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Project No.: 750-0001

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**Baseline Environmental Site Investigation Report  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Bossier/Webster Parishes, Louisiana**

Dear Mr. Schellhase:

Southern Environmental Management & Specialties (SEMS) is hereby submitting the Baseline Environmental Site Investigation Report for the above referenced project. Baseline Environmental Site Investigation activities were conducted at Area I and Clarkes Bayou in accordance with the Revised Quality Assurance Sample Plan (QASP) – Soil and Water dated September 25, 2015.

Should you have any questions or require additional information, please contact the undersigned at (225) 924-2002.

Sincerely,  
**SEMS, Inc.**

**SEMS, Inc.**



Maghee Shaw  
Project Manager



Charles "Chuck" L. Ellis, Jr., P.E.  
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**BASELINE ENVIRONMENTAL SITE INVESTIGATION REPORT  
M6 DESTRUCTION PROJECT  
CAMP MINDEN NATIONAL GUARD TRAINING SITE  
MINDEN, BOSSIER/WEBSTER PARISHES, LOUISIANA**

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**OCTOBER 2015**

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## 1.0 INTRODUCTION

Southern Environmental Management & Specialties (SEMS) was contracted by Explosive Service International (ESI) to conduct a Baseline Environmental Site Investigation prior to commencement of the M6 Destruction Project at the Camp Minden National Guard Training Site (Camp Minden) in Webster and Bossier Parishes, Louisiana. The M6 Destruction Project includes the complete removal, destruction, and disposal of all hazardous materials and waste located at Camp Minden under the EPA administration order. Destruction activities will be conducted at Camp Minden Area I (herein identified as Area I). **Figure 1** is a Regional Location Map showing the location of Camp Minden within the State of Louisiana. **Figure 2** is a Facility Map showing the Camp Minden Area I Destruction Site and the significant features.

The Baseline Environmental Site Investigation was conducted to establish existing soil and groundwater conditions in Area I and establish existing sediment and surface water conditions in Clarkes Bayou prior to commencement of the M6 Destruction Project. As shown on **Figure 2**, former operations conducted at Area I included explosives waste incineration and additional incineration.

## 2.0 SCOPE OF WORK

The scope of work for the Baseline Environmental Site Investigation included conducting site investigation activities in Area I and Clarkes Bayou at Camp Minden. Due to the large size of Area I, Area I was divided into two areas for site investigation activities. The two areas are identified as Area I surface (area of operation) and Area I perimeter (around the perimeter of the area of operation). **Figure 3** is a Sample Location Map showing the locations of the samples collected in Area I surface, Area I perimeter and Clarkes Bayou.

The site investigation scope of work for Area I surface included the advancement of soil borings using direct push technology (DPT) for the collection of surface soil samples. The site investigation scope of work for Area I perimeter included the advancement of DPT soil borings completed as

monitor wells for the collection of soil and groundwater samples prior to, during and after the completion of the M6 destruction project. The site investigation scope of work for Clarks Bayou included the collection of surface water and sediment samples from Clarks Bayou at the point of discharge from Area I, upstream of Area I and downstream of Area I. The following is a summary of the specific scope of work details for Area I surface, Area I perimeter, and Clarks Bayou:

#### **AREA I SURFACE SCOPE OF WORK**

- Advancement of thirty-five (35) shallow direct push borings to a total depth of 2 feet below ground surface (bgs) for the collection of soil samples. The sample locations are identified as the grid locations denoted on **Figure 3**;
- Laboratory analysis of all 35 surface soil samples for nitroaromatics, nitramines, and nitrate esters by high performance liquid chromatography (nitroaromatics and nitramines) using EPA Method 8330B; volatile organic compounds (VOCs) using EPA Method 8260C; and semi-volatile organic compounds (SVOCs) using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine;
- Laboratory analysis of four (4) select surface soil samples for nitrocellulose using Method 353.2; RCRA Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver) using EPA Methods 6020A and 7471B; and Dioxins/Furans using EPA Method 1613B; and
- Laboratory analysis of one select surface soil sample for total petroleum hydrocarbon - gasoline range organics (TPH-GRO) using EPA Method 8015B and total petroleum hydrocarbon - diesel range organics (TPH-DRO) using EPA Method 8015B.

#### **AREA I PERIMETER SCOPE OF WORK**

- Installation of six (6) direct push soil borings (identified as SB-1 through SB-6) to a depth of 30 feet bgs completed as monitoring wells (identified as MW-1 through MW-6) for the collection of soil and groundwater samples;
- Field screening of soil samples with a photoionization detector (PID); and

- Laboratory analysis of select soil samples (three per boring) and groundwater samples (one per monitoring well) for nitroaromatics and nitramines using EPA Method 8330B; VOCs using EPA Method 8260C; and SVOCs using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine.

### **CLARKES BAYOU SCOPE OF WORK**

- Collection of three (3) surface water samples identified as SW upstream, SW point of discharge, and SW downstream;
- Collection of three (3) sediment samples identified as sediment upstream, sediment point of discharge, and sediment downstream; and
- Laboratory analysis of surface water and sediment samples for VOCs using EPA Method 8260C and SVOCs using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine.

The following report presents a summary of the Baseline Environmental Site Investigation activities, conclusions, and recommendations. The Baseline Site Investigation activities were conducted in accordance with the Revised Quality Assurance Sample Plan (QASP) – Soil and Water dated September 25, 2015. Sample locations were determined as outlined in the approved QASP dated July 14, 2015.

### **3.0 SUMMARY OF SITE INVESTIGATION ACTIVITIES**

The Baseline Environmental Site Investigation included conducting site investigation activities in Area I surface, Area I perimeter and Clarkes Bayou. The Area I surface site investigation activities included the advancement of thirty five (35) shallow direct push soil borings (identified as the grid locations on **Figure 3**) to a total depth of 2 feet bgs for the collection of surface soil samples. The Area I perimeter site investigation activities included the installation of six (6) direct push soil borings to a total depth of 30 feet bgs completed as monitoring wells around the perimeter of Area I for the collection of soil and groundwater samples (see **Figure 3**). The Clarkes Bayou site



investigation activities included the collection of surface water and sediment samples from Clarkes Bayou.

The Area I surface soil and Area I perimeter soil sampling/monitor well installation/development activities were conducted on August 17-21, 2015. The Clarkes Bayou sampling activities and the collection of the groundwater samples from the Area I perimeter monitor wells were conducted on August 31, 2015. Details of the site investigation activities are included in the following sections.

### 3.1 AREA I SURFACE

#### 3.1.1 Sample Preparation

Area I surface soil sample locations were measured and demarked in preparation for drilling activities on August 17, 2015 as shown on **Figure 3**. The locations were identified using the corresponding grid locations as identified on the Sample Location Map (**Figure 3**).

#### 3.1.2 Direct Push Borings and Sampling

Thirty-five (35) shallow direct push borings were advanced at Area I on August 17-18, 2015 for the collection of surface soil samples. The direct push boring locations were pre-determined as specified in the approved QASP dated July 14, 2015. The boring were installed at the following locations:

- Twenty-one (21) direct push borings were advanced in a 130 ft x 130 ft grid pattern within the existing fenced area to objectively assess representative site conditions;
- Seven (7) additional direct push borings were advanced within the existing fenced area to further investigate the former explosives waste incinerator (EWI) location; the proposed contained burn chamber system location; the proposed trailer staging area; and the proposed material staging area;

- Five (5) direct push borings were advanced in the northwestern portion of Area I to investigate the former incinerator location and the proposed type II magazine storage location; and
- Two (2) direct push borings were advanced southeast of the existing gate to investigate the locations of the proposed above ground storage tanks.

Each of the direct push borings was advanced by Devonian Group (Devonian), of Lafayette, Louisiana utilizing a track mounted Geoprobe Rig 6620DT. Each direct push boring was advanced to a depth of 2 feet bgs. Groundwater was not encountered in the direct push borings. Soil cores were collected in stainless steel sample barrels lined with disposable acetate liners and relinquished to the field sampler. Immediately upon collection, a grab sample of the upper 2 feet of soil of each boring location was collected for laboratory testing using Terra Core sampling kits in accordance with method 5035. Soil boring logs were developed from observations and descriptions for samples retrieved from each direct push boring. Area I surface soil boring logs are provided as **Attachment A**.

The surface soil samples were placed into new, laboratory supplied, pre-preserved containers (if applicable), labeled, and placed in a cooler on ice for transportation to the laboratory. Each sample was labeled with the sample identification, date and time of collection, project name, sampler name, and requested analysis. Surface soil samples were packed with ice and shipped, accompanied by chain-of-custody documentation to TestAmerica St. Louis (TestAmerica) in Earth City, Missouri for laboratory analysis.

All of the surface soil samples were analyzed for nitroaromatics and nitramines using EPA Method 8330B; volatile organic compounds (VOCs) using EPA Method 8260C; and semi-volatile organic compounds (SVOCs) using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine.

Additionally, four (4) select Area I surface soil samples were also analyzed for nitrocellulose using EPA Method 353.2; RCRA Metals using EPA Method 6020A and EPA Method 7471B; and Dioxins/Furans using EPA Method 1613B. These four (4) surface soil samples were selected from Area I based on existing structures, former site operations, and proposed activities for additional analysis. The selected soil samples analyzed for additional parameters included: the proposed contained burn chamber system location (grid location B2.3); the former EWI location (grid location H2); the former incinerator location (grid location O-0.2); and an area of non-impact, southeast of the entrance gate (grid location E6.5).

One surface soil sample southeast of the entrance gate (grid location E6.5) was also analyzed for total petroleum hydrocarbons - gasoline range organics (TPH-GRO) using EPA Method 8015B and total petroleum hydrocarbons - diesel range organics (TPH-DRO) using EPA Method 8015B since it is located in the vicinity of the proposed petroleum above ground storage tanks (see **Figures 2 and 3**).

The results of the laboratory analyses are shown in the laboratory analytical report included in **Attachment B**. A summary of the Area I surface soil analytical results is presented in **Table 1**.

All direct push equipment and sampling devices were chemically cleaned prior to drilling activities and between each borehole to minimize the potential of cross contamination. In addition, nitrile gloves were used while handling sampling equipment and soil samples.

### 3.1.3 Surface Soil Plugging and Abandonment

Following sample collection, each direct push boring location was plugged and abandoned by grouting the borehole with a cement/bentonite mixture from the bottom of the borehole to ground surface.

### 3.1.4 Surface Soil Sample Location Survey

Upon completion of the plugging and abandonment activities, each shallow direct push surface soil boring location was plotted utilizing a portable Garmin GPSMAP 62S hand held unit to determine the latitude and longitude coordinates to the nearest one-hundredth of a second (0.01 second) for future field identification. The latitude and longitude coordinates for the Area I surface soil sample locations are summarized in **Table 2**.

## 3.2 AREA I PERIMETER

### 3.2.1 Direct Push Borings and Sampling

Six (6) direct push borings identified as SB-1 through SB-6 were advanced around the perimeter of Area I on August 17-18, 2015 for the collection of soil samples (see **Figure 3**). The direct push boring locations were pre-determined as specified in the approved QASP dated July 14, 2015. As shown on **Figure 3**, one direct push boring was advanced to the north of Area I, one direct push boring was advanced to the south of Area I, two direct push borings were advanced to the east of Area I, and two direct push borings were advanced to the west of Area I.

Each of the direct push borings was advanced by Devonian utilizing a track mounted Geoprobe Rig 7822DT. Each direct push boring (SB-1 through SB-6) was advanced to a total depth of 30 feet bgs. Groundwater was first encountered in the direct push borings at depths ranging from approximately 17 to 21 feet bgs. Soil samples were collected with the use of 4-foot or 5-foot (as determined by the final push) long stainless steel sample barrels lined with disposable acetate liners and were relinquished to the field sampler. All direct push equipment and sampling devices were chemically cleaned prior to drilling activities and between each borehole to minimize the potential of cross contamination. In addition, nitrile gloves were used while handling equipment and soil samples. Soil boring logs were developed from observations, descriptions and field screening data for samples

retrieved from each direct push boring. Area I perimeter soil boring logs are provided as **Attachment C**.

Continuous soil sampling was conducted in two feet intervals. Immediately upon collection, a portion of each soil sample interval was collected using Terra Core sampling kits in accordance with EPA Method 5035 sampling procedures and retained for laboratory analysis. The soil samples were placed in new, laboratory-supplied, pre-preserved containers (if applicable), labeled, and placed on ice in a cooler. Each sample was labeled with the sample identification, date and time of collection, project name, sampler name, and requested analysis. A portion of each soil sample was also placed in a separate glass jar, foil sealed, and allowed to stand for volatilization of possible hydrocarbon vapors. The head space of the sample was then analyzed in the field for hydrocarbon vapors using a photo ionization detector (PID) calibrated to 100 parts per million Isobutylene. The field screening PID hydrocarbon vapor concentrations of each soil sample measured were recorded on the soil boring logs. A summary of the Area I perimeter field screening readings are provided on **Table 3**.

Immediately upon field screening, a minimum of three soil samples per soil boring were selected from each perimeter borehole for laboratory analysis. The soil samples selected for laboratory analyses were selected based on the Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) (dated October 2003) Appendix B criteria which are based upon the following considerations: highest PID reading in surface soil (0–15 feet bgs); highest PID reading in subsurface soil: (> 15 feet bgs); first encountered groundwater; and total depth of borehole. The soil samples selected for analytical analyses included the following: SB-1 (0-2), SB-1 (20-22), SB-1 (28-30), SB-2 (0-2), SB-2 (16-18), SB-2 (28-30), SB-3 (0-2), SB-3 (16-18), SB-3 (28-30), SB-4 (0-2), SB-4 (16-18), SB-4 (28-30), SB-5 (0-2), SB-5 (16-18), SB-5 (28-30), SB-6 (0-2), SB-6 (20-22), and SB-6 (28-30). The selected soil samples were packed with ice and shipped, accompanied by chain-of-custody documentation to TestAmerica for laboratory analysis. Each of the perimeter soil samples were analyzed for nitroaromatics and nitramines using EPA Method 8330B; VOCs using EPA Method 8260C; and SVOCs using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine. The results of these

analyses are shown in the laboratory analytical report included in **Attachment B**. A summary of the Area I perimeter soil analytical results are presented in **Table 4**.

### 3.2.2 Monitoring Well Installation and Well Development

Once the total depth (30 feet bgs) of the perimeter soil borings SB-1, SB-2, SB-3, SB-4, SB-5, and SB-6 were reached, the borings were converted into permanent monitoring wells MW-2, MW-4, MW-6, MW-5, MW-3, and MW-1, respectively. The monitoring wells were installed in the shallow groundwater unit to evaluate groundwater conditions at the site throughout the duration of the M6 Destruction Project at Camp Minden – Area I. The locations of the monitoring wells as outlined in the approved QASP dated July 14, 2015 are shown on **Figure 3**.

Devonian utilized a track mounted Geoprobe 7822DT drill rig equipped with 8.25-inch diameter hollow stem augers to install six (6) 2-inch diameter schedule 40 PVC monitoring wells. Monitoring wells MW-1 through MW-3 were installed to a total depth of 30 ft-bgs; MW-4 was installed to a total depth of 29 ft-bgs; MW-5 was installed to a total depth of 27 ft-bgs; and MW-6 was installed to a total depth of 28 ft-bgs. Each monitoring well was constructed of schedule 40 PVC pipe with the bottom 10-feet of the PVC pipe factory slotted (0.010-inch width slots) well screen with a sump. The assembled well pipe was placed through the hollow stem augers. As the augers were withdrawn, the annular space around the well assembly was filled with a sand pack material of uniform gradation (20/40 silica sand filter) to a depth of two-feet above the top of the well screen. A two-foot thick bentonite seal was placed above the sand pack material utilizing water-activated pellets. Portland cement-bentonite grout mix was used to backfill the annular space above the bentonite seal. Each monitor well was secured with a locking watertight cap completed with an above ground surface lockable metal shroud, a 2-ft by 2-ft concrete pad, and four protective metal guard posts. Well construction diagrams are provided in **Attachment C**. The groundwater monitoring well characteristics are included in **Table 5**.

Following installation, each well was developed in an attempt to remove fine-grained particles. The monitoring wells were developed on August 19-20, 2015 using a downhole pump with dedicated tubing in order to prevent cross contamination. A surge block was used in conjunction with the downhole pump to mechanically surge each well during development and to ensure proper conductivity between the borehole and the formation. The Monitoring Well Development Logs are provided in **Attachment D**.

Monitoring wells MW-1 through MW-6 were registered with the Louisiana Department of Natural Resources (LDNR), Office of Conservation using the Water Well Registration Short Form (DOTD-GW-1S). Copies of the LDNR Registration Forms are included in **Attachment E**.

### 3.2.3 Monitoring Well Survey

The top of casing (TOC), ground surface elevation, and location of monitoring wells MW-1 through MW-6 were surveyed on August 20, 2015, by SEMS, Inc. Monitoring wells MW-1 through MW-6 were surveyed for the vertical position to the nearest one-hundredth of a foot (0.01 foot) in reference to the National Geodetic Vertical Datum (NGVD) of 1929. The horizontal locations of monitoring wells MW-1 through MW-6 were surveyed to obtain latitude and longitude to the nearest one-hundredth of a second (0.01 second) in reference to the North American Datum of 1983 (NAD 83). The latitude and longitude coordinates, TOC elevations, and ground surface elevations for each monitor well are summarized on **Table 2**. The TOC and ground surface elevations for each monitor well (MW-1 through MW-6) are as follows:

Monitoring Well ID	Top of Casing Elevation (ft. NGVD)	Ground Surface Elevation (ft. NGVD)
MW-1	205.16	202.08
MW-2	206.07	203.18
MW-3	204.14	201.72
MW-4	203.66	199.75
MW-5	204.08	200.78
MW-6	202.69	200.51

#### 3.2.4 Groundwater Conditions

On August 31, 2015, SEMS personnel measured the groundwater levels in monitoring wells MW-1 through MW-6 for the determination of the groundwater potentiometric surface. Each well was uncapped to allow water levels to equilibrate to atmospheric conditions. After equilibration, the depth-to-water was measured from the TOC to the nearest one-hundredth of a foot with an oil/water interface probe. The interface probe was decontaminated prior to on-site work, between each well, and after fluid level measurements were complete.

The static groundwater levels were recorded at depths ranging from between 21.22 feet and 23.85 feet below the top of casing in monitoring wells MW-1 through MW-6 during the August 31, 2015 groundwater monitoring event. The static groundwater measurements were used to determine groundwater elevations at the site and groundwater flow direction. A Potentiometric Map for the August 31, 2015 monitoring event is provided as **Figure 4**, which shows that groundwater flows generally toward the south-southwest with an average hydraulic gradient across the site of approximately 0.001 ft/ft. The groundwater level measurements from the August 31, 2015 monitoring event were recorded on the Monitoring Well Sampling Logs included as **Attachment F** and are summarized in **Table 6**.

#### 3.2.5 Monitor Well Groundwater Sampling

Groundwater samples were collected from monitor wells MW-1 through MW-6 on August 31, 2015. Prior to sampling, at least three well volumes were purged from each monitor well MW-1 through MW-6 using dedicated disposable bailers. The wells were allowed to recharge and groundwater samples were collected using disposable bailers. The groundwater samples were placed in new, laboratory-supplied, pre-preserved containers (if applicable), labeled with an identification number, and placed on ice in a cooler pending shipment to the laboratory. Samples were packed with ice and shipped, accompanied by chain-of-custody documentation to TestAmerica for analytical testing.



Data for the groundwater sampling event is summarized on the Monitoring Well Sampling Logs provided as **Attachment F**.

Groundwater samples collected from monitoring wells MW-1 through MW-6 were analyzed for nitroaromatics and nitramines using EPA Method 8330B; VOCs using EPA Method 8260C; and SVOCs using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine. The results of the groundwater analyses are shown in the laboratory analytical report included in **Attachment B**. A summary of Area I groundwater analytical results are presented in **Table 7**.

### 3.3 CLARKES BAYOU

#### 3.3.1 Surface Water Sampling

On August 31, 2015, three surface water samples (identified as SW downstream, SW point of discharge, and SW upstream) were collected from Clarkes Bayou which is the nearest surface water body, located approximately 2,250 feet west of the Camp Minden Area I M6 Destruction site. The three designated sample locations were accessed using a utility terrain vehicle (UTV) as outlined in the approved QASP dated July 14, 2015. Discrete surface water samples were collected using a dip sampler. Sample equipment was decontaminated before collection activities were initiated and between each collection point to prevent cross contamination. In addition, nitrile gloves were used while handling surface water samples and sampling equipment. Surface water and sediment samples were collected from the same collection point; therefore, the surface water samples were collected prior to the collection of the sediment. Water samples were collected without disturbing the sediment. The water samples were placed in new, laboratory-supplied, pre-preserved containers (if applicable), labeled with an identification number, and placed on ice in a cooler pending shipment to the analytical laboratory. Surface water samples were packed with ice and shipped, accompanied by chain-of-custody documentation to TestAmerica for analytical testing.

Surface water samples collected from Clarkes Bayou were analyzed for VOCs using EPA Method 8260C and SVOCs using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine. The results of the surface water analyses are shown in the laboratory analytical report included in **Attachment B**. A summary of Clarkes Bayou surface water analytical results are presented in **Table 8**.

### 3.3.2 Sediment Sampling

On August 31, 2015, three discrete sediment samples (identified as sediment downstream, sediment point of discharge, and sediment upstream) were collected from Clarkes Bayou after collection of the surface water samples. Sediment samples were collected using a clamshell sampling device. The device was lowered into the sediment at the desired location to retrieve a sample. Excess water was removed from the sampling device through drainage ports, and the sample was collected from the reservoir. Sample equipment was decontaminated before collection activities were initiated and between each collection point to prevent cross contamination. In addition, nitrile gloves were used while handling sediment samples and sampling equipment. Sediment samples were placed in new, laboratory-supplied, pre-preserved containers (if applicable), labeled with an identification number, and placed on ice in a cooler pending shipment to the analytical laboratory. Sediment samples were packed with ice and shipped, accompanied by chain-of-custody documentation to TestAmerica for analytical testing.

Sediment samples collected from Clarkes Bayou were analyzed for VOCs using EPA Method 8260C and SVOCs using EPA Method 8270D, including 2,4-dinitrotoluene, 2,6-dinitrotoluene, di-n-butylphthalate, and diphenylamine. The results of the sediment analyses are shown in the laboratory analytical report included in **Attachment B**. A summary of Clarkes Bayou sediment analytical results are presented in **Table 9**.

### 3.3.3 Clarkes Bayou Sample Location Survey

Upon completion of the surface water and sediment sampling, each Clarkes Bayou collection point was plotted utilizing a portable Garmin GPSMAP 62S hand held unit to determine the latitude and longitude coordinates to the nearest one-hundredth of a second (0.01 second) for future field identification. The latitude and longitude coordinates for the Clarkes Bayou sample locations are summarized in **Table 2**.

## 4.0 QUALITY ASSURANCE/QUALITY CONTROL SAMPLING

Quality Assurance/Quality Control (QA/QC) samples were collected and analyzed in conjunction with the soil and water samples collected during the Baseline Environmental Site Investigation. Soil and water duplicates, matrix spike and matrix spike duplicates (MS/MSD), equipment rinsates, field blanks, and trip blank QA/QC samples were collected in accordance with the Revised QASP – Soil and Water. QA/QC samples collected in accordance with the Revised QASP – Soil and Water included:

- Duplicate samples were collected at a frequency of one per ten field samples per matrix;
- MS/MSD samples were collected at a frequency of one per ten field samples per matrix;
- Rinsate samples were collected at a frequency of one per day during field sampling activities;
- Field blanks were collected at a frequency of one per day during field sampling activities;
- and
- Trip blanks were analyzed at a frequency of one per cooler containing samples for volatiles analysis.

Field and laboratory QA/QC results are shown in the laboratory analytical reports included in **Attachment B**. Duplicate sample analytical results are included on **Tables 1, 4, 7, and 9**.

## **5.0 INVESTIGATIVE DERIVED WASTES**

Investigative derived wastes (IDW) generated during the Baseline Sampling Event was segregated and containerized in 55-gallon and 85-gallon steel drums; properly labeled; and stored in a designated holding area at the Camp Minden Area I M6 Destruction Site for management by ESI. IDW included soil cuttings generated during advancement of the boreholes; soil cuttings generated during drilling of the monitoring wells; groundwater collected from the monitoring wells during well development and sampling activities; equipment decontamination water; and potentially non-hazardous disposable materials (nitrile gloves, paper towels, trash bags, etc). A total of 12 drums containing soil IDW; 7 drums containing purge/waste water; and 4 drums containing potentially non-hazardous disposable debris/waste were generated. Once IDW is disposed, documentation of IDW disposal should be archived with the project records.

## **6.0 DATA EVALUATION**

Included in this section are discussions of the soil conditions and analytical results from the Area I surface soil samples; soil conditions and soil and groundwater analytical results from the Area I perimeter soil borings/monitor wells; Clarkes Bayou surface water analytical results; and Clarkes Bayou sediment analytical results. Soil and water analytical results from the Baseline Environmental Site Investigation were compared to the applicable Screening Level as determined by the Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP), Screening Standards (dated October 2003), and the USEPA Regional Screening Level (RSL) Summary Table (revised June 2015).

Laboratory analytical results were reported down to the method detection limit (MDL). However, MDLs are greater than the established Screening Levels for some of the constituents analyzed. Acetone was detected in samples at a level below the reporting limit and may be attributed to laboratory contamination. Laboratory explanations are provided in the narrative sections of the TestAmerica analytical laboratory reports (160-13469-1, 160-13469-2, 160-13510-1, and 160-13617-1) provided in **Attachment B**.

## 6.1 AREA I SURFACE

### 6.1.1 AREA I SURFACE SOIL CONDITIONS

Based upon the boring logs for surface soil direct push borings, general soil conditions observed consisted of a Silty Clay from the ground surface to the total borehole depth of 2 feet bgs. Oxidized and iron lenses were observed throughout the site in the Silty Clay soils as seen by reddish orange soil particles and black nodules.

### 6.1.2 AREA I SURFACE SOIL ANALYTICAL RESULTS

The Area I surface soil sample analytical results for the Baseline Environmental Site Investigation are shown on **Table 1** for Nitroaromatics and Nitramines, VOCs, SVOCs, RCRA Metals, Dioxins and Furans, Nitrocellulose, TPH-DRO, and TPH-GRO. The Screening Levels established for Area I surface soils are also shown on **Table 1** and were established based upon the following:

- The most conservative LDEQ, RECAP Screening Standard of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level for VOCs, SVOCs, RCRA Metals, TPH-DRO, and TPH-GRO.
- The EPA, RSL for industrial soil was determined as the Screening Level for Nitroaromatics and Nitramines; Di-n-butyl phthalate and Diphenylamine (SVOCs); and Nitrocellulose.
- The EPA, RSL for industrial soil was determined as the Screening Level for 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin (TCDD). The 2005 World Hospital Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors (TEFs) for Dioxins and Dioxin like compounds were used to calculate the total TCDD Toxic Equivalent (TEQ) in each medium. Total TEQs in each medium were compared to the Screening Level for TCDD.

As shown on **Table 1**, Arsenic was the only constituent reported above the Screening Level (12 mg/kg) established for the Area I surface soils. Arsenic was detected in one surface soil sample (grid location O-0.2) at 17 mg/kg. Soil sample O-0.2 was reanalyzed to confirm the laboratory results and the result was 3.2 mg/kg which is below the Screening Level of 12 mg/kg. The laboratory noted the sample was non-homogenous which could cause the difference in the results. Arsenic concentrations are provided on **Figure 5**. No other RCRA Metals exceeded the applicable Screening Level in the Area I surface soil samples. As shown on **Table 1**, Nitroaromatics and Nitramines, VOCs, Nitrocellulose, Dioxins and Furans, TPH-DRO, and TPH-GRO concentrations were not detected in Area I surface soil samples above the established Screening Levels. However, the laboratory MDL for Aniline was greater than the established Screening Level for the Area I surface soils. No other SVOC constituents exceeded the established Screening Levels for the Area I surface soils.

## 6.2 AREA I PERIMETER

### 6.2.1 AREA I PERIMETER SOIL CONDITIONS

Based upon the boring logs for the perimeter soil direct push borings (identified as SB-1 through SB-6), general soil conditions observed consisted of a Silty Clay from the ground surface to a depth of 10 feet bgs; followed by a Sandy Silt to the total depth of the boreholes (30 feet bgs). Oxidized and iron lenses were observed throughout the site to the total depth of the borings (30 feet bgs) as seen by reddish orange soil particles and black nodules.

### 6.2.2 AREA I PERIMETER SOIL ANALYTICAL RESULTS

The Area I perimeter soil sample analytical results for the Baseline Environmental Site Investigation are shown on **Table 4** for Nitroaromatics and Nitramines, VOCs, and SVOCs. The Screening Levels established for Area I perimeter soils are also shown on **Table 4** and were established based upon the following:

- The most conservative LDEQ, RECAP Screening Standard of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level for VOCs and SVOCs.
- The EPA, RSL for industrial soil was determined as the Screening Level for Nitroaromatics and Nitramines; and Di-n-butyl phthalate and Diphenylamine (SVOCs).

As shown on **Table 4**, Nitroaromatics and Nitramines and VOCs were not detected in the Area I perimeter soil samples submitted for laboratory analysis above the established Screening Levels. However, the laboratory MDL for Aniline was greater than the established Screening Level for the Area I perimeter soils. No other SVOC constituents exceeded the established Screening Levels for the Area I perimeter soils.

#### 6.2.3 AREA I PERIMETER GROUNDWATER ANALYTICAL RESULTS

The Area I perimeter groundwater analytical results for the Baseline Environmental Site Investigation are shown on **Table 7** for Nitroaromatics and Nitramines, VOCs, and SVOCs. The Screening Levels established for Area I perimeter groundwater are also shown on **Table 7** and were established based upon the following:

- The Groundwater LDEQ, RECAP Screening Standard (GWSS) was determined as the Screening Level for VOCs and SVOCs.
- The EPA, RSL for tap water was determined as the Screening Level for Nitroaromatics and Nitramines; and Di-n-butyl phthalate and Diphenylamine (SVOCs).

As shown on **Table 7**, laboratory MDL's for 2,4-Dinitrotoluene, Nitroglycerin, 1,2-Dibromo-3-chloropropane, Benzo(a)pyrene, Hexachlorobutadiene, 2-Methylnaphthalene, and Pentachlorophenol were greater than the established Screening Levels for the Area I perimeter groundwater samples. No other Nitroaromatics and Nitramines, VOCs, and SVOCs constituents exceeded the established Screening Levels in the Area I perimeter groundwater samples.

## 6.3 CLARKES BAYOU

### 6.3.1 SURFACE WATER ANALYTICAL RESULTS

The Clarkes Bayou surface water analytical results for the Baseline Environmental Site Investigation are shown on **Table 8** for VOCs and SVOCs. The Screening Levels established for Clarkes Bayou surface water are also shown on **Table 8** and were established based upon the following:

- The Groundwater LDEQ, RECAP Screening Standard (GWSS) was determined as the Screening Level for VOCs and SVOCs.
- The EPA, RSL for tap water was determined as the Screening Level for Di-n-butyl phthalate and Diphenylamine (SVOCs).

As shown on **Table 8**, laboratory MDL's for VOCs and SVOCs were greater than the established Screening Levels for 1,2-Dibromo-3-chloropropane, Benzo(a)pyrene, Hexachlorobutadiene, 2-Methylnaphthalene, and Pentachlorophenol for the Clarkes Bayou surface water. No other VOCs or SVOCs constituents exceeded the established Screening Levels in the Clarkes Bayou surface water samples.

### 6.3.2 SEDIMENT ANALYTICAL RESULTS

The Clarkes Bayou sediment analytical results for the Baseline Environmental Site Investigation are shown on **Table 9** for VOCs and SVOCs. The Screening Levels established for Clarkes Bayou sediment are also shown on **Table 9** and were established based upon the following:

- The most conservative LDEQ, RECAP Screening Standard of the soil for non-industrial use (SSni), soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level for VOCs and SVOCs.



- The EPA, RSL for non-industrial soil was determined as the Screening Level for Di-n-butyl phthalate and Diphenylamine (SVOCs).

As shown on **Table 9**, VOCs were not detected in the Clarkes Bayou sediment samples submitted for laboratory analysis above the established Screening Levels. However, the laboratory MDL for Aniline was greater than the established Screening Level for the Clarkes Bayou sediment. No other SVOC constituents exceeded the established Screening Levels for the Clarkes Bayou sediment samples.

## 7.0 CONCLUSIONS

The Baseline Environmental Site Investigation was conducted to establish existing soil and groundwater conditions in Area I and establish the sediment and surface water conditions in Clarkes Bayou prior to commencement of the M6 Destruction Project. Due to the large size of Area I, the site was divided into two areas for site investigation activities. The two areas are identified as Area I surface and Area I perimeter. The conclusions developed upon completion of the Baseline Environmental Site Investigation activities include the following:

- The general soil conditions observed in Area I consists of a Silty Clay from the ground surface to a depth of 10 feet bgs; followed by a Sandy Silt to the total depth of the boreholes (30 feet bgs). Oxidized and iron lenses were observed throughout the site to the total depth of the borings (30 feet bgs) as seen by reddish orange soil particles and black nodules;
- The depth to groundwater measured in monitoring wells MW-1 through MW-6 on August 31, 2015 ranged from 21.22 feet to 23.85 feet below the top of casing. Groundwater flow for the August 31, 2015 measurement event was generally toward the south-southwest with an average hydraulic gradient across the site of approximately 0.001 ft/ft;

#### Area I Surface

- Arsenic was the only constituent reported above the Screening Level (12 mg/kg) established for the Area I surface soils. Arsenic was detected in one surface soil sample (grid location O-0.2) at 17 mg/kg. Soil sample O-0.2 was reanalyzed to confirm the laboratory results and the result was 3.2 mg/kg which is below the Screening Level of 12 mg/kg. The laboratory noted the sample was non-homogenous which could cause the difference in the results. No other RCRA Metals exceeded the applicable Screening Level in the Area I surface soil samples;
- Nitroaromatics and Nitramines, VOCs, Nitrocellulose, Dioxins and Furans, TPH-DRO, and TPH-GRO concentrations were not detected in Area I surface soil samples above the established Screening Levels. The laboratory MDL for Aniline was greater than the established Screening Level for the Area I surface soils. No other SVOC constituents exceeded the established Screening Levels for the Area I surface soils;

#### Area I Perimeter

- Nitroaromatics and Nitramines and VOCs were not detected in the Area I perimeter soil samples submitted for laboratory analysis above the established Screening Levels. The laboratory MDL for Aniline was greater than the established Screening Level for the Area I perimeter soils. No other SVOC constituents exceeded the established Screening Levels for the Area I perimeter soils;
- Laboratory MDL's for 2-6 Dinitrotoluene, Nitroglycerin, 1,2-Dibromo-3-chloropropane, Benzo(a)pyrene, Hexachlorobutadiene, 2-Methylnaphthalene, and Pentachlorophenol were greater than the established Screening Levels for the Area I perimeter groundwater samples. No other Nitroaromatics and Nitramines, VOCs, and SVOCs constituents exceeded the established Screening Levels in the Area I perimeter groundwater samples;

### Clarkes Bayou

- Laboratory MDL's for VOCs and SVOCs were greater than the established Screening Levels for 1,2-Dibromo-3-chloropropane, Benzo(a)pyrene, Hexachlorobutadiene, 2-Methylnaphthalene, and Pentachlorophenol for the Clarkes Bayou surface water. No other VOCs or SVOCs constituents exceeded the established Screening Levels in the Clarkes Bayou surface water samples; and
- VOCs were not detected in the Clarkes Bayou sediment samples submitted for laboratory analysis above the established Screening Levels. However, the laboratory MDL for Aniline was greater than the established Screening Level for the Clarkes Bayou sediment. No other SVOC constituents exceeded the established Screening Levels for the Clarkes Bayou sediment samples.

## **8.0 RECOMMENDATIONS**

The following recommendations for future actions are based on evaluation of the data presented within this Report:

- Implement quarterly groundwater monitoring and reporting of the Area I monitoring wells, MW-1 through MW-6 throughout the duration of the M6 Destruction Project in accordance with the Revised QASP – Soil and Water; and
- Upon completion of the M6 Destruction Project, conduct a post M6 Destruction Project environmental site investigation in accordance with the Revised QASP – Soil and Water to compare the soil, water, groundwater and sediment results to the Baseline Environmental Site Investigation data to determine site closeout and restoration of the site.

## TABLES



Table 1  
Area I Surface Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Louisiana  
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				Sample Id <sup>1</sup>	2015.08.17 A1		2015.08.17 A3		2015.08.17 A5		2015.08.17 A1.6		2015.08.18 B2.3		2015.08.17 C1		2015.08.17 C3		2015.08.17 C5		2015.08.17 C1.6		2015.08.17 E1		2015.08.17 E3		2015.08.17 E5		2015.08.18 E6.5		Analytical Method		
Analyte				Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual			
Nitroaromatics and Nitramines																																	
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																													
1,3,5-Trinitrobenzene		220,000	3,200,000	3,200,000	ug/kg	<25		<25		<27		<26		<25		<26		<27		<27		<27		<25		<27		<26		<25		8330B	
1,3-Dinitrobenzene		630	8,200	8,200	ug/kg	<40		<39		<43		<42		<39		<41		<43		<43		<43		<40		<43		<42		<40		8330B	
2,4,6-Trinitrotoluene		3,600	51,000	51,000	ug/kg	<33		<32		<36		<34		<32		<33		<35		<36		<36		<33		<35		<34		<32		8330B	
2,4-Dinitrotoluene		1,700	7,400	7,400	ug/kg	<35		<34		<38		<36		<34		<35		<37		<38		<38		<35		<37		<36		<34		8330B	
2,6-Dinitrotoluene		360	1,500	1,500	ug/kg	<59		<57		<64		<61		<57		<60		<63		<63		<64		<58		<63		<61		<58		8330B	
2-Amino-4,6-dinitrotoluene		15,000	230,000	230,000	ug/kg	<40		<38		<43		<41		<39		<40		<42		<43		<43		<39		<42		<41		<39		8330B	
4-Amino-2,6-dinitrotoluene		15,000	230,000	230,000	ug/kg	<87		<84		<93		<89		<84		<87		<92		<93		<93		<86		<92		<90		<85		8330B	
3-Nitrotoluene		630	8,200	8,200	ug/kg	<52		<50		<55		<53		<50		<52		<55		<55		<55		<51		<55		<54		<51		8330B	
Nitrobenzene		5,100	22,000	22,000	ug/kg	<40		<39		<43		<41		<39		<40		<43		<43		<43		<40		<43		<42		<39		8330B	
Nitroglycerin		630	8,200	8,200	ug/kg	<250		<240		<270		<260		<240		<250		<270		<270		<270		<250		<270		<260		<250		8330B	
2-Nitrotoluene		3,200	15,000	15,000	ug/kg	<60		<58		<65		<62		<59		<61		<64		<65		<65		<60		<64		<63		<59		8330B	
4-Nitrotoluene		25,000	140,000	140,000	ug/kg	<75		<73		<81		<78		<73		<76		<80		<81		<81		<75		<80		<78		<74		8330B	
Pentaerythritol Tetranitrate		13,000	160,000	160,000	ug/kg	<320		<310		<340		<330		<310		<320		<340		<340		<340		<320		<340		<330		<310		8330B	
RDX		6,100	28,000	28,000	ug/kg	<58		<56		<62		<60		<56		<58		<61		<62		<62		<57		<62		<60		<57		8330B	
HMX		390,000	5,700,000	5,700,000	ug/kg	<36		<35		<39		<37		<35		<36		<38		<39		<39		<36		<38		<37		<35		8330B	
Tetryl		16,000	230,000	230,000	ug/kg	<43		<41		<46		<44		<41		<43		<45		<46		<46		<42		<45		<44		<42		8330B	
Volatile Organic Compounds																																	
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
1,1,1,2-Tetrachloroethane		2,700	5,900	46	46	ug/kg	<0.29		<0.29		<0.37		<0.32		<0.31		<0.31		<0.31		<0.30		<0.32		<0.31	*	<0.34		<0.32		<0.33		8260C
1,1,1-Trichloroethane		82,000	700,000	4,000	4,000	ug/kg	<0.36		<0.36		<0.45		<0.39		<0.38		<0.38		<0.38		<0.36		<0.39		<0.38	*	<0.41		<0.40		<0.40		8260C
1,1,2,2-Tetrachloroethane		810	2,000	6	6	ug/kg	<0.33	*	<0.33		<0.42		<0.37	*	<0.35		<0.36	*	<0.36		<0.34	*	<0.37	*	<0.36	*	<0.38	*	<0.37		<0.37		8260C
1,1,2-Trichloroethane		1,900	4,300	58	58	ug/kg	<0.47		<0.48		<0.60		<0.52		<0.51		<0.51		<0.51		<0.48		<0.52		<0.51	*	<0.55		<0.53		<0.53		8260C
1,1-Dichloroethane		66,000	470,000	7,500	7,500	ug/kg	<0.32		<0.33		<0.41		<0.36		<0.35		<0.35		<0.35		<0.33		<0.36		<0.35		<0.38		<0.36		<0.36		8260C
1,1-Dichloroethene		13,000	91,000	85	85	ug/kg	<1.3		<1.3		<1.7		<1.5		<1.4		<1.4		<1.4		<1.4		<1.5		<1.4		<1.5		<1.5		<1.5		8260C
1,2-Dibromo-3-chloropropane		180	1,600	10	10	ug/kg	<1.2	*	<1.2		<1.5		<1.3	*	<1.3		<1.3	*	<1.3		<1.2	*	<1.3	*	<1.3	*	<1.4	*	<1.3		<1.4		8260C
1,2-Dichloroethane		820	1,800	35	35	ug/kg	<0.72		<0.73		<0.92		<0.80		<0.77		<0.78		<0.78		<0.74		<0.79		<0.78		<0.84		<0.80		<0.81		8260C
1,2-Dichloropropane		690	1,800	42	42	ug/kg	<0.32		<0.32		<0.40		<0.35		<0.34		<0.34		<0.34		<0.32		<0.35		<0.34		<0.37		<0.35		<0.36		8260C
1,3-Dichloropropene, Total		3,100	10,000	40	40	ug/kg	<0.79		<0.79		<1.0		<0.87		<0.84		<0.85		<0.85		<0.81		<0.87		<0.85		<0.91		<0.88		<0.89		8260C
2-Butanone (methyl ethyl ketone)		590,000	4,400,000	5,000	5,000	ug/kg	<1.6		<1.6		<2.0		<1.8		<1.7		<1.7		<1.7		<1.6		<1.8		<1.7		<1.8		<1.8		<1.8		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)		450,000	3,100,000	6,400	6,400	ug/kg	<0.61		<0.61		<0.77		<0.67		<0.65		<0.65		<0.65		<0.62		<0.67		<0.65	*	<0.70		<0.67		<0.68		8260C
Acetone		170,000	1,400,000	1,500	1,500	ug/kg	<5.4		<5.4		<6.8		8.9 J		<5.7		<5.8		<5.8		<5.5		12 J		<5.8		<6.2		14 J		100		8260C
Benzene		1,500	3,100	51	51	ug/kg	<0.21		<0.21		<0.26		<0.23		<0.22		<0.22		<0.22		<0.21		<0.23		<0.22		<0.24		<0.23		<0.23		8260C
Bromodichloromethane		1,800	4,200	920	920	ug/kg	<0.21		<0.21		<0.26		<0.23		<0.22		<0.22		<0.22		<0.21		<0.23		<0.22		<0.24		<0.23		<0.23		8260C
Bromoform		48,000	180,000	1,800	1,800	ug/kg	<0.31	*	<0.31		<0.39		<0.34	*	<0.33		<0.33	*	<0.33		<0.31	*	<0.34	*	<0.33	*	<0.36	*	<0.34		<0.35		8260C
Bromomethane		430	3,000	40	40	ug/kg	<0.91		<0.92		<1.2		<1.0		<0.97		<0.98		<0.98		<0.93		<1.0		<0.98		<1.1		<1.0		<1.0		8260C
Carbon disulfide		36,000	250,000	11,000	11,000	ug/kg	<0.57		<0.58		<0.73		<0.63		<0.61		<0.62		<0.62		<0.59		<0.63										



Table 1  
Area I Surface Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Louisiana  
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Analyte					Sample Id <sup>1</sup>	2015.08.17 A1		2015.08.17 A3		2015.08.17 A5		2015.08.17 A1.6		2015.08.18 B2.3		2015.08.17 C1		2015.08.17 C3		2015.08.17 C5		2015.08.17 C1.6		2015.08.17 E1		2015.08.17 E3		2015.08.17 E5		2015.08.18 E6.5		Analytical Method
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
cis-1,2-Dichloroethene	4,800	34,000	490	490	ug/kg	<0.50		<0.50		<0.63		<0.55		<0.53		<0.54		<0.54		<0.51		<0.55		<0.54		<0.58		<0.55		<0.56		8260C
Ethyl benzene	160,000	230,000	19,000	19,000	ug/kg	<0.25		<0.25		<0.32		<0.27		<0.27		<0.27		<0.27		<0.25		0.54	J	<0.27	*	<0.29		<0.28		<0.28		8260C
Hexachlorobutadiene	820	8,600	5,500	5,500	ug/kg	<0.56	*	<0.57		<0.72		<0.62	*	<0.60		<0.61	*	<0.61		<0.58	*	<0.62	*	<0.61	*	<0.65	*	<0.63		<0.64		8260C
Isobutylalcohol	730,000	6,200,000	30,000	30,000	ug/kg	<21		<21		<27		<23		<23		<23		<23		<22		<23		<23		<24		<23		<24		8260C
Methyl tert-butyl ether (MTBE)	650,000	4,700,000	77	77	ug/kg	<0.40		<0.40		<0.51		<0.44		<0.43		<0.43		<0.43		<0.41		<0.44		<0.43		<0.46		<0.44		<0.45		8260C
Methylene Chloride	19,000	44,000	17	17	ug/kg	<1.3		<1.3		<1.7		<1.4		<1.4		<1.4		<1.4		<1.3		<1.4		<1.4		<1.5		<1.5		<1.5		8260C
Styrene	500,000	1,700,000	11,000	11,000	ug/kg	<0.29		<0.29		<0.37		<0.32		<0.31		<0.31		<0.31		<0.30		<0.32		<0.31	*	<0.34		<0.32		<0.33		8260C
Tetrachloroethene (tetrachloroethylene)	8,300	35,000	180	180	ug/kg	<0.27		<0.27		<0.34		<0.29		<0.28		<0.29		<0.29		<0.27		<0.29		<0.29	*	<0.31		<0.30		<0.30		8260C
Toluene	68,000	470,000	20,000	20,000	ug/kg	<0.58		<0.58		<0.74		<0.64		<0.62		<0.63		<0.63		<0.59		<0.64		<0.63	*	<0.67		<0.65		<0.65		8260C
trans-1,2-Dichloroethene	6,900	48,000	770	770	ug/kg	<0.78		<0.79		<0.99		<0.86		<0.83		<0.84		<0.84		<0.80		<0.86		<0.84		<0.90		<0.87		<0.88		8260C
Trichloroethene	100	210	73	73	ug/kg	<0.32		<0.33		<0.41		<0.36		<0.35		<0.35		<0.35		<0.33		<0.36		<0.35		<0.38		<0.36		<0.36		8260C
Trichlorofluoromethane	38,000	260,000	37,000	37,000	ug/kg	<0.42		<0.42		<0.53		<0.46		<0.44		<0.45		<0.45		<0.42		<0.46		<0.45		<0.48		<0.46		<0.47		8260C
Vinyl Chloride	240	790	13	13	ug/kg	<0.36		<0.36		<0.45		<0.39		<0.38		<0.38		<0.38		<0.36		<0.39		<0.38		<0.41		<0.40		<0.40		8260C
Xylenes (total)	18,000	120,000	150,000	120,000	ug/kg	<0.71		<0.71		<0.90		<0.78		<0.75		0.78	J	<0.76		<0.72		7.4	J	<0.76	*	0.86	J	<0.79		<0.79		8260C
Semivolatile Organic Compounds																																
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
1,1 Biphenyl	230,000	230,000	190,000	190,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
1,2,4,5-Tetrachlorobenzene	1,200	12,000	6,900	6,900	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
1,2,4-Trichlorobenzene	66,000	1,200,000	14,000	14,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
1,2-Dichlorobenzene	99,000	380,000	29,000	29,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
1,3-Dichlorobenzene	2,100	18,000	2,100	2,100	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
1,3-Dinitrobenzene	450	5,000	250	250	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
1,4-Dichlorobenzene	6,700	16,000	5,700	5,700	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,3,4,6-Tetrachlorophenol	140,000	1,400,000	31,000	31,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,4,5-Trichlorophenol	530,000	6,600,000	320,000	320,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,4,6-Trichlorophenol	40,000	170,000	1,300	1,300	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,4-Dichlorophenol	16,000	200,000	12,000	12,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,4-Dimethylphenol	93,000	1,100,000	20,000	20,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,4-Dinitrophenol	7,100	69,000	1,700	1,700	ug/kg	<400	*	<390	*	<450	*	<420	*	<400	*	<420	*	<410	*	<400	*	<400	*	<410	*	<420	*	<400	*	<390	*	8270D
2,4-Dinitrotoluene	8,900	98,000	1,000	1,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2,6-Dinitrotoluene	4,300	46,000	390	390	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2-Chloronaphthalene	500,000	8,300,000	500,000	500,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2-Chlorophenol	15,000	140,000	1,400	1,400	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
2-Methylnaphthalene	22,000	170,000	1,700	1,700																												



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Analyte					Sample Id <sup>1</sup>	2015.08.17 A1		2015.08.17 A3		2015.08.17 A5		2015.08.17 A1.6		2015.08.18 B2.3		2015.08.17 C1		2015.08.17 C3		2015.08.17 C5		2015.08.17 C1.6		2015.08.17 E1		2015.08.17 E3		2015.08.17 E5		2015.08.18 E6.5		Analytical Method	
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result
Benzo(k)fluoranthene	6,200	29,000	120,000	29,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Bis(2-chlorisopropyl)ether	4,900	17,000	800	800	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Bis(2-chloroethyl)ether	330	1,100	330	330	ug/kg	<40		<39		<45		<42		<40		<42		<42		<41		<41		<41		<43		<40		<40		8270D	
Bis(2-ethylhexyl)phthalate	35,000	170,000	79,000	79,000	ug/kg	<54		<53		<62		<57		<55		<57		<56		<55		<55		<56		<58		<55		<54		8270D	
Butyl benzyl phthalate	220,000	220,000	220,000	220,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Chrysene	62,000	290,000	76,000	76,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Dibenz(a,h)anthracene	330	330	540,000	330	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Dibenzofuran	29,000	150,000	24,000	24,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Diethyl phthalate	670,000	670,000	360,000	360,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Dimethyl phthalate	1,500,000	1,500,000	1,500,000	1,500,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Di-n-octyl phthalate	240,000	3,500,000	10,000,000	3,500,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Fluoranthene	220,000	2,900,000	1,200,000	1,200,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Fluorene	280,000	5,400,000	230,000	230,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Hexachlorobenzene	340	2,000	9,600	2,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Hexachlorobutadiene	820	8,600	5,500	5,500	ug/kg	<40		<39		<45		<42		<40	*	<42		<41		<41		<41		<41		<43		<40		<39	*	8270D	
Hexachlorocyclopentadiene	1,400	9,400	1,200,000	9,400	ug/kg	<400		<390		<450		<420		<400		<420		<410		<400		<400		<410		<420		<400		<390		8270D	
Hexachloroethane	5,200	68,000	2,200	2,200	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Indeno(1,2,3-cd)pyrene	620	2,900	9,200	2,900	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Isophorone	340,000	1,100,000	560	560	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Naphthalene	6,200	43,000	1,500	1,500	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Nitrobenzene	2,200	25,000	330	330	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
N-Nitrosodi-n-propylamine	330	330	330	330	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Pentachlorophenol	2,800	9,700	1,700	1,700	ug/kg	<400		<390		<450		<420		<400		<420		<410		<400		<400		<410		<420		<400		<390		8270D	
Phenanthrene	2,100,000	43,000,000	660,000	660,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Phenol	1,300,000	15,000,000	11,000	11,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Pyrene	230,000	5,600,000	1,100,000	1,100,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
N-Nitrosodiphenylamine	90,000	400,000	2,100	2,100	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D	
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil		Screening Level <sup>2</sup>																												
Di-n-butyl phthalate		630,000	8,200,000		8,200,000	ug/kg	<40		<39		<45		<42		<40		<42		<41		<41		<41		<41		<43		<40		<39		8270D
Diphenylamine		160,000	2,100,000		2,100,000	ug/kg	<40	*	<39	*	<45	*	<42	*	<40		<42	*	<41	*	<41	*	<41	*	<41	*	<43	*	<40	*	<39		8270D
RCRA Metals																																	
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
Arsenic		12	12	100	12	mg/kg	NA		NA		NA		NA		5.8		NA		NA		NA		NA		NA		NA		NA		6		6020A
Barium		550	14,000	2,000	2,000	mg/kg	NA		NA		NA		NA		160		NA		NA		NA		NA		NA		NA		NA		100		6020A
Cadmium		3.9	100	20	20	mg/kg	NA		NA		NA		NA		<0.045		NA		NA		NA		NA		NA		NA		NA		0.21		6020A
Chromium		23	610	100	100	mg/kg	NA		NA		NA		NA		24		NA		NA		NA		NA		NA		NA		NA		19		6020A
Lead		400	1,400	100	100	mg/kg	NA		NA		NA		NA		19		NA		NA		NA		NA		NA		NA		NA		19		6020A
Mercury		2.3	61	4	4	mg/kg	NA		NA		NA		NA		0.013	J	NA		NA		NA		NA		NA		NA		NA		0.053		7471B
Selenium		39	1,000	20	20	mg/kg	NA		NA		NA		NA		2.4		NA		NA		NA		NA		NA		NA		NA		2.6		6020A
Silver		39	1,000	100	100	mg/kg	NA		NA		NA		NA		<0.067		NA		NA		NA		NA		NA		NA		NA		<0.069		6020A



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				Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result	Qual
Dioxins and Furans																																	
Regional Screening Level Summary Table <sup>4</sup>		Residential Soil	Industrial Soil	Screening Level <sup>4</sup>																													
2,3,7,8-TCDD		4.9	22	22	pg/g	NA		NA		NA		NA		<0.047		NA		NA		NA		NA		NA		NA		NA		<0.054		1613B	
2,3,7,8-TetraCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.038		NA		NA		NA		NA		NA		NA		NA		0.075	J, q	1613B	
1,2,3,7,8-PentaCDD		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.066		NA		NA		NA		NA		NA		NA		NA		<0.088		1613B	
1,2,3,7,8-PentaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.047		NA		NA		NA		NA		NA		NA		NA		<0.053		1613B	
2,3,4,7,8-PentaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.054		NA		NA		NA		NA		NA		NA		NA		<0.061		1613B	
1,2,3,4,7,8-HexaCDD		NP	NP	NP	pg/g	NA		NA		NA		NA		0.16	J, q	NA		NA		NA		NA		NA		NA		NA		0.28	J, q	1613B	
1,2,3,6,7,8-HexaCDD		NP	NP	NP	pg/g	NA		NA		NA		NA		0.093	J, q	NA		NA		NA		NA		NA		NA		NA		0.37	J, q	1613B	
1,2,3,7,8,9-HexaCDD		NP	NP	NP	pg/g	NA		NA		NA		NA		0.27	J	NA		NA		NA		NA		NA		NA		NA		0.49	J, q	1613B	
1,2,3,4,7,8-HexaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.033		NA		NA		NA		NA		NA		NA		NA		0.08	J, q	1613B	
1,2,3,6,7,8-HexaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.030		NA		NA		NA		NA		NA		NA		NA		0.092	J	1613B	
1,2,3,7,8,9-HexaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.029		NA		NA		NA		NA		NA		NA		NA		0.083	J, q	1613B	
2,3,4,6,7,8-HexaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.029		NA		NA		NA		NA		NA		NA		NA		0.058	J	1613B	
1,2,3,4,6,7,8-HeptaCDD		NP	NP	NP	pg/g	NA		NA		NA		NA		8.9	B	NA		NA		NA		NA		NA		NA		NA		29	B	1613B	
1,2,3,4,6,7,8-HeptaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.048		NA		NA		NA		NA		NA		NA		NA		0.46	J, B	1613B	
1,2,3,4,7,8,9-HeptaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		<0.063		NA		NA		NA		NA		NA		NA		NA		<0.079		1613B	
OctaCDD		NP	NP	NP	pg/g	NA		NA		NA		NA		970	B	NA		NA		NA		NA		NA		NA		NA		7300	E, B	1613B	
OctaCDF		NP	NP	NP	pg/g	NA		NA		NA		NA		0.27	J, B	NA		NA		NA		NA		NA		NA		NA		1.0	J, B	1613B	
General Chemistry																																	
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																													
Nitrocellulose		19,000,000	250,000,000	250,000,000	mg/kg	NA		NA		NA		NA		<0.95		NA		NA		NA		NA		NA		NA		NA		1.0	J	353.2_Nitrocell	
Diesel Range Organics																																	
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
Diesel Range Organics [C10-C28]		65	510	65	65	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		<0.39		8015B_DRO
Gasoline Range Organics																																	
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
Gasoline Range Organics [C6-C12]		65	510	65	65	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		<0.012		8015B_GRO



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	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	

Notes:

<sup>1</sup> Sample Identification = collection date (year.month.day) predetermined onsite grid location. All Area I surface soil samples were collected from 0-2 feet below ground surface. Four surface soil sample locations (B2.3; E6.5; H2; and O-0.2) were analyzed for additional parameters.

<sup>2</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The most conservative Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Screening Standard (RSS) (dated October 2003) of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>4</sup> The USEPA, RSL Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD). The 2005 World Hospital Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors (TEFs) for Dioxins and Dioxin like compounds were used to calculate the total TCDD Toxic Equivalent (TEQ) in each medium. Total TEQs in each medium were compared to the Screening Level for TCDD. Data from the baseline sample event will establish site closeout and site restoration.

<sup>5</sup> Arsenic was reanalyzed in the surface soil sample location O-0.2. Reported result of Arsenic reanalysis was 3.2 mg/kg. The laboratory noted the sample was non-homogenous and could be the cause of the discrepant results.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Concentrations in red bold indicate the result exceeds the Screening Level.

Abbreviations:

< = Not detected at the reporting limit (or MDL or EDL if shown)

Qual = Qualifer

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

F2= MS/MSD RPD exceeds control limits

F1= MS and/or MSD Recovery is outside acceptance limits

B= Compound was found in the blank and sample

q= the reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

\*=LCS or LCSD is outside acceptance limits

ug/kg = micrograms per kilograms

mg/kg = milligrams per kilograms

pg/g = picogram per gram

RECAP = Risk Evaluation/Corrective Action Program

SSni = Soil Screening non-industrial

SSi = Soil Screening industrial

SSGW = Soil Screening protective of groundwater

NA = Not Analyzed

NP = Not Published



**Table 1**  
**Area I Surface Soil Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
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				Sample Id <sup>1</sup>	2015.08.18 F7.5		2015.08.18 DUP#04 (F7.5)		2015.08.17 G1		2015.08.17 G3		2015.08.17 G5		2015.08.17 DUP#01 (G5)		2015.08.18 H2		2015.08.17 H4		2015.08.17 I1		2015.08.17 DUP#02 (I1)		2015.08.18 I3		2015.08.17 I5		2015.08.17 K1		Analytical Method	
Analyte				Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
Nitroaromatics and Nitramines																																
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																												
1,3,5-Trinitrobenzene	220,000	3,200,000	3,200,000	ug/kg	<27		<27		<26		<27		<25		<25		<25		<26		<25		<27		<27		<25		<27		8330B	
1,3-Dinitrobenzene	630	8,200	8,200	ug/kg	<43		<43		<42		<43		<40		<40		<39		<41		<40		<43		<43		<40		<43		8330B	
2,4,6-Trinitrotoluene	3,600	51,000	51,000	ug/kg	<35		<35		<34		<35		<33		<33		<32		<34		<33		<36		<36		<33		<35		8330B	
2,4-Dinitrotoluene	1,700	7,400	7,400	ug/kg	<37	F1	<37		<36		<37		<34		<35		<34		<36		<35		<38		<38		<34		<37		8330B	
2,6-Dinitrotoluene	360	1,500	1,500	ug/kg	<63		<62		<61		<63		<58		<59		<57		<61		<58		<64		<64		<58		<63		8330B	
2-Amino-4,6-dinitrotoluene	15,000	230,000	230,000	ug/kg	<43		<42		<41		<42		<39		<40		<38		<41		<39		<43		<43		<39		<42		8330B	
4-Amino-2,6-dinitrotoluene	15,000	230,000	230,000	ug/kg	<93		<91		<89		<92		<85		<86		<84		<89		<85		<93		<93		<85		<92		8330B	
3-Nitrotoluene	630	8,200	8,200	ug/kg	<55		<55		<53		<55		<51		<51		<50		<53		<51		<56		<55		<51		<55		8330B	
Nitrobenzene	5,100	22,000	22,000	ug/kg	<43		<42		<41		<43		<39		<40		<39		<41		<40		<43		<43		<39		<43		8330B	
Nitroglycerin	630	8,200	8,200	ug/kg	<270		<260		<260		<270		<250		<250		<240		<260		<250		<270		<270		<250		<270		8330B	
2-Nitrotoluene	3,200	15,000	15,000	ug/kg	<65		<64		<62		<64		<59		<60		<58		<62		<60		<65		<65		<59		<64		8330B	
4-Nitrotoluene	25,000	140,000	140,000	ug/kg	<81		<80		<78		<80		<74		<75		<73		<77		<74		<81		<81		<74		<80		8330B	
Pentaerythritol Tetranitrate	13,000	160,000	160,000	ug/kg	<340		<340		<330		<340		<310		<320		<310		<330		<310		<340		<340		<310		<340		8330B	
RDX	6,100	28,000	28,000	ug/kg	<62		<61		<60		<62		<57		<57		<56		<59		<57		<62		<62		<57		<61		8330B	
HMX	390,000	5,700,000	5,700,000	ug/kg	<39		<38		<37		<38		<35		<36		<35		<37		<36		<39		<39		<35		<38		8330B	
Tetryl	16,000	230,000	230,000	ug/kg	<46		<45		<44		<45		<42		<42		<41		<44	F1	<42		<46		<46		<42		<45		8330B	
Volatile Organic Compounds																																
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																											
1,1,1,2-Tetrachloroethane	2,700	5,900	46	46	ug/kg	<0.40	F2	<0.37		<0.30		<0.29		<0.31		<0.33		<0.32		<0.35		<0.34		<0.34		<0.39		<0.32		<0.33	*	8260C
1,1,1-Trichloroethane	82,000	700,000	4,000	4,000	ug/kg	<0.50	F2	<0.45		<0.37		<0.36		<0.38		<0.41		<0.39		<0.44	F2	<0.42		<0.42		<0.48		<0.39		<0.39		8260C
1,1,2,2-Tetrachloroethane	810	2,000	6	6	ug/kg	<0.46	F2	<0.42		<0.34	*	<0.34	*	<0.35	*	<0.38	*	<0.36		<0.41	*	<0.39		<0.39		<0.44		<0.37	*	<0.38	*	8260C
1,1,2-Trichloroethane	1,900	4,300	58	58	ug/kg	<0.66	F2	<0.60		<0.49		<0.48		<0.50		<0.54		<0.52		<0.58		<0.55		<0.56		<0.63		<0.52		<0.54	*	8260C
1,1-Dichloroethane	66,000	470,000	7,500	7,500	ug/kg	<0.45	F2	<0.41		<0.33		<0.33		<0.34		<0.37		<0.36		<0.40		<0.38		<0.38		<0.43		<0.36		<0.37		8260C
1,1-Dichloroethene	13,000	91,000	85	85	ug/kg	<1.9		<1.7		<1.4		<1.3		<1.4		<1.5		<1.5		<1.6		<1.6		<1.6		<1.8		<1.5		<1.5		8260C
1,2-Dibromo-3-chloropropane	180	1,600	10	10	ug/kg	<1.7	F2	<1.5		<1.2	*	<1.2	*	<1.3	*	<1.4	*	<1.3		<1.5	*	<1.4		<1.4		<1.6		<1.3	*	<1.4	*	8260C
1,2-Dichloroethane	820	1,800	35	35	ug/kg	<1.0	F2	<0.91		<0.74		<0.73		<0.77		<0.82		<0.79		<0.88		<0.84		<0.86		<0.96		<0.80		<0.83		8260C
1,2-Dichloropropane	690	1,800	42	42	ug/kg	<0.44	F2	<0.40		<0.33		<0.32		<0.33		<0.36		<0.35		<0.38		<0.37		<0.37		<0.42		<0.35		<0.36		8260C
1,3-Dichloropropene, Total	3,100	10,000	40	40	ug/kg	<1.1		<1.0		<0.81		<0.80		<0.84		<0.90		<0.87		<0.96		<0.92		<0.93		<1.0		<0.87		<0.90		8260C
2-Butanone (methyl ethyl ketone)	590,000	4,400,000	5,000	5,000	ug/kg	<2.2	F2	<2.0		<1.6	*	<1.6		<1.7		<1.8		<1.7		<1.9		3.5	J	<1.9		<2.1		<1.8		<1.8		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)	450,000	3,100,000	6,400	6,400	ug/kg	<0.84	F2	<0.76		<0.62	*	<0.61		<0.64		<0.69		<0.67		<0.74		<0.71		<0.72		<0.81		<0.67		<0.69	*	8260C
Acetone	170,000	1,400,000	1,500	1,500	ug/kg	23	F1, F2	23		10	J,B	<5.4		<5.7		16	J	<5.9		<6.6		74		31		7.9	J	27		<6.2		8260C
Benzene	1,500	3,100	51	51	ug/kg	<0.29	F2	<0.26		<0.21		<0.21		<0.22		<0.24		<0.23		<0.25	F2	<0.24		<0.25		<0.28		<0.23		<0.24		8260C
Bromodichloromethane	1,800	4,200	920	920	ug/kg	<0.29	F2	<0.26		<0.21		<0.21		<0.22		<0.24		<0.23		<0.25		<0.24		<0.25		<0.28		<0.23		<0.24		8260C
Bromoform	48,000	180,000	1,800	1,800	ug/kg	<0.43	F2	<0.39		<0.32	*	<0.31	*	<0.33	*	<0.35	*	<0.34		<0.37	*	<0.36		<0.36		<0.41		<0.34	*	<0.35	*	8260C
Bromomethane	430	3,000	40	40	ug/kg	<1.3		<1.2		<0.94		<0.92		<0.97		<1.0		<1.0		<1.1		<1.1		<1.1		<1.2		<1.0		<1.0		8260C
Carbon disulfide	36,000	250,000	11,000	11,000	ug/kg	<0.79		<0.72		<0.59		<0.58		<0.61		<0.65		<0.63		<0.70		<0.67		<0.68		<0.76		<0.63		<0.66		8260C
Carbon tetrachloride	180	1,100	110	110	ug/kg	<0.59	F2	<0.53		<0.44		<0.43		<0.45		<0.48		<0.46		<0.52	F2	<0.49		<0.50		<0.47		<0.49		<0.49		8260C
Chlorobenzene	17,000	120,000	3,000	3,000	ug/kg	<0.44	F2	<0.40		<0.33		<0.32		<0.33		<0.36		<0.35		<0.38	F2	<0.37		<0.37		<0.42		<0.35		<0.36	*	8260C
Dibromochloromethane (chlorodibromomethane)	2,200	5,400	1,000	1,000	ug/kg	<0.47	F2	<0.43		<0.35		<0.34		<0.36		<0.39		<0.37		<0.42		<0.40		<0.40		<0.45		<0.38		<0.39	*	8260C
Chloroethane	4,100	8,200	35	35	ug/kg	<0.60	F2	<0.54		<0.45		<0.44		<0.46		<																



Table 1  
Area I Surface Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Louisiana  
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Analyte					Sample Id <sup>1</sup>	2015.08.18 F7.5		2015.08.18 DUP#04 (F7.5)		2015.08.17 G1		2015.08.17 G3		2015.08.17 G5		2015.08.17 DUP#01 (G5)		2015.08.18 H2		2015.08.17 H4		2015.08.17 I1		2015.08.17 DUP#02 (I1)		2015.08.18 I3		2015.08.17 I5		2015.08.17 K1		Analytical Method
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
cis-1,2-Dichloroethene	4,800	34,000	490	490	ug/kg	<0.69	F2	<0.63		<0.51		<0.50		<0.53		<0.57		<0.55		<0.61		<0.58		<0.59		<0.66		<0.55		<0.57		8260C
Ethyl benzene	160,000	230,000	19,000	19,000	ug/kg	<0.35		<0.31		<0.26		<0.25		<0.26		<0.28		<0.27		<0.30	F2	<0.29		<0.29		<0.33		<0.28		<0.29	*	8260C
Hexachlorobutadiene	820	8,600	5,500	5,500	ug/kg	<0.78		<0.71		<0.58	*	<0.57	*	<0.60	*	<0.64	*	<0.62		<0.69	F2, *	<0.66		<0.67		<0.75		<0.62	*	<0.65	*	8260C
Isobutylalcohol	730,000	6,200,000	30,000	30,000	ug/kg	<29	F2	<27		<22		<21		<22		<24		<23		<26		<25		<25		<28		<23		<24		8260C
Methyl tert-butyl ether (MTBE)	650,000	4,700,000	77	77	ug/kg	<0.55	F2	<0.50		<0.41		<0.40		<0.42		<0.45		<0.44		<0.49		<0.46		<0.47		<0.53		<0.44		<0.46		8260C
Methylene Chloride	19,000	44,000	17	17	ug/kg	<1.8	F2	<1.7		<1.4		<1.3		<1.4		<1.5		<1.4		<1.6		<1.5		<1.6		<1.7		<1.5		<1.5		8260C
Styrene	500,000	1,700,000	11,000	11,000	ug/kg	<0.40		<0.37		<0.30		<0.29		<0.31		<0.33		<0.32		<0.35		<0.34		<0.34		<0.39		<0.32		<0.33	*	8260C
Tetrachloroethene (tetrachloroethylene)	8,300	35,000	180	180	ug/kg	<0.37		<0.34		<0.27		<0.27		<0.28		<0.30		<0.29		<0.32	F2	<0.31		<0.31		<0.35		<0.29		<0.30	*	8260C
Toluene	68,000	470,000	20,000	20,000	ug/kg	<0.81		<0.73		<0.60		<0.59		<0.62		<0.66		<0.64		<0.71	F2	<0.68		<0.69		<0.77		<0.64		<0.67	*	8260C
trans-1,2-Dichloroethene	6,900	48,000	770	770	ug/kg	<1.1		<0.98		<0.80		<0.79		<0.83		<0.89		<0.86		<0.95		<0.91		<0.92		<1.0		<0.86		<0.89		8260C
Trichloroethene	100	210	73	73	ug/kg	<0.45	F2	<0.41		<0.33		<0.33		<0.34		<0.37		<0.36		<0.40	F2	<0.38		<0.38		<0.43		<0.36		<0.37		8260C
Trichlorofluoromethane	38,000	260,000	37,000	37,000	ug/kg	<0.58	F2	<0.52		<0.43		<0.42		<0.44		<0.47		<0.46		<0.51		<0.48		<0.49		<0.55		<0.46		<0.48		8260C
Vinyl Chloride	240	790	13	13	ug/kg	<0.50	F2	<0.45		<0.37		<0.36		<0.38		<0.41		<0.39		<0.44		<0.42		<0.42		<0.48		<0.39		<0.41		8260C
Xylenes (total)	18,000	120,000	150,000	120,000	ug/kg	<0.98	F2	<0.89		2.2	J	<0.71		<0.75		<0.80		<0.77		0.92	J, F2	<0.82		<0.84		<0.94		<0.78		<0.81	*	8260C
Semivolatile Organic Compounds																																
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
1,1 Biphenyl	230,000	230,000	190,000	190,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
1,2,4,5-Tetrachlorobenzene	1,200	12,000	6,900	6,900	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
1,2,4-Trichlorobenzene	66,000	1,200,000	14,000	14,000	ug/kg	<36	F1	<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
1,2-Dichlorobenzene	99,000	380,000	29,000	29,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
1,3-Dichlorobenzene	2,100	18,000	2,100	2,100	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
1,3-Dinitrobenzene	450	5,000	250	250	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
1,4-Dichlorobenzene	6,700	16,000	5,700	5,700	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,3,4,6-Tetrachlorophenol	140,000	1,400,000	31,000	31,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,4,5-Trichlorophenol	530,000	6,600,000	320,000	320,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,4,6-Trichlorophenol	40,000	170,000	1,300	1,300	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,4-Dichlorophenol	16,000	200,000	12,000	12,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,4-Dimethylphenol	93,000	1,100,000	20,000	20,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,4-Dinitrophenol	7,100	69,000	1,700	1,700	ug/kg	<360	*	<360	*	<390	*	<390	*	<360	*	<410	*	<370	*	<420	*	<370		<390		<350	*	<380		<410		8270D
2,4-Dinitrotoluene	8,900	98,000	1,000	1,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2,6-Dinitrotoluene	4,300	46,000	390	390	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2-Chloronaphthalene	500,000	8,300,000	500,000	500,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2-Chlorophenol	15,000	140,000	1,400	1,400	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
2-Methylnaphthalene	22,000	170,000	1,700	1,700	ug/kg	<36		<36		<39		&																				



**Table 1**  
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Analyte					Sample Id <sup>1</sup>	2015.08.18 F7.5		2015.08.18 DUP#04 (F7.5)		2015.08.17 G1		2015.08.17 G3		2015.08.17 G5		2015.08.17 DUP#01 (G5)		2015.08.18 H2		2015.08.17 H4		2015.08.17 I1		2015.08.17 DUP#02 (I1)		2015.08.18 I3		2015.08.17 I5		2015.08.17 K1		Analytical Method	
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result
Benzo(k)fluoranthene	6,200	29,000	120,000	29,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42	F1	<37		<39		<35		<38		<41		8270D	
Bis(2-chlorisopropyl)ether	4,900	17,000	800	800	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Bis(2-chloroethyl)ether	330	1,100	330	330	ug/kg	<36		<36		<39		<39		<37		<42		<37		<42		<37		<39		<35		<38		<41		8270D	
Bis(2-ethylhexyl)phthalate	35,000	170,000	79,000	79,000	ug/kg	<49		<49		<53		<53		<50		<56		<50		<57		130	J,B	<53		<48		120	J,B	130	J,B	8270D	
Butyl benzyl phthalate	220,000	220,000	220,000	220,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Chrysene	62,000	290,000	76,000	76,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Dibenz(a,h)anthracene	330	330	540,000	330	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Dibenzofuran	29,000	150,000	24,000	24,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Diethyl phthalate	670,000	670,000	360,000	360,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Dimethyl phthalate	1,500,000	1,500,000	1,500,000	1,500,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Di-n-octyl phthalate	240,000	3,500,000	10,000,000	3,500,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Fluoranthene	220,000	2,900,000	1,200,000	1,200,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Fluorene	280,000	5,400,000	230,000	230,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Hexachlorobenzene	340	2,000	9,600	2,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Hexachlorobutadiene	820	8,600	5,500	5,500	ug/kg	<36	*F1	<36	*	<39		<39		<37		<41		<37	*	<42		<37		<39		<35		<38		<41		8270D	
Hexachlorocyclopentadiene	1,400	9,400	1,200,000	9,400	ug/kg	<360	F1	<360		<390		<390		<360		<410		<370		<420		<370		<390		<350		<380		<410		8270D	
Hexachloroethane	5,200	68,000	2,200	2,200	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Indeno(1,2,3-cd)pyrene	620	2,900	9,200	2,900	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Isophorone	340,000	1,100,000	560	560	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Naphthalene	6,200	43,000	1,500	1,500	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Nitrobenzene	2,200	25,000	330	330	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
N-Nitrosodi-n-propylamine	330	330	330	330	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Pentachlorophenol	2,800	9,700	1,700	1,700	ug/kg	<360		<360		<390		<390		<360		<410		<370		<420		<370		<390		<350		<380		<410		8270D	
Phenanthrene	2,100,000	43,000,000	660,000	660,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Phenol	1,300,000	15,000,000	11,000	11,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Pyrene	230,000	5,600,000	1,100,000	1,100,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
N-Nitrosodiphenylamine	90,000	400,000	2,100	2,100	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D	
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil		Screening Level <sup>2</sup>																												
Di-n-butyl phthalate		630,000	8,200,000		8,200,000	ug/kg	<36		<36		<39		<39		<37		<41		<37		<42		<37		<39		<35		<38		<41		8270D
Diphenylamine		160,000	2,100,000		2,100,000	ug/kg	<36		<36		<39	*	<39	*	<37	*	<41	*	<37		<42	*	<37		<39		<35		<38		<41		8270D
RCRA Metals																																	
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
Arsenic		12	12	100	12	mg/kg	NA		NA		NA		NA		NA		NA		2.5	J	NA		NA		NA		NA		NA		NA		6020A
Barium		550	14,000	2,000	2,000	mg/kg	NA		NA		NA		NA		NA		NA		30		NA		NA		NA		NA		NA		NA		6020A
Cadmium		3.9	100	20	20	mg/kg	NA		NA		NA		NA		NA		NA		15		NA		NA		NA		NA		NA		NA		6020A
Chromium		23	610	100	100	mg/kg	NA		NA		NA		NA		NA		NA		6.7		NA		NA		NA		NA		NA		NA		6020A
Lead		400	1,400	100	100	mg/kg	NA		NA		NA		NA		NA		NA		14		NA		NA		NA		NA		NA		NA		6020A
Mercury		2.3	61	4	4	mg/kg	NA		NA		NA		NA		NA		NA		<0.012		NA		NA		NA		NA		NA		NA		7471B
Selenium		39	1,000	20	20	mg/kg	NA		NA		NA		NA		NA		NA		1.1	J	NA		NA		NA		NA		NA		NA		6020A
Silver		39	1,000	100	100	mg/kg	NA		NA		NA		NA		NA		NA		<0.063		NA		NA		NA		NA		NA		NA		6020A



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Analyte					Sample Id <sup>1</sup>	2015.08.18 F7.5		2015.08.18 DUP#04 (F7.5)		2015.08.17 G1		2015.08.17 G3		2015.08.17 G5		2015.08.17 DUP#01 (G5)		2015.08.18 H2		2015.08.17 H4		2015.08.17 I1		2015.08.17 DUP#02 (I1)		2015.08.18 I3		2015.08.17 I5		2015.08.17 K1		Analytical Method		
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result	Qual
Dioxins and Furans																																		
Regional Screening Level Summary Table <sup>4</sup>		Residential Soil	Industrial Soil		Screening Level <sup>4</sup>																													
2,3,7,8-TCDD		4.9	22		22	pg/g	NA		NA		NA		NA		NA		<0.034		NA		NA		NA		NA		NA		NA		NA		1613B	
2,3,7,8-TetraCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		<0.029		NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,7,8-PentaCDD		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		<0.059		NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,7,8-PentaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		<0.041		NA		NA		NA		NA		NA		NA		NA		1613B	
2,3,4,7,8-PentaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		<0.048		NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,4,7,8-HexaCDD		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.081	J	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,6,7,8-HexaCDD		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.13	J	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,7,8,9-HexaCDD		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.22	J, q	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,4,7,8-HexaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.072	J	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,6,7,8-HexaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.061	J	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,7,8,9-HexaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.049	J	NA		NA		NA		NA		NA		NA		NA		1613B	
2,3,4,6,7,8-HexaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.074	J, q	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,4,6,7,8-HeptaCDD		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		3.2	J, B	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,4,6,7,8-HeptaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.25	J, B	NA		NA		NA		NA		NA		NA		NA		1613B	
1,2,3,4,7,8,9-HeptaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		<0.064		NA		NA		NA		NA		NA		NA		NA		1613B	
OctaCDD		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		210	B	NA		NA		NA		NA		NA		NA		NA		1613B	
OctaCDF		NP	NP		NP	pg/g	NA		NA		NA		NA		NA		0.57	J, B	NA		NA		NA		NA		NA		NA		NA		1613B	
General Chemistry																																		
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil		Screening Level <sup>2</sup>																													
Nitrocellulose		19,000,000	250,000,000		250,000,000	mg/kg	NA		NA		NA		NA		NA		<0.86	F1	NA		NA		NA		NA		NA		NA		NA		353.2 Nitrocell	
Diesel Range Organics																																		
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																													
Diesel Range Organics [C10-C28]		65	510	65	65	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		8015B_DRO	
Gasoline Range Organics																																		
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																													
Gasoline Range Organics [C6-C12]		65	510	65	65	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		8015B GRO	



Table 1  
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Analyte	Sample Id <sup>1</sup>	2015.08.18 F7.5		2015.08.18 DUP#04 (F7.5)		2015.08.17 G1		2015.08.17 G3		2015.08.17 G5		2015.08.17 DUP#01 (G5)		2015.08.18 H2		2015.08.17 H4		2015.08.17 I1		2015.08.17 DUP#02 (I1)		2015.08.18 I3		2015.08.17 I5		2015.08.17 K1		Analytical Method
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	

Notes:

<sup>1</sup> Sample Identification = collection date (year.month.day) predetermined onsite grid location. All Area I surface soil samples were collected from 0-2 feet below ground surface. Four surface soil sample locations (B2.3; E6.5; H2; and O-0.2) were analyzed for additional parameters.

<sup>2</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The most conservative Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Screening Standard (RSS) (dated October 2003) of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>4</sup> The USEPA, RSL Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD). The 2005 World Hospital Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors (TEFs) for Dioxins and Dioxin like compounds were used to calculate the total TCDD Toxic Equivalent (TEQ) in each medium. Total TEQs in each medium were compared to the Screening Level for TCDD. Data from the baseline sample event will establish site closeout and site restoration.

<sup>5</sup> Arsenic was reanalyzed in the surface soil sample location O-0.2. Reported result of Arsenic reanalysis was 3.2 mg/kg. The laboratory noted the sample was non-homogenous and could be the cause of the discrepant results.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Concentrations in red bold indicate the result exceeds the Screening Level.

Abbreviations:

<= Not detected at the reporting limit (or MDL or EDL if shown)

Qual = Qualifier

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

F2= MS/MSD RPD exceeds control limits

F1= MS and/or MSD Recovery is outside acceptance limits

B= Compound was found in the blank and sample

q= the reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

\*=LCS or LCSD is outside acceptance limits

ug/kg = micrograms per kilograms

mg/kg = milligrams per kilograms

pg/g = picogram per gram

RECAP = Risk Evaluation/Corrective Action Program

SSni = Soil Screening non-industrial

SSi = Soil Screening industrial

SSGW = Soil Screening protective of groundwater

NA = Not Analyzed

NP = Not Published



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Analyte	Sample Id <sup>1</sup>	2015.08.17 K3		2015.08.17 K5		2015.08.18 L4		2015.08.17 M1		2015.08.18 M3		2015.08.18 M5		2015.08.18 N2		2015.08.18 O-0.2		2015.08.18 DUP#03 (O-0.2)		2015.08.18 P-0.7		2015.08.18 P-0.4		2015.08.18 P-0.2		2015.08.18 Q-0.4		Analytical Method		
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual			
Nitroaromatics and Nitramines																														
Regional Screening Level Summary Table <sup>2</sup>	Residential Soil	Industrial Soil		Screening Level <sup>2</sup>																										
1,3,5-Trinitrobenzene	220,000	3,200,000		3,200,000		ug/kg	<27		<25		<24		<26		<25		<26		<27		<27		<27		<27		<27		8330B	
1,3-Dinitrobenzene	630	8,200		8,200		ug/kg	<43		<40		<39		<41		<40		<41		<43		<43		<43		<42		<43		8330B	
2,4,6-Trinitrotoluene	3,600	51,000		51,000		ug/kg	<35		<33		<32		<34		<33		<34		<35		<36		<36		<35		<35		8330B	
2,4-Dinitrotoluene	1,700	7,400		7,400		ug/kg	<37		<35		<34		<36		<35		<36		<37		<38		<38		<37		<37		8330B	
2,6-Dinitrotoluene	360	1,500		1,500		ug/kg	<62		<59		<57		<61		<59		<60		<62		<64		<64		<63		<62		8330B	
2-Amino-4,6-dinitrotoluene	15,000	230,000		230,000		ug/kg	<42		<40		<38		<41		<40		<40		<42		<43		<43		<43		<42		8330B	
4-Amino-2,6-dinitrotoluene	15,000	230,000		230,000		ug/kg	<91		<87		<83		<89		<86		<88		<91		<93		<93		<93		<91		8330B	
3-Nitrotoluene	630	8,200		8,200		ug/kg	<54		<52		<50		<53		<51		<52		<54		<56		<56		<55		<54		8330B	
Nitrobenzene	5,100	22,000		22,000		ug/kg	<42		<40		<39		<41		<40		<41		<42		<43		<43		<43		<42		8330B	
Nitroglycerin	630	8,200		8,200		ug/kg	<260		<250		<240		<260		<250		<250		<260		<270		<270		<270		<260		8330B	
2-Nitrotoluene	3,200	15,000		15,000		ug/kg	<64		<60		<58		<62		<60		<61		<64		<65		<65		<65		<63		8330B	
4-Nitrotoluene	25,000	140,000		140,000		ug/kg	<80		<76		<73		<77		<75		<77		<80		<81		<81		<81		<79		8330B	
Pentaerythritol Tetranitrate	13,000	160,000		160,000		ug/kg	<340		<320		<310		<330		<320		<320		<340		<340		<340		<340		<340		8330B	
RDX	6,100	28,000		28,000		ug/kg	<61		<58		<56		<59		<57		<59		<61		<62		<62		<62		<61		8330B	
HMX	390,000	5,700,000		5,700,000		ug/kg	<38		<36		<35		<37		<36		<37		<38		<39		<39		<39		<38		8330B	
Tetryl	16,000	230,000		230,000		ug/kg	<45		<43		<41		<44	F1	<42		<43		<45		<46		<46		<46		<45	F2, F1	8330B	
Volatile Organic Compounds																														
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																										
1,1,1,2-Tetrachloroethane	2,700	5,900	46	46	ug/kg	<0.32		<0.30		<0.31		<0.33	F2	<0.36		<0.29		<0.34		<0.28		<0.28		<0.30		<0.33		<0.31		8260C
1,1,1-Trichloroethane	82,000	700,000	4,000	4,000	ug/kg	<0.39		<0.37		<0.38		<0.41	F2	<0.44		<0.35		<0.42		<0.35		<0.35		<0.37		<0.40		<0.39		8260C
1,1,2,2-Tetrachloroethane	810	2,000	6	6	ug/kg	<0.37		<0.35		<0.36		<0.38	F2	<0.41		<0.33		<0.39		<0.32		<0.32		<0.34		<0.37		<0.36		8260C
1,1,2-Trichloroethane	1,900	4,300	58	58	ug/kg	<0.52		<0.49		<0.51		<0.54	F2	<0.59		<0.46		<0.56		<0.46		<0.46		<0.48		<0.53		<0.51		8260C
1,1-Dichloroethane	66,000	470,000	7,500	7,500	ug/kg	<0.36		<0.34		<0.35		<0.37	F2	<0.40		<0.32		<0.38		<0.32		<0.31		<0.33		<0.36		<0.35		8260C
1,1-Dichloroethene	13,000	91,000	85	85	ug/kg	<1.5		<1.4		<1.4		<1.5	F2	<1.7		<1.3		<1.6		<1.3		<1.3		<1.4		<1.5		<1.4		8260C
1,2-Dibromo-3-chloropropane	180	1,600	10	10	ug/kg	<1.3		<1.3		<1.3		<1.4	F2	<1.5		<1.2		<1.4		<1.2		<1.2		<1.2		<1.3		<1.3		8260C
1,2-Dichloroethane	820	1,800	35	35	ug/kg	<0.80		<0.75		<0.78		<0.83	F2	<0.90		<0.71		<0.85		<0.70		<0.70		<0.74		<0.81		<0.78		8260C
1,2-Dichloropropane	690	1,800	42	42	ug/kg	<0.35		<0.33		<0.34		<0.36	F2	<0.39		<0.31		<0.37		<0.31		<0.31		<0.32		<0.35		<0.34		8260C
1,3-Dichloropropene, Total	3,100	10,000	40	40	ug/kg	<0.87		<0.82		<0.85		<0.90		<0.98		<0.77		<0.93		<0.77		<0.77		<0.81		<0.88		<0.85		8260C
2-Butanone (methyl ethyl ketone)	590,000	4,400,000	5,000	5,000	ug/kg	<1.8		<1.7		24		<1.8	F2	<2.0		2.8	J	<1.9		<1.6		<1.5		4.5	J	<1.8		<1.7		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)	450,000	3,100,000	6,400	6,400	ug/kg	<0.67		<0.63		<0.65		<0.69	F2	<0.75		<0.60		<0.71		<0.59		<0.59		<0.62		<0.68		<0.65		8260C
Acetone	170,000	1,400,000	1,500	1,500	ug/kg	<5.9		<5.6		150		7.4	J, F1	<6.7		45		7.4	J	<5.2		<5.2		45		<6.0		<5.8		8260C
Benzene	1,500	3,100	51	51	ug/kg	<0.23		<0.22		0.69	J	<0.24	F2	<0.26		<0.20		<0.24		<0.20		<0.20		<0.21		<0.23		<0.22		8260C
Bromodichloromethane	1,800	4,200	920	920	ug/kg	<0.23		<0.22		<0.22		<0.24	F2	<0.26		<0.20		<0.24		<0.20		<0.20		<0.21		<0.23		<0.22		8260C
Bromoform	48,000	180,000	1,800	1,800	ug/kg	<0.34		<0.32		<0.33		<0.35	F2	<0.38		<0.30		<0.36		<0.30		<0.30		<0.31		<0.34		<0.33		8260C
Bromomethane	430	3,000	40	40	ug/kg	<1.0		<0.95		<0.98		<1.0	F2	<1.1		<0.90		<1.1		<0.89		<0.89		<0.94		<1.0		<0.99		8260C
Carbon disulfide	36,000	250,000	11,000	11,000	ug/kg	<0.63		<0.60		<0.61		<0.66	F2	<0.71		<0.56		<0.67		<0.56		<0.56		<0.59		<0.64		<0.62		8260C
Carbon tetrachloride	180	1,100	110	110	ug/kg	<0.47		<0.44		<0.45		<0.49	F2	<0.53		<0.42		<0.50		<0.41		<0.41		<0.43		<0.47		<0.46		8260C
Chlorobenzene	17,000	120,000	3,000	3,000	ug/kg	<0.35		<0.33		<0.34		<0.36	F2	<0.39		<0.31		<0.37		<0.31		<0.31		<0.32		<0.35		<0.34		8260C
Dibromochloromethane (chlorodibromomethane)	2,200	5,400	1,000	1,000	ug/kg	<0.37		<0.35		<0.37		<0.39	F2	<0.42		<0.33		<0.40		<0.33		<0.33		<0.35		<0.38		<0.37		8260C
Chloroethane	4,100	8,200	35	35	ug/kg	<0.48		<0.45		<0.46		<0.49	F2	<0.54		<0.42		<0.51		<0.42		<0.42		<0.44		<0.48		<0.47		8260C
Chloroform	44	300	900	300	ug/kg	<0.35		<0.33		<0.34		<0.36	F2	<0.39		<0.31		<0.37		<0.31		<0.31		<0.32		<0.35		<0.34		8260C
Chloromethane	3,500	7,300	100	100	ug/kg	<0.59		<0.56		<0.58		<0.62	F2	<0.67		<0.53		<0.63		<0.53		<0.52		<0.55		<0.60		<0.58		8260C



**Table 1**  
**Area I Surface Soil Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
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Analyte					Sample Id <sup>1</sup>	2015.08.17 K3		2015.08.17 K5		2015.08.18 L4		2015.08.17 M1		2015.08.18 M3		2015.08.18 M5		2015.08.18 N2		2015.08.18 O-0.2		2015.08.18 DUP#03 (O-0.2)		2015.08.18 P-0.7		2015.08.18 P-0.4		2015.08.18 P-0.2		2015.08.18 Q-0.4		Analytical Method	
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result
cis-1,2-Dichloroethene	4,800	34,000	490	490	ug/kg	<0.55		<0.52		<0.53		<0.57	F2	<0.62		<0.49		<0.59		<0.49		<0.48		<0.51		<0.56		<0.54		<0.53		8260C	
Ethyl benzene	160,000	230,000	19,000	19,000	ug/kg	<0.27		<0.26		<0.27		<0.29	F2	0.33	J	<0.24		<0.29		<0.24		<0.24		<0.26		<0.28		<0.27		<0.27		8260C	
Hexachlorobutadiene	820	8,600	5,500	5,500	ug/kg	<0.62		<0.59		<0.61		<0.65	F2	<0.70		<0.55		<0.66		<0.55		<0.55		<0.58		<0.63		<0.61		<0.60		8260C	
Isobutylalcohol	730,000	6,200,000	30,000	30,000	ug/kg	<23		<22		<23		<24	F2	<26		<21		<25		<21		<20		<22		<24		<23		<22		8260C	
Methyl tert-butyl ether (MTBE)	650,000	4,700,000	77	77	ug/kg	<0.44		<0.42		<0.43		<0.46	F2	<0.49		<0.39		<0.47		<0.39		<0.39		<0.41		<0.45		<0.43		<0.42		8260C	
Methylene Chloride	19,000	44,000	17	17	ug/kg	<1.4		<1.4		<1.4		<1.5	F2	<1.6		<1.3		<1.5		<1.3		<1.3		<1.3		<1.5		<1.4		<1.4		8260C	
Styrene	500,000	1,700,000	11,000	11,000	ug/kg	<0.32		<0.30		<0.31		<0.33	F2	<0.36		<0.29		<0.34		<0.28		<0.28		<0.30		<0.33		<0.31		<0.31		8260C	
Tetrachloroethene (tetrachloroethylene)	8,300	35,000	180	180	ug/kg	<0.29		<0.28		<0.29		<0.30	F2	<0.33		<0.26		<0.31		<0.26		<0.26		<0.27		<0.30		<0.29		<0.28		8260C	
Toluene	68,000	470,000	20,000	20,000	ug/kg	<0.64		<0.61		<0.62		<0.67	F2	<0.72		<0.57		<0.68		<0.57		<0.56		<0.60		<0.65		<0.63		<0.62		8260C	
trans-1,2-Dichloroethene	6,900	48,000	770	770	ug/kg	<0.86		<0.81		<0.84		<0.89	F2	<0.97		<0.77		<0.92		<0.76		<0.76		<0.80		<0.87		<0.84		<0.83		8260C	
Trichloroethene	100	210	73	73	ug/kg	<0.36		<0.34		<0.35		<0.37	F2	<0.40		<0.32		<0.38		<0.32		<0.31		<0.33		<0.36		<0.35		<0.34		8260C	
Trichlorofluoromethane	38,000	260,000	37,000	37,000	ug/kg	<0.46		<0.43		<0.45		<0.48	F2	<0.51		<0.41		<0.49		<0.40		<0.40		<0.43		<0.46		<0.45		<0.44		8260C	
Vinyl Chloride	240	790	13	13	ug/kg	<0.39		<0.37		<0.38		<0.41	F2	<0.44		<0.35		<0.42		<0.35		<0.35		<0.37		<0.40		<0.39		<0.38		8260C	
Xylenes (total)	18,000	120,000	150,000	120,000	ug/kg	1.6	J	<0.74		<0.76		<0.81	F2	2.1	J	<0.69		<0.83		<0.69		<0.69		<0.72		<0.79		<0.76		<0.75		8260C	
Semivolatile Organic Compounds																																	
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																												
1,1 Biphenyl	230,000	230,000	190,000	190,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
1,2,4,5-Tetrachlorobenzene	1,200	12,000	6,900	6,900	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
1,2,4-Trichlorobenzene	66,000	1,200,000	14,000	14,000	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42	F1	<37		<39		8270D	
1,2-Dichlorobenzene	99,000	380,000	29,000	29,000	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
1,3-Dichlorobenzene	2,100	18,000	2,100	2,100	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
1,3-Dinitrobenzene	450	5,000	250	250	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
1,4-Dichlorobenzene	6,700	16,000	5,700	5,700	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42	F1	<37		<39		8270D	
2,3,4,6-Tetrachlorophenol	140,000	1,400,000	31,000	31,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2,4,5-Trichlorophenol	530,000	6,600,000	320,000	320,000	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2,4,6-Trichlorophenol	40,000	170,000	1,300	1,300	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2,4-Dichlorophenol	16,000	200,000	12,000	12,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2,4-Dimethylphenol	93,000	1,100,000	20,000	20,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2,4-Dinitrophenol	7,100	69,000	1,700	1,700	ug/kg	<370		<370		<390		<370		<400		<380		<360		<380		<390		<410		<420		<360		<380		8270D	
2,4-Dinitrotoluene	8,900	98,000	1,000	1,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2,6-Dinitrotoluene	4,300	46,000	390	390	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2-Chloronaphthalene	500,000	8,300,000	500,000	500,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2-Chlorophenol	15,000	140,000	1,400	1,400	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
2-Methylnaphthalene	22,000	170,000																															



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Area I Surface Soil Data Summary  
Baseline Sample Event  
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Analyte					Sample Id <sup>1</sup>	2015.08.17 K3		2015.08.17 K5		2015.08.18 L4		2015.08.17 M1		2015.08.18 M3		2015.08.18 M5		2015.08.18 N2		2015.08.18 O-0.2		2015.08.18 DUP#03 (O-0.2)		2015.08.18 P-0.7		2015.08.18 P-0.4		2015.08.18 P-0.2		2015.08.18 Q-0.4		Analytical Method		
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		Result	Qual
Benzo(k)fluoranthene	6,200	29,000	120,000	29,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Bis(2-chlorisopropyl)ether	4,900	17,000	800	800	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Bis(2-chloroethyl)ether	330	1,100	330	330	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Bis(2-ethylhexyl)phthalate	35,000	170,000	79,000	79,000	ug/kg	110	J,B	120	J,B	<54		<51		<55		<52		<50		<52		<53		<56		<57		<50		<52		8270D		
Butyl benzyl phthalate	220,000	220,000	220,000	220,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Chrysene	62,000	290,000	76,000	76,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Dibenz(a,h)anthracene	330	330	540,000	330	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Dibenzofuran	29,000	150,000	24,000	24,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Diethyl phthalate	670,000	670,000	360,000	360,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Dimethyl phthalate	1,500,000	1,500,000	1,500,000	1,500,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Di-n-octyl phthalate	240,000	3,500,000	10,000,000	3,500,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Fluoranthene	220,000	2,900,000	1,200,000	1,200,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Fluorene	280,000	5,400,000	230,000	230,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Hexachlorobenzene	340	2,000	9,600	2,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Hexachlorobutadiene	820	8,600	5,500	5,500	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42	F1	<37		<39		8270D		
Hexachlorocyclopentadiene	1,400	9,400	1,200,000	9,400	ug/kg	<370		<370		<390		<370		<400		<380		<360		<380		<390		<410		<420		<360		<380		8270D		
Hexachloroethane	5,200	68,000	2,200	2,200	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Indeno(1,2,3-cd)pyrene	620	2,900	9,200	2,900	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Isophorone	340,000	1,100,000	560	560	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Naphthalene	6,200	43,000	1,500	1,500	ug/kg	<37		<37		<39		<37	F1	<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Nitrobenzene	2,200	25,000	330	330	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
N-Nitrosodi-n-propylamine	330	330	330	330	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Pentachlorophenol	2,800	9,700	1,700	1,700	ug/kg	<370		<370		<390		<370		<400		<380		<360		<380		<390		<410		<420		<360		<380		8270D		
Phenanthrene	2,100,000	43,000,000	660,000	660,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Phenol	1,300,000	15,000,000	11,000	11,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Pyrene	230,000	5,600,000	1,100,000	1,100,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
N-Nitrosodiphenylamine	90,000	400,000	2,100	2,100	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D		
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil		Screening Level <sup>2</sup>																													
Di-n-butyl phthalate		630,000	8,200,000		8,200,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
Diphenylamine		160,000	2,100,000		2,100,000	ug/kg	<37		<37		<39		<37		<40		<38		<37		<38		<39		<41		<42		<37		<39		8270D	
RCRA Metals																																		
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																													
Arsenic		12	12	100	12	mg/kg	NA		NA		NA		NA		NA		NA		NA		17/3.2 <sup>3</sup>		NA		NA		NA		NA		NA		6020A	
Barium		550	14,000	2,000	2,000	mg/kg	NA		NA		NA		NA		NA		NA		NA		1100		NA		NA		NA		NA		NA		6020A	
Cadmium		3.9	100	20	20	mg/kg	NA		NA		NA		NA		NA		NA		NA		4.9		NA		NA		NA		NA		NA		6020A	
Chromium		23	610	100	100	mg/kg	NA		NA		NA		NA		NA		NA		NA		22		NA		NA		NA		NA		NA		6020A	
Lead		400	1,400	100	100	mg/kg	NA		NA		NA		NA		NA		NA		NA		61		NA		NA		NA		NA		NA		6020A	
Mercury		2.3	61	4	4	mg/kg	NA		NA		NA		NA		NA		NA		NA		0.034	J	NA		NA		NA		NA		NA		7471B	
Selenium		39	1,000	20	20	mg/kg	NA		NA		NA		NA		NA		NA		NA		2.6		NA		NA		NA		NA		NA		6020A	
Silver		39	1,000	100	100	mg/kg	NA		NA		NA		NA		NA		NA		NA		0.21	J	NA		NA		NA		NA		NA		6020A	



Table 1  
Area I Surface Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
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Analyte	Sample Id <sup>1</sup>	2015.08.17 K3		2015.08.17 K5		2015.08.18 L4		2015.08.17 M1		2015.08.18 M3		2015.08.18 M5		2015.08.18 N2		2015.08.18 O-0.2		2015.08.18 DUP#03 (O-0.2)		2015.08.18 P-0.7		2015.08.18 P-0.4		2015.08.18 P-0.2		2015.08.18 Q-0.4		Analytical Method		
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual			
Dioxins and Furans																														
Regional Screening Level Summary Table <sup>4</sup>	Residential Soil	Industrial Soil		Screening Level <sup>4</sup>																										
2,3,7,8-TCDD	4.9	22		22	pg/g	NA		NA		NA		NA		NA		NA		0.76	J	NA		NA		NA		NA		NA		1613B
2,3,7,8-TetraCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		0.30	J	NA		NA		NA		NA		NA		1613B
1,2,3,7,8-PentaCDD	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		0.81	J	NA		NA		NA		NA		NA		1613B
1,2,3,7,8-PentaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		<0.066		NA		NA		NA		NA		NA		1613B
2,3,4,7,8-PentaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		<0.073		NA		NA		NA		NA		NA		1613B
1,2,3,4,7,8-HexaCDD	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		0.78	J	NA		NA		NA		NA		NA		1613B
1,2,3,6,7,8-HexaCDD	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		2.0	J	NA		NA		NA		NA		NA		1613B
1,2,3,7,8,9-HexaCDD	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		2.2	J	NA		NA		NA		NA		NA		1613B
1,2,3,4,7,8-HexaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		0.23	J	NA		NA		NA		NA		NA		1613B
1,2,3,6,7,8-HexaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		0.19	J	NA		NA		NA		NA		NA		1613B
1,2,3,7,8,9-HexaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		<0.044		NA		NA		NA		NA		NA		1613B
2,3,4,6,7,8-HexaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		<0.041		NA		NA		NA		NA		NA		1613B
1,2,3,4,6,7,8-HeptaCDD	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		66	B	NA		NA		NA		NA		NA		1613B
1,2,3,4,6,7,8-HeptaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		2.5	J, B	NA		NA		NA		NA		NA		1613B
1,2,3,4,7,8,9-HeptaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		<0.10		NA		NA		NA		NA		NA		1613B
OctaCDD	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		5600	E, B	NA		NA		NA		NA		NA		1613B
OctaCDF	NP	NP		NP	pg/g	NA		NA		NA		NA		NA		NA		9.4	J, B	NA		NA		NA		NA		NA		1613B
General Chemistry																														
Regional Screening Level Summary Table <sup>2</sup>	Residential Soil	Industrial Soil		Screening Level <sup>2</sup>																										
Nitrocellulose	19,000,000	250,000,000		250,000,000	mg/kg	NA		NA		NA		NA		NA		NA		<0.89		NA		NA		NA		NA		NA		353.2 Nitrocell
Diesel Range Organics																														
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																										
Diesel Range Organics [C10-C28]	65	510	65	65	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		8015B_DRO
Gasoline Range Organics																														
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																										
Gasoline Range Organics [C6-C12]	65	510	65	65	mg/kg	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		8015B_GRO



Table 1  
Area I Surface Soil Data Summary  
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Analyte	Sample Id <sup>1</sup>	2015.08.17 K3		2015.08.17 K5		2015.08.18 L4		2015.08.17 M1		2015.08.18 M3		2015.08.18 M5		2015.08.18 N2		2015.08.18 O-0.2		2015.08.18 DUP#03 (O-0.2)		2015.08.18 P-0.7		2015.08.18 P-0.4		2015.08.18 P-0.2		2015.08.18 Q-0.4		Analytical Method
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	

Notes:

<sup>1</sup> Sample Identification = collection date (year.month.day) predetermined onsite grid location. All Area I surface soil samples were collected from 0-2 feet below ground surface. Four surface soil sample locations (B2.3; E6.5; H2; and O-0.2) were analyzed for additional parameters.

<sup>2</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The most conservative Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Screening Standard (RSS) (dated October 2003) of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>4</sup> The USEPA, RSL Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD). The 2005 World Hospital Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors (TEFs) for Dioxins and Dioxin like compounds were used to calculate the total TCDD Toxic Equivalent (TEQ) in each medium. Total TEQs in each medium were compared to the Screening Level for TCDD. Data from the baseline sample event will establish site closeout and site restoration.

<sup>5</sup> Arsenic was reanalyzed in the surface soil sample location O-0.2. Reported result of Arsenic reanalysis was 3.2 mg/kg. The laboratory noted the sample was non-homogenous and could be the cause of the discrepant results.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Concentrations in red bold indicate the result exceeds the Screening Level.

Abbreviations:

< = Not detected at the reporting limit (or MDL or EDL if shown)

Qual = Qualifer

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

F2= MS/MSD RPD exceeds control limits

F1= MS and/or MSD Recovery is outside acceptance limits

B= Compound was found in the blank and sample

q= the reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.

\*=LCS or LCSD is outside acceptance limits

ug/kg = micrograms per kilograms

mg/kg = milligrams per kilograms

pg/g = picogram per gram

RECAP = Risk Evaluation/Corrective Action Program

SSni = Soil Screening non-industrial

SSi = Soil Screening industrial

SSGW = Soil Screening protective of groundwater

NA = Not Analyzed

NP = Not Published

**TABLE 2**  
**SAMPLE LOCATIONS SURVEY DATA**  
**BASELINE SAMPLE EVENT**  
**M6 DESTRUCTION PROJECT**  
**CAMP MINDEN NATIONAL GUARD TRAINING SITE**  
**MINDEN, LOUISIANA**

Page 1 of 2

Sample Location ID	Latitude	Longitude	TOC Elevation	Ground Surface Elevation
<b>Area I Surface Soil Boring Locations</b>				
A1	32° 33' 9.27" N	93° 27' 54.47" W	NA	NA
A1.6	32° 33' 9.36" N	93° 27' 53.99" W	NA	NA
A3	32° 33' 9.32" N	93° 27' 53.01" W	NA	NA
A5	32° 33' 9.22" N	93° 27' 51.51" W	NA	NA
B2.3	32° 33' 10.17" N	93° 27' 53.41" W	NA	NA
C1	32° 33' 10.63" N	93° 27' 54.51" W	NA	NA
C1.6	32° 33' 10.91" N	93° 27' 53.89" W	NA	NA
C3	32° 33' 10.63" N	93° 27' 52.89" W	NA	NA
C5	32° 33' 10.61" N	93° 27' 51.45" W	NA	NA
E1	32° 33' 11.97" N	93° 27' 54.40" W	NA	NA
E3	32° 33' 11.88" N	93° 27' 52.93" W	NA	NA
E5	32° 33' 11.86" N	93° 27' 51.40" W	NA	NA
E6.5	32° 33' 12.24" N	93° 27' 50.24" W	NA	NA
F7.5	32° 33' 12.43" N	93° 27' 49.42" W	NA	NA
G1	32° 33' 13.23" N	93° 27' 54.47" W	NA	NA
G3	32° 33' 13.23" N	93° 27' 52.79" W	NA	NA
G5	32° 33' 13.10" N	93° 27' 51.38" W	NA	NA
H2	32° 33' 13.75" N	93° 27' 53.66" W	NA	NA
H4	32° 33' 13.77" N	93° 27' 51.97" W	NA	NA
I1	32° 33' 14.53" N	93° 27' 54.31" W	NA	NA
I3	32° 33' 14.40" N	93° 27' 52.90" W	NA	NA
I5	32° 33' 14.39" N	93° 27' 51.39" W	NA	NA
K1	32° 33' 15.81" N	93° 27' 54.31" W	NA	NA
K3	32° 33' 15.76" N	93° 27' 52.84" W	NA	NA
K5	32° 33' 15.72" N	93° 27' 51.36" W	NA	NA
L4	32° 33' 16.38" N	93° 27' 52.09" W	NA	NA
M1	32° 33' 17.04" N	93° 27' 54.40" W	NA	NA
M3	32° 33' 17.00" N	93° 27' 52.89" W	NA	NA
M5	32° 33' 17.03" N	93° 27' 51.31" W	NA	NA
N2	32° 33' 17.70" N	93° 27' 53.56" W	NA	NA
O-0.2	32° 33' 18.63" N	93° 27' 55.18" W	NA	NA
P-0.2	32° 33' 19.16" N	93° 27' 54.90" W	NA	NA
P-0.4	32° 33' 18.94" N	93° 27' 55.59" W	NA	NA
P-0.7	32° 33' 18.96" N	93° 27' 54.58" W	NA	NA
Q-0.4	32° 33' 19.86" N	93° 27' 55.40" W	NA	NA
<b>Area I Perimeter Soil Boring Locations</b>				
SB-1	32° 33' 17.97" N	93° 27' 52.77" W	NA	NA
SB-2	32° 33' 15.53" N	93° 27' 54.88" W	NA	NA
SB-3	32° 33' 12.14" N	93° 27' 54.82" W	NA	NA
SB-4	32° 33' 8.92" N	93° 27' 52.76" W	NA	NA
SB-5	32° 33' 12.22" N	93° 27' 50.89" W	NA	NA
SB-6	32° 33' 15.53" N	93° 27' 50.88" W	NA	NA
<b>Area I Monitoring Well Locations</b>				
MW-1	32° 33' 15.53" N	93° 27' 50.88" W	205.16	202.08
MW-2	32° 33' 17.97" N	93° 27' 52.77" W	206.07	203.18
MW-3	32° 33' 12.22" N	93° 27' 50.89" W	204.14	201.72
MW-4	32° 33' 15.53" N	93° 27' 54.88" W	203.66	199.75
MW-5	32° 33' 8.92" N	93° 27' 52.76" W	204.08	200.78
MW-6	32° 33' 12.14" N	93° 27' 54.82" W	202.69	200.51



**TABLE 2**  
**SAMPLE LOCATIONS SURVEY DATA**  
**BASELINE SAMPLE EVENT**  
**M6 DESTRUCTION PROJECT**  
**CAMP MINDEN NATIONAL GUARD TRAINING SITE**  
**MINDEN, LOUISIANA**

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Sample Location ID	Latitude	Longitude	TOC Elevation	Ground Surface Elevation
<b>Clarkes Bayou Surface Water Locations</b>				
Downstream	32° 32' 48.78" N	93° 28' 10.41" W	NA	NA
Point of Discharge	32° 33' 1.92" N	93° 28' 23.74" W	NA	NA
Upstream	32° 33' 12.74" N	93° 28' 24.70" W	NA	NA
<b>Clarkes Bayou Sediment Locations</b>				
Downstream	32° 32' 48.78" N	93° 28' 10.41" W	NA	NA
Point of Discharge	32° 33' 1.92" N	93° 28' 23.74" W	NA	NA
Upstream	32° 33' 12.74" N	93° 28' 24.70" W	NA	NA

**Notes:**

- 1) Latitude & Longitude are referenced to the North American Datum of 1983 (NAD83).
- 2) Elevations are referenced to the National Geodetic Vertical Datum (NGVD) of 1929.
- 3) The horizontal locations of the Area I surface soil borings, Area I perimeter soil borings, and Clarkes Bayou surface water and sediment samples were determined by a portable Garmin GPSMAP 62S hand held during the Baseline Environmental Investigation. Area I perimeter soil borings were completed with monitoring wells MW-1 through MW-6 for groundwater sampling.
- 4) The Top of Casing (TOC), ground surface elevation, and location of monitor wells MW-1 through MW-6 were surveyed by SEMS, Inc. on August 20, 2015.
- 5) Upon completion of the M6 Destruction Project, Area I surface soil, Area I groundwater, and Clarkes Bayou surface water and sediment samples shall be collected from the reported locations.

NA = Not Applicable

**TABLE 3**  
**AREA I PERIMETER SOIL BORING PID SUMMARY**  
**BASELINE SAMPLE EVENT**  
**M6 DESTRUCTION PROJECT**  
**CAMP MINDEN NATIONAL GUARD TRAINING SITE**  
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<b>Soil Boring Location (feet bgs)</b>	<b>Date/Time Collected (military)</b>	<b>PID Result (ppm)</b>	<b>Laboratory Analyses Performed</b>
SB-1 (0-2)	8/17/2015 @ 1054	2	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-1 (2-4)	8/17/2015 @ 1056	0	None
SB-1 (4-6)	8/17/2015 @ 1058	0	None
SB-1 (6-8)	8/17/2015 @ 1110	0	None
SB-1 (8-10)	8/17/2015 @ 1114	0	None
SB-1 (10-12)	8/17/2015 @ 1155	0	None
SB-1 (12-14)	8/17/2015 @ 1158	0	None
SB-1 (14-16)	8/17/2015 @ 1203	0	None
SB-1 (16-18)	8/17/2015 @ 1211	0	None
SB-1 (18-20)	8/17/2015 @ 1214	0	None
SB-1 (20-22)	8/17/2015 @ 1220	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-1 (22-24)	8/17/2015 @ 1224	0	None
SB-1 (24-26)	8/17/2015 @ 1230	0	None
SB-1 (26-28)	8/17/2015 @ 1240	2	None
SB-1 (28-30)	8/17/2015 @ 1245	2	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-2 (0-2)	8/17/2015 @ 1450	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-2 (2-4)	8/17/2015 @ 1454	0	None
SB-2 (4-6)	8/17/2015 @ 1458	0	None
SB-2 (6-8)	8/17/2015 @ 1506	0	None
SB-2 (8-10)	8/17/2015 @ 1509	0	None
SB-2 (10-12)	8/17/2015 @ 1515	0	None
SB-2 (12-14)	8/17/2015 @ 1518	0	None
SB-2 (14-16)	8/17/2015 @ 1521	0	None
SB-2 (16-18)	8/17/2015 @ 1523	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-2 (18-20)	8/17/2015 @ 1525	0	None
SB-2 (20-22)	8/17/2015 @ 1545	0	None
SB-2 (22-24)	8/17/2015 @ 1549	0	None
SB-2 (24-26)	8/17/2015 @ 1551	0	None
SB-2 (26-28)	8/17/2015 @ 1554	0	None
SB-2 (28-30)	8/17/2015 @ 1600	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-3 (0-2)	8/17/2015 @ 1715	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-3 (2-4)	8/17/2015 @ 1720	0	None
SB-3 (4-6)	8/17/2015 @ 1725	0	None
SB-3 (6-8)	8/17/2015 @ 1732	0	None
SB-3 (8-10)	8/17/2015 @ 1736	0	None
SB-3 (10-12)	8/17/2015 @ 1742	0	None
SB-3 (12-14)	8/17/2015 @ 1746	0	None
SB-3 (14-16)	8/17/2015 @ 1750	0	None
SB-3 (16-18)	8/17/2015 @ 1755	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-3 (18-20)	8/17/2015 @ 1800	0	None
SB-3 (20-22)	8/17/2015 @ 1808	0	None
SB-3 (22-24)	8/17/2015 @ 1812	0	None

**TABLE 3**  
**AREA I PERIMETER SOIL BORING PID SUMMARY**  
**BASELINE SAMPLE EVENT**  
**M6 DESTRUCTION PROJECT**  
**CAMP MINDEN NATIONAL GUARD TRAINING SITE**  
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<b>Soil Boring Location (feet bgs)</b>	<b>Date/Time Collected (military)</b>	<b>PID Result (ppm)</b>	<b>Laboratory Analyses Performed</b>
SB-3 (24-26)	8/17/2015 @ 1815	0	None
SB-3 (26-28)	8/17/2015 @ 1818	0	None
SB-3 (28-30)	8/17/2015 @ 1821	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-4 (0-2)	8/18/2015 @ 0810	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-4 (2-4)	8/18/2015 @ 0813	0	None
SB-4 (4-6)	8/18/2015 @ 0817	0	None
SB-4 (6-8)	8/18/2015 @ 0820	0	None
SB-4 (8-10)	8/18/2015 @ 0824	0	None
SB-4 (10-12)	8/18/2015 @ 0827	0	None
SB-4 (12-14)	8/18/2015 @ 0832	0	None
SB-4 (14-16)	8/18/2015 @ 0835	0	None
SB-4 (16-18)	8/18/2015 @ 0839	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-4 (18-20)	8/18/2015 @ 0842	0	None
SB-4 (20-22)	8/18/2015 @ 0846	0	None
SB-4 (22-24)	8/18/2015 @ 0851	0	None
SB-4 (24-26)	8/18/2015 @ 0854	0	None
SB-4 (26-28)	8/18/2015 @ 0858	0	None
SB-4 (28-30)	8/18/2015 @ 0903	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-5 (0-2)	8/18/2015 @ 0955	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-5 (2-4)	8/18/2015 @ 0958	0	None
SB-5 (4-6)	8/18/2015 @ 1003	0	None
SB-5 (6-8)	8/18/2015 @ 1007	0	None
SB-5 (8-10)	8/18/2015 @ 1011	0	None
SB-5 (10-12)	8/18/2015 @ 1014	0	None
SB-5 (12-14)	8/18/2015 @ 1017	0	None
SB-5 (14-16)	8/18/2015 @ 1020	0	None
SB-5 (16-18)	8/18/2015 @ 1024	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-5 (18-20)	8/18/2015 @ 1027	0	None
SB-5 (20-22)	8/18/2015 @ 1031	0	None
SB-5 (22-24)	8/18/2015 @ 1034	0	None
SB-5 (24-26)	8/18/2015 @ 1039	0	None
SB-5 (26-28)	8/18/2015 @ 1044	0	None
SB-5 (28-30)	8/18/2015 @ 1050	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-6 (0-2)	8/18/2015 @ 1145	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-6 (2-4)	8/18/2015 @ 1148	0	None
SB-6 (4-6)	8/18/2015 @ 1151	0	None
SB-6 (6-8)	8/18/2015 @ 1155	0	None
SB-6 (8-10)	8/18/2015 @ 1158	0	None
SB-6 (10-12)	8/18/2015 @ 1204	0	None
SB-6 (12-14)	8/18/2015 @ 1207	0	None
SB-6 (14-16)	8/18/2015 @ 1211	0	None
SB-6 (16-18)	8/18/2015 @ 1214	0	None
SB-6 (18-20)	8/18/2015 @ 1217	0	None

**TABLE 3**  
**AREA I PERIMETER SOIL BORING PID SUMMARY**  
**BASELINE SAMPLE EVENT**  
**M6 DESTRUCTION PROJECT**  
**CAMP MINDEN NATIONAL GUARD TRAINING SITE**  
**Page 3 of 3**

<b>Soil Boring Location (feet bgs)</b>	<b>Date/Time Collected (military)</b>	<b>PID Result (ppm)</b>	<b>Laboratory Analyses Performed</b>
SB-6 (20-22)	8/18/2015 @ 1222	0	Nitroaromatics and Nitramines; VOCs; and SVOCs
SB-6 (22-24)	8/18/2015 @ 1229	0	None
SB-6 (24-26)	8/18/2015 @ 1232	0	None
SB-6 (26-28)	8/18/2015 @ 1236	0	None
SB-6 (28-30)	8/18/2015 @ 1240	0	Nitroaromatics and Nitramines; VOCs; and SVOCs

**Notes:**

- 1) Samples collected from Area I perimeter soil boring locations were field screened for hydrocarbon vapors using a photo ionization detector (PID). Three soil samples per soil boring were selected from each perimeter borehole for laboratory analysis.
- 2) The soil samples selected for laboratory analyses were selected based on RECAP Appendix B criteria which are based upon the following considerations: highest PID reading in surface soil (0–15 feet bgs); highest PID reading in subsurface soil: (> 15 feet bgs); first encountered groundwater; and total depth of borehole.
- 3) feet bgs = feet below ground surface



**Table 4**  
**Area I Perimeter Soil Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
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					Sample Id <sup>1</sup>	2015.08.17 SB-1 (0-2)		2015.08.17 SB-1 (20-22)		2015.08.17 SB-1 (28-30)		2015.08.17 SB-2 (0-2)		2015.08.17 SB-2 (16-18)		2015.08.17 SB-2 (28-30)		2015.08.17 SB-3 (0-2)		2015.08.17 SB-3 (16-18)		2015.08.17 SB-3 (28-30)		2015.08.17 SB DUP#1 SB-3 (28-30)		Analytical Method	
Analyte					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual		
Nitroaromatics and Nitramines																											
Regional Screening Level Summary Table <sup>2</sup>	Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																								
			Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																							
1,3,5-Trinitrobenzene	220,000	3,200,000	3,200,000	3,200,000	ug/kg	<27		<25		<27		<27		<26		<26		<27		<27		<27		<27		8330B	
1,3-Dinitrobenzene	630	8,200	8,200	8,200	ug/kg	<42		<40		<43		<43		<41		<42		<42		<43		<42		<43		8330B	
2,4,6-Trinitrotoluene	3,600	51,000	51,000	51,000	ug/kg	<35		<33		<35		<35		<34		<34		<35		<35		<35		<35		8330B	
2,4-Dinitrotoluene	1,700	7,400	7,400	7,400	ug/kg	<37		<34		<37		<37		<36		<36		<37		<37		<37		<37		8330B	
2,6-Dinitrotoluene	360	1,500	1,500	1,500	ug/kg	<62		<58		<63		<63		<60		<61		<62		<62		<62		<63		8330B	
2-Amino-4,6-dinitrotoluene	15,000	230,000	230,000	230,000	ug/kg	<42		<39		<42		<42		<41		<41		<42		<42		<42		<42		8330B	
4-Amino-2,6-dinitrotoluene	15,000	230,000	230,000	230,000	ug/kg	<91		<85		<92		<92		<88		<90		<91		<91		<91		<91		8330B	
3-Nitrotoluene	630	8,200	8,200	8,200	ug/kg	<54		<51		<55		<55		<53		<53		<54		<54		<54		<55		8330B	
Nitrobenzene	5,100	22,000	22,000	22,000	ug/kg	<42		<39		<43		<42		<41		<42		<42		<42		<42		<43		8330B	
Nitroglycerin	630	8,200	8,200	8,200	ug/kg	<260		<250		<270		<270		<260		<260		<260		<260		<260		<270		8330B	
2-Nitrotoluene	3,200	15,000	15,000	15,000	ug/kg	<63		<59		<64		<64		<62		<63		<63		<64		<63		<65		8330B	
4-Nitrotoluene	25,000	140,000	140,000	140,000	ug/kg	<79		<74		<81		<80		<77		<78		<79		<80		<79		<81		8330B	
Pentaerythritol Tetranitrate	13,000	160,000	160,000	160,000	ug/kg	<330		<310		<340		<340		<330		<330		<330		<340		<340		<340		8330B	
RDX	6,100	28,000	28,000	28,000	ug/kg	<61		<57		<62		<61		<59		<60		<60		<61		<61		<62		8330B	
HMX	390,000	5,700,000	5,700,000	5,700,000	ug/kg	<38		<35		<38		<38		<37		<37		<38		<38		<38		<38		8330B	
Tetryl	16,000	230,000	230,000	230,000	ug/kg	<45		<42		<45		<45		<43		<44		<45		<45		<45		<45		8330B	
Volatile Organic Compounds																											
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																							
				Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																						
1,1,1,2-Tetrachloroethane	2,700	5,900	46	46	46	ug/kg	<0.41		<0.34		<0.39		<0.38		<0.46		<0.43		<0.44		<0.50		<0.30		<0.30		8260C
1,1,1-Trichloroethane	82,000	700,000	4,000	4,000	4,000	ug/kg	<0.50		<0.42		<0.48		<0.47		<0.57		<0.52		<0.54		<0.61		<0.36		<0.36		8260C
1,1,2,2-Tetrachloroethane	810	2,000	6	6	6	ug/kg	<0.47		<0.39		<0.45		<0.43		<0.53		<0.49		<0.51		<0.57		<0.34		<0.34		8260C
1,1,2-Trichloroethane	1,900	4,300	58	58	58	ug/kg	<0.67		<0.55		<0.64		<0.62		<0.75		<0.69		<0.72		<0.82		<0.48		<0.48		8260C
1,1-Dichloroethane	66,000	470,000	7,500	7,500	7,500	ug/kg	<0.46		<0.38		<0.44		<0.42		<0.52		<0.47		<0.49		<0.56		<0.33		<0.33		8260C
1,1-Dichloroethene	13,000	91,000	85	85	85	ug/kg	<1.9		<1.6		<1.8		<1.7		<2.1		<2.0		<2.0		<2.3		<1.4		<1.4		8260C
1,2-Dibromo-3-chloropropane	180	1,600	10	10	10	ug/kg	<1.7		<1.4		<1.6		<1.6		<1.9		<1.8		<1.8		<2.1		<1.2		<1.2		8260C
1,2-Dichloroethane	820	1,800	35	35	35	ug/kg	<1.0		<0.84		<0.98		<0.95		<1.2		<1.1		<1.1		<1.2		<0.74		<0.74		8260C
1,2-Dichloropropane	690	1,800	42	42	42	ug/kg	<0.44		<0.37		<0.43		<0.41		<0.50		<0.46		<0.48		<0.54		<0.32		<0.32		8260C
1,3-Dichloropropene, Total	3,100	10,000	40	40	40	ug/kg	<1.1		<0.92		<1.1		<1.0		<1.3		<1.2		<1.2		<1.4		<0.80		<0.80		8260C
2-Butanone (methyl ethyl ketone)	590,000	4,400,000	5,000	5,000	5,000	ug/kg	<2.2		<1.9		<2.2		<2.1		<2.5		<2.3		<2.4		<2.7		<1.6		<1.6		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)	450,000	3,100,000	6,400	6,400	6,400	ug/kg	<0.85		<0.71		<0.82		<0.79		<0.97		<0.89		<0.92		<1.0		<0.62		<0.62		8260C
Acetone	170,000	1,400,000	1,500	1,500	1,500	ug/kg	<7.6		<6.3		<7.3		<7.0		<8.6		<7.9		<8.2		<9.3		<5.5		<5.5		8260C
Benzene	1,500	3,100	51	51	51	ug/kg	<0.29		<0.24		<0.28		<0.27		<0.33		<0.30		<0.32		<0.36		<0.21		<0.21		8260C
Bromodichloromethane	1,800	4,200	920	920	920	ug/kg	<0.29		<0.24		<0.28		<0.27		<0.33		<0.30		<0.32		<0.36		<0.21		<0.21		8260C
Bromoform	48,000	180,000	1,800	1,800	1,800	ug/kg	<0.43		<0.36		<0.42		<0.40		<0.49		<0.45		<0.47		<0.53		<0.31		<0.31		8260C
Bromomethane	430	3,000	40	40	40	ug/kg	<1.3		<1.1		<1.2		<1.2		<1.5		<1.3		<1.4		<1.6		<0.93		<0.93		8260C
Carbon disulfide	36,000	250,000	11,000	11,000	11,000	ug/kg	<0.81		<0.67		<0.78		<0.75		<0.91		<0.84		<0.87		<0.99		<0.58		<0.58		8260C
Carbon tetrachloride	180	1,100	110	110	110	ug/kg	<0.60		<0.49		<0.57		<0.55		<0.67		<0.62		<0.64		<0.73		<0.43		<0.43		8260C



Table 4  
Area I Perimeter Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Louisiana  
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Analyte						Sample Id <sup>1</sup>	2015.08.17 SB-1 (0-2)		2015.08.17 SB-1 (20-22)		2015.08.17 SB-1 (28-30)		2015.08.17 SB-2 (0-2)		2015.08.17 SB-2 (16-18)		2015.08.17 SB-2 (28-30)		2015.08.17 SB-3 (0-2)		2015.08.17 SB-3 (16-18)		2015.08.17 SB-3 (28-30)		2015.08.17 SB DUP#1 SB-3 (28-30)		Analytical Method
						Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Chlorobenzene	17,000	120,000	3,000	3,000	3,000	ug/kg	<0.44		<0.37		<0.43		<0.41		<0.50		<0.46		<0.48		<0.54		<0.32		<0.32		8260C
Dibromochloromethane (chlorodibromomethane)	2,200	5,400	1,000	1,000	1,000	ug/kg	<0.48		<0.40		<0.46		<0.45		<0.54		<0.50		<0.52		<0.59		<0.35		<0.35		8260C
Chloroethane	4,100	8,200	35	35	35	ug/kg	<0.61		<0.50		<0.59		<0.56		<0.69		<0.63		<0.66		<0.74		<0.44		<0.44		8260C
Chloroform	44	300	900	300	900	ug/kg	<0.44		<0.37		<0.43		<0.41		<0.50		<0.46		<0.48		<0.54		<0.32		<0.32		8260C
Chloromethane	3,500	7,300	100	100	100	ug/kg	<0.76		<0.63		<0.73		<0.71		<0.86		<0.79		<0.82		<0.93		<0.55		<0.55		8260C
cis-1,2-Dichloroethene	4,800	34,000	490	490	490	ug/kg	<0.70		<0.58		<0.68		<0.65		<0.79		<0.73		<0.76		<0.86		<0.51		<0.51		8260C
Ethyl benzene	160,000	230,000	19,000	19,000	19,000	ug/kg	<0.35		<0.29		<0.34		<0.33		<0.40		<0.36		<0.38		<0.43		<0.25		<0.25		8260C
Hexachlorobutadiene	820	8,600	5,500	5,500	5,500	ug/kg	<0.79		<0.66		<0.77		<0.74		<0.90		<0.83		<0.86		<0.97		<0.58		<0.58		8260C
Isobutylalcohol	730,000	6,200,000	30,000	30,000	30,000	ug/kg	<30		<25		<29		<28		<34		<31		<32		<36		<22		<21		8260C
Methyl tert-butyl ether (MTBE)	650,000	4,700,000	77	77	77	ug/kg	<0.56		<0.47		<0.54		<0.52		<0.64		<0.58		<0.61		<0.69		<0.41		<0.41		8260C
Methylene Chloride	19,000	44,000	17	17	17	ug/kg	<1.8		<1.5		<1.8		<1.7		<2.1		<1.9		<2.0		<2.3		<1.3		<1.3		8260C
Styrene	500,000	1,700,000	11,000	11,000	11,000	ug/kg	<0.41		<0.34		<0.39		<0.38		<0.46		<0.43		<0.44		<0.50		<0.30		<0.30		8260C
Tetrachloroethene (tetrachloroethylene)	8,300	35,000	180	180	180	ug/kg	<0.37		<0.31		<0.36		<0.35		<0.42		<0.39		<0.40		<0.46		<0.27		<0.27		8260C
Toluene	68,000	470,000	20,000	20,000	20,000	ug/kg	<0.82		<0.68		<0.79		<0.76		<0.93		<0.85		<0.88		<1.0		<0.59		<0.59		8260C
trans-1,2-Dichloroethene	6,900	48,000	770	770	770	ug/kg	<1.1		<0.91		<1.1		<1.0		<1.2		<1.1		<1.2		<1.3		<0.80		<0.80		8260C
Trichloroethene	100	210	73	73	73	ug/kg	<0.46		<0.38		<0.44		<0.42		<0.52		<0.47		<0.49		<0.56		<0.33		<0.33		8260C
Trichlorofluoromethane	38,000	260,000	37,000	37,000	37,000	ug/kg	<0.58		<0.48		<0.56		<0.54		<0.66		<0.61		<0.63		<0.71		<0.42		<0.42		8260C
Vinyl Chloride	240	790	13	13	13	ug/kg	<0.50		<0.42		<0.48		<0.47		<0.57		<0.52		<0.54		<0.61		<0.36		<0.36		8260C
Xylenes (total)	18,000	120,000	150,000	120,000	150,000	ug/kg	<0.99		<0.82		<0.96		<0.92		<1.1		<1.0		<1.1		<1.2		<0.72		<0.72		8260C
Semivolatile Organic Compounds																											
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																							
				Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																						
1,1 Biphenyl	230,000	230,000	190,000	190,000	190,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
1,2,4,5-Tetrachlorobenzene	1,200	12,000	6,900	6,900	6,900	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
1,2,4-Trichlorobenzene	66,000	1,200,000	14,000	14,000	14,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
1,2-Dichlorobenzene	99,000	380,000	29,000	29,000	29,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
1,3-Dichlorobenzene	2,100	18,000	2,100	2,100	2,100	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
1,3-Dinitrobenzene	450	5,000	250	250	250	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
1,4-Dichlorobenzene	6,700	16,000	5,700	5,700	5,700	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,3,4,6-Tetrachlorophenol	140,000	1,400,000	31,000	31,000	31,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,4,5-Trichlorophenol	530,000	6,600,000	320,000	320,000	320,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,4,6-Trichlorophenol	40,000	170,000	1,300	1,300	1,300	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,4-Dichlorophenol	16,000	200,000	12,000	12,000	12,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,4-Dimethylphenol	93,000	1,100,000	20,000	20,000	20,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,4-Dinitrophenol	7,100	69,000	1,700	1,700	1,700	ug/kg	<380 *		<350 *		<380 *		<350 *		<430 *		<420 *		<390 *		<440 *		<400 *		<400 *		8270D
2,4-Dinitrotoluene	8,900	98,000	1,000	1,000	1,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2,6-Dinitrotoluene	4,300	46,000	390	390	390	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2-Chloronaphthalene	500,000	8,300,000	500,000	500,000	500,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2-Chlorophenol	15,000	140,000	1,400	1,400	1,400	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2-Methylnaphthalene	22,000	170,000	1,700	1,700	1,700	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
2-Nitroaniline	1,700	1,700	1,700	1,700	1,700	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
3,3-Dichlorobenzidine	970	4,200	1,800	1,800	1,800	ug/kg	<380		<350		<380		<350		<430		<420		<390		<440		<400		<400		8270D
3-Nitroaniline	13,000	140,000	1,700	1,700	1,700	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D



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Analyte						Sample Id <sup>1</sup>	2015.08.17 SB-1 (0-2)		2015.08.17 SB-1 (20-22)		2015.08.17 SB-1 (28-30)		2015.08.17 SB-2 (0-2)		2015.08.17 SB-2 (16-18)		2015.08.17 SB-2 (28-30)		2015.08.17 SB-3 (0-2)		2015.08.17 SB-3 (16-18)		2015.08.17 SB-3 (28-30)		2015.08.17 SB DUP#1 SB-3 (28-30)		Analytical Method
						Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
4-Nitroaniline	10,000	100,000	1,700	1,700	1,700	ug/kg	<380		<350		<380		<350		<430		<420		<390		<440		<400		<400		8270D
4-Nitrophenol	32,000	330,000	2,600	2,600	2,600	ug/kg	<380		<350		<380		<350		<430		<420		<390		<440		<400		<400		8270D
Acenaphthene	370,000	6,100,000	220,000	220,000	220,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Acenaphthylene	350,000	5,100,000	88,000	88,000	88,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Aniline	2,400	17,000	65	65	65	ug/kg	<68		<64		<69		<64		<78		<76		<70		<80		<73		<73		8270D
Anthracene	2,200,000	48,000,000	120,000	120,000	120,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Benz(a)anthracene	620	2,900	330,000	2,900	330,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Benzo(a)pyrene	330	330	23,000	330	23,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Benzo(b)fluoranthene	620	2,900	220,000	2,900	220,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Benzo(k)fluoranthene	6,200	29,000	120,000	29,000	120,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Bis(2-chlorisopropyl)ether	4,900	17,000	800	800	800	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Bis(2-chloroethyl)ether	330	1,100	330	330	330	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Bis(2-ethylhexyl)phthalate	35,000	170,000	79,000	79,000	79,000	ug/kg	<52		<49		<52		<49		<59		<57		<53		<60		<55		<55		8270D
Butyl benzyl phthalate	220,000	220,000	220,000	220,000	220,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Chrysene	62,000	290,000	76,000	76,000	76,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Dibenz(a,h)anthracene	330	330	540,000	330	540,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Dibenzofuran	29,000	150,000	24,000	24,000	24,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Diethyl phthalate	670,000	670,000	360,000	360,000	360,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Dimethyl phthalate	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Di-n-octyl phthalate	240,000	3,500,000	10,000,000	3,500,000	10,000,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Fluoranthene	220,000	2,900,000	1,200,000	1,200,000	1,200,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Fluorene	280,000	5,400,000	230,000	230,000	230,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Hexachlorobenzene	340	2,000	9,600	2,000	9,600	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Hexachlorobutadiene	820	8,600	5,500	5,500	5,500	ug/kg	<38	*	<36	*	<38	*	<36	*	<44	*	<42	*	<39	*	<44	*	<40	*	<41	*	8270D
Hexachlorocyclopentadiene	1,400	9,400	1,200,000	9,400	1,200,000	ug/kg	<380		<350		<380		<350		<430		<420		<390		<440		<400		<400		8270D
Hexachloroethane	5,200	68,000	2,200	2,200	2,200	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Indeno(1,2,3-cd)pyrene	620	2,900	9,200	2,900	9,200	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Isophorone	340,000	1,100,000	560	560	560	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Naphthalene	6,200	43,000	1,500	1,500	1,500	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Nitrobenzene	2,200	25,000	330	330	330	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
N-Nitrosodi-n-propylamine	330	330	330	330	330	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Pentachlorophenol	2,800	9,700	1,700	1,700	1,700	ug/kg	<380		<350		<380		<350		<430		<420		<390		<440		<400		<400		8270D
Phenanthrene	2,100,000	43,000,000	660,000	660,000	660,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Phenol	1,300,000	15,000,000	11,000	11,000	11,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Pyrene	230,000	5,600,000	1,100,000	1,100,000	1,100,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
N-Nitrosodiphenylamine	90,000	400,000	2,100	2,100	2,100	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D
Regional Screening Level Summary Table <sup>2</sup>	Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																								
			Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																							
Di-n-butyl phthalate	630,000	8,200,000	8,200,000	8,200,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D	
Diphenylamine	160,000	2,100,000	2,100,000	2,100,000	ug/kg	<38		<36		<38		<36		<44		<42		<39		<44		<40		<41		8270D	

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Analyte	Sample Id <sup>1</sup>	2015.08.17 SB-1 (0-2)		2015.08.17 SB-1 (20-22)		2015.08.17 SB-1 (28-30)		2015.08.17 SB-2 (0-2)		2015.08.17 SB-2 (16-18)		2015.08.17 SB-2 (28-30)		2015.08.17 SB-3 (0-2)		2015.08.17 SB-3 (16-18)		2015.08.17 SB-3 (28-30)		2015.08.17 SB DUP#1 SB-3 (28-30)		Analytical Method
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	

Notes:

<sup>1</sup> Sample Identification = collection date (year.month.day) soil boring location (SB) depth (feet below ground surface)

<sup>2</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The most conservative Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Screening Standard (dated October 2003) of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level for surface soil. The soil concentration protective of groundwater (SSGW) RECAP Screening Standard (RSS) was determined as the Screening Level for subsurface soil. The RECAP document (October 2003) defines surface soil as the interval present from the ground surface to a depth of 15 feet below ground surface, and subsurface soil as the interval present from 15 feet below ground surface to the depth of impact. Data from the baseline sample event will establish site closeout and site restoration.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Abbreviations:

< = Not detected at the reporting limit (or MDL or EDL if shown)

Qual = Qualifer

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

F2= MS/MSD RPD exceeds control limits

F1= MS and/or MSD Recovery is outside acceptance limits

\*=LCS or LCSD is outside acceptance limits

ug/kg = micrograms per killograms

RECAP = Risk Evaluation/Corrective Action Program

SSni = Soil Screening non-industrial

SSi = Soil Screening industrial

SSGW = Soil Screening protective of groundwater



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Analyte					Sample Id <sup>1</sup>	2015.08.18 SB-4 (0-2)		2015.08.18 SB-4 (16-18)		2015.08.18 SB-4 (28-30)		2015.08.18 SB-5 (0-2)		2015.08.18 SB-5 (16-18)		2015.08.18 SB-5 (28-30)		2015.08.18 SB DUP#2 SB-5 (28-30)		2015.08.18 SB-6 (0-2)		2015.08.18 SB-6 (20-22)		2015.08.18 SB-6 (28-30)		Analytical Method		
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual			
Nitroaromatics and Nitramines																												
Regional Screening Level Summary Table <sup>2</sup>		Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																								
				Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																							
1,3,5-Trinitrobenzene		220,000	3,200,000	3,200,000	3,200,000	ug/kg	<25		<27		<27		<27		<27		<25		<26		<27		<25		<26		8330B	
1,3-Dinitrobenzene		630	8,200	8,200	8,200	ug/kg	<39		<43		<43		<43		<43		<40		<41		<43		<40		<42		8330B	
2,4,6-Trinitrotoluene		3,600	51,000	51,000	51,000	ug/kg	<32		<35		<35		<36		<35		<33		<34		<36		<33		<34		8330B	
2,4-Dinitrotoluene		1,700	7,400	7,400	7,400	ug/kg	<34		<37		<37		<38		<37		<35		<35		<38		<35		<36		8330B	
2,6-Dinitrotoluene		360	1,500	1,500	1,500	ug/kg	<57		<63		<63		<64		<63		<59		<60		<64		<59		<61		8330B	
2-Amino-4,6-dinitrotoluene		15,000	230,000	230,000	230,000	ug/kg	<39		<43		<42		<43		<42		<40		<40		<43		<40		<41		8330B	
4-Amino-2,6-dinitrotoluene		15,000	230,000	230,000	230,000	ug/kg	<84		<93		<92		<93		<92		<86		<88		<93		<86		<90		8330B	
3-Nitrotoluene		630	8,200	8,200	8,200	ug/kg	<50		<55		<55		<56		<55		<51		<52		<56		<51		<53		8330B	
Nitrobenzene		5,100	22,000	22,000	22,000	ug/kg	<39		<43		<43		<43		<43		<40		<41		<43		<40		<42		8330B	
Nitroglycerin		630	8,200	8,200	8,200	ug/kg	<240		<270		<270		<270		<270		<250		<250		<270		<250		<260		8330B	
2-Nitrotoluene		3,200	15,000	15,000	15,000	ug/kg	<59		<65		<64		<65		<64		<60		<61		<65		<60		<63		8330B	
4-Nitrotoluene		25,000	140,000	140,000	140,000	ug/kg	<73		<81		<80		<81		<80		<75		<77		<81		<75		<78		8330B	
Pentaerythritol Tetranitrate		13,000	160,000	160,000	160,000	ug/kg	<310		<340		<340		<340		<340		<320		<320		<340		<320		<330		8330B	
RDX		6,100	28,000	28,000	28,000	ug/kg	<56		<62		<61		<62		<62		<58		<59		<62		<57		<60		8330B	
HMX		390,000	5,700,000	5,700,000	5,700,000	ug/kg	<35		<39		<38		<39		<38		<36		<37		<39		<36		<37		8330B	
Tetryl		16,000	230,000	230,000	230,000	ug/kg	<41		<46		<45		<46		<45		<43		<43		<46	F1	<42		<44		8330B	
Volatile Organic Compounds																												
RECAP Screening Standards <sup>3</sup>		SSni	SSi	SSGW	Screening Level <sup>3</sup>																							
					Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																						
1,1,1,2-Tetrachloroethane		2,700	5,900	46	46	46	ug/kg	<0.43		<0.46		<0.40		<0.36		<0.40		<0.40		<0.47		<0.32		<0.39		<0.37		8260C
1,1,1-Trichloroethane		82,000	700,000	4,000	4,000	4,000	ug/kg	<0.52		<0.57		<0.50		<0.44		<0.49		<0.49		<0.58		<0.40		<0.48		<0.46		8260C
1,1,2,2-Tetrachloroethane		810	2,000	6	6	6	ug/kg	<0.49		<0.53		<0.46		<0.41		<0.46		<0.45		<0.54		<0.37		<0.44		<0.43		8260C
1,1,2-Trichloroethane		1,900	4,300	58	58	58	ug/kg	<0.69		<0.75		<0.66		<0.58		<0.65		<0.64		<0.77		<0.53		<0.63		<0.61		8260C
1,1-Dichloroethane		66,000	470,000	7,500	7,500	7,500	ug/kg	<0.47		<0.51		<0.45		<0.40		<0.44		<0.44		<0.53		<0.36		<0.43		<0.42		8260C
1,1-Dichloroethene		13,000	91,000	85	85	85	ug/kg	<2.0		<2.1		<1.9		<1.6		<1.8		<1.8		<2.2		<1.5		<1.8		<1.7		8260C
1,2-Dibromo-3-chloropropane		180	1,600	10	10	10	ug/kg	<1.8		<1.9		<1.7		<1.5		<1.7		<1.6		<2.0		<1.3		<1.6		<1.5		8260C
1,2-Dichloroethane		820	1,800	35	35	35	ug/kg	<1.1		<1.1		<1.0		<0.88		<0.99		<0.98		<1.2		<0.81		<0.97		<0.93		8260C
1,2-Dichloropropane		690	1,800	42	42	42	ug/kg	<0.46		<0.50		<0.44		<0.39		<0.43		<0.43		<0.51		<0.35		<0.42		<0.40		8260C
1,3-Dichloropropene, Total		3,100	10,000	40	40	40	ug/kg	<1.2		<1.3		<1.1		<0.96		<1.1		<1.1		<1.3		<0.88		<1.1		<1.0		8260C
2-Butanone (methyl ethyl ketone)		590,000	4,400,000	5,000	5,000	5,000	ug/kg	<2.3		<2.5		<2.2		<1.9		<2.2		<2.2		<2.6		<1.8		<2.1		<2.0		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)		450,000	3,100,000	6,400	6,400	6,400	ug/kg	<0.89		<0.96		<0.84		<0.74		<0.83		<0.82		<0.98		<0.68		<0.81		<0.78		8260C
Acetone		170,000	1,400,000	1,500	1,500	1,500	ug/kg	11	J	<8.5		<7.5		21		<7.4		<7.3		<8.7		13	J,F1,F2	<7.2		<6.9		8260C
Benzene		1,500	3,100	51	51	51	ug/kg	<0.30		<0.33		<0.29		<0.25		<0.28		<0.28		<0.34		<0.23		<0.28		<0.27		8260C
Bromodichloromethane		1,800	4,200	920	920	920	ug/kg	<0.30		<0.33		<0.29		<0.25		<0.28		<0.28		<0.34		<0.23		<0.28		<0.27		8260C
Bromoform		48,000	180,000	1,800	1,800	1,800	ug/kg	<0.45		<0.49		<0.43		<0.38		<0.42		<0.42		<0.50		<0.34		<0.41		<0.39		8260C
Bromomethane		430	3,000	40	40	40	ug/kg	<1.3		<1.4		<1.3		<1.1		<1.3		<1.2		<1.5		<1.0		<1.2		<1.2		8260C
Carbon disulfide		36,000	250,000	11,000	11,000	11,000	ug/kg	<0.84		<0.91		<0.80		<0.70		<0.79		<0.78		<0.93		<0.64		<0.77		<0.73		8260C
Carbon tetrachloride		180	1,100	110	110	110	ug/kg	<0.62		<0.67		<0.59		<0.52		<0.58		<0.58		<0.69		<0.47		<0.57		<0.54		8260C



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Analyte						Sample Id <sup>1</sup>	2015.08.18 SB-4 (0-2)		2015.08.18 SB-4 (16-18)		2015.08.18 SB-4 (28-30)		2015.08.18 SB-5 (0-2)		2015.08.18 SB-5 (16-18)		2015.08.18 SB-5 (28-30)		2015.08.18 SB DUP#2 SB-5 (28-30)		2015.08.18 SB-6 (0-2)		2015.08.18 SB-6 (20-22)		2015.08.18 SB-6 (28-30)		Analytical Method
						Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Chlorobenzene	17,000	120,000	3,000	3,000	3,000	ug/kg	<0.46		<0.50		<0.44		<0.39		<0.43		<0.43		<0.51		<0.35		<0.42		<0.40		8260C
Dibromochloromethane (chlorodibromomethane)	2,200	5,400	1,000	1,000	1,000	ug/kg	<0.50		<0.54		<0.47		<0.42		<0.47		<0.46		<0.55		<0.38		<0.46		<0.44		8260C
Chloroethane	4,100	8,200	35	35	35	ug/kg	<0.63		<0.68		<0.60		<0.53		<0.59		<0.59		<0.70		<0.48	F1	<0.58		<0.55		8260C
Chloroform	44	300	900	300	900	ug/kg	<0.46		<0.50		<0.44		<0.39		<0.43		<0.43		<0.51		<0.35		<0.42		<0.40		8260C
Chloromethane	3,500	7,300	100	100	100	ug/kg	<0.79		<0.86		<0.75		<0.66		<0.74		<0.73		<0.88		<0.60		<0.72		<0.69		8260C
cis-1,2-Dichloroethene	4,800	34,000	490	490	490	ug/kg	<0.73		<0.79		<0.69		<0.61		<0.68		<0.68		<0.81		<0.56		<0.67		<0.64		8260C
Ethyl benzene	160,000	230,000	19,000	19,000	19,000	ug/kg	<0.36		<0.40		<0.35		<0.30		<0.34		<0.34		<0.40		<0.28		<0.33		<0.32		8260C
Hexachlorobutadiene	820	8,600	5,500	5,500	5,500	ug/kg	<0.83		<0.90		<0.78		<0.69		<0.78		<0.77		<0.92		<0.63		<0.76		<0.72		8260C
Isobutylalcohol	730,000	6,200,000	30,000	30,000	30,000	ug/kg	<31		<33		<29		<26		<29		<29		<34		<24		<28		<27		8260C
Methyl tert-butyl ether (MTBE)	650,000	4,700,000	77	77	77	ug/kg	<0.58		<0.63		<0.55		<0.49		<0.55		<0.54		<0.65		<0.45		<0.53		<0.51		8260C
Methylene Chloride	19,000	44,000	17	17	17	ug/kg	<1.9		<2.1		<1.8		<1.6		<1.8		<1.8		<2.1		<1.5		<1.8		<1.7		8260C
Styrene	500,000	1,700,000	11,000	11,000	11,000	ug/kg	<0.43		<0.46		<0.40		<0.36		<0.40		<0.40		<0.47		<0.32		<0.39		<0.37		8260C
Tetrachloroethene (tetrachloroethylene)	8,300	35,000	180	180	180	ug/kg	<0.39		<0.42		<0.37		<0.32		<0.36		<0.36		<0.43		<0.30		<0.36		<0.34		8260C
Toluene	68,000	470,000	20,000	20,000	20,000	ug/kg	<0.85		<0.92		<0.81		<0.71		<0.80		<0.79		<0.94		<0.65		<0.78		<0.75		8260C
trans-1,2-Dichloroethene	6,900	48,000	770	770	770	ug/kg	<1.1		<1.2		<1.1		<0.95		<1.1		<1.1		<1.3		<0.87		<1.0		<1.0		8260C
Trichloroethene	100	210	73	73	73	ug/kg	<0.47		<0.51		<0.45		<0.40		<0.44		<0.44		<0.53		<0.36		<0.43		<0.42		8260C
Trichlorofluoromethane	38,000	260,000	37,000	37,000	37,000	ug/kg	<0.61		<0.66		<0.58		<0.51		<0.57		<0.56		<0.67		<0.46		<0.56		<0.53		8260C
Vinyl Chloride	240	790	13	13	13	ug/kg	<0.52		<0.57		<0.50		<0.44		<0.49		<0.49		<0.58		<0.40		<0.48		<0.46		8260C
Xylenes (total)	18,000	120,000	150,000	120,000	150,000	ug/kg	<1.0		<1.1		<0.98		<0.86		<0.97		<0.96		<1.1		<0.79		<0.94		<0.91		8260C
Semivolatile Organic Compounds																											
RECAP Screening Standards <sup>3</sup>	SSni	SSi	SSGW	Screening Level <sup>3</sup>																							
				Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																						
1,1 Biphenyl	230,000	230,000	190,000	190,000	190,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
1,2,4,5-Tetrachlorobenzene	1,200	12,000	6,900	6,900	6,900	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
1,2,4-Trichlorobenzene	66,000	1,200,000	14,000	14,000	14,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
1,2-Dichlorobenzene	99,000	380,000	29,000	29,000	29,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
1,3-Dichlorobenzene	2,100	18,000	2,100	2,100	2,100	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
1,3-Dinitrobenzene	450	5,000	250	250	250	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
1,4-Dichlorobenzene	6,700	16,000	5,700	5,700	5,700	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,3,4,6-Tetrachlorophenol	140,000	1,400,000	31,000	31,000	31,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,4,5-Trichlorophenol	530,000	6,600,000	320,000	320,000	320,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,4,6-Trichlorophenol	40,000	170,000	1,300	1,300	1,300	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,4-Dichlorophenol	16,000	200,000	12,000	12,000	12,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,4-Dimethylphenol	93,000	1,100,000	20,000	20,000	20,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,4-Dinitrophenol	7,100	69,000	1,700	1,700	1,700	ug/kg	<390	*	<430	*	<410	*	<360	*	<410	*	<430	*	<440	*	<340	*F2	<390	*	<420	*	8270D
2,4-Dinitrotoluene	8,900	98,000	1,000	1,000	1,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2,6-Dinitrotoluene	4,300	46,000	390	390	390	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2-Chloronaphthalene	500,000	8,300,000	500,000	500,000	500,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2-Chlorophenol	15,000	140,000	1,400	1,400	1,400	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2-Methylnaphthalene	22,000	170,000	1,700	1,700	1,700	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
2-Nitroaniline	1,700	1,700	1,700	1,700	1,700	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
3,3-Dichlorobenzidine	970	4,200	1,800	1,800	1,800	ug/kg	<390		<430		<410		<360		<410		<430		<440		<340		<390		<420		8270D
3-Nitroaniline	13,000	140,000	1,700	1,700	1,700	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D



Table 4  
Area I Perimeter Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
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Analyte						Sample Id <sup>1</sup>	2015.08.18 SB-4 (0-2)		2015.08.18 SB-4 (16-18)		2015.08.18 SB-4 (28-30)		2015.08.18 SB-5 (0-2)		2015.08.18 SB-5 (16-18)		2015.08.18 SB-5 (28-30)		2015.08.18 SB DUP#2 SB-5 (28-30)		2015.08.18 SB-6 (0-2)		2015.08.18 SB-6 (20-22)		2015.08.18 SB-6 (28-30)		Analytical Method
						Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
4-Nitroaniline	10,000	100,000	1,700	1,700	1,700	ug/kg	<390		<430		<410		<360		<410		<430		<440		<340		<390		<420		8270D
4-Nitrophenol	32,000	330,000	2,600	2,600	2,600	ug/kg	<390		<430		<410		<360		<410		<430		<440		<340		<390		<420		8270D
Acenaphthene	370,000	6,100,000	220,000	220,000	220,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Acenaphthylene	350,000	5,100,000	88,000	88,000	88,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Aniline	2,400	17,000	65	65	65	ug/kg	<70		<78		<74		<65		<74		<78		<80		<63		<71		<76		8270D
Anthracene	2,200,000	48,000,000	120,000	120,000	120,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Benz(a)anthracene	620	2,900	330,000	2,900	330,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Benzo(a)pyrene	330	330	23,000	330	23,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Benzo(b)fluoranthene	620	2,900	220,000	2,900	220,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Benzo(k)fluoranthene	6,200	29,000	120,000	29,000	120,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Bis(2-chlorisopropyl)ether	4,900	17,000	800	800	800	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Bis(2-chloroethyl)ether	330	1,100	330	330	330	ug/kg	<39		<44		<41		<36		<41		<44		<45		<35		<40		<42		8270D
Bis(2-ethylhexyl)phthalate	35,000	170,000	79,000	79,000	79,000	ug/kg	<53		<59		<56		<49		<56		<59		<60		<47		<54		<57		8270D
Butyl benzyl phthalate	220,000	220,000	220,000	220,000	220,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Chrysene	62,000	290,000	76,000	76,000	76,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Dibenz(a,h)anthracene	330	330	540,000	330	540,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Dibenzofuran	29,000	150,000	24,000	24,000	24,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Diethyl phthalate	670,000	670,000	360,000	360,000	360,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Dimethyl phthalate	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Di-n-octyl phthalate	240,000	3,500,000	10,000,000	3,500,000	10,000,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Fluoranthene	220,000	2,900,000	1,200,000	1,200,000	1,200,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Fluorene	280,000	5,400,000	230,000	230,000	230,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Hexachlorobenzene	340	2,000	9,600	2,000	9,600	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Hexachlorobutadiene	820	8,600	5,500	5,500	5,500	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Hexachlorocyclopentadiene	1,400	9,400	1,200,000	9,400	1,200,000	ug/kg	<390		<430		<410		<360		<410		<430		<440		<340		<390		<420		8270D
Hexachloroethane	5,200	68,000	2,200	2,200	2,200	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Indeno(1,2,3-cd)pyrene	620	2,900	9,200	2,900	9,200	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Isophorone	340,000	1,100,000	560	560	560	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Naphthalene	6,200	43,000	1,500	1,500	1,500	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Nitrobenzene	2,200	25,000	330	330	330	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
N-Nitrosodi-n-propylamine	330	330	330	330	330	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Pentachlorophenol	2,800	9,700	1,700	1,700	1,700	ug/kg	<390		<430		<410		<360		<410		<430		<440		<340		<390		<420		8270D
Phenanthrene	2,100,000	43,000,000	660,000	660,000	660,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Phenol	1,300,000	15,000,000	11,000	11,000	11,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Pyrene	230,000	5,600,000	1,100,000	1,100,000	1,100,000	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
N-Nitrosodiphenylamine	90,000	400,000	2,100	2,100	2,100	ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Regional Screening Level Summary Table <sup>2</sup>	Residential Soil	Industrial Soil	Screening Level <sup>2</sup>																								
			Surface Soil (0-15 ft bgs)	Sub-Surface Soil (>15 ft bgs)																							
Di-n-butyl phthalate	630,000	8,200,000	8,200,000	8,200,000		ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D
Diphenylamine	160,000	2,100,000	2,100,000	2,100,000		ug/kg	<39		<43		<41		<36		<41		<43		<44		<35		<40		<42		8270D

Table 4  
Area I Perimeter Soil Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
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Analyte	Sample Id <sup>1</sup>	2015.08.18 SB-4 (0-2)		2015.08.18 SB-4 (16-18)		2015.08.18 SB-4 (28-30)		2015.08.18 SB-5 (0-2)		2015.08.18 SB-5 (16-18)		2015.08.18 SB-5 (28-30)		2015.08.18 SB DUP#2 SB-5 (28-30)		2015.08.18 SB-6 (0-2)		2015.08.18 SB-6 (20-22)		2015.08.18 SB-6 (28-30)		Analytical Method
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	

Notes:

- <sup>1</sup> Sample Identification = collection date (year.month.day) soil boring location (SB) depth (feet below ground surface)
- <sup>2</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for industrial soil was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.
- <sup>3</sup> The most conservative Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Screening Standard (dated October 2003) of the soil for industrial use (SSi) and the soil concentration protective of groundwater (SSGW) was determined as the Screening Level for surface soil. The soil concentration protective of groundwater (SSGW) RECAP Screening Standard (RSS) was determined as the Screening Level for subsurface soil. The RECAP document (October 2003) defines surface soil as the interval present from the ground surface to a depth of 15 feet below ground surface, and subsurface soil as the interval present from 15 feet below ground surface to the depth of impact. Data from the baseline sample event will establish site closeout and site restoration.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Abbreviations:

- <= Not detected at the reporting limit (or MDL or EDL if shown)
- Qual = Qualifer
- J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
- F2= MS/MSD RPD exceeds control limits
- F1= MS and/or MSD Recovery is outside acceptance limits
- \*=LCS or LCSD is outside acceptance limits
- ug/kg = micrograms per killograms
- RECAP = Risk Evaluation/Corrective Action Program
- SSni = Soil Screening non-industrial
- SSi = Soil Screening industrial
- SSGW = Soil Screening protective of groundwater



DATE: 151022  
Site Name: Camp Minden M6 Destruction

**TABLE 5**  
**GROUNDWATER MONITORING WELL CHARACTERISTICS**

*Monitoring Well Characteristics*

SITE MONITORING WELL NO.	MW-1	MW-2	MW-3	MW-4
PERMIT NUMBER/AUTHORIZATION	WWC-574	WWC-574	WWC-574	WWC-574
DOTD I.D.	11591Z	11592Z	11593Z	11594Z
LATITUDE	32° 33' 15.53"	32° 33' 17.97"	32° 33' 12.22"	32° 33' 15.53"
LONGITUDE	93° 27' 50.88"	93° 27' 52.77"	93° 27' 50.89"	93° 27' 54.88"
LAT/LONG METHOD	GPS	GPS	GPS	GPS
UNIT/AREA MONITORED	Camp Minden - Area I	Camp Minden - Area I	Camp Minden - Area I	Camp Minden - Area I
WELL LOCATION	East side of Camp Minden Area I	North side of Camp Minden Area I	East side of Camp Minden Area I	West side of Camp Minden Area I
WELL TYPE	Monitoring	Monitoring	Monitoring	Monitoring
WELL STATUS	Active	Active	Active	Active
GRADIENT	Up Gradient	Up Gradient	Up Gradient	Up Gradient
CASING DIAMETER (INCHES)	2	2	2	2
CASING MATERIAL	PVC	PVC	PVC	PVC
DATE COMPLETED (yy,mm,dd)	150818	150818	150818	150819
ZONE MONITORED	Upper Water Bearing Zone	Upper Water Bearing Zone	Upper Water Bearing Zone	Upper Water Bearing Zone
ZONE THICKNESS (FEET)	4	4	4	4
ELEV. OF MEASURING POINT (NGVD)	205.16	206.07	204.14	203.66
WELL DEPTH AT INSTALLATION (NGVD)	30	30	30	29
GROUND SURFACE ELEVATION (NGVD)	202.08	203.18	201.72	199.75
TOP OF SCREENED INTERVAL (NGVD)	182.08	183.18	181.72	180.75
BOTTOM OF SCREENED INTERVAL (NGVD)	172.08	173.18	171.72	170.75
SUMP LENGTH (FEET)	0.50	0.50	0.50	0.50

DATE: 151022  
Site Name: Camp Minden M6 Destruction

TABLE 5  
GROUND WATER MONITORING WELL CHARACTERISTICS

*Monitoring Well Characteristics*

SITE MONITORING WELL NO.	MW-5	MW-6
PERMIT NUMBER/AUTHORIZATION	WWC-574	WWC-574
DOTD I.D.	11595Z	11596Z
LATITUDE	32° 33' 08.92"	32° 33' 12.14"
LONGITUDE	93° 27' 52.76"	93° 27' 54.82"
LAT/LONG METHOD	GPS	GPS
UNIT/AREA MONITORED	Camp Minden - Area I	Camp Minden - Area I
WELL LOCATION	South side of Camp Minden Area I	West side of Camp Minden Area I
WELL TYPE	Monitoring	Monitoring
WELL STATUS	Active	Active
GRADIENT	Down Gradient	Up Gradient
CASING DIAMETER (INCHES)	2	2
CASING MATERIAL	PVC	PVC
DATE COMPLETED (yy,mm,dd)	150819	150819
ZONE MONITORED	Upper Water Bearing Zone	Upper Water Bearing Zone
ZONE THICKNESS (FEET)	4	4
ELEV. OF MEASURING POINT (NGVD)	204.08	202.69
WELL DEPTH AT INSTALLATION (FEET BGS)	27	28
GROUND SURFACE ELEVATION (NGVD)	200.78	200.51
TOP OF SCREENED INTERVAL (NGVD)	183.78	182.51
BOTTOM OF SCREENED INTERVAL (NGVD)	173.78	172.51
SUMP LENGTH (FEET)	0.50	0.50

**TABLE 6**  
**AREA I GROUNDWATER SAMPLING SUMMARY**  
**M6 DESTRUCTION PROJECT**  
**CAMP MINDEN NATIONAL GUARD TRAINING SITE**  
**MINDEN, LOUISIANA**

Monitoring/Sample Well Number	Potentiometric Data		
	TOC Elevation (feet NGVD)	Depth to Water (feet below TOC)	Corrected GW Elev. (feet NGVD)
<b>MW-1</b>			
August 31, 2015	205.16	23.10	182.06
<b>MW-2</b>			
August 31, 2015	206.07	23.85	182.22
<b>MW-3</b>			
August 31, 2015	204.14	22.52	181.62
<b>MW-4</b>			
August 31, 2015	203.66	22.18	181.48
<b>MW-5</b>			
August 31, 2015	204.08	22.74	181.34
<b>MW-6</b>			
August 31, 2015	202.69	21.22	181.47

**Notes:**

feet NGVD: National Geodetic Vertical Datum

feet below TOC: feet below Top of Casing Elevation

Table 7  
Area I Groundwater Monitoring Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
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Analyte			Sample Id <sup>1</sup>	2015.08.31 MW-1		2015.08.31 MW-2		2015.08.31 MW-3		2015.08.31 MW-4		2015.08.31 MW-5		2015.08.31 MW-6		2015.08.31 GW DUP #1 MW-6		Analytical Method
			Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Nitroaromatics and Nitramines																		
Regional Screening Level Summary Table <sup>2</sup>		Tapwater	Screening Level <sup>2</sup>															
1,3,5-Trinitrobenzene		59	59	ug/L	<0.057		<0.057		<0.057		<0.057		<0.057		<0.057		<0.057	8330B
1,3-Dinitrobenzene		0.2	0.2	ug/L	<0.10		<0.10		<0.10		<0.10		<0.10		<0.10		<0.10	8330B
2,4,6-Trinitrotoluene		0.98	0.98	ug/L	<0.080		<0.080		<0.080		<0.080		<0.080		<0.080		<0.080	8330B
2,4-Dinitrotoluene		0.24	0.24	ug/L	<0.081		<0.081		<0.081		<0.081		<0.081		<0.081		<0.081	8330B
2,6-Dinitrotoluene		0.048	0.048	ug/L	<0.13		<0.13		<0.13		<0.13		<0.13		<0.13		<0.13	8330B
2-Amino-4,6-dinitrotoluene		3.9	3.9	ug/L	<0.12		<0.12		<0.12		<0.12		<0.12		<0.12		<0.12	8330B
4-Amino-2,6-dinitrotoluene		3.9	3.9	ug/L	<0.12		<0.12		<0.12		<0.12		<0.12		<0.12		<0.12	8330B
3-Nitrotoluene		0.17	0.17	ug/L	<0.12		<0.12		<0.12		<0.12		<0.12		<0.12		<0.12	8330B
Nitrobenzene		0.14	0.14	ug/L	<0.082		<0.082		<0.082		<0.082		<0.082		<0.082		<0.082	8330B
Nitroglycerin		0.2	0.2	ug/L	<0.54		<0.54		<0.54		<0.54		<0.54		<0.54		<0.54	8330B
2-Nitrotoluene		0.31	0.31	ug/L	<0.095		<0.095		<0.095		<0.095		<0.095		<0.095		<0.095	8330B
4-Nitrotoluene		4.2	4.2	ug/L	<0.14		<0.14		<0.14		<0.14		<0.14		<0.14		<0.14	8330B
Pentaerythritol Tetranitrate		3.9	3.9	ug/L	<0.61		<0.61		<0.61		<0.61		<0.61		<0.61		<0.61	8330B
RDX		0.7	0.7	ug/L	<0.094		<0.094		<0.094		<0.094		<0.094		<0.094		<0.094	8330B
HMX		100	100	ug/L	<0.11		<0.11		<0.11		<0.11		<0.11		<0.11		<0.11	8330B
Tetryl		3.9	3.9	ug/L	<0.059		<0.059		<0.059		<0.059		<0.059		<0.059		<0.059	8330B
Volatile Organic Compounds																		
RECAP Screening Standards <sup>3</sup>		GWSS	Screening Level <sup>3</sup>															
Acetone		100	100	ug/L	<6.7		<6.7		<6.7		<6.7		<6.7		<6.7		<6.7	8260C
Benzene		5	5	ug/L	<0.25		<0.25		<0.25		<0.25		<0.25		<0.25		<0.25	8260C
Bromoform		100	100	ug/L	<0.37		<0.37		<0.37		<0.37	*F2	<0.37	*	<0.37	*	<0.37	8260C
Bromodichloromethane		100	100	ug/L	<0.25		<0.25		<0.25		<0.25	F2	<0.25		<0.25		<0.25	8260C
Bromomethane		10	10	ug/L	<0.40		<0.40		<0.40		<0.40	F2	<0.40		<0.40		<0.40	8260C
2-Butanone (methyl ethyl ketone)		190	190	ug/L	<0.39		<0.39		<0.39		<0.39		<0.39		<0.39		<0.39	8260C
Carbon disulfide		100	100	ug/L	<0.37		<0.37		<0.37		<0.37	F1	<0.37		<0.37		<0.37	8260C
Carbon tetrachloride		5	5	ug/L	<0.36		<0.36		<0.36		<0.36	F2, F1	<0.36		<0.36		<0.36	8260C
Chlorobenzene		100	100	ug/L	<0.38		<0.38		<0.38		<0.38	*	<0.38		<0.38		<0.38	8260C
Dibromochloromethane (chlorodibromomethane)		100	100	ug/L	<0.33		<0.33		<0.33		<0.33	*	<0.33		<0.33		<0.33	8260C



**Table 7**  
**Area I Groundwater Monitoring Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
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Analyte			Sample Id <sup>1</sup>	2015.08.31 MW-1		2015.08.31 MW-2		2015.08.31 MW-3		2015.08.31 MW-4		2015.08.31 MW-5		2015.08.31 MW-6		2015.08.31 GW DUP #1 MW-6		Analytical Method
			Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Chloroethane	10	10	ug/L	<0.38		<0.38		<0.38		<0.38	F2	<0.38		<0.38		<0.38		8260C
Chloroform	100	100	ug/L	<0.15		<0.15		<0.15		<0.15	F2, F1	<0.15		<0.15		<0.15		8260C
Chloromethane	10	10	ug/L	<0.55		<0.55		<0.55		<0.55	F1	<0.55		<0.55		<0.55		8260C
1,2-Dibromo-3-chloropropane	0.2	0.2	ug/L	<1.2		<1.2		<1.2		<1.2	*F2	<1.2	*	<1.2	*	<1.2	*	8260C
1,1-Dichloroethane	81	81	ug/L	<0.39		<0.39		<0.39		<0.39	F1	<0.39		<0.39		<0.39		8260C
1,2-Dichloroethane	5	5	ug/L	<0.37		<0.37		<0.37		<0.37		<0.37		<0.37		<0.37		8260C
cis-1,2-Dichloroethene	70	70	ug/L	<0.16		<0.16		<0.16		<0.16	F1, F2	<0.16		<0.16		<0.16		8260C
trans-1,2-Dichloroethene	100	100	ug/L	<0.18		<0.18		<0.18		<0.18		<0.18		<0.18		<0.18		8260C
1,1-Dichloroethene	7	7	ug/L	<0.37		<0.37		<0.37		<0.37	F1	<0.37		<0.37		<0.37		8260C
1,2-Dichloropropane	5	5	ug/L	<0.32		<0.32		<0.32		<0.32		<0.32		<0.32		<0.32		8260C
Ethyl benzene	700	700	ug/L	<0.30		<0.30		<0.30		<0.30	*	<0.30		<0.30		<0.30	*	8260C
Hexachlorobutadiene	0.73	0.73	ug/L	<0.25		<0.25		<0.25		<0.25	*	<0.25	*	<0.25	*	<0.25	*	8260C
Isobutylalcohol	1100	1100	ug/L	<7.3		<7.3		<7.3		<7.3		<7.3		<7.3		<7.3		8260C
Methylene Chloride	5	5	ug/L	<1.7		<1.7		<1.7		<1.7	F1	<1.7		<1.7		<1.7		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)	200	200	ug/L	<0.33		<0.33		<0.33		<0.33	*	<0.33		<0.33		<0.33	*	8260C
Methyl tert-butyl ether (MTBE)	20	20	ug/L	<0.40		<0.40		<0.40		<0.40		<0.40		<0.40		<0.40		8260C
Trichlorofluoromethane	130	130	ug/L	<0.22		<0.22		<0.22		<0.22	F2	<0.22		<0.22		<0.22		8260C
Trichloroethene	5	5	ug/L	<0.29		<0.29		<0.29		<0.29		<0.29		<0.29		<0.29		8260C
1,1,1-Trichloroethane	200	200	ug/L	<0.29		<0.29		<0.29		<0.29		<0.29		<0.29		<0.29		8260C
Vinyl Chloride	2	2	ug/L	<0.43		<0.43		<0.43		<0.43	F1	<0.43		<0.43		<0.43		8260C
1,1,1,2-Tetrachloroethane	5	5	ug/L	<0.25		<0.25		<0.25		<0.25	*	<0.25		<0.25		<0.25	*	8260C
1,1,2,2-Tetrachloroethane	0.5	0.5	ug/L	<0.43		<0.43		<0.43		<0.43	*F2	<0.43	*	<0.43	*	<0.43	*	8260C
1,1,2-Trichloroethane	5	5	ug/L	<0.57		<0.57		<0.57		<0.57	*	<0.57		<0.57		<0.57	*	8260C
Styrene	100	100	ug/L	<0.35		<0.35		<0.35		<0.35	*F2,F1	<0.35		<0.35		<0.35	*	8260C
Tetrachloroethene (tetrachloroethylene)	5	5	ug/L	<0.28		<0.28		<0.28		<0.28	*	<0.28		<0.28		<0.28	*	8260C
Toluene	1000	1000	ug/L	<1.0		<1.0		<1.0		<1.0	*	<1.0		<1.0		<1.0	*	8260C
Xylenes (total)	10000	10000	ug/L	<0.85		<0.85		<0.85		<0.85	*F1	<0.85		<0.85		<0.85		8260C
1,3-Dichloropropene, Total	5	5	ug/L	<0.69		<0.69		<0.69		<0.69		<0.69		<0.69		<0.69		8260C
Semivolatile Organic Compounds																		
RECAP Screening Standards <sup>3</sup>			GWSS	Screening Level <sup>3</sup>														
Acenaphthene			37	37	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		8270D
Acenaphthylene			100	100	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		8270D



**Table 7**  
**Area I Groundwater Monitoring Data Summary**  
**Baseline Sample Event**  
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Analyte			Sample Id <sup>1</sup>	2015.08.31 MW-1		2015.08.31 MW-2		2015.08.31 MW-3		2015.08.31 MW-4		2015.08.31 MW-5		2015.08.31 MW-6		2015.08.31 GW DUP #1 MW-6		Analytical Method
			Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Aniline	12	12	ug/L	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2		<1.2		8270D
Anthracene	43	43	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Benz(a)anthracene	7.8	7.8	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Benzo(a)pyrene	0.2	0.2	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Benzo(b)fluoranthene	4.8	4.8	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Benzo(k)fluoranthene	2.5	2.5	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,1 Biphenyl	30	30	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Bis(2-chloroethyl)ether	5.7	5.7	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Bis(2-chlorisopropyl)ether	5.7	5.7	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Bis(2-ethylhexyl)phthalate	6	6	ug/L	<1.8		<1.8		<1.8		<1.8		<1.8		<1.8		<1.8		8270D
Butyl benzyl phthalate	730	730	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2-Chloronaphthalene	49	49	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2-Chlorophenol	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Chrysene	1.6	1.6	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Dibenz(a,h)anthracene	2.5	2.5	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Dibenzofuran	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,2-Dichlorobenzene	600	600	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,3-Dichlorobenzene	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,4-Dichlorobenzene	75	75	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
3,3-Dichlorobenzidine	20	20	ug/L	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2		<1.2		8270D
2,4-Dichlorophenol	11	11	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Diethyl phthalate	2900	2900	ug/L	4.1	J	<0.95		<0.95		<0.96		<0.95		1.4	J	<0.95		8270D
2,4-Dimethylphenol	73	73	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Dimethyl phthalate	37000	37000	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,3-Dinitrobenzene	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2,4-Dinitrophenol	50	50	ug/L	<1.9		<1.9		<1.9		<1.9		<1.9		<1.9		<1.9		8270D
2,4-Dinitrotoluene	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2,6-Dinitrotoluene	10	10	ug/L	<2.0		<2.1		<2.1		<2.1		<2.1		<2.1		<2.1		8270D
Di-n-octyl phthalate	20	20	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Fluoranthene	150	150	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Fluorene	24	24	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Hexachlorobenzene	1	1	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Hexachlorobutadiene	0.73	0.73	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Hexachlorocyclopentadiene	50	50	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D

Table 7  
Area I Groundwater Monitoring Data Summary  
Baseline Sample Event  
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Analyte			Sample Id <sup>1</sup>	2015.08.31 MW-1		2015.08.31 MW-2		2015.08.31 MW-3		2015.08.31 MW-4		2015.08.31 MW-5		2015.08.31 MW-6		2015.08.31 GW DUP #1 MW-6		Analytical Method
			Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Hexachloroethane	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Indeno(1,2,3-cd)pyrene	3.7	3.7	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Isophorone	70	70	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2-Methylnaphthalene	0.62	0.62	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Naphthalene	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2-Nitroaniline	50	50	ug/L	<1.0		<1.0		<1.0		<1.1		<1.0		<1.1		<1.0		8270D
3-Nitroaniline	50	50	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
4-Nitroaniline	50	50	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Nitrobenzene	1.9	1.9	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
4-Nitrophenol	50	50	ug/L	<1.9		<1.9		<1.9		<1.9		<1.9		<1.9		<1.9		8270D
N-Nitrosodi-n-propylamine	10	10	ug/L	<1.4		<1.4		<1.4		<1.4		<1.4		<1.4		<1.4		8270D
N-Nitrosodiphenylamine	14	14	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Pentachlorophenol	1	1	ug/L	<1.2		<1.2		<1.2		<1.2		<1.2		<1.2		<1.2		8270D
Phenanthrene	180	180	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Phenol	180	180	ug/L	<1.9		<1.9		<1.9		<1.9		<1.9		<1.9		<1.9		8270D
Pyrene	18	18	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,2,4,5-Tetrachlorobenzene	1.1	1.1	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2,3,4,6-Tetrachlorophenol	110	110	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
1,2,4-Trichlorobenzene	70	70	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2,4,5-Trichlorophenol	370	370	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
2,4,6-Trichlorophenol	10	10	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Regional Screening Level Summary Table <sup>2</sup>			Tapwater	Screening Level <sup>2</sup>														
Di-n-butyl phthalate	90	90	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D
Diphenylamine	31	31	ug/L	<0.95		<0.95		<0.95		<0.96		<0.95		<0.95		<0.95		8270D

Notes:

<sup>1</sup> Sample Identification = collection date (year.month.day) monitoring well location (MW)

<sup>2</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for tapwater was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) (dated October 2003) Groundwater Screening Standard (GWSS) was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Table 7  
Area I Groundwater Monitoring Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Louisiana  
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Analyte	Sample Id <sup>1</sup>	2015.08.31 MW-1		2015.08.31 MW-2		2015.08.31 MW-3		2015.08.31 MW-4		2015.08.31 MW-5		2015.08.31 MW-6		2015.08.31 GW DUP #1 MW-6		Analytical Method
	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	

Abbreviations:

- <= Not detected at the reporting limit (or MDL or EDL if shown)
- Qual = Qualifer
- J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
- F2= MS/MSD RPD exceeds control limits
- F1= MS and/or MSD Recovery is outside acceptance limits
- \*=LCS or LCSD is outside acceptance limits
- ug/L = micrograms per Liter
- RECAP = Risk Evaluation/Corrective Action Program
- GWSS = Groundwater Screening Standard



**Table 8**  
**Clarks Bayou Surface Water Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
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Analyte	Sample Id <sup>1</sup>	2015.08.31 Surfacewater Downstream		2015.08.31 Surfacewater Point of Discharge		2015.08.31 Surfacewater Upstream		Analytical Method	
		Result	Qual	Result	Qual	Result	Qual		
Volatile Organic Compounds									
RECAP Screening Standards <sup>3</sup>	GWSS	Screening Level <sup>2</sup>							
Acetone	100	100	ug/L	<6.7		<6.7		<6.7	8260C
Benzene	5	5	ug/L	<0.25		<0.25		<0.25	8260C
Bromoform	100	100	ug/L	<0.37	*	<0.37	*	<0.37	8260C
Bromodichloromethane	100	100	ug/L	<0.25		<0.25		<0.25	8260C
Bromomethane	10	10	ug/L	<0.40		<0.40		<0.40	8260C
2-Butanone (methyl ethyl ketone)	190	190	ug/L	<0.39		<0.39		<0.39	8260C
Carbon disulfide	100	100	ug/L	<0.37		<0.37		<0.37	8260C
Carbon tetrachloride	5	5	ug/L	<0.36		<0.36		<0.36	8260C
Chlorobenzene	100	100	ug/L	<0.38		<0.38	*	<0.38	8260C
Dibromochloromethane (chlorodibromomethane)	100	100	ug/L	<0.33		<0.33	*	<0.33	8260C
Chloroethane	10	10	ug/L	<0.38		<0.38		<0.38	8260C
Chloroform	100	100	ug/L	<0.15		<0.15		<0.15	8260C
Chloromethane	10	10	ug/L	<0.55		<0.55		<0.55	8260C
1,2-Dibromo-3-chloropropane	0.2	0.2	ug/L	<1.2	*	<1.2	*	<1.2	8260C
1,1-Dichloroethane	81	81	ug/L	<0.39		<0.39		<0.39	8260C
1,2-Dichloroethane	5	5	ug/L	<0.37		<0.37		<0.37	8260C
cis-1,2-Dichloroethene	70	70	ug/L	<0.16		<0.16		<0.16	8260C
trans-1,2-Dichloroethene	100	100	ug/L	<0.18		<0.18		<0.18	8260C
1,1-Dichloroethene	7	7	ug/L	<0.37		<0.37		<0.37	8260C
1,2-Dichloropropane	5	5	ug/L	<0.32		<0.32		<0.32	8260C
Ethyl benzene	700	700	ug/L	<0.30		<0.30	*	<0.30	8260C
Hexachlorobutadiene	0.73	0.73	ug/L	<0.25	*	<0.25	*	<0.25	8260C
Isobutylalcohol	1100	1100	ug/L	<7.3		<7.3		<7.3	8260C
Methylene Chloride	5	5	ug/L	<1.7		<1.7		<1.7	8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)	200	200	ug/L	<0.33		<0.33	*	<0.33	8260C
Methyl tert-butyl ether (MTBE)	20	20	ug/L	<0.40		<0.40		<0.40	8260C
Trichlorofluoromethane	130	130	ug/L	<0.22		<0.22		<0.22	8260C
Trichloroethene	5	5	ug/L	<0.29		<0.29		<0.29	8260C
1,1,1-Trichloroethane	200	200	ug/L	<0.29		<0.29		<0.29	8260C
Vinyl Chloride	2	2	ug/L	<0.43		<0.43		<0.43	8260C
1,1,1,2-Tetrachloroethane	5	5	ug/L	<0.25		<0.25	*	<0.25	8260C
1,1,2,2-Tetrachloroethane	0.5	0.5	ug/L	<0.43	*	<0.43	*	<0.43	8260C
1,1,2-Trichloroethane	5	5	ug/L	<0.57		<0.57	*	<0.57	8260C
Styrene	100	100	ug/L	<0.35		<0.35	*	<0.35	8260C
Tetrachloroethene (tetrachloroethylene)	5	5	ug/L	<0.28		<0.28	*	<0.28	8260C
Toluene	1000	1000	ug/L	<1.0		<1.0	*	<1.0	8260C
Xylenes (total)	10000	10000	ug/L	<0.85		<0.85		<0.85	8260C
1,3-Dichloropropene, Total	5	5	ug/L	<0.69		<0.69		<0.69	8260C
Semivolatile Organic Compounds									
RECAP Screening Standards <sup>3</sup>	GWSS	Screening Level <sup>2</sup>							
1,1 Biphenyl	30	30	ug/L	<1.0		<0.96		<0.99	8270D
1,2,4,5-Tetrachlorobenzene	1.1	1.1	ug/L	<1.0		<0.96		<0.99	8270D
1,2,4-Trichlorobenzene	70	70	ug/L	<1.0		<0.96		<0.99	8270D
1,2-Dichlorobenzene	600	600	ug/L	<1.0		<0.96		<0.99	8270D
1,3-Dichlorobenzene	10	10	ug/L	<1.0		<0.96		<0.99	8270D
1,3-Dinitrobenzene	10	10	ug/L	<1.0		<0.96		<0.99	8270D
1,4-Dichlorobenzene	75	75	ug/L	<1.0		<0.96		<0.99	8270D
2,3,4,6-Tetrachlorophenol	110	110	ug/L	<1.0		<0.96		<0.99	8270D
2,4,5-Trichlorophenol	370	370	ug/L	<1.0		<0.96		<0.99	8270D
2,4,6-Trichlorophenol	10	10	ug/L	<1.0		<0.96		<0.99	8270D
2,4-Dichlorophenol	11	11	ug/L	<1.0		<0.96		<0.99	8270D
2,4-Dimethylphenol	73	73	ug/L	<1.0		<0.96		<0.99	8270D
2,4-Dinitrophenol	50	50	ug/L	<2.0		<1.9		<2.0	8270D
2,4-Dinitrotoluene	10	10	ug/L	<1.0		<0.96		<0.99	8270D
2,6-Dinitrotoluene	10	10	ug/L	<2.2		<2.1		<2.1	8270D
2-Chloronaphthalene	49	49	ug/L	<1.0		<0.96		<0.99	8270D



**Table 8**  
**Clarks Bayou Surface Water Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
**Page 2 of 2**

Analyte			Sample Id <sup>1</sup>	2015.08.31 Surfacewater Downstream		2015.08.31 Surfacewater Point of Discharge		2015.08.31 Surfacewater Upstream		Analytical Method
			Units	Result	Qual	Result	Qual	Result	Qual	
2-Chlorophenol	10	10	ug/L	<1.0		<0.96		<0.99		8270D
2-Methylnaphthalene	0.62	0.62	ug/L	<1.0		<0.96		<0.99		8270D
2-Nitroaniline	50	50	ug/L	<1.1		<1.1		<1.1		8270D
3,3-Dichlorobenzidine	20	20	ug/L	<1.3		<1.2		<1.3		8270D
3-Nitroaniline	50	50	ug/L	<1.0		<0.96		<0.99		8270D
4-Nitroaniline	50	50	ug/L	<1.0		<0.96		<0.99		8270D
4-Nitrophenol	50	50	ug/L	<2.0		<1.9		<2.0		8270D
Acenaphthene	37	37	ug/L	<1.0		<0.96		<0.99		8270D
Acenaphthylene	100	100	ug/L	<1.0		<0.96		<0.99		8270D
Aniline	12	12	ug/L	<1.3		<1.2		<1.3		8270D
Anthracene	43	43	ug/L	<1.0		<0.96		<0.99		8270D
Benz(a)anthracene	7.8	7.8	ug/L	<1.0		<0.96		<0.99		8270D
Benzo(a)pyrene	0.2	0.2	ug/L	<1.0		<0.96		<0.99		8270D
Benzo(b)fluoranthene	4.8	4.8	ug/L	<1.0		<0.96		<0.99		8270D
Benzo(k)fluoranthene	2.5	2.5	ug/L	<1.0		<0.96		<0.99		8270D
Bis(2-chlorisopropyl)ether	5.7	5.7	ug/L	<1.0		<0.96		<0.99		8270D
Bis(2-chloroethyl)ether	5.7	5.7	ug/L	<1.0		<0.96		<0.99		8270D
Bis(2-ethylhexyl)phthalate	6	6	ug/L	<1.9		<1.8		<1.8		8270D
Butyl benzyl phthalate	730	730	ug/L	<1.0		<0.96		<0.99		8270D
Chrysene	1.6	1.6	ug/L	<1.0		<0.96		<0.99		8270D
Dibenz(a,h)anthracene	2.5	2.5	ug/L	<1.0		<0.96		<0.99		8270D
Dibenzofuran	10	10	ug/L	<1.0		<0.96		<0.99		8270D
Diethyl phthalate	2900	2900	ug/L	<1.0		<0.96		<0.99		8270D
Dimethyl phthalate	37000	37000	ug/L	<1.0		<0.96		<0.99		8270D
Di-n-octyl phthalate	20	20	ug/L	<1.0		<0.96		<0.99		8270D
Fluoranthene	150	150	ug/L	<1.0		<0.96		<0.99		8270D
Fluorene	24	24	ug/L	<1.0		<0.96		<0.99		8270D
Hexachlorobutadiene	0.73	0.73	ug/L	<1.0		<0.96		<0.99		8270D
Hexachlorobenzene	1	1	ug/L	<1.0		<0.96		<0.99		8270D
Hexachlorocyclopentadiene	50	50	ug/L	<1.0		<0.96		<0.99		8270D
Hexachloroethane	10	10	ug/L	<1.0		<0.96		<0.99		8270D
Indeno(1,2,3-cd)pyrene	3.7	3.7	ug/L	<1.0		<0.96		<0.99		8270D
Isophorone	70	70	ug/L	<1.0		<0.96		<0.99		8270D
Naphthalene	10	10	ug/L	<1.0		<0.96		<0.99		8270D
Nitrobenzene	1.9	1.9	ug/L	<1.0		<0.96		<0.99		8270D
N-Nitrosodi-n-propylamine	10	10	ug/L	<1.5		<1.4		<1.5		8270D
N-Nitrosodiphenylamine	14	14	ug/L	<1.0		<0.96		<0.99		8270D
Pentachlorophenol	1	1	ug/L	<1.3		<1.2		<1.3		8270D
Phenanthrene	180	180	ug/L	<1.0		<0.96		<0.99		8270D
Phenol	180	180	ug/L	<2.0		<1.9		<2.0		8270D
Pyrene	18	18	ug/L	<1.0		<0.96		<0.99		8270D
Regional Screening Level Summary Table <sup>3</sup>		Tapwater	Screening Level <sup>3</sup>							
Di-n-butyl phthalate		90	90	ug/L	<1.0		<0.96		<0.99	8270D
Diphenylamine		31	31	ug/L	<1.0		<0.96		<0.99	8270D

**Notes:**

<sup>1</sup> Sample Identification = collection date (year.month.day) surface water collection point

<sup>2</sup> The Louisiana Department of Environmental Quality (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) (dated October 2003) Groundwater Screening Standard (GWSS) was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for tapwater was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

**Concentrations in bold indicate the MDL exceeds the Screening Level.**

**Abbreviations:**

< = Not detected at the reporting limit (or MDL or EDL if shown)

Qual = Qualifer

\*=LCS or LCSD is outside acceptance limits

ug/L = micrograms per Liter

RECAP = Risk Evaluation/Corrective Action Program

GWSS = Groundwater Screening Standard

Table 9  
 Clarkes Bayou Sediment Data Summary  
 Baseline Sample Event  
 M6 Destruction Project  
 Camp Minden National Guard Training Site  
 Minden, Louisiana  
 Page 1 of 4

Analyte					Sample Id <sup>1</sup>	2015.08.31 Sediment Downstream		2015.08.31 Sediment Point of Discharge		2015.08.31 Sediment Dup#2 Point of Discharge		2015.08.31 Sediment Upstream		Analytical Method
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Volatile Organic Compounds														
RECAP Screening Standards <sup>2</sup>	SSni	SSi	SSGW	Screening Level <sup>2</sup>										
Acetone	170,000	1,400,000	1,500	1,500	ug/kg	<9.5		<17		<17		42		8260C
Benzene	1,500	3,100	51	51	ug/kg	<0.37		<0.67		<0.64		<0.32		8260C
Bromoform	48,000	180,000	1,800	1,800	ug/kg	<0.54	*	<1.0	*	<0.95	*	<0.47	*	8260C
Bromodichloromethane	1,800	4,200	920	920	ug/kg	<0.37		<0.67		<0.64		<0.32		8260C
Bromomethane	430	3,000	40	40	ug/kg	<1.6	F1	<3.0		<2.8		<1.4		8260C
2-Butanone (methyl ethyl ketone)	590,000	4,400,000	5,000	5,000	ug/kg	<2.8		<5.2		<4.9		7.2	J	8260C
Carbon disulfide	36,000	250,000	11,000	11,000	ug/kg	<1.0		<1.9		6.9	J	<0.87		8260C
Carbon tetrachloride	180	1,100	110	110	ug/kg	<0.75		<1.4		<1.3		<0.64		8260C
Chlorobenzene	17,000	120,000	3,000	3,000	ug/kg	<0.56		<1.0		<0.97		<0.48		8260C
Dibromochloromethane (chlorodibromomethane)	2,200	5,400	1,000	1,000	ug/kg	<0.60	F1	<1.1		<1.0		<0.52		8260C
Chloroethane	4,100	8,200	35	35	ug/kg	<0.76	F1	<1.4		<1.3		<0.66		8260C
Chloroform	44	300	900	44	ug/kg	<0.56		<1.0		<0.97		<0.48		8260C
Chloromethane	3,500	7,300	100	100	ug/kg	<0.95		<1.7		<1.7		<0.82		8260C
1,2-Dibromo-3-chloropropane	180	1,600	10	10	ug/kg	<2.1	*F1	<3.9	*	<3.7	*	<1.8	*	8260C
1,1-Dichloroethane	66,000	470,000	7,500	7,500	ug/kg	<0.57		<1.0		<1.0		<0.49		8260C
1,2-Dichloroethane	820	1,800	35	35	ug/kg	<1.3		<2.3		<2.2		<1.1		8260C
cis-1,2-Dichloroethene	4,800	34,000	490	490	ug/kg	<0.88		<1.6		<1.5		<0.76		8260C
trans-1,2-Dichloroethene	6,900	48,000	770	770	ug/kg	<1.4		<2.5		<2.4		<1.2		8260C
1,1-Dichloroethene	13,000	91,000	85	85	ug/kg	<2.4		<4.3		<4.1		<2.0		8260C
1,2-Dichloropropane	690	1,800	42	42	ug/kg	<0.56		<1.0		<0.97		<0.48		8260C
Ethyl benzene	160,000	230,000	19,000	19,000	ug/kg	<0.44		<0.81		<0.77		<0.38		8260C
Hexachlorobutadiene	820	8,600	5,500	820	ug/kg	<1.0	*	<1.8	*	<1.7	*	<0.86	*	8260C
Isobutylalcohol	730,000	6,200,000	30,000	30,000	ug/kg	<37	F1	<68		<65		<32		8260C
Methylene Chloride	19,000	44,000	17	17	ug/kg	<2.3		<4.3		<4.0		<2.0		8260C
4-Methyl-2-pentanone (methyl isobutyl ketone)	450,000	3,100,000	6,400	6,400	ug/kg	<1.1	F1	<2.0		<1.9		<0.92		8260C
Methyl tert-butyl ether (MTBE)	650,000	4,700,000	77	77	ug/kg	<0.71	F1	<1.3		<1.2		<0.60		8260C
Trichlorofluoromethane	38,000	260,000	37,000	37,000	ug/kg	<0.73		<1.3		<1.3		<0.63		8260C



Table 9  
 Clarkes Bayou Sediment Data Summary  
 Baseline Sample Event  
 M6 Destruction Project  
 Camp Minden National Guard Training Site  
 Minden, Louisiana  
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Analyte					Sample Id <sup>1</sup>	2015.08.31 Sediment Downstream		2015.08.31 Sediment Point of Discharge		2015.08.31 Sediment Dup#2 Point of Discharge		2015.08.31 Sediment Upstream		Analytical Method
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Trichloroethene	100	210	73	73	ug/kg	<0.57		<1.0		<1.0		<0.49		8260C
1,1,1-Trichloroethane	82,000	700,000	4,000	4,000	ug/kg	<0.63		<1.2		<1.1		<0.54		8260C
Vinyl Chloride	240	790	13	13	ug/kg	<0.63		<1.2		<1.1		<0.54		8260C
1,1,1,2-Tetrachloroethane	2,700	5,900	46	46	ug/kg	<0.51		<0.94		<0.89		<0.44		8260C
1,1,2,2-Tetrachloroethane	810	2,000	6	6	ug/kg	<0.59	*	<1.1	*	<1.0	*	<0.50	*	8260C
1,1,2-Trichloroethane	1,900	4,300	58	58	ug/kg	<0.84	F1	<1.5		<1.5		<0.72		8260C
Styrene	500,000	1,700,000	11,000	11,000	ug/kg	<0.51		<0.94		<0.89		<0.44		8260C
Tetrachloroethene (tetrachloroethylene)	8,300	35,000	180	180	ug/kg	<0.47		<0.86		<0.82		<0.40		8260C
Toluene	68,000	470,000	20,000	20,000	ug/kg	<1.0		<1.9		<1.8		<0.88		8260C
Xylenes (total)	18,000	120,000	150,000	18,000	ug/kg	<1.2		<2.3		<2.2		<1.1		8260C
1,3-Dichloropropene, Total	3,100	10,000	40	40	ug/kg	<1.4		<2.6		<2.4		<1.2		8260C
Semivolatile Organic Compounds														
RECAP Screening Standards <sup>2</sup>		SSni	SSi	SSGW	Screening Level <sup>2</sup>									
Acenaphthene		370,000	6,100,000	220,000	220,000	ug/kg	<51		<78		<84		<49	8270D
Acenaphthylene		350,000	5,100,000	88,000	88,000	ug/kg	<51		<78		<84		<49	8270D
Aniline		2,400	17,000	65	65	ug/kg	<92	*	<140	*	<150	*	<89	8270D
Anthracene		2,200,000	48,000,000	120,000	120,000	ug/kg	<51		<78		<84		<49	8270D
Benz(a)anthracene		620	2,900	330,000	620	ug/kg	<51		<78		<84		<49	8270D
Benzo(a)pyrene		330	330	23,000	330	ug/kg	<51		<78		<84		<49	8270D
Benzo(b)fluoranthene		620	2,900	220,000	620	ug/kg	<51		<78		<84		<49	8270D
Benzo(k)fluoranthene		6,200	29,000	120,000	6,200	ug/kg	<51		<78		<84		<49	8270D
1,1 Biphenyl		230,000	230,000	190,000	190,000	ug/kg	<51		<78		<84		<49	8270D
Bis(2-chloroethyl)ether		330	1,100	330	330	ug/kg	<52		<78		<84		<49	8270D
Bis(2-chlorisopropyl)ether		4,900	17,000	800	800	ug/kg	<51		<78		<84		<49	8270D
Bis(2-ethylhexyl)phthalate		35,000	170,000	79,000	35,000	ug/kg	<70		<110		<110		<67	8270D
Butyl benzyl phthalate		220,000	220,000	220,000	220,000	ug/kg	<51		<78		<84		<49	8270D
2-Chloronaphthalene		500,000	8,300,000	500,000	500,000	ug/kg	<51		<78		<84		<49	8270D
2-Chlorophenol		15,000	140,000	1,400	1,400	ug/kg	<51		<78		<84		<49	8270D
Chrysene		62,000	290,000	76,000	62,000	ug/kg	<51		<78		<84		<49	8270D

**Table 9**  
**Clarkes Bayou Sediment Data Summary**  
**Baseline Sample Event**  
**M6 Destruction Project**  
**Camp Minden National Guard Training Site**  
**Minden, Louisiana**  
**Page 3 of 4**

Analyte					Sample Id <sup>1</sup>	2015.08.31 Sediment Downstream		2015.08.31 Sediment Point of Discharge		2015.08.31 Sediment Dup#2 Point of Discharge		2015.08.31 Sediment Upstream		Analytical Method
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
Dibenz(a,h)anthracene	330	330	540,000	330	ug/kg	<51		<78		<84		<49		8270D
Dibenzofuran	29,000	150,000	24,000	24,000	ug/kg	<51		<78		<84		<49		8270D
1,2-Dichlorobenzene	99,000	380,000	29,000	29,000	ug/kg	<51		<78		<84		<49		8270D
1,3-Dichlorobenzene	2,100	18,000	2,100	2,100	ug/kg	<51		<78		<84		<49		8270D
1,4-Dichlorobenzene	6,700	16,000	5,700	5,700	ug/kg	<51		<78		<84		<49		8270D
3,3-Dichlorobenzidine	970	4,200	1,800	970	ug/kg	<510		<770		<830		<490		8270D
2,4-Dichlorophenol	16,000	200,000	12,000	12,000	ug/kg	<51		<78		<84		<49		8270D
Diethyl phthalate	670,000	670,000	360,000	360,000	ug/kg	<51		<78		<84		<49		8270D
2,4-Dimethylphenol	93,000	1,100,000	20,000	20,000	ug/kg	<51		<78		<84		<49		8270D
Dimethyl phthalate	1,500,000	1,500,000	1,500,000	1,500,000	ug/kg	<51		<78		<84		<49		8270D
1,3-Dinitrobenzene	450	5,000	250	250	ug/kg	<51		<78		<84		<49		8270D
2,4-Dinitrophenol	7,100	69,000	1,700	1,700	ug/kg	<510		<770		<830		<490		8270D
2,4-Dinitrotoluene	8,900	98,000	1,000	1,000	ug/kg	<51		<78		<84		<49		8270D
2,6-Dinitrotoluene	4,300	46,000	390	390	ug/kg	<51		<78		<84		<49		8270D
Di-n-octyl phthalate	240,000	3,500,000	10,000,000	240,000	ug/kg	<51		<78		<84		<49		8270D
Fluoranthene	220,000	2,900,000	1,200,000	220,000	ug/kg	<51		<78		<84		<49		8270D
Fluorene	280,000	5,400,000	230,000	230,000	ug/kg	<51		<78		<84		<49		8270D
Hexachlorobenzene	340	2,000	9,600	340	ug/kg	<51		<78		<84		<49		8270D
Hexachlorobutadiene	820	8,600	5,500	820	ug/kg	<51		<78		<84		<49		8270D
Hexachlorocyclopentadiene	1,400	9,400	1,200,000	1,400	ug/kg	<510		<770		<830		<490		8270D
Hexachloroethane	5,200	68,000	2,200	2,200	ug/kg	<51		<78		<84		<49		8270D
Indeno(1,2,3-cd)pyrene	620	2,900	9,200	620	ug/kg	<51		<78		<84		<49		8270D
Isophorone	340,000	1,100,000	560	560	ug/kg	<51		<78		<84		<49		8270D
2-Methylnaphthalene	22,000	170,000	1,700	1,700	ug/kg	<51		<78		<84		<49		8270D
Naphthalene	6,200	43,000	1,500	1,500	ug/kg	<51		<78		<84		<49		8270D
2-Nitroaniline	1,700	1,700	1,700	1,700	ug/kg	<51		<78		<84		<49		8270D
3-Nitroaniline	13,000	140,000	1,700	1,700	ug/kg	<51		<78		<84		<49		8270D
4-Nitroaniline	10,000	100,000	1,700	1,700	ug/kg	<510		<770		<830		<490		8270D
Nitrobenzene	2,200	25,000	330	330	ug/kg	<51		<78		<84		<49		8270D
4-Nitrophenol	32,000	330,000	2,600	2,600	ug/kg	<510		<770		<830		<490		8270D
N-Nitrosodi-n-propylamine	330	330	330	330	ug/kg	<51	F1	<78		<84		<49		8270D



Table 9  
Clarkes Bayou Sediment Data Summary  
Baseline Sample Event  
M6 Destruction Project  
Camp Minden National Guard Training Site  
Minden, Louisiana  
Page 4 of 4

Analyte					Sample Id <sup>1</sup>	2015.08.31 Sediment Downstream		2015.08.31 Sediment Point of Discharge		2015.08.31 Sediment Dup#2 Point of Discharge		2015.08.31 Sediment Upstream		Analytical Method
					Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	
N-Nitrosodiphenylamine	90,000	400,000	2,100	2,100	ug/kg	<51	*	<78	*	<84	*	<49	*	8270D
Pentachlorophenol	2,800	9,700	1,700	1,700	ug/kg	<510		<770		<830		<490		8270D
Phenanthrene	2,100,000	43,000,000	660,000	660,000	ug/kg	<51		<78		<84		<49		8270D
Phenol	1,300,000	15,000,000	11,000	11,000	ug/kg	<51		<78		<84		<49		8270D
Pyrene	230,000	5,600,000	1,100,000	230,000	ug/kg	<51		<78		<84		<49		8270D
1,2,4,5-Tetrachlorobenzene	1,200	12,000	6,900	1,200	ug/kg	<51		<78		<84		<49		8270D
2,3,4,6-Tetrachlorophenol	140,000	1,400,000	31,000	31,000	ug/kg	<51		<78		<84		<49		8270D
1,2,4-Trichlorobenzene	66,000	1,200,000	14,000	14,000	ug/kg	<51		<78		<84		<49		8270D
2,4,5-Trichlorophenol	530,000	6,600,000	320,000	320,000	ug/kg	<51		<78		<84		<49		8270D
2,4,6-Trichlorophenol	40,000	170,000	1,300	1,300	ug/kg	<51		<78		<84		<49		8270D
Regional Screening Level Summary Table <sup>3</sup>		Residential Soil	Industrial Soil	Screening Level <sup>3</sup>										
Di-n-butyl phthalate	630,000	8,200,000		630,000	ug/kg	<51		<78		<84		<49		8270D
Diphenylamine	160,000	2,100,000		160,000	ug/kg	<51	*	<78	*	<84	*	<49	*	8270D

Notes:

<sup>1</sup> Sample Identification = collection date (year.month.day) sediment collection point.

<sup>2</sup> The most conservative Louisiana Department of Environmental Quallity (LDEQ) Risk Evaluation/Corrective Action Program (RECAP) Screening Standard (dated October 2003) was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

<sup>3</sup> The United States Environmental Protection Agency (USEPA) Regional Screening Level (RSL) Summary Table (TR = 1E-06, THQ = 0.1) June 2015 (revised). The USEPA, RSL for residential soil was determined as the Screening Level. Data from the baseline sample event will establish site closeout and site restoration.

Concentrations in bold indicate the MDL exceeds the Screening Level.

Abbreviations:

< = Not detected at the reporting limit (or MDL or EDL if shown)

Qual = Qualifer

F1= MS and/or MSD Recovery is outside acceptance limits

\*=LCS or LCSD is outside acceptance limits

ug/kg = micrograms per killograms

RECAP = Risk Evaluation/Corrective Action Program

SSni = Soil Screening non-industrial

SSi = Soil Screening industrial

SSGW = Soil Screening protective of groundwater

## FIGURES



**SITE LOCATION  
BOSSIER/WEBSTER  
PARISH**



**FIGURE 1**

**REGIONAL LOCATION MAP**

CAMP MINDEN — AREA I  
DESTRUCTION SITE

PREPARED FOR:

**EXPLOSIVE SERVICE  
INTERNATIONAL**



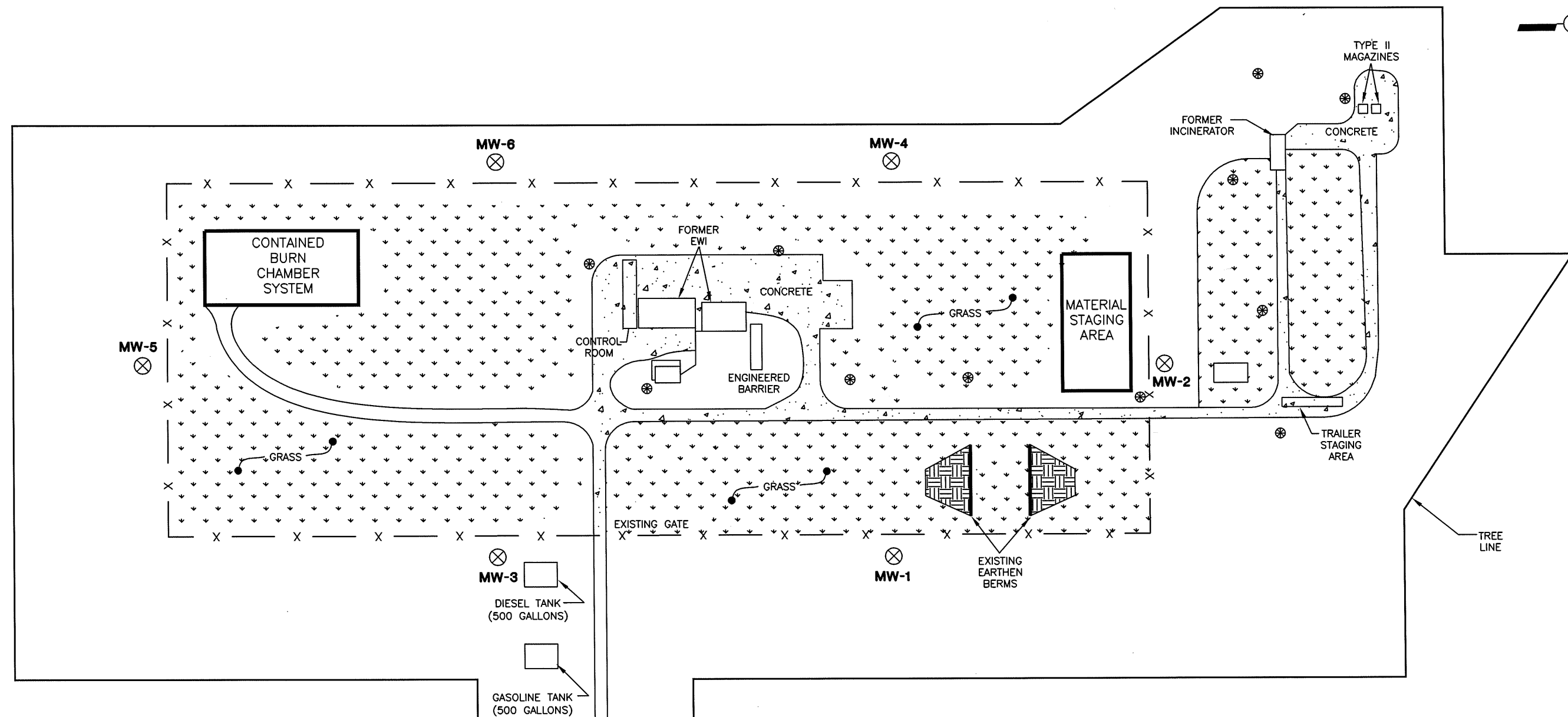
DRAWN  
BY

LDG  
07/09/15

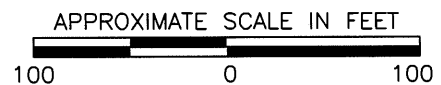
CHECKED BY  
APPROVED BY

*MS*

DRAWING NO.  
BRF/SITE LOC



- LEGEND**
- EWI EXPLOSIVE WASTE INCINERATOR
  - ⊗ UTILITY POLE
  - X — EXISTING PERIMETER FENCE
  - ⬢ GRASS WITHIN DISPOSAL SITE AREA
  - ⊗ MONITORING WELL LOCATION



DRAWN BY	LDG	CHECKED BY	DRAWING NO.
	09/10/15	WIS	BRF/FACILITY MAP

**FIGURE 2**

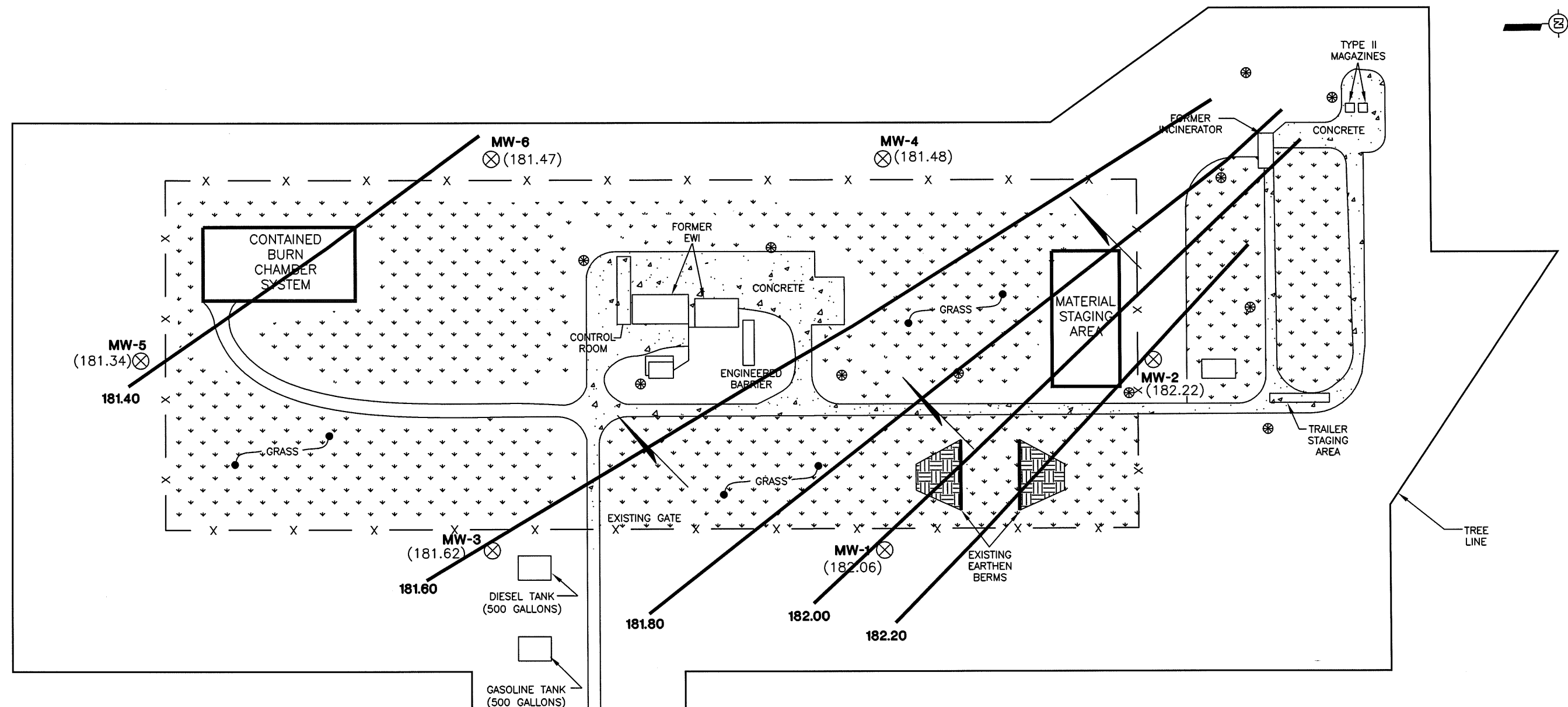
**FACILITY MAP**

CAMP MINDEN — AREA I  
DESTRUCTION SITE  
PREPARED FOR:  
**EXPLOSIVE SERVICE  
INTERNATIONAL**

**SEMS Inc.**







# **LEGEND**

- EWI EXPLOSIVE WASTE INCINERATOR
- ⊗ UTILITY POLE
- X — EXISTING PERIMETER FENCE
- ⬢ GRASS WITHIN DISPOSAL SITE AREA
- ⊗ MONITORING WELL LOCATION
- (182.22) CORRECTED GROUNDWATER ELEVATION (FEET-NGVD)
- 181.60 — POTENTIOMETRIC SURFACE CONTOUR (FEET-NGVD)
- ➔ GROUNDWATER FLOW DIRECTION

APPROXIMATE SCALE IN FEET  
 100 0 100

**FIGURE 4**  
**POTENTIOMETRIC MAP**  
**(AUGUST 31, 2015)**

CAMP MINDEN — AREA I  
 DESTRUCTION SITE

PREPARED FOR:  
**EXPLOSIVE SERVICE**  
**INTERNATIONAL**

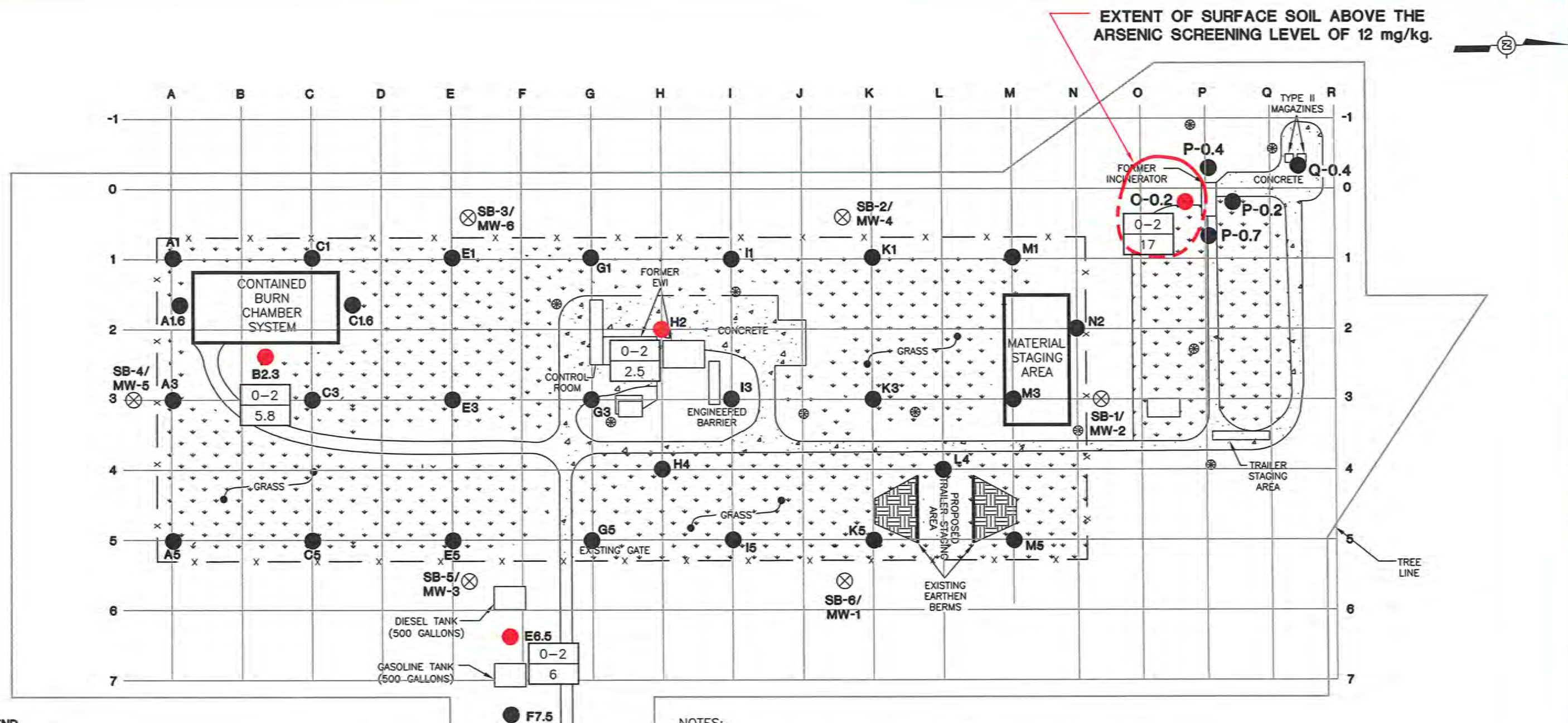
**SEMS Inc.**

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 09/10/15

CHECKED BY  
 APPROVED BY

DRAWING NO.  
 BR/002-POT 0815





#### LEGEND

EWI	EXPLOSIVE WASTE INCINERATOR
⊗	UTILITY POLE
— X —	EXISTING PERIMETER FENCE
⋄	GRASS WITHIN DISPOSAL SITE AREA
●	SURFACE SOIL SAMPLE
●	SURFACE SOIL SAMPLE LOCATIONS ANALYZED FOR ADDITIONAL PARAMETERS
⊗	PERIMETER SOIL SAMPLE LOCATION COMPLETED WITH MONITORING WELL FOR GROUNDWATER SAMPLING
●	SURFACE WATER AND SEDIMENT SAMPLE LOCATION
0-2	FEET BELOW GROUND SURFACE (FT-BGS)
6	ARSENIC CONCENTRATION IN mg/kg

#### NOTES:

- 1) SURFACE SOIL SAMPLES WERE COLLECTED AT 0-2 FT-BGS. FOUR SURFACE SOIL SAMPLES WERE ANALYZED FOR ADDITIONAL PARAMETERS.
- 2) SURFACE SOIL SAMPLE LOCATIONS WERE IDENTIFIED USING THE CORRESPONDING GRID LOCATIONS.
- 3) SAMPLE LOCATION 0-0.2 WAS RE-ANALYZED FOR ARSENIC BY TESTAMERICA ON SEPTEMBER 25, 2015. REPORTED RESULTS OF ARSENIC RE-ANALYSIS WERE 3.2 mg/kg. THE LABORATORY NOTED THE SAMPLE WAS NON-HOMOGENEOUS AND COULD BE THE CAUSE OF THE DISCREPANT RESULTS.
- 4) THE ARSENIC LOUISIANA RISK EVALUATION/CORRECTIVE ACTION PROGRAM (RECAP) SCREENING STANDARD OF THE SOIL FOR INDUSTRIAL USE (SSI) OF 12 mg/kg WAS DETERMINED AS THE SCREENING LEVEL.
- 5) SAMPLE LOCATIONS WERE DETERMINED AS OUTLINED IN THE APPROVED QASP DATED JULY 14, 2015.

APPROXIMATE SCALE IN FEET  
100 0 100

**FIGURE 5**  
**ARSENIC CONCENTRATIONS**  
**IN SURFACE SOIL**  
**(AUGUST 2015)**  
CAMP MINDEN - AREA I  
DESTRUCTION SITE  
PREPARED FOR:  
**EXPLOSIVE SERVICE**  
**INTERNATIONAL**

**SEMS Inc.**

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