3-cd]pyrene	<0.15		0.15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Isophorone	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
2-Methylnaphthalene	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
2-Methylphenol	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
3 & 4 Methylphenol	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
Naphthalene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
2-Nitroaniline	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
3-Nitroaniline	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
4-Nitroaniline	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
Nitrobenzene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
2-Nitrophenol	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1
4-Nitrophenol	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
N-Nitrosodi-n-propylamine	<0.39		0.39		ug/L		07/10/17 07:48	07/10/17 23:57	1
N-Nitrosodiphenylamine	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,2'-oxybis[1-chloropropane]	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
Pentachlorophenol	<15		15		ug/L		07/10/17 07:48	07/10/17 23:57	1
Phenanthrene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
Phenol	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
Pyrene	<0.77		0.77		ug/L		07/10/17 07:48	07/10/17 23:57	1
1,2,4-Trichlorobenzene	<1.5		1.5		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,4,6-Trichlorophenol	<3.9		3.9		ug/L		07/10/17 07:48	07/10/17 23:57	1
2,4,5-Trichlorophenol	<7.7		7.7		ug/L		07/10/17 07:48	07/10/17 23:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	62		27 - 110	07/10/17 07:48	07/10/17 23:57	1
Phenol-d5 (Surr)	42		20 - 100	07/10/17 07:48	07/10/17 23:57	1
Nitrobenzene-d5 (Surr)	81		36 - 120	07/10/17 07:48	07/10/17 23:57	1
2-Fluorobiphenyl (Surr)	73		34 - 110	07/10/17 07:48	07/10/17 23:57	1
2,4,6-Tribromophenol (Surr)	99		40 - 145	07/10/17 07:48	07/10/17 23:57	1
Terphenyl-d14 (Surr)	99		40 - 145	07/10/17 07:48	07/10/17 23:57	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-3-1\_N\_07.5\_20170706**

**Lab Sample ID: 500-130677-3**

**Date Collected: 07/06/17 15:30**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:39	1
<b>Barium</b>	<b>0.049</b>		0.010		mg/L		07/10/17 10:00	07/10/17 22:39	1
Cadmium	<0.0020		0.0020		mg/L		07/10/17 10:00	07/10/17 22:39	1
<b>Chromium</b>	<b>0.016</b>		0.010		mg/L		07/10/17 10:00	07/10/17 22:39	1
<b>Lead</b>	<b>0.0074</b>		0.0050		mg/L		07/10/17 10:00	07/10/17 22:39	1
Selenium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:39	1
Silver	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:39	1

**Method: 6010B - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:44	1
Barium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:44	1
Cadmium, Dissolved	<0.0020		0.0020		mg/L		07/13/17 08:11	07/13/17 16:44	1
Chromium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:44	1
Lead, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:44	1
Selenium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:44	1
Silver, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:44	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 12:09	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 12:11	1



# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-6-1\_N\_08.0\_20170706**

**Lab Sample ID: 500-130677-4**

**Date Collected: 07/06/17 16:20**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5.0		5.0		ug/L			07/12/17 18:45	1
Benzene	<0.50		0.50		ug/L			07/12/17 18:45	1
Bromobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
Bromochloromethane	<1.0		1.0		ug/L			07/12/17 18:45	1
Bromodichloromethane	<1.0		1.0		ug/L			07/12/17 18:45	1
Bromoform	<1.0		1.0		ug/L			07/12/17 18:45	1
Bromomethane	<2.0 *		2.0		ug/L			07/12/17 18:45	1
Carbon disulfide	<2.0		2.0		ug/L			07/12/17 18:45	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/12/17 18:45	1
Chlorobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
Chloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
Chloroform	<2.0		2.0		ug/L			07/12/17 18:45	1
Chloromethane	<1.0		1.0		ug/L			07/12/17 18:45	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 18:45	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 18:45	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 18:45	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 18:45	1
Dibromochloromethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			07/12/17 18:45	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/12/17 18:45	1
Dibromomethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
Dichlorodifluoromethane	<2.0		2.0		ug/L			07/12/17 18:45	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/12/17 18:45	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/12/17 18:45	1
Ethylbenzene	<0.50		0.50		ug/L			07/12/17 18:45	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/12/17 18:45	1
2-Hexanone	<5.0		5.0		ug/L			07/12/17 18:45	1
Isopropylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
Methylene Chloride	<5.0		5.0		ug/L			07/12/17 18:45	1
Methyl Ethyl Ketone	<5.0		5.0		ug/L			07/12/17 18:45	1
methyl isobutyl ketone	<5.0		5.0		ug/L			07/12/17 18:45	1
Methyl tert-butyl ether	<1.0		1.0		ug/L			07/12/17 18:45	1
m&p-Xylene	<1.0		1.0		ug/L			07/12/17 18:45	1
Naphthalene	<1.0		1.0		ug/L			07/12/17 18:45	1
n-Butylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
N-Propylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
o-Xylene	<0.50		0.50		ug/L			07/12/17 18:45	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/12/17 18:45	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
Styrene	<1.0		1.0		ug/L			07/12/17 18:45	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-6-1\_N\_08.0\_20170706**

**Lab Sample ID: 500-130677-4**

**Date Collected: 07/06/17 16:20**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
Tetrachloroethene	<1.0		1.0		ug/L			07/12/17 18:45	1
Toluene	<0.50		0.50		ug/L			07/12/17 18:45	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 18:45	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/12/17 18:45	1
Trichloroethene	<0.50		0.50		ug/L			07/12/17 18:45	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/12/17 18:45	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 18:45	1
Vinyl chloride	<0.50		0.50		ug/L			07/12/17 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		72 - 124		07/12/17 18:45	1
Dibromofluoromethane	93		75 - 120		07/12/17 18:45	1
1,2-Dichloroethane-d4 (Surr)	82		75 - 126		07/12/17 18:45	1
Toluene-d8 (Surr)	92		75 - 120		07/12/17 18:45	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Acenaphthylene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Anthracene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzo[a]anthracene	<0.16		0.16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzo[a]pyrene	<0.16		0.16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzo[b]fluoranthene	<0.16		0.16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzo[g,h,i]perylene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzoic acid	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzo[k]fluoranthene	<0.16		0.16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Benzyl alcohol	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Bis(2-chloroethoxy)methane	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
Bis(2-chloroethyl)ether	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
Bis(2-ethylhexyl) phthalate	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
4-Bromophenyl phenyl ether	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
Butyl benzyl phthalate	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
Carbazole	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
4-Chloroaniline	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
4-Chloro-3-methylphenol	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
2-Chloronaphthalene	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
2-Chlorophenol	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
4-Chlorophenyl phenyl ether	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
Chrysene	<0.16		0.16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Dibenz(a,h)anthracene	<0.23		0.23		ug/L		07/10/17 07:48	07/11/17 00:24	1
Dibenzofuran	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
1,3-Dichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-6-1\_N\_08.0\_20170706**

**Lab Sample ID: 500-130677-4**

**Date Collected: 07/06/17 16:20**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
1,2-Dichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
3,3'-Dichlorobenzidine	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,4-Dichlorophenol	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
Diethyl phthalate	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,4-Dimethylphenol	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
Dimethyl phthalate	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
Di-n-butyl phthalate	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
4,6-Dinitro-2-methylphenol	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,4-Dinitrophenol	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,6-Dinitrotoluene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,4-Dinitrotoluene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Di-n-octyl phthalate	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
Fluoranthene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Fluorene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Hexachlorobenzene	<0.39		0.39		ug/L		07/10/17 07:48	07/11/17 00:24	1
Hexachlorobutadiene	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
Hexachlorocyclopentadiene	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Hexachloroethane	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
Indeno[1,2,3-cd]pyrene	<0.16		0.16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Isophorone	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
2-Methylnaphthalene	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
2-Methylphenol	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
3 & 4 Methylphenol	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
Naphthalene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
2-Nitroaniline	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
3-Nitroaniline	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
4-Nitroaniline	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
Nitrobenzene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
2-Nitrophenol	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1
4-Nitrophenol	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
N-Nitrosodi-n-propylamine	<0.39		0.39		ug/L		07/10/17 07:48	07/11/17 00:24	1
N-Nitrosodiphenylamine	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,2'-oxybis[1-chloropropane]	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
Pentachlorophenol	<16		16		ug/L		07/10/17 07:48	07/11/17 00:24	1
Phenanthrene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
Phenol	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
Pyrene	<0.78		0.78		ug/L		07/10/17 07:48	07/11/17 00:24	1
1,2,4-Trichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,4,6-Trichlorophenol	<3.9		3.9		ug/L		07/10/17 07:48	07/11/17 00:24	1
2,4,5-Trichlorophenol	<7.8		7.8		ug/L		07/10/17 07:48	07/11/17 00:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	57		27 - 110	07/10/17 07:48	07/11/17 00:24	1
Phenol-d5 (Surr)	46		20 - 100	07/10/17 07:48	07/11/17 00:24	1
Nitrobenzene-d5 (Surr)	86		36 - 120	07/10/17 07:48	07/11/17 00:24	1
2-Fluorobiphenyl (Surr)	74		34 - 110	07/10/17 07:48	07/11/17 00:24	1
2,4,6-Tribromophenol (Surr)	101		40 - 145	07/10/17 07:48	07/11/17 00:24	1
Terphenyl-d14 (Surr)	113		40 - 145	07/10/17 07:48	07/11/17 00:24	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-6-1\_N\_08.0\_20170706**

**Lab Sample ID: 500-130677-4**

**Date Collected: 07/06/17 16:20**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 6010B - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:42	1
<b>Barium</b>	<b>0.028</b>		0.010		mg/L		07/10/17 10:00	07/10/17 22:42	1
Cadmium	<0.0020		0.0020		mg/L		07/10/17 10:00	07/10/17 22:42	1
Chromium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:42	1
Lead	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:42	1
Selenium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:42	1
Silver	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:42	1

**Method: 6010B - Metals (ICP) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 17:07	1
<b>Barium, Dissolved</b>	<b>0.021</b>		0.010		mg/L		07/13/17 08:11	07/13/17 17:07	1
Cadmium, Dissolved	<0.0020		0.0020		mg/L		07/13/17 08:11	07/13/17 17:07	1
Chromium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 17:07	1
Lead, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 17:07	1
Selenium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 17:07	1
Silver, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 17:07	1

**Method: 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 13:37	1

**Method: 7470A - Mercury (CVAA) - Dissolved**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury, Dissolved	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 13:38	1

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: TB-20170706**

**Lab Sample ID: 500-130677-5**

**Date Collected: 07/06/17 00:00**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5.0		5.0		ug/L			07/12/17 19:11	1
Benzene	<0.50		0.50		ug/L			07/12/17 19:11	1
Bromobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
Bromochloromethane	<1.0		1.0		ug/L			07/12/17 19:11	1
Bromodichloromethane	<1.0		1.0		ug/L			07/12/17 19:11	1
Bromoform	<1.0		1.0		ug/L			07/12/17 19:11	1
Bromomethane	<2.0 *		2.0		ug/L			07/12/17 19:11	1
Carbon disulfide	<2.0		2.0		ug/L			07/12/17 19:11	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/12/17 19:11	1
Chlorobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
Chloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
Chloroform	<2.0		2.0		ug/L			07/12/17 19:11	1
Chloromethane	<1.0		1.0		ug/L			07/12/17 19:11	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 19:11	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 19:11	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 19:11	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 19:11	1
Dibromochloromethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			07/12/17 19:11	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/12/17 19:11	1
Dibromomethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
Dichlorodifluoromethane	<2.0		2.0		ug/L			07/12/17 19:11	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/12/17 19:11	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/12/17 19:11	1
Ethylbenzene	<0.50		0.50		ug/L			07/12/17 19:11	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/12/17 19:11	1
2-Hexanone	<5.0		5.0		ug/L			07/12/17 19:11	1
Isopropylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
Methylene Chloride	<5.0		5.0		ug/L			07/12/17 19:11	1
Methyl Ethyl Ketone	<5.0		5.0		ug/L			07/12/17 19:11	1
methyl isobutyl ketone	<5.0		5.0		ug/L			07/12/17 19:11	1
Methyl tert-butyl ether	<1.0		1.0		ug/L			07/12/17 19:11	1
m&p-Xylene	<1.0		1.0		ug/L			07/12/17 19:11	1
Naphthalene	<1.0		1.0		ug/L			07/12/17 19:11	1
n-Butylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
N-Propylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
o-Xylene	<0.50		0.50		ug/L			07/12/17 19:11	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/12/17 19:11	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
Styrene	<1.0		1.0		ug/L			07/12/17 19:11	1
tert-Butylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1

TestAmerica Chicago

# Client Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: TB-20170706**

**Lab Sample ID: 500-130677-5**

**Date Collected: 07/06/17 00:00**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
Tetrachloroethene	<1.0		1.0		ug/L			07/12/17 19:11	1
Toluene	<0.50		0.50		ug/L			07/12/17 19:11	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 19:11	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/12/17 19:11	1
Trichloroethene	<0.50		0.50		ug/L			07/12/17 19:11	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/12/17 19:11	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 19:11	1
Vinyl chloride	<0.50		0.50		ug/L			07/12/17 19:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124		07/12/17 19:11	1
Dibromofluoromethane	94		75 - 120		07/12/17 19:11	1
1,2-Dichloroethane-d4 (Surr)	85		75 - 126		07/12/17 19:11	1
Toluene-d8 (Surr)	93		75 - 120		07/12/17 19:11	1

# Definitions/Glossary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-392756/6**

**Matrix: Water**

**Analysis Batch: 392756**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5.0		5.0		ug/L			07/12/17 11:45	1
Benzene	<0.50		0.50		ug/L			07/12/17 11:45	1
Bromobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
Bromochloromethane	<1.0		1.0		ug/L			07/12/17 11:45	1
Bromodichloromethane	<1.0		1.0		ug/L			07/12/17 11:45	1
Bromoform	<1.0		1.0		ug/L			07/12/17 11:45	1
Bromomethane	<2.0		2.0		ug/L			07/12/17 11:45	1
Carbon disulfide	<2.0		2.0		ug/L			07/12/17 11:45	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/12/17 11:45	1
Chlorobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
Chloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
Chloroform	<2.0		2.0		ug/L			07/12/17 11:45	1
Chloromethane	<1.0		1.0		ug/L			07/12/17 11:45	1
2-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 11:45	1
4-Chlorotoluene	<1.0		1.0		ug/L			07/12/17 11:45	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 11:45	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 11:45	1
Dibromochloromethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2-Dibromo-3-Chloropropane	<5.0		5.0		ug/L			07/12/17 11:45	1
1,2-Dibromoethane	<1.0		1.0		ug/L			07/12/17 11:45	1
Dibromomethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,3-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,4-Dichlorobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
Dichlorodifluoromethane	<2.0		2.0		ug/L			07/12/17 11:45	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,3-Dichloropropane	<1.0		1.0		ug/L			07/12/17 11:45	1
2,2-Dichloropropane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,1-Dichloropropene	<1.0		1.0		ug/L			07/12/17 11:45	1
Ethylbenzene	<0.50		0.50		ug/L			07/12/17 11:45	1
Hexachlorobutadiene	<1.0		1.0		ug/L			07/12/17 11:45	1
2-Hexanone	<5.0		5.0		ug/L			07/12/17 11:45	1
Isopropylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
Methylene Chloride	<5.0		5.0		ug/L			07/12/17 11:45	1
Methyl Ethyl Ketone	<5.0		5.0		ug/L			07/12/17 11:45	1
methyl isobutyl ketone	<5.0		5.0		ug/L			07/12/17 11:45	1
Methyl tert-butyl ether	<1.0		1.0		ug/L			07/12/17 11:45	1
m&p-Xylene	<1.0		1.0		ug/L			07/12/17 11:45	1
Naphthalene	<1.0		1.0		ug/L			07/12/17 11:45	1
n-Butylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
N-Propylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
o-Xylene	<0.50		0.50		ug/L			07/12/17 11:45	1
p-Isopropyltoluene	<1.0		1.0		ug/L			07/12/17 11:45	1
sec-Butylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
Styrene	<1.0		1.0		ug/L			07/12/17 11:45	1

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-392756/6**  
**Matrix: Water**  
**Analysis Batch: 392756**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
Tetrachloroethene	<1.0		1.0		ug/L			07/12/17 11:45	1
Toluene	<0.50		0.50		ug/L			07/12/17 11:45	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/12/17 11:45	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2,3-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2,4-Trichlorobenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/12/17 11:45	1
Trichloroethene	<0.50		0.50		ug/L			07/12/17 11:45	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/12/17 11:45	1
1,2,4-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
1,3,5-Trimethylbenzene	<1.0		1.0		ug/L			07/12/17 11:45	1
Vinyl chloride	<0.50		0.50		ug/L			07/12/17 11:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		72 - 124		07/12/17 11:45	1
Dibromofluoromethane	94		75 - 120		07/12/17 11:45	1
1,2-Dichloroethane-d4 (Surr)	84		75 - 126		07/12/17 11:45	1
Toluene-d8 (Surr)	92		75 - 120		07/12/17 11:45	1

**Lab Sample ID: LCS 500-392756/4**  
**Matrix: Water**  
**Analysis Batch: 392756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	50.0	51.6		ug/L		103	40 - 143
Benzene	50.0	43.2		ug/L		86	70 - 120
Bromobenzene	50.0	44.4		ug/L		89	70 - 122
Bromochloromethane	50.0	49.9		ug/L		100	65 - 122
Bromodichloromethane	50.0	42.3		ug/L		85	69 - 120
Bromoform	50.0	44.8		ug/L		90	56 - 132
Bromomethane	50.0	70.2	*	ug/L		140	40 - 130
Carbon disulfide	50.0	53.4		ug/L		107	66 - 120
Carbon tetrachloride	50.0	42.9		ug/L		86	65 - 122
Chlorobenzene	50.0	45.1		ug/L		90	70 - 120
Chloroethane	50.0	61.0		ug/L		122	45 - 127
Chloroform	50.0	42.9		ug/L		86	70 - 120
Chloromethane	50.0	64.4		ug/L		129	54 - 147
2-Chlorotoluene	50.0	37.6		ug/L		75	70 - 125
4-Chlorotoluene	50.0	37.9		ug/L		76	68 - 124
cis-1,2-Dichloroethene	50.0	46.6		ug/L		93	70 - 125
cis-1,3-Dichloropropene	50.0	42.3		ug/L		85	64 - 127
Dibromochloromethane	50.0	47.1		ug/L		94	68 - 125
1,2-Dibromo-3-Chloropropane	50.0	34.8		ug/L		70	56 - 123

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-392756/4

Matrix: Water

Analysis Batch: 392756

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	50.0	49.0		ug/L		98	70 - 125
Dibromomethane	50.0	43.8		ug/L		88	70 - 120
1,2-Dichlorobenzene	50.0	44.6		ug/L		89	70 - 125
1,3-Dichlorobenzene	50.0	43.7		ug/L		87	70 - 125
1,4-Dichlorobenzene	50.0	43.3		ug/L		87	70 - 120
Dichlorodifluoromethane	50.0	53.0		ug/L		106	40 - 150
1,1-Dichloroethane	50.0	44.9		ug/L		90	70 - 125
1,2-Dichloroethane	50.0	41.3		ug/L		83	68 - 127
1,1-Dichloroethene	50.0	50.7		ug/L		101	67 - 122
1,2-Dichloropropane	50.0	44.9		ug/L		90	67 - 130
1,3-Dichloropropane	50.0	43.9		ug/L		88	62 - 136
2,2-Dichloropropane	50.0	48.1		ug/L		96	58 - 129
1,1-Dichloropropene	50.0	43.1		ug/L		86	70 - 121
Ethylbenzene	50.0	48.4		ug/L		97	70 - 120
Hexachlorobutadiene	50.0	38.3		ug/L		77	51 - 150
2-Hexanone	50.0	54.9		ug/L		110	56 - 135
Isopropylbenzene	50.0	40.8		ug/L		82	70 - 126
Methylene Chloride	50.0	47.5		ug/L		95	69 - 125
Methyl Ethyl Ketone	50.0	57.5		ug/L		115	53 - 141
methyl isobutyl ketone	50.0	54.5		ug/L		109	56 - 133
Methyl tert-butyl ether	50.0	42.0		ug/L		84	70 - 120
m&p-Xylene	50.0	42.1		ug/L		84	70 - 125
Naphthalene	50.0	47.1		ug/L		94	59 - 130
n-Butylbenzene	50.0	39.8		ug/L		80	68 - 125
N-Propylbenzene	50.0	38.8		ug/L		78	69 - 127
o-Xylene	50.0	42.1		ug/L		84	70 - 120
p-Isopropyltoluene	50.0	42.7		ug/L		85	70 - 125
sec-Butylbenzene	50.0	41.5		ug/L		83	70 - 123
Styrene	50.0	46.3		ug/L		93	70 - 120
tert-Butylbenzene	50.0	41.9		ug/L		84	70 - 121
1,1,1,2-Tetrachloroethane	50.0	44.4		ug/L		89	70 - 125
1,1,2,2-Tetrachloroethane	50.0	42.2		ug/L		84	67 - 127
Tetrachloroethene	50.0	50.6		ug/L		101	70 - 128
Toluene	50.0	43.9		ug/L		88	70 - 125
trans-1,2-Dichloroethene	50.0	48.9		ug/L		98	70 - 125
trans-1,3-Dichloropropene	50.0	40.7		ug/L		81	62 - 128
1,2,3-Trichlorobenzene	50.0	46.7		ug/L		93	55 - 140
1,2,4-Trichlorobenzene	50.0	44.5		ug/L		89	66 - 127
1,1,1-Trichloroethane	50.0	44.9		ug/L		90	70 - 125
1,1,2-Trichloroethane	50.0	47.1		ug/L		94	70 - 122
Trichloroethene	50.0	52.1		ug/L		104	70 - 125
Trichlorofluoromethane	50.0	49.2		ug/L		98	70 - 126
1,2,3-Trichloropropane	50.0	37.2		ug/L		74	50 - 133
1,2,4-Trimethylbenzene	50.0	39.9		ug/L		80	70 - 123
1,3,5-Trimethylbenzene	50.0	40.4		ug/L		81	70 - 123
Vinyl chloride	50.0	50.2		ug/L		100	64 - 126

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392756/4**  
**Matrix: Water**  
**Analysis Batch: 392756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	80		72 - 124
Dibromofluoromethane	93		75 - 120
1,2-Dichloroethane-d4 (Surr)	82		75 - 126
Toluene-d8 (Surr)	93		75 - 120

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-392377/1-A**  
**Matrix: Water**  
**Analysis Batch: 392523**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392377**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Acenaphthylene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Anthracene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzo[a]anthracene	<0.16		0.16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzo[a]pyrene	<0.16		0.16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzo[b]fluoranthene	<0.16		0.16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzo[g,h,i]perylene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzoic acid	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzo[k]fluoranthene	<0.16		0.16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Benzyl alcohol	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Bis(2-chloroethoxy)methane	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
Bis(2-chloroethyl)ether	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
Bis(2-ethylhexyl) phthalate	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4-Bromophenyl phenyl ether	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Butyl benzyl phthalate	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
Carbazole	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4-Chloroaniline	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4-Chloro-3-methylphenol	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
2-Chloronaphthalene	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
2-Chlorophenol	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4-Chlorophenyl phenyl ether	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Chrysene	<0.16		0.16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Dibenz(a,h)anthracene	<0.24		0.24		ug/L		07/10/17 07:48	07/10/17 20:49	1
Dibenzofuran	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
1,3-Dichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
1,4-Dichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
1,2-Dichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
3,3'-Dichlorobenzidine	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,4-Dichlorophenol	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Diethyl phthalate	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,4-Dimethylphenol	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Dimethyl phthalate	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
Di-n-butyl phthalate	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4,6-Dinitro-2-methylphenol	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,4-Dinitrophenol	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,6-Dinitrotoluene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-392377/1-A**  
**Matrix: Water**  
**Analysis Batch: 392523**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392377**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Di-n-octyl phthalate	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Fluoranthene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Fluorene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Hexachlorobenzene	<0.40		0.40		ug/L		07/10/17 07:48	07/10/17 20:49	1
Hexachlorobutadiene	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Hexachlorocyclopentadiene	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Hexachloroethane	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Indeno[1,2,3-cd]pyrene	<0.16		0.16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Isophorone	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
2-Methylnaphthalene	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
2-Methylphenol	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
3 & 4 Methylphenol	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
Naphthalene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
2-Nitroaniline	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
3-Nitroaniline	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4-Nitroaniline	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Nitrobenzene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
2-Nitrophenol	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
4-Nitrophenol	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
N-Nitrosodi-n-propylamine	<0.40		0.40		ug/L		07/10/17 07:48	07/10/17 20:49	1
N-Nitrosodiphenylamine	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,2'-oxybis[1-chloropropane]	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
Pentachlorophenol	<16		16		ug/L		07/10/17 07:48	07/10/17 20:49	1
Phenanthrene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
Phenol	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
Pyrene	<0.80		0.80		ug/L		07/10/17 07:48	07/10/17 20:49	1
1,2,4-Trichlorobenzene	<1.6		1.6		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,4,6-Trichlorophenol	<4.0		4.0		ug/L		07/10/17 07:48	07/10/17 20:49	1
2,4,5-Trichlorophenol	<8.0		8.0		ug/L		07/10/17 07:48	07/10/17 20:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	48		27 - 110	07/10/17 07:48	07/10/17 20:49	1
Phenol-d5 (Surr)	46		20 - 100	07/10/17 07:48	07/10/17 20:49	1
Nitrobenzene-d5 (Surr)	92		36 - 120	07/10/17 07:48	07/10/17 20:49	1
2-Fluorobiphenyl (Surr)	80		34 - 110	07/10/17 07:48	07/10/17 20:49	1
2,4,6-Tribromophenol (Surr)	102		40 - 145	07/10/17 07:48	07/10/17 20:49	1
Terphenyl-d14 (Surr)	114		40 - 145	07/10/17 07:48	07/10/17 20:49	1

**Lab Sample ID: LCS 500-392377/2-A**  
**Matrix: Water**  
**Analysis Batch: 392523**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392377**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	32.0	22.8		ug/L		71	46 - 110
Acenaphthylene	32.0	23.7		ug/L		74	47 - 110
Anthracene	32.0	26.5		ug/L		83	67 - 110
Benzo[a]anthracene	32.0	29.1		ug/L		91	70 - 120

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# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392377/2-A**  
**Matrix: Water**  
**Analysis Batch: 392523**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392377**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	32.0	29.5		ug/L		92	70 - 120
Benzo[b]fluoranthene	32.0	32.3		ug/L		101	69 - 123
Benzo[g,h,i]perylene	32.0	29.2		ug/L		91	70 - 120
Benzoic acid	64.0	25.0		ug/L		39	10 - 100
Benzo[k]fluoranthene	32.0	27.7		ug/L		87	70 - 120
Benzyl alcohol	32.0	27.0		ug/L		84	33 - 127
Bis(2-chloroethoxy)methane	32.0	26.5		ug/L		83	60 - 110
Bis(2-chloroethyl)ether	32.0	24.3		ug/L		76	49 - 110
Bis(2-ethylhexyl) phthalate	32.0	29.9		ug/L		93	69 - 120
4-Bromophenyl phenyl ether	32.0	24.9		ug/L		78	58 - 120
Butyl benzyl phthalate	32.0	29.5		ug/L		92	68 - 120
Carbazole	32.0	38.8		ug/L		121	61 - 145
4-Chloroaniline	32.0	18.6		ug/L		58	35 - 128
4-Chloro-3-methylphenol	32.0	27.9		ug/L		87	64 - 120
2-Chloronaphthalene	32.0	21.3		ug/L		67	39 - 110
2-Chlorophenol	32.0	23.7		ug/L		74	59 - 110
4-Chlorophenyl phenyl ether	32.0	24.0		ug/L		75	47 - 112
Chrysene	32.0	28.4		ug/L		89	68 - 120
Dibenz(a,h)anthracene	32.0	30.8		ug/L		96	70 - 127
Dibenzofuran	32.0	24.1		ug/L		75	51 - 110
1,3-Dichlorobenzene	32.0	16.1		ug/L		50	22 - 110
1,4-Dichlorobenzene	32.0	16.7		ug/L		52	23 - 110
1,2-Dichlorobenzene	32.0	17.6		ug/L		55	26 - 110
3,3'-Dichlorobenzidine	32.0	34.5		ug/L		108	60 - 132
2,4-Dichlorophenol	32.0	26.5		ug/L		83	62 - 110
Diethyl phthalate	32.0	27.2		ug/L		85	62 - 120
2,4-Dimethylphenol	32.0	24.3		ug/L		76	51 - 110
Dimethyl phthalate	32.0	27.2		ug/L		85	63 - 120
Di-n-butyl phthalate	32.0	27.9		ug/L		87	70 - 120
4,6-Dinitro-2-methylphenol	64.0	53.2		ug/L		83	50 - 117
2,4-Dinitrophenol	64.0	51.2		ug/L		80	37 - 130
2,6-Dinitrotoluene	32.0	28.1		ug/L		88	63 - 119
2,4-Dinitrotoluene	32.0	29.2		ug/L		91	63 - 122
Di-n-octyl phthalate	32.0	29.5		ug/L		92	70 - 122
Fluoranthene	32.0	27.9		ug/L		87	68 - 120
Fluorene	32.0	25.0		ug/L		78	53 - 120
Hexachlorobenzene	32.0	26.7		ug/L		84	61 - 120
Hexachlorobutadiene	32.0	15.4		ug/L		48	20 - 100
Hexachlorocyclopentadiene	32.0	14.8	J	ug/L		46	10 - 100
Hexachloroethane	32.0	16.1		ug/L		50	20 - 100
Indeno[1,2,3-cd]pyrene	32.0	32.8		ug/L		102	65 - 133
Isophorone	32.0	26.0		ug/L		81	57 - 110
2-Methylnaphthalene	32.0	21.0		ug/L		66	34 - 110
2-Methylphenol	32.0	24.2		ug/L		76	53 - 110
3 & 4 Methylphenol	32.0	24.1		ug/L		75	53 - 110
Naphthalene	32.0	21.5		ug/L		67	36 - 110
2-Nitroaniline	32.0	29.2		ug/L		91	59 - 122
3-Nitroaniline	32.0	29.5		ug/L		92	47 - 123

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-392377/2-A**  
**Matrix: Water**  
**Analysis Batch: 392523**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392377**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	32.0	24.6		ug/L		77	52 - 147
Nitrobenzene	32.0	25.0		ug/L		78	53 - 110
2-Nitrophenol	32.0	25.5		ug/L		80	58 - 110
4-Nitrophenol	64.0	39.9		ug/L		62	20 - 110
N-Nitrosodi-n-propylamine	32.0	27.4		ug/L		86	58 - 110
N-Nitrosodiphenylamine	32.0	28.4		ug/L		89	66 - 110
2,2'-oxybis[1-chloropropane]	32.0	23.8		ug/L		74	38 - 110
Pentachlorophenol	64.0	55.3		ug/L		86	23 - 129
Phenanthrene	32.0	26.7		ug/L		84	65 - 120
Phenol	32.0	17.2		ug/L		54	33 - 100
Pyrene	32.0	28.5		ug/L		89	70 - 110
1,2,4-Trichlorobenzene	32.0	18.2		ug/L		57	26 - 110
2,4,6-Trichlorophenol	32.0	27.7		ug/L		87	62 - 110
2,4,5-Trichlorophenol	32.0	28.8		ug/L		90	63 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	62		27 - 110
Phenol-d5 (Surr)	49		20 - 100
Nitrobenzene-d5 (Surr)	77		36 - 120
2-Fluorobiphenyl (Surr)	69		34 - 110
2,4,6-Tribromophenol (Surr)	93		40 - 145
Terphenyl-d14 (Surr)	92		40 - 145

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 500-392410/1-A**  
**Matrix: Water**  
**Analysis Batch: 392571**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392410**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:12	1
Barium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:12	1
Cadmium	<0.0020		0.0020		mg/L		07/10/17 10:00	07/10/17 22:12	1
Chromium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:12	1
Lead	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:12	1
Selenium	<0.010		0.010		mg/L		07/10/17 10:00	07/10/17 22:12	1
Silver	<0.0050		0.0050		mg/L		07/10/17 10:00	07/10/17 22:12	1

**Lab Sample ID: LCS 500-392410/2-A**  
**Matrix: Water**  
**Analysis Batch: 392571**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392410**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0994		mg/L		99	80 - 120
Barium	2.00	1.99		mg/L		99	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Chromium	0.200	0.197		mg/L		99	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120

TestAmerica Chicago

# QC Sample Results

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: LCS 500-392410/2-A**  
**Matrix: Water**  
**Analysis Batch: 392571**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392410**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Selenium	0.100	0.0979		mg/L		98	80 - 120
Silver	0.0500	0.0482		mg/L		96	80 - 120

**Lab Sample ID: MB 500-392878/1-A**  
**Matrix: Water**  
**Analysis Batch: 393017**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392878**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:11	1
Barium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:11	1
Cadmium, Dissolved	<0.0020		0.0020		mg/L		07/13/17 08:11	07/13/17 16:11	1
Chromium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:11	1
Lead, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:11	1
Selenium, Dissolved	<0.010		0.010		mg/L		07/13/17 08:11	07/13/17 16:11	1
Silver, Dissolved	<0.0050		0.0050		mg/L		07/13/17 08:11	07/13/17 16:11	1

**Lab Sample ID: LCS 500-392878/2-A**  
**Matrix: Water**  
**Analysis Batch: 393017**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392878**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic, Dissolved	0.100	0.0969		mg/L		97	80 - 120
Barium, Dissolved	2.00	1.99		mg/L		100	80 - 120
Cadmium, Dissolved	0.0500	0.0497		mg/L		99	80 - 120
Chromium, Dissolved	0.200	0.198		mg/L		99	80 - 120
Lead, Dissolved	0.100	0.0946		mg/L		95	80 - 120
Selenium, Dissolved	0.100	0.101		mg/L		101	80 - 120
Silver, Dissolved	0.0500	0.0481		mg/L		96	80 - 120

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID: MB 500-392496/12-A**  
**Matrix: Water**  
**Analysis Batch: 392742**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 392496**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 11:51	1
Mercury, Dissolved	<0.00020		0.00020		mg/L		07/10/17 16:18	07/11/17 11:51	1

**Lab Sample ID: LCS 500-392496/13-A**  
**Matrix: Water**  
**Analysis Batch: 392742**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 392496**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00228		mg/L		114	80 - 120
Mercury, Dissolved	0.00200	0.00228		mg/L		114	80 - 120

TestAmerica Chicago

# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-1-1\_N\_10.0\_20170706**

**Lab Sample ID: 500-130677-1**

**Date Collected: 07/06/17 11:15**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	392756	07/12/17 17:25	PJH	TAL CHI
Total/NA	Prep	3510C			392377	07/10/17 07:48	LMC	TAL CHI
Total/NA	Analysis	8270D		1	392523	07/10/17 23:04	GES	TAL CHI
Dissolved	Prep	3010A			392878	07/13/17 08:11	AAP	TAL CHI
Dissolved	Analysis	6010B		1	393017	07/13/17 16:37	PJ1	TAL CHI
Total/NA	Prep	3010A			392410	07/10/17 10:00	AAP	TAL CHI
Total/NA	Analysis	6010B		1	392571	07/10/17 22:31	PJ1	TAL CHI
Dissolved	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Dissolved	Analysis	7470A		1	392742	07/11/17 13:55	DAJ	TAL CHI
Total/NA	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Total/NA	Analysis	7470A		1	392742	07/11/17 13:31	DAJ	TAL CHI

**Client Sample ID: G-1-7-2\_N\_09.0\_20170706**

**Lab Sample ID: 500-130677-2**

**Date Collected: 07/06/17 13:50**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	392756	07/12/17 17:52	PJH	TAL CHI
Total/NA	Prep	3510C			392377	07/10/17 07:48	LMC	TAL CHI
Total/NA	Analysis	8270D		1	392523	07/10/17 23:30	GES	TAL CHI
Dissolved	Prep	3010A			392878	07/13/17 08:11	AAP	TAL CHI
Dissolved	Analysis	6010B		1	393017	07/13/17 16:41	PJ1	TAL CHI
Total/NA	Prep	3010A			392410	07/10/17 10:00	AAP	TAL CHI
Total/NA	Analysis	6010B		1	392571	07/10/17 22:35	PJ1	TAL CHI
Dissolved	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Dissolved	Analysis	7470A		1	392742	07/11/17 13:35	DAJ	TAL CHI
Total/NA	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Total/NA	Analysis	7470A		1	392742	07/11/17 13:57	DAJ	TAL CHI

**Client Sample ID: G-1-3-1\_N\_07.5\_20170706**

**Lab Sample ID: 500-130677-3**

**Date Collected: 07/06/17 15:30**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	392756	07/12/17 18:18	PJH	TAL CHI
Total/NA	Prep	3510C			392377	07/10/17 07:48	LMC	TAL CHI
Total/NA	Analysis	8270D		1	392523	07/10/17 23:57	GES	TAL CHI
Dissolved	Prep	3010A			392878	07/13/17 08:11	AAP	TAL CHI
Dissolved	Analysis	6010B		1	393017	07/13/17 16:44	PJ1	TAL CHI
Total/NA	Prep	3010A			392410	07/10/17 10:00	AAP	TAL CHI
Total/NA	Analysis	6010B		1	392571	07/10/17 22:39	PJ1	TAL CHI
Dissolved	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Dissolved	Analysis	7470A		1	392742	07/11/17 12:11	DAJ	TAL CHI

TestAmerica Chicago



# Lab Chronicle

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

**Client Sample ID: G-1-3-1\_N\_07.5\_20170706**

**Lab Sample ID: 500-130677-3**

**Date Collected: 07/06/17 15:30**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Total/NA	Analysis	7470A		1	392742	07/11/17 12:09	DAJ	TAL CHI

**Client Sample ID: G-1-6-1\_N\_08.0\_20170706**

**Lab Sample ID: 500-130677-4**

**Date Collected: 07/06/17 16:20**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	392756	07/12/17 18:45	PJH	TAL CHI
Total/NA	Prep	3510C			392377	07/10/17 07:48	LMC	TAL CHI
Total/NA	Analysis	8270D		1	392523	07/11/17 00:24	GES	TAL CHI
Dissolved	Prep	3010A			392878	07/13/17 08:11	AAP	TAL CHI
Dissolved	Analysis	6010B		1	393017	07/13/17 17:07	PJ1	TAL CHI
Total/NA	Prep	3010A			392410	07/10/17 10:00	AAP	TAL CHI
Total/NA	Analysis	6010B		1	392571	07/10/17 22:42	PJ1	TAL CHI
Dissolved	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Dissolved	Analysis	7470A		1	392742	07/11/17 13:38	DAJ	TAL CHI
Total/NA	Prep	7470A			392496	07/10/17 16:18	PFK	TAL CHI
Total/NA	Analysis	7470A		1	392742	07/11/17 13:37	DAJ	TAL CHI

**Client Sample ID: TB-20170706**

**Lab Sample ID: 500-130677-5**

**Date Collected: 07/06/17 00:00**

**Matrix: Water**

**Date Received: 07/07/17 10:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	392756	07/12/17 19:11	PJH	TAL CHI

## Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: HDR Engineering, Inc.  
Project/Site: 10034929 NICTD DT-NWI

TestAmerica Job ID: 500-130677-1

## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-18

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TestAmerica Chicago

2417 Bond Street  
University Park, IL 60484  
Phone (708) 534-5200 Fax (708) 534-5211

### Chain of Custody Record

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information | Sampler: **Matthew T Keaveney** | Lab PM: Mockler, Diana J | Carrier Tracking No(s): | COC No: 500-54828-26916.1

Client Contact: Mr. Matthew Keaveney | Phone: 845 332 2463 / 201 333 9382 | E-Mail: diana.mockler@testamericainc.com | Page: Page 1 of 1

Company: HDR Engineering, Inc. | Address: 1 International Blvd 10th Floor, Suite 1000 | Job #: 500-130677

City: Mahwah | State, Zip: NJ, 07495 | Due Date Requested: 1 week  
 Phone: 201-335-9382(Tel) | Email: matthew.keaveney@hdrinc.com | TAT Requested (days): 1 week  
 Project Name: HDR Engineering | Project #: 50013525  
 Site: | SOW#: | Analysis Requested

**Preservation Codes:**

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab) <small>BT=Tissue, A=Air</small>	Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)			Total Number of Containers	Special Instructions/Note:
					MS/MSD	MS	MSD		
1 G-1-1-N-10.0-20170706	7/6/2017	1115	G	Water	X			X	Total / Dissolved Metals ↓ ↓ ↓
<del>B-1-1-N-01.0-20170706</del>	<del>7/6/2017</del>	<del>1045</del>	<del>G</del>	<del>Water</del>					
2 G-1-7-N-09.0-20170706	7/6/2017	1350	G	Water				Y X X	
3 G-1-3-N-07.5-20170706	7/6/2017	1530	G	Water				X X X	
4 G-1-6-N-08.0-20170706	7/6/2017	1620	G	Water				X X X	
5 TB-20170706	6/30/2017		G	Water				X	
				Water					

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Deliverable Requested: I, II, III, IV, Other (specify) PDF, Equis EDD

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by: [Signature]	Date/Time: 7/7/17 0836	Company: HDR	Received by: Chris Emerul	Date/Time: 7.7.17 0836	Company: IAL
Relinquished by: Chris Emerul	Date/Time: 7.7.17 0900	Company: IAL	Received by: [Signature]	Date/Time: 7/7/17 0900	Company: IA
Relinquished by: [Signature]	Date/Time: 7/7/17 1010	Company: IA	Received by: [Signature]	Date/Time: 7/7/17 1010	Company: IA-CAL

Custody Seal No.: | Cololer Temperature(s) °C and Other Remarks: 3.4 | Page 37 of 38 | 7/14/2017

# Login Sample Receipt Checklist

Client: HDR Engineering, Inc.

Job Number: 500-130677-1

**Login Number: 130677**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Scott, Sherri L**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

