Soil Sampling Results Report

LOUISIANA HOUSE CONCURRENT RESOLUTION 118 ENVIRONMENTAL STUDY
CLEAN HARBORS FACILITY
COLFAX, LOUISIANA
A.I. #32096

Prepared for:

DEQ
LOUISIANA

September 28, 2016

AECOM
7389 Florida Boulevard, Suite 300
Baton Rouge, LA 70806
225/922-5700

AECOM
7389 Florida Boulevard
Suite 300
Baton Rouge, LA 70806
www.aecom.com

225 922 5700 tel
225 922 5701 fax

September 28, 2016

Mr. Gary A. Fulton, Administrator
UST and Remediation Division
Louisiana Department of Environmental Quality
602 N. Fifth Street
Baton Rouge, Louisiana 70802

Re: Soil Sampling Results Report
Louisiana House Concurrent Resolution 118 Environmental Study
Clean Harbors / Colfax, Louisiana Facility
A.I. #32096

Dear Mr. Fulton:

In conjunction with the Louisiana Department of Environmental Quality (LDEQ), AECOM has enclosed three (3) hard copies and one (1) electronic media version of the Soil Sampling and Analysis Report.

Please call me at 225.922.5742 if you have any questions concerning this document.

Sincerely,

Trey Fortenberry
AECOM Project Manager

cc: Karen Price, LDEQ
Steve Archibald, LDEQ
Chad Dupree, AECOM

AECOM Environment

Prepared for :
Clean Harbors Thermal Treatment Facility, Colfax, Louisiana

Submitted by :
AECOM
Baton Rouge, LA
Project No. 60513985
September 2016

Soil Sampling Results Report

Table of Contents

List of Tables

List of Figures

List of Appendices

1 Introduction

This report presents the findings of the surface soil sampling and attempted groundwater sampling activities at the Clean Harbors Thermal Treatment Facility, located in Colfax, Louisiana. This report includes a summary of laboratory analytical data collected during the activities and a discussion of these data, field observations, and conclusions.

The Clean Harbors Colfax facility operates an Open Burn/Open Detonation facility located at 3763 Highway 471 in Colfax, Louisiana, that is permitted to thermally treat explosives and reactive wastes. The facility operates under the Hazardous Waste Operating Permit LAD981055791-RN-OP-1. The thermal treatment operations occur on 43 acres in a centrally located portion of an approximately 730 acre facility.

AECOM Technical Services (AECOM) on behalf of Louisiana Department of Environmental Quality (LDEQ) conducted the soil sampling activities. These activities were completed along the perimeter of the entire 730 acre site to evaluate the potential for off-site impact, adjacent to the waste pad and perimeter of the retention pond to evaluate the potential release from these areas, and from the small stream bed receiving waste water discharges from the retention pond.

Discreet groundwater sampling was part of the original scope of work, however, due to the limitations of the direct push technology (DPT) rig, groundwater samples were unable to be collected. This will be discussed further in Section 2.3.

1.1 Report Organization

This Soil Sampling and Analysis report contains seven sections. The contents of Sections 2 through 7 are described below.

Section 2.0 –Sampling Methodology and Data Evaluation Criteria – Describes the field methods, samples collected and analyses requested, and data evaluation criteria. The data evaluation criteria are used to evaluate analytical results and formulate conclusions and recommendations.

Section 3.0 – Fence Perimeter Sampling Results – Presents the findings and analytical results from the samples collected along the perimeter of the site.

Section 4.0 – Pond Perimeter Sampling Results – Provides a description of findings and analytical results from the samples collected from the perimeter of the retention pond.

Section 5.0 – Stream Sediment Sampling Results – Provides a description of findings and analytical results from the samples collected from the stream bed sediments adjacent to the retention pond.

Section 6.0 – Summary – Provides a brief overview of the findings of the soil sampling activities.

2 Sampling Methodology and Data Evaluation Criteria

The objectives of the LDEQ Sampling and Analysis Plan (SAP) at the Clean Harbors facility were to collected and submit environmental samples for analysis and evaluation. The analytical data were evaluated by comparing to the LDEQ Risk Evaluation/Corrective Actions Program (RECAP) Screening Standards (SS) and, in cases where there are no listed screening standards; any detected concentrations above the method detection limits were noted as directed by LDEQ.

2.1 General

The field activities were performed in July 2016 under direction of on-site LDEQ representatives. The methods employed during this evaluation were outlined in the LDEQ SAP dated June 9, 2016.

The planned sampling activities included:

Surface Soil Sampling Locations:

- Five (5) surface soil locations were located along the perimeter of the Clean Harbors facility. The objective for these locations was to determine if there is any potential off-site impact from the on-site operations.
- Six (6) surface soil locations were selected adjacent to the waste management area and around the perimeter of the associated retention pond. The objective of these locations was to determine the potential for release from the waste management unit.
- Two (2) sample locations were located within a stream bed that receives waste water discharges from the retention pond. The objective of these locations was to determine the potential for release from the waste management unit.

Groundwater Sampling Locations:

- Five (5) groundwater sampling locations were located along the perimeter of the Clean Harbors facility. The objective for these locations was to determine if there is any potential off-site migration of contaminants via groundwater movement.
- Six (6) groundwater sampling locations were selected adjacent to the waste management area and around the perimeter of the associated retention pond.

  The objective of these locations was to determine the potential impact of shallow and/or deeper groundwater from the waste management unit.

2.2 Surface Soil sampling

Thirteen (13) surface soil samples were collected as part of the field activities. These samples were collected from the surficial soils from ground surface down to approximately six (6) inches in depth. The top layer of grass and roots was removed prior to collecting the samples. The samples were collected using a decontaminated

stainless steel hand trowel and the material placed in the appropriate sample containers. The samples were immediately placed on ice in a cooler prior to packaging and shipping to the analytical laboratory.

The five (5) perimeter surface sampling locations were FPS-1 through FPS-5. The six (6) waste management unit and retention pond locations were PPS-1 through PPS-6. The two (2) stream bed samples were SBS-1 and SBS-2.

These surface soil sampling locations are included on Figure 1-2 and Figure 1-3.

Soil samples were analyzed for Volatile Organic Compounds (VOCs) Method 8260B, Semi-volatile Organic Compounds (SVOCs) Method 8270C, Extractable Explosives Compounds (EEC) Method 8330A, Perchlorate Method 6850, Metals Method 6020A, Mercury Method 7470A, Nitrate and Nitrite Method 353.2, Ammonia Method SM4500-NH3 B/C-2011, and Polychlorinated Dibenzodioxins/Polychlorinated Dibenzofurans Method 8290A.

2.3 Groundwater Sampling and Analyses

Groundwater samples were planned to be collected from eleven (11) locations, five (5) around the perimeter of the facility and six (6) adjacent to the waste management unit and around the perimeter of the retention pond. However, due to very stiff clays and sandstone lithologies and the limitations of the DPT drilling rig, groundwater samples were unable to be collected.

A series of attempts were made at location FPS-5 on July 25, 2016. The groundwater sampling tool was hammered down to approximately 25 feet below ground surface (bgs) and opened exposing the internal screen of the tool to allow for the collection of groundwater. After about one hour an insufficient amount of groundwater (approximately 3 inches) to sample had collected in the sampling tool. The tool was extracted and re-set for another attempt. The sampling tool was then set at 30 feet bgs and an attempt to expose the screen failed and the tool was extracted.

The decision was made by AECOM and LDEQ representatives to attempt to core the soil boring allowing for the visual examination and description of the soils and setting a temporary polyvinyl chloride (PVC) sampling point when a groundwater bearing zone was encountered. Refusal was met at approximately 23 feet bgs with no groundwater bearing zone being encountered.

Following the coring attempt, the groundwater sampling tool was driven to approximately 30 feet bgs. After 30 minutes an insufficient amount of groundwater (0.2 ft) was in tool. Another attempt was made to 39.4 feet bgs where refusal was met. The screen was exposed and after 30 minutes, only 0.2 ft of water was in the tool. The decision was made by AECOM and LDEQ to abandon the FPS-5 location and move to FPS-4.

At the FPS-4 location, three (3) separate attempts were made to set the groundwater sampling tool an impenetrable lithology was encountered at 15 feet, 17.5 feet, and 16.5 feet. This was not at a depth sufficient to collect groundwater. The decision was made to discontinue attempts to collect a groundwater sample at the FPS-4 location.

On July 27, 2016, the decision was made by AECOM and LDEQ to make an attempt at the PPS-3 location on the north end of the retention pond. Two (2) attempts were made to drive the groundwater sampling tool to a depth to allow for the collection of groundwater. An impenetrable lithology was encountered at 9 feet and 7 feet. This was not at a depth sufficient to collect groundwater. Attempts to collect a groundwater sample at the PPS-3 location.

The decision was made to release the DPT rig for the remainder of the project due to the apparent need for a different type of drilling technology, such as sonic drilling technology.

2.4 QA/QC Sampling

In accordance with the Soil and Groundwater Sampling and Analysis Plan, Quality Assurance/Quality Control (QA/QC) samples were collected during this investigation. QA/QC samples included field duplicates, matrix spike/matrix spike duplicates (MS/MSD), equipment rinsate samples, field blanks, and trip blanks. Field duplicates were collected at a frequency of 10% of normal samples. MS/MSDs, rinsate samples, and field blanks were collected at a frequency of 5% of normal samples. Trip blanks were collected for each ice chest containing samples for volatile organic analysis.

Soil duplicates, MS/MSDs, and normal soil samples were collected from the same material. Equipment rinsates were collected by pouring organic free water over the tool and collecting it in the proper containers. Field blanks were collected at the time of sampling by pouring organic free water into the proper containers. Trip blanks were prepared by the laboratory prior to going in the field. The trip blanks consisted of organic free water and accompanied each shipment of containers sent for VOC analysis. The trip blanks were analyzed for VOCs only. Table 2-1 provides a sample collection summary which includes QA/QC samples collected as part of the field activities. The QA/QC sample analyses are included in Appendix A.

3 Fence Perimeter Soils Sampling Results

3.1 Fence Perimeter Soils Sampling Results

The sampling along the fence perimeter included the samples FPS-1 through FPS-5. These samples were surficial samples collected from ground surface to an approximate depth of six (6) inches. The sample nomenclature for each sample identification contains the initials of the sample collector, the date, the location, and a designation for the type of sample (i.e., S06 is a soil sample from 0-6 inches bgs).

A summary discussion for the results from each of the surface soil samples is below. The analytical data are summarized in **Table 2 - Soil Analytical Results/Screening Option Evaluation**.

- FPS-1; Sample number PCH-20160728-FPS1-S06 – This sample required a dilution factor due to a chemical or physical interference which resulted in the detection limits being elevated. Some of these detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,2-Dibromo-3-chloropropane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichloropropylene, Benzene, Bromomethane, Carbon tetrachloride, Chloroethane, Chloromethane, Methylene chloride, Tetrachloroethene, Trichloroethene, Vinyl chloride, tert-Butyl methyl ether (MTBE), 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Lithium, Manganese, Strontium, Titanium, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,4,6,7,8-HpCDF, and 1,2,3,4,6,7,8,9-OCDF.

- FPS-2; Sample number PCH-20160728-FPS2-S06 – This sample required a dilution factor due to a chemical or physical interference which resulted in the detection limits being elevated. Some of these detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethene, 1,2-Dibromo-3-chloropropane, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichloropropylene, Benzene, Bromomethane, Carbon tetrachloride, Chloroethane, Chloroform, Chloromethane, Methylene chloride, Tetrachloroethene, Trichloroethene, Vinyl chloride, tert-Butyl methyl ether (MTBE), 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Strontium, Titanium, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 2,3,7,8-TCDF, 1,2,3,4,7,8-HxCDF, and 1,2,3,4,6,7,8-HpCDF.

- FPS-3; Sample number PCH-20160728-FPS3-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Manganese, Strontium, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-

PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, and 1,2,3,4,6,7,8,9-OCDF.

- FPS-4; Sample number PCH-20160727-FPS4-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Manganese, Strontium, Titanium, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, and 1,2,3,4,6,7,8,9-OCDF.

- FPS-5; Sample number PCH-20160725-FPS5-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Strontium, Titanium, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,4,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, and 1,2,3,4,6,7,8,9-OCDF.

4 Pond Perimeter Soil Sampling Results

4.1 Pond Perimeter Soil Sampling Results

The sampling along the pond perimeter included the samples PPS-1 through PPS-6. These samples were surficial samples collected from ground surface to an approximate depth of six (6) inches. The sample nomenclature for each sample identification contains the initials of the sample collector, the date, the location, and a designation for the type of sample (i.e., S06 is a soil sample from 0-6 inches bgs).

A summary discussion for the results from each of the surface soil samples is below. The analytical data are summarized in **Table 2 - Soil Analytical Results/Screening Option Evaluation**.

- PPS-1; Sample number PCH-20160729-PPS1-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Lithium, Manganese, Molybdenum, Strontium, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate.

- PPS-2; Sample number PCH-20160729-PPS2-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Lithium, Manganese, Molybdenum, Strontium, Titanium, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate.

- PPS-3; Sample number PCH-20160728-PPS3-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Manganese, Molybdenum, Strontium, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate.

- PPS-4; Sample number PCH-20160728-PPS4-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Manganese, Strontium, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-

HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,7,8-PeCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, and Perchlorate..

- PPS-5; Sample number PCH-20160728-PPS5-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Manganese, Strontium, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate..

- PPS-6; Sample number PCH-20160729-PPS6-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Lithium, Manganese, Strontium, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate..

5 Stream Sampling Sediment Results

The sampling along the stream bed included the samples SBS-1 through SBS-2. These samples were surficial samples collected from ground surface to an approximate depth of six (6) inches. The sample nomenclature for each sample identification contains the initials of the sample collector, the date, the location, and a designation for the type of sample (i.e., S06 is a soil sample from 0-6 inches bgs).

A summary discussion for the results from each of the surface soil samples is below. The analytical data are summarized in **Table 2 - Soil Analytical Results/Screening Option Evaluation**.

- SBS-1; Sample number PCH-20160728-SBS1-S06 – Lead (387,000 ug/kg) was the only constituent that had a concentration that exceeded the RECAP SS (100,000 ug/kg). Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Boron, Lithium, Manganese, Molybdenum, Strontium, Tin, Titanium, 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate.

- SBS-2; Sample number PCH-20160728-SBS1-S06 – Some of the constituent detection limits are above the RECAP SS and are noted in **Table 2** as exceeding the RECAP SS. The constituents that had detection limits that exceed the RECAP SS were 1,3-Dinitrobenzene and 2,6-Dinitrotoluene.

  There were a number of constituents without a RECAP SS that had concentrations that were above the detection limits. These were Aluminum, Manganese, Strontium, Titanium, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8,9-OCDD, 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,6,7,8,9-OCDF, and Perchlorate.

6 Summary

6.1 Summary

This report presents the findings of the surface soil sampling and attempted groundwater sampling activities at the Clean Harbors Thermal Treatment Facility, located in Colfax, Louisiana. The field activities were performed in July 2016.

The Clean Harbors Colfax facility operates an Open Burn/Open Detonation facility located in Colfax, Louisiana, that is permitted to thermally treat explosives and reactive wastes. The facility operates under the Hazardous Waste Operating Permit LAD981055791-RN-OP-1. The thermal treatment operations occur on 43 acres in a centrally located portion of an approximately 730 acres facility.

The soil sampling activities were conducted along the perimeter of the entire 730 acre site to evaluate the potential for off-site impact, adjacent to the waste pad and perimeter of the retention pond to evaluate the potential release from these areas, and from the small stream bed receiving waste water discharges from the retention pond.

Discreet groundwater sampling was part of the original scope of work, however, due to the very stiff clays and sandstone lithologies and the limitations of the direct push technology (DPT) rig, groundwater samples were unable to be collected. Several unsuccessful attempts were made at locations FPS-5, FPS-4, and PPS-3.

The objective of the soil sampling was to collect, analyze, and evaluate the data. The analytical data were evaluated by comparing to the LDEQ RECAP Screening Standards and in cases where there are no listed screening standards any detected concentrations above the method detection limits were noted as directed by LDEQ.

The methods employed during this evaluation were outlined in the LDEQ's Soil and Groundwater Sampling and Analysis Plan dated June 9, 2016.

Thirteen (13) surface soil samples were collected as part of the field activities. These samples were collected from the surficial soils from ground surface down to approximately six (6) inches in depth. The surface soil samples collected were from five (5) perimeter surface sampling locations FPS-1 through FPS-5, six (6) waste management unit and retention pond locations PPS-1 through PPS-6, and two (2) stream bed samples SBS-1 and SBS-2.

The analytical results indicate that lead exceeds the Limiting RECAP SS for the soil protective of groundwater (SS_GW) of 100 mg/kg (100,000 ug/kg) at the stream bed sample location SBS-1 (Lead - 387,000 ug/kg).

The results also indicate that there are several metals, Polychlorinated Dibenzodioxins, Polycholorinated Dibenzofurans, and Perchlorate that had concentrations that exceed the laboratory detection limits that do not have established RECAP Screening Standards at many of the locations.

There were also several constituents, particularly in samples collected from FPS-1 and FPS-2 that had laboratory detection limits (from dilutions) that exceeded RECAP Screening Standards due to non-target background interference.

Tables

TABLE 1
Sample Collection Summary
Clean Harbors Colfax, Louisiana

SAMPLE LOCATION	SAMPLE ID	MATRIX	DATE COLLECTED	TIME COLLECTED	COMMENTS	SAMPLE LOCATION COORDINATES	SAMPLE TYPE
FPS1	PCH-20160728-FPS1-SO6	Soil	7/28/2016	1140	SOIL 0-6 INCHES	Long 92°43'22.68"W Lat. 31°34'40.83"N	Normal
FPS2	PCH-20160728-FPS2-SO6	Soil	7/28/2016	1210	SOIL 0-6 INCHES	Long 92°42'17.86"W Lat. 31°34'40.47"N	Normal
FPS3	PCH-20160728-FPS3-SO6	Soil	7/28/2016	1210	SOIL 0-6 INCHES	Long 92°42'17.54"W Lat. 31°34'15.25"N	Normal
FPS4	PCH-2016727-FPS4-SO6	Soil	7/27/2016	1110	SOIL 0-6 INCHES	Long 92°42'46.07"W Lat. 31°33'49.58"N	Normal
FPS4	PCH-20160727-FPS4-SO6-MS	Soil	7/27/2016	1110	SOIL 0-6 INCHES		QA/QC
FPS4	PCH-20160727-FPS4-SO6-MSD	Soil	7/27/2016	1110	SOIL 0-6 INCHES		QA/QC
FPS5	PCH-2016-725-FPS5-SO6	Soil	7/25/2016	1445	SOIL 0-6 INCHES	Long 92°43'37.99"W Lat. 31°34'16.33"N	Normal
FPS5	PCH-20160725-FPS5-WRIN	Water	7/25/2016	1315	RINSATE BLANK		QA/QC
PPS1	PCH-20160729-PPS1-SO6	Soil	7/29/2016	715	SOIL 0-6 INCHES	Long 92°42'44.60"W Lat. 31°34'23.58"N	Normal
PPS2	PCH-20160729-PPS2-SO6	Soil	7/29/2016	745	SOIL 0-6 INCHES	Long 92°42'45.60"W Lat. 31°34'24.42"N	Normal
PPS3	PHC-20160728-PPS3-SO6	Soil	7/28/2016	700	SOIL 0-6 INCHES	Long 92°42'45.83"W Lat. 31°34'25.83"N	Normal
PPS4	PCH-20160728-PPS4-SO6	Soil	7/28/2016	730	SOIL 0-6 INCHES	Long 92°42'44.02"W Lat. 31°34'25.32"N	Normal
PPS5	PCH-20160728-PPS5-SO6	Soil	7/28/2016	800	SOIL 0-6 INCHES	Long 92°42'43.11"W Lat. 31°34'24.55"N	Normal
PPS5	PCH-20160728-PPS5-SO6-FD	Soil	7/28/2016	800	SOIL 0-6 INCHES Duplicate		QA/QC
PPS5	PCH-20160728-PPS5-SO6-RI	Water	7/28/2016	1110	RINSATE		QA/QC
PPS6	PCH-20160729-PPS6-SO6	Soil	7/29/2016	630	SOIL 0-6 INCHES	Long 92°42'42.52"W Lat. 31°34'23.05"N	Normal
PPS6	PCH-20160729-PPS6-FB	Water	7/29/2016	645	FIELD BLANK		QA/QC
SBS1	PCH-20160728-SBS1	Soil	7/28/2016	1450	SEDIMENT SAMPLE	Long 92°42'40.82"W Lat. 31°34'23.76"N	Normal
SBS2	PCH-20160729-SBS2	Soil	7/29/2016	815	SEDIMENT SAMPLE	Long 92°42'38.97"W Lat. 31°34'27.68"N	Normal
TRIP BLANK	TRIP BLANK	Water	7/25/2016		TRIP BLANK		QA/QC
TRIP BLANK	TRIP BLANK	Water	7/27/2016		TRIP BLANK		QC/QA
TRIP BLANK	TRIP BLANK	Water	7/28/2016		TRIP BLANK		QC/QA
TRIP BLANK	TRIP BLANK	Water	7/29/2016		TRIP BLANK		QC/QA

Note:
FD = Field Duplicate
MS = Matrix Spike
MSD = Matrix Spike Duplicate
RI = Rinsate Blank
WRIN = Rinsate Blank
FB = Field Blank

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160728-FPS1-S06	PCH-20160728-FPS2-S06	PCH-20160728-FPS3-S06
		(ppb)			0-6"	0-6"	0-6"
Nitrate	14797-55-8	**20000000**	1.8	NO	<5.00	<5.00	<0.500
Nitrite	14797-65-0	**2000000**	0	NO	<5.00	<5.00	<0.500
Ammonia	7664-41-7	**#N/A**	0	#N/A	<200	<200	<200
Aluminum	7429-90-5	**#N/A**	4900000	#N/A	2730000	1430000	1730000
Antimony	7440-36-0	**12000**	2730	NO	<800	<800	<794
Arsenic	7440-38-2	**12000**	2400	NO	793	530	1010
Barium	7440-39-3	**2000000**	292000	NO	23800	12500	17200
Beryllium	7440-41-7	**8000**	0	NO	<400	<400	<397
Boron	7440-42-8	**#N/A**	35500	#N/A	<4000	<4000	<3970
Cadmium	7440-43-9	**20000**	1900	NO	<400	<400	<397
Chromium	7440-47-3	**100000**	12600	NO	3120	1480	1290
Cobalt	7440-48-4	**4400000**	20700	NO	1340	<400	1270
Copper	7440-50-8	**1500000**	552000	NO	1380	597	981
Lead	7439-92-1	**100000**	387000	**YES**	5980	4820	4920
Lithium	7439-93-2	**#N/A**	3730	#N/A	2020	<2000	<1980
Manganese	7439-96-5	**#N/A**	81700	#N/A	64600	<2000	3520
Molybdenum	7439-98-7	**#N/A**	3540	#N/A	<400	<400	<397
Nickel	7440-02-0	**1500000**	8890	NO	1100	<800	<794
Selenium	7782-49-2	**20000**	429	NO	<400	<400	<397
Silver	7440-22-4	**100000**	1590	NO	<400	<400	<397
Strontium	7440-24-6	**#N/A**	90500	#N/A	1880	685	3510
Thallium	7440-28-0	**4000**	0	NO	<400	<400	<397
Tin	7440-31-5	**#N/A**	936	#N/A	<400	<400	<397
Titanium	7440-32-6	**#N/A**	44400	#N/A	6430	6180	4350
Vanadium	7440-62-2	**520000**	9160	NO	6820	3690	4490
Zinc	7440-66-6	**280000**	209000	NO	<8000	<8000	<7940
Mercury	7439-97-6	**4000**	0	NO	0.013	<0.012	0.018
1,1,1,2-Tetrachloroethane	630-20-6	**46**	0	NO	<241	<479	<4.66
1,1,1-Trichloroethane	71-55-6	**4000**	0	NO	<241	<479	<4.66
1,1,2,2-Tetrachloroethane	79-34-5	**6**	0	NO	<241	<479	<4.66
1,1,2-Trichloroethane	79-00-5	**58**	0	NO	<241	<479	<4.66
1,1-Dichloroethane	75-34-3	**7500**	0	NO	<241	<479	<4.66
1,1-Dichloroethene	75-35-4	**85**	0	NO	<241	<479	<4.66
1,1-Dichloropropene	563-58-6	**#N/A**	0	#N/A	<241	<479	<4.66
1,2,3-Trichlorobenzene	87-61-6	**#N/A**	0	#N/A	<241	<479	<4.66
1,2,3-Trichloropropane	96-18-4	**#N/A**	0	#N/A	<241	<479	<4.66
1,2,4-Trichlorobenzene	120-82-1	**14000**	0	NO	<241	<479	<4.66
1,2,4-Trimethylbenzene	95-63-6	**#N/A**	0	#N/A	<241	<479	<4.66
1,2-Dibromo-3-chloropropane	96-12-8	**10**	0	NO	<241	<479	<4.66
1,2-Dibromoethane	106-93-4	**#N/A**	0	#N/A	<241	<479	<4.66
1,2-Dichlorobenzene	95-50-1	**29000**	0	NO	<241	<479	<4.66
1,2-Dichloroethane	107-06-2	**35**	0	NO	<241	<479	<4.66
1,2-Dichloropropane	78-87-5	**42**	0	NO	<241	<479	<4.66
1,3,5-Trimethylbenzene	108-67-8	**#N/A**	0	#N/A	<241	<479	<4.66
1,3-Dichlorobenzene	541-73-1	**2100**	0	NO	<241	<479	<4.66
1,3-Dichloropropane	142-28-9	**#N/A**	0	#N/A	<241	<479	<4.66
1,3-Dichloropropylene	542-75-6	**40**	0	NO	<483	<958	<9.33
1,4-Dichlorobenzene	106-46-7	**5700**	0	NO	<241	<479	<4.66
2,2-Dichloropropane	594-20-7	**#N/A**	0	#N/A	<241	<479	<4.66
2-Butanone	78-93-3	**5000**	6.07	NO	<241	<479	<4.66
2-Chlorotoluene	95-49-8	**#N/A**	0	#N/A	<241	<479	<4.66
2-Hexanone	591-78-6	**#N/A**	0	#N/A	<241	<479	<4.66
4-Chlorotoluene	106-43-4	**#N/A**	0	#N/A	<241	<479	<4.66
4-Isopropyltoluene	99-87-6	**#N/A**	0	#N/A	<241	<479	<4.66
4-Methyl-2-pentanone	108-10-1	**6400**	0	NO	<241	<479	<4.66
Acetone	67-64-1	**1500**	42.5	NO	<1210	<2400	<23.3
Benzene	71-43-2	**51**	0	NO	<48.3	<95.8	<0.933
Bromobenzene	108-86-1	**#N/A**	0	#N/A	<241	<479	<4.66
Bromochloromethane	74-97-5	**#N/A**	0	#N/A	<241	<479	<4.66
Bromodichloromethane	75-27-4	**920**	0	NO	<241	<479	<4.66
Bromoform	75-25-2	**1800**	0	NO	<241	<479	<4.66
Bromomethane	74-83-9	**40**	8.11	NO	<241	<479	<4.66
Carbon disulfide	75-15-0	**11000**	0	NO	<241	<479	<4.66
Carbon tetrachloride	56-23-5	**110**	0	NO	<241	<479	<4.66
Chlorobenzene	108-90-7	**3000**	0	NO	<241	<479	<4.66
Chloroethane	75-00-3	**35**	0	NO	<241	<479	<4.66
Chloroform	67-66-3	**300**	0	NO	<241	<479	<4.66
Chloromethane	74-87-3	**100**	0	NO	<241	<479	<4.66
Dibromochloromethane	124-48-1	**1000**	0	NO	<241	<479	<4.66
Dibromomethane	74-95-3	**#N/A**	0	#N/A	<241	<479	<4.66
Dichlorodifluoromethane	75-71-8	**#N/A**	0	#N/A	<241	<479	<4.66
Ethyl methacrylate	97-63-2	**#N/A**	0	#N/A	<241	<479	<4.66
Ethylbenzene	100-41-4	**19000**	0	NO	<241	<479	<4.66
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<241	<479	<4.66
Isobutyl alcohol	78-83-1	**30000**	0	NO	<1210	<2400	<23.3
Isopropylbenzene (Cumene)	98-82-8	**#N/A**	0	#N/A	<241	<479	<4.66
Methyl iodide	74-88-4	**#N/A**	11.2	#N/A	<241	<479	<4.66
Methylene chloride	75-09-2	**17**	9.77	NO	<483	<958	<9.33
Naphthalene	91-20-3	**1500**	0	NO	<241	<479	<4.66
Styrene	100-42-5	**11000**	0	NO	<241	<479	<4.66
Tetrachloroethene	127-18-4	**180**	0	NO	<241	<479	<4.66
Toluene	108-88-3	**20000**	0	NO	<241	<479	<4.66
Trichloroethene	79-01-6	**73**	0	NO	<241	<479	<4.66
Trichlorofluoromethane	75-69-4	**37000**	0	NO	<241	<479	<4.66
Vinyl acetate	108-05-4	**#N/A**	0	#N/A	<241	<479	<4.66
Vinyl chloride	75-01-4	**13**	0	NO	<241	<479	<4.66
Xylene (total)	1330-20-7	**120000**	0	NO	<724	<1440	<14.0
cis-1,2-Dichloroethene	156-59-2	**490**	0	NO	<241	<479	<4.66
cis-1,3-Dichloropropene	10061-01-5	**#N/A**	0	#N/A	<241	<479	<4.66
cis-1,4-Dichloro-2-Butene	1476-11-5	**#N/A**	0	#N/A	<241	<479	<4.66
n-Butylbenzene	104-51-8	**#N/A**	0	#N/A	<241	<479	<4.66
n-Propylbenzene	103-65-1	**#N/A**	0	#N/A	<241	<479	<4.66
sec-Butylbenzene	135-98-8	**#N/A**	0	#N/A	<241	<479	<4.66
tert-Butyl methyl ether (MTBE)	1634-04-4	**77**	0	NO	<241	<479	<4.66
tert-Butylbenzene	98-06-6	**#N/A**	0	#N/A	<241	<479	<4.66
trans-1,2-Dichloroethene	156-60-5	**770**	0	NO	<241	<479	<4.66
trans-1,3-Dichloropropene	10061-02-6	**#N/A**	0	#N/A	<241	<479	<4.66
trans-1,4-Dichloro-2-butene	110-57-6	**#N/A**	0	#N/A	<241	<479	<4.66

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160728-FPS1-S06	PCH-20160728-FPS2-S06	PCH-20160728-FPS3-S06
		(ppb)			0-6"	0-6"	0-6"
1,2,4,5-Tetrachlorobenzene	95-94-3	**6900**	0	NO	<327	<328	<327
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<65.3	<65.6	<65.3
2,3,4,6-Tetrachlorophenol	58-90-2	**31000**	0	NO	<327	<328	<327
2,4,5-Trichlorophenol	95-95-4	**320000**	0	NO	<327	<328	<327
2,4,6-Trichlorophenol	88-06-2	**1300**	0	NO	<327	<328	<327
2,4-Dichlorophenol	120-83-2	**12000**	0	NO	<327	<328	<327
2,4-Dimethylphenol	105-67-9	**20000**	0	NO	<327	<328	<327
2,4-Dinitrophenol	51-28-5	**1700**	0	NO	<327	<328	<327
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<327	<328	<327
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<327	<328	<327
2-Chloronaphthalene	91-58-7	**500000**	0	NO	<327	<328	<327
2-Chlorophenol	95-57-8	**1400**	0	NO	<327	<328	<327
2-Methylnaphthalene	91-57-6	**1700**	0	NO	<327	<328	<327
2-Nitroaniline	88-74-4	**1700**	0	NO	<1630	<1640	<1630
3,3'-Dichlorobenzidine	91-94-1	**1800**	0	NO	<653	<656	<653
3-Nitroaniline	99-09-2	**1700**	0	NO	<1630	<1640	<1630
4-Nitroaniline	100-01-6	**1700**	0	NO	<1630	<1640	<1630
4-Nitrophenol	100-02-7	**2600**	0	NO	<1630	<1640	<1630
Acenaphthene	83-32-9	**220000**	0	NO	<327	<328	<327
Acenaphthylene	208-96-8	**88000**	0	NO	<327	<328	<327
Anthracene	120-12-7	**120000**	0	NO	<327	<328	<327
Benzo(a)anthracene	56-55-3	**2900**	0	NO	<327	<328	<327
Benzo(a)pyrene	50-32-8	**330**	0	NO	<327	<328	<327
Benzo(b)fluoranthene	205-99-2	**2900**	0	NO	<327	<328	<327
Benzo(k)fluoranthene	207-08-9	**29000**	0	NO	<327	<328	<327
Biphenyl	92-52-4	**#N/A**	0	#N/A	<327	<328	<327
Bis(2-Chloroethyl)ether	111-44-4	**330**	0	NO	<327	<328	<327
Bis(2-Chloroisopropyl)ether	108-60-1	**800**	0	NO	<327	<328	<327
Bis(2-Ethylhexyl)phthalate	117-81-7	**79000**	0	NO	<327	<328	<327
Butyl benzyl phthalate	85-68-7	**220000**	0	NO	<327	<328	<327
Chrysene	218-01-9	**76000**	0	NO	<327	<328	<327
Di-n-butyl phthalate	84-74-2	**#N/A**	0	#N/A	<327	<328	<327
Di-n-octyl phthalate	117-84-0	**3500000**	0	NO	<327	<328	<327
Dibenz(a,h)anthracene	53-70-3	**330**	0	NO	<327	<328	<327
Dibenzofuran	132-64-9	**24000**	0	NO	<327	<328	<327
Diethyl phthalate	84-66-2	**360000**	0	NO	<327	<328	<327
Dimethyl phthalate	131-11-3	**1500000**	0	NO	<327	<328	<327
Diphenylamine	122-39-4	**#N/A**	0	#N/A	<327	<328	<327
Fluoranthene	206-44-0	**1200000**	0	NO	<327	<328	<327
Fluorene	86-73-7	**230000**	0	NO	<327	<328	<327
Hexachlorobenzene	118-74-1	**2000**	0	NO	<327	<328	<327
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<327	<328	<327
Hexachloroethane	67-72-1	**2200**	0	NO	<327	<328	<327
Indeno(1,2,3-cd)pyrene	193-39-5	**2900**	0	NO	<327	<328	<327
Isophorone	78-59-1	**560**	0	NO	<327	<328	<327
Nitrobenzene	98-95-3	**330**	0	NO	<327	<328	<327
Pentachlorophenol	87-86-5	**1700**	0	NO	<1630	<1640	<1630
Phenanthrene	85-01-8	**660000**	0	NO	<327	<328	<327
Phenol	108-95-2	**11000**	0	NO	<327	<328	<327
Pyrene	129-00-0	**1100000**	0	NO	<327	<328	<327
n-Nitrosodi-n-propylamine	621-64-7	**330**	0	NO	<327	<328	<327
n-Nitrosodiphenylamine	86-30-6	**2100**	0	NO	<327	<328	<327
1,3,5-Trinitrobenzene	99-35-4	**#N/A**	0	#N/A	<238	<240	<250
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<476	<481	<500
2,4,6-Trinitrotoluene	118-96-7	**#N/A**	0	#N/A	<476	<481	<500
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<476	<481	<500
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<476	<481	<500
2-Amino-4,6-dinitrotoluene	35572-78-2	**#N/A**	0	#N/A	<476	<481	<500
2-Nitrotoluene	88-72-2	**#N/A**	0	#N/A	<476	<481	<500
3-Nitrotoluene	99-08-1	**#N/A**	0	#N/A	<476	<481	<500
4-Amino-2,6-dinitrotoluene	19406-51-0	**#N/A**	0	#N/A	<476	<481	<500
4-Nitrotoluene	99-99-0	**#N/A**	0	#N/A	<476	<481	<500
HMX	2691-41-0	**#N/A**	0	#N/A	<238	<240	<250
Nitrobenzene	98-95-3	**330**	0	NO	<327	<328	<327
RDX	121-82-4	**#N/A**	0	#N/A	<238	<240	<250
Tetryl	479-45-8	**#N/A**	0	#N/A	<238	<240	<250
2,3,7,8-TCDD	1746-01-6	**#N/A**	7.68	#N/A	<0.189	<0.0685	0.18 JK
1,2,3,7,8-PeCDD	40321-76-4	**#N/A**	32.7	#N/A	<0.209	0.0905 JK	0.702 J
1,2,3,4,7,8-HxCDD	39227-28-6	**#N/A**	34.1	#N/A	<0.345	0.142 JK	1.46 J
1,2,3,6,7,8-HxCDD	57653-85-7	**#N/A**	59.1	#N/A	0.488 J	0.211 J	1.96 J
1,2,3,7,8,9-HxCDD	19408-74-3	**#N/A**	53.5	#N/A	0.53 J	0.25 JK	3.37 J
1,2,3,4,6,7,8-HpCDD	35822-46-9	**#N/A**	558	#N/A	59.3	6.63	299
1,2,3,4,6,7,8,9-OCDD	3268-87-9	**#N/A**	2790	#N/A	5390 E	196	33200 E
2,3,7,8-TCDF	51207-31-9	**#N/A**	67.5	#N/A	<0.214	0.0958 JK	<0.264
1,2,3,7,8-PeCDF	57117-41-6	**#N/A**	106	#N/A	<0.14	<0.0522	<0.159
2,3,4,7,8-PeCDF	57117-31-4	**#N/A**	241	#N/A	<0.135	<0.0502	<0.153
1,2,3,4,7,8-HxCDF	70648-26-9	**#N/A**	270	#N/A	<0.156	0.0657 J	0.243 JK
1,2,3,6,7,8-HxCDF	57117-44-9	**#N/A**	262	#N/A	<0.145	<0.0536	0.261 JK
2,3,4,6,7,8-HxCDF	60851-34-5	**#N/A**	419	#N/A	<0.15	<0.0555	0.214 JK
1,2,3,7,8,9-HxCDF	72918-21-9	**#N/A**	151	#N/A	<0.181	<0.0669	0.226 JK
1,2,3,4,6,7,8-HpCDF	67562-39-4	**#N/A**	1410	#N/A	0.485 J	0.147 JK	0.828 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	**#N/A**	218	#N/A	<0.163	<0.101	<0.194
1,2,3,4,6,7,8,9-OCDF	39001-02-0	**#N/A**	1570	#N/A	0.877 J	<0.113	1.02 J
Perchlorate	14797-73-0	**#N/A**	308	#N/A	<2.3	<2.1	<2.6

Notes:

N/A - Not Applicable

(1) - LDEQ 2003 RECAP Screening Standard (Minimum of the SOILi and SOILgw, reported in ug/kg)

Constituent concentration exceeds the RECAP Screening Standard.

Detection limit exceeds the RECAP Screening Standard for that constituent.

Constituent concentration exceeds detection limit, but has no RECAP Screening Standard.

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160727-FPS4-S06	PCH-20160725-FPS5-S06	PCH-20160729-PPS1-S06	PCH-20160729-PPS2-S06
		(ppb)			0-6"	0-6"	0-6"	0-6"
NITROGENOUS COMPOUNDS								
Nitrate	14797-55-8	**20000000**	1.8	NO	<0.500	<0.500	<0.500	1.57
Nitrite	14797-65-0	**2000000**	0	NO	<0.500	<0.500	<0.500	<0.500
Ammonia	7664-41-7	**#N/A**	0	#N/A	<200	<200	<200	<200
METALS - 6020A/7470A								
Aluminum	7429-90-5	**#N/A**	4900000	#N/A	1100000	2230000	4050000	4680000
Antimony	7440-36-0	**12000**	2730	NO	<800	<800	<800	<775
Arsenic	7440-38-2	**12000**	2400	NO	571	563	2400	1720
Barium	7440-39-3	**2000000**	292000	NO	11900	7810	60800	32500
Beryllium	7440-41-7	**8000**	0	NO	<400	<400	<400	<388
Boron	7440-42-8	**#N/A**	35500	#N/A	<4000	<4000	<4000	<3880
Cadmium	7440-43-9	**20000**	1900	NO	<400	<400	789	<388
Chromium	7440-47-3	**100000**	12600	NO	854	1400	6480	2720
Cobalt	7440-48-4	**4400000**	20700	NO	718	<400	20700	2130
Copper	7440-50-8	**1500000**	552000	NO	450	813	322000	2860
Lead	7439-92-1	**100000**	387000	**YES**	5830	4650	90700	5040
Lithium	7439-93-2	**#N/A**	3730	#N/A	<2000	<2000	2830	2490
Manganese	7439-96-5	**#N/A**	81700	#N/A	8380	<2000	81700	51900
Molybdenum	7439-98-7	**#N/A**	3540	#N/A	<400	<400	958	425
Nickel	7440-02-0	**1500000**	8890	NO	<800	<800	6110	2200
Selenium	7782-49-2	**20000**	429	NO	<400	<400	<400	<388
Silver	7440-22-4	**100000**	1590	NO	<400	<400	<400	<388
Strontium	7440-24-6	**#N/A**	90500	#N/A	864	1560	90500	72700
Thallium	7440-28-0	**4000**	0	NO	<400	<400	<400	<388
Tin	7440-31-5	**#N/A**	936	#N/A	<400	<400	<400	<388
Titanium	7440-32-6	**#N/A**	44400	#N/A	6410	44400	33100	36900
Vanadium	7440-62-2	**520000**	9160	NO	2000	2850	7440	7630
Zinc	7440-66-6	**280000**	209000	NO	<8000	<8000	54000	<7750
Mercury	7439-97-6	**4000**	0	NO	<0.010	<0.010	0.015	0.022
VOLATILES - 8260B								
1,1,1,2-Tetrachloroethane	630-20-6	**46**	0	NO	<4.75	<4.03	<4.94	<5.01
1,1,1-Trichloroethane	71-55-6	**4000**	0	NO	<4.75	<4.03	<4.94	<5.01
1,1,2,2-Tetrachloroethane	79-34-5	**6**	0	NO	<4.75	<4.03	<4.94	<5.01
1,1,2-Trichloroethane	79-00-5	**58**	0	NO	<4.75	<4.03	<4.94	<5.01
1,1-Dichloroethane	75-34-3	**7500**	0	NO	<4.75	<4.03	<4.94	<5.01
1,1-Dichloroethene	75-35-4	**85**	0	NO	<4.75	<4.03	<4.94	<5.01
1,1-Dichloropropene	563-58-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,2,3-Trichlorobenzene	87-61-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,2,3-Trichloropropane	96-18-4	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,2,4-Trichlorobenzene	120-82-1	**14000**	0	NO	<4.75	<4.03	<4.94	<5.01
1,2,4-Trimethylbenzene	95-63-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,2-Dibromo-3-chloropropane	96-12-8	**10**	0	NO	<4.75	<4.03	<4.94	<5.01
1,2-Dibromoethane	106-93-4	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,2-Dichlorobenzene	95-50-1	**29000**	0	NO	<4.75	<4.03	<4.94	<5.01
1,2-Dichloroethane	107-06-2	**35**	0	NO	<4.75	<4.03	<4.94	<5.01
1,2-Dichloropropane	78-87-5	**42**	0	NO	<4.75	<4.03	<4.94	<5.01
1,3,5-Trimethylbenzene	108-67-8	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,3-Dichlorobenzene	541-73-1	**2100**	0	NO	<4.75	<4.03	<4.94	<5.01
1,3-Dichloropropane	142-28-9	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
1,3-Dichloropropylene	542-75-6	**40**	0	NO	<9.50	<8.05	<9.88	<10.0
1,4-Dichlorobenzene	106-46-7	**5700**	0	NO	<4.75	<4.03	<4.94	<5.01
2,2-Dichloropropane	594-20-7	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
2-Butanone	78-93-3	**5000**	6.07	NO	<4.75	<4.03	<4.94	6.07
2-Chlorotoluene	95-49-8	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
2-Hexanone	591-78-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
4-Chlorotoluene	106-43-4	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
4-Isopropyltoluene	99-87-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
4-Methyl-2-pentanone	108-10-1	**6400**	0	NO	<4.75	<4.03	<4.94	<5.01
Acetone	67-64-1	**1500**	42.5	NO	<23.7	<20.1	<24.7	42.5
Benzene	71-43-2	**51**	0	NO	<0.950	<0.805	<0.988	<1.00
Bromobenzene	108-86-1	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Bromochloromethane	74-97-5	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Bromodichloromethane	75-27-4	**920**	0	NO	<4.75	<4.03	<4.94	<5.01
Bromoform	75-25-2	**1800**	0	NO	<4.75	<4.03	<4.94	<5.01
Bromomethane	74-83-9	**40**	8.11	NO	<4.75	<4.03	<4.94	<5.01
Carbon disulfide	75-15-0	**11000**	0	NO	<4.75	<4.03	<4.94	<5.01
Carbon tetrachloride	56-23-5	**110**	0	NO	<4.75	<4.03	<4.94	<5.01
Chlorobenzene	108-90-7	**3000**	0	NO	<4.75	<4.03	<4.94	<5.01
Chloroethane	75-00-3	**35**	0	NO	<4.75	<4.03	<4.94	<5.01
Chloroform	67-66-3	**300**	0	NO	<4.75	<4.03	<4.94	<5.01
Chloromethane	74-87-3	**100**	0	NO	<4.75	<4.03	<4.94	<5.01
Dibromochloromethane	124-48-1	**1000**	0	NO	<4.75	<4.03	<4.94	<5.01
Dibromomethane	74-95-3	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Dichlorodifluoromethane	75-71-8	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Ethyl methacrylate	97-63-2	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Ethylbenzene	100-41-4	**19000**	0	NO	<4.75	<4.03	<4.94	<5.01
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<4.75	<4.03	<4.94	<5.01
Isobutyl alcohol	78-83-1	**30000**	0	NO	<23.7	<20.1	<24.7	<25.1
Isopropylbenzene (Cumene)	98-82-8	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Methyl iodide	74-88-4	**#N/A**	11.2	#N/A	<4.75	<4.03	<4.94	<5.01
Methylene chloride	75-09-2	**17**	9.77	NO	<9.50	9.77	<9.88	<10.0
Naphthalene	91-20-3	**1500**	0	NO	<4.75	<4.03	<4.94	<5.01
Styrene	100-42-5	**11000**	0	NO	<4.75	<4.03	<4.94	<5.01
Tetrachloroethene	127-18-4	**180**	0	NO	<4.75	<4.03	<4.94	<5.01
Toluene	108-88-3	**20000**	0	NO	<4.75	<4.03	<4.94	<5.01
Trichloroethene	79-01-6	**73**	0	NO	<4.75	<4.03	<4.94	<5.01
Trichlorofluoromethane	75-69-4	**37000**	0	NO	<4.75	<4.03	<4.94	<5.01
Vinyl acetate	108-05-4	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
Vinyl chloride	75-01-4	**13**	0	NO	<4.75	<4.03	<4.94	<5.01
Xylene (total)	1330-20-7	**120000**	0	NO	<14.2	<12.1	<14.8	<15.0
cis-1,2-Dichloroethene	156-59-2	**490**	0	NO	<4.75	<4.03	<4.94	<5.01
cis-1,3-Dichloropropene	10061-01-5	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
cis-1,4-Dichloro-2-Butene	1476-11-5	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
n-Butylbenzene	104-51-8	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
n-Propylbenzene	103-65-1	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
sec-Butylbenzene	135-98-8	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
tert-Butyl methyl ether (MTBE)	1634-04-4	**77**	0	NO	<4.75	<4.03	<4.94	<5.01
tert-Butylbenzene	98-06-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
trans-1,2-Dichloroethene	156-60-5	**770**	0	NO	<4.75	<4.03	<4.94	<5.01
trans-1,3-Dichloropropene	10061-02-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01
trans-1,4-Dichloro-2-butene	110-57-6	**#N/A**	0	#N/A	<4.75	<4.03	<4.94	<5.01

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160727-FPS4-S06	PCH-20160725-FPS5-S06	PCH-20160729-PPS1-S06	PCH-20160729-PPS2-S06
		(ppb)			0-6"	0-6"	0-6"	0-6"
SEMI-VOLATILE ORGANIC COMPOUNDS								
1,2,4,5-Tetrachlorobenzene	95-94-3	**6900**	0	NO	<326	<330	<328	<330
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<65.1	<66.0	<65.6	<66.0
2,3,4,6-Tetrachlorophenol	58-90-2	**31000**	0	NO	<326	<330	<328	<330
2,4,5-Trichlorophenol	95-95-4	**320000**	0	NO	<326	<330	<328	<330
2,4,6-Trichlorophenol	88-06-2	**1300**	0	NO	<326	<330	<328	<330
2,4-Dichlorophenol	120-83-2	**12000**	0	NO	<326	<330	<328	<330
2,4-Dimethylphenol	105-67-9	**20000**	0	NO	<326	<330	<328	<330
2,4-Dinitrophenol	51-28-5	**1700**	0	NO	<326	<330	<328	<330
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<326	<330	<328	<330
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<326	<330	<328	<330
2-Chloronaphthalene	91-58-7	**500000**	0	NO	<326	<330	<328	<330
2-Chlorophenol	95-57-8	**1400**	0	NO	<326	<330	<328	<330
2-Methylnaphthalene	91-57-6	**1700**	0	NO	<326	<330	<328	<330
2-Nitroaniline	88-74-4	**1700**	0	NO	<1630	<1650	<1640	<1650
3,3'-Dichlorobenzidine	91-94-1	**1800**	0	NO	<651	<660	<656	<660
3-Nitroaniline	99-09-2	**1700**	0	NO	<1630	<1650	<1640	<1650
4-Nitroaniline	100-01-6	**1700**	0	NO	<1630	<1650	<1640	<1650
4-Nitrophenol	100-02-7	**2600**	0	NO	<1630	<1650	<1640	<1650
Acenaphthene	83-32-9	**220000**	0	NO	<326	<330	<328	<330
Acenaphthylene	208-96-8	**88000**	0	NO	<326	<330	<328	<330
Anthracene	120-12-7	**120000**	0	NO	<326	<330	<328	<330
Benzo(a)anthracene	56-55-3	**2900**	0	NO	<326	<330	<328	<330
Benzo(a)pyrene	50-32-8	**330**	0	NO	<326	<330	<328	<330
Benzo(b)fluoranthene	205-99-2	**2900**	0	NO	<326	<330	<328	<330
Benzo(k)fluoranthene	207-08-9	**29000**	0	NO	<326	<330	<328	<330
Biphenyl	92-52-4	**#N/A**	0	#N/A	<326	<330	<328	<330
Bis(2-Chloroethyl)ether	111-44-4	**330**	0	NO	<326	<330	<328	<330
Bis(2-Chloroisopropyl)ether	108-60-1	**800**	0	NO	<326	<330	<328	<330
Bis(2-Ethylhexyl)phthalate	117-81-7	**79000**	0	NO	<326	<330	<328	<330
Butyl benzyl phthalate	85-68-7	**220000**	0	NO	<326	<330	<328	<330
Chrysene	218-01-9	**76000**	0	NO	<326	<330	<328	<330
Di-n-butyl phthalate	84-74-2	**#N/A**	0	#N/A	<326	<330	<328	<330
Di-n-octyl phthalate	117-84-0	**3500000**	0	NO	<326	<330	<328	<330
Dibenz(a,h)anthracene	53-70-3	**330**	0	NO	<326	<330	<328	<330
Dibenzofuran	132-64-9	**24000**	0	NO	<326	<330	<328	<330
Diethyl phthalate	84-66-2	**360000**	0	NO	<326	<330	<328	<330
Dimethyl phthalate	131-11-3	**1500000**	0	NO	<326	<330	<328	<330
Diphenylamine	122-39-4	**#N/A**	0	#N/A	<326	<330	<328	<330
Fluoranthene	206-44-0	**1200000**	0	NO	<326	<330	<328	<330
Fluorene	86-73-7	**230000**	0	NO	<326	<330	<328	<330
Hexachlorobenzene	118-74-1	**2000**	0	NO	<326	<330	<328	<330
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<326	<330	<328	<330
Hexachloroethane	67-72-1	**2200**	0	NO	<326	<330	<328	<330
Indeno(1,2,3-cd)pyrene	193-39-5	**2900**	0	NO	<326	<330	<328	<330
Isophorone	78-59-1	**560**	0	NO	<326	<330	<328	<330
Nitrobenzene	98-95-3	**330**	0	NO	<326	<330	<328	<330
Pentachlorophenol	87-86-5	**1700**	0	NO	<1630	<1650	<1640	<1650
Phenanthrene	85-01-8	**660000**	0	NO	<326	<330	<328	<330
Phenol	108-95-2	**11000**	0	NO	<326	<330	<328	<330
Pyrene	129-00-0	**1100000**	0	NO	<326	<330	<328	<330
n-Nitrosodi-n-propylamine	621-64-7	**330**	0	NO	<326	<330	<328	<330
n-Nitrosodiphenylamine	86-30-6	**2100**	0	NO	<326	<330	<328	<330
EXTRACTIABLE EXPLOSIVES COMPOUNDS								
1,3,5-Trinitrobenzene	99-35-4	**#N/A**	0	#N/A	<243	<250	<250	<250
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<485	<500	<500	<500
2,4,6-Trinitrotoluene	118-96-7	**#N/A**	0	#N/A	<485	<500	<500	<500
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<485	<500	<500	<500
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<485	<500	<500	<500
2-Amino-4,6-dinitrotoluene	35572-78-2	**#N/A**	0	#N/A	<485	<500	<500	<500
2-Nitrotoluene	88-72-2	**#N/A**	0	#N/A	<485	<500	<500	<500
3-Nitrotoluene	99-08-1	**#N/A**	0	#N/A	<485	<500	<500	<500
4-Amino-2,6-dinitrotoluene	19406-51-0	**#N/A**	0	#N/A	<485	<500	<500	<500
4-Nitrotoluene	99-99-0	**#N/A**	0	#N/A	<485	<500	<500	<500
HMX	2691-41-0	**#N/A**	0	#N/A	<243	<250	<250	<250
Nitrobenzene	98-95-3	**330**	0	NO	<326	<330	<328	<330
RDX	121-82-4	**#N/A**	0	#N/A	<243	<250	<250	<250
Tetryl	479-45-8	**#N/A**	0	#N/A	<243	<250	<250	<250
DIOXINS/FURANS								
2,3,7,8-TCDD	1746-01-6	**#N/A**	7.68	#N/A	<0.129	<0.0945	0.504 J	<0.148
1,2,3,7,8-PeCDD	40321-76-4	**#N/A**	32.7	#N/A	<0.19	0.294 J	1.64 J	<0.206
1,2,3,4,7,8-HxCDD	39227-28-6	**#N/A**	34.1	#N/A	0.411 JK	0.719 J	1.86 J	<0.213
1,2,3,6,7,8-HxCDD	57653-85-7	**#N/A**	59.1	#N/A	0.56 J	0.88 JK	2.36 J	<0.207
1,2,3,7,8,9-HxCDD	19408-74-3	**#N/A**	53.5	#N/A	0.615 J	1.32 J	2.53 J	0.416 JK
1,2,3,4,6,7,8-HpCDD	35822-46-9	**#N/A**	558	#N/A	29.2	37	35.4	5.72
1,2,3,4,6,7,8,9-OCDD	3268-87-9	**#N/A**	2790	#N/A	1870	1930	1020	373
2,3,7,8-TCDF	51207-31-9	**#N/A**	67.5	#N/A	<0.161	<0.111	4.29	<0.27
1,2,3,7,8-PeCDF	57117-41-6	**#N/A**	106	#N/A	0.114 J	<0.0627	5.05	0.197 JK
2,3,4,7,8-PeCDF	57117-31-4	**#N/A**	241	#N/A	0.0898 J	<0.0629	9.35	0.243 JK
1,2,3,4,7,8-HxCDF	70648-26-9	**#N/A**	270	#N/A	0.112 JK	0.0997 JK	12.5	0.352 J
1,2,3,6,7,8-HxCDF	57117-44-9	**#N/A**	262	#N/A	0.0847 JK	<0.0748	11.2	0.361 J
2,3,4,6,7,8-HxCDF	60851-34-5	**#N/A**	419	#N/A	<0.0866	0.0966 JK	15.9	0.406 JK
1,2,3,7,8,9-HxCDF	72918-21-9	**#N/A**	151	#N/A	<0.104	0.104 J	5.33	<0.166
1,2,3,4,6,7,8-HpCDF	67562-39-4	**#N/A**	1410	#N/A	0.37 J	0.879 J	56.9	1.23 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	**#N/A**	218	#N/A	<0.125	<0.0943	6.39	<0.137
1,2,3,4,6,7,8,9-OCDF	39001-02-0	**#N/A**	1570	#N/A	0.446 J	1.34 J	44.7	0.656 J
PERCHLORATE								
Perchlorate	14797-73-0	**#N/A**	308	#N/A	<2.1	<2.04	308	243

Notes:
N/A - Not Applicable
(1) - LDEQ 2003 RECAP Screening Standard (Minimum of the SOILi and SOILgw, reported in ug/kg)
Constituent concentration exceeds the RECAP Screening Standard.
Detection limit exceeds the RECAP Screening Standard for that constituent.
Constituent concentration exceeds detection limit, but has no RECAP Screening Standard.

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160728-PPS3-S06	PCH-20160728-PPS4-S06	PCH-20160728-PPS5-S06	PCH-20160728-PPS5-S06-FD
		(ppb)			0-6"	0-6"	0-6"	0-6"
Nitrate	14797-55-8	**20000000**	1.8	NO	<0.500	<0.500	<5.00	<5.00
Nitrite	14797-65-0	**2000000**	0	NO	<0.500	<0.500	<5.00	<5.00
Ammonia	7664-41-7	**#N/A**	0	#N/A	<200	<200	<200	<200
Aluminum	7429-90-5	**#N/A**	4900000	#N/A	3520000	4900000	3640000	4410000
Antimony	7440-36-0	**12000**	2730	NO	<787	<800	<800	<781
Arsenic	7440-38-2	**12000**	2400	NO	1840	2060	1420	1960
Barium	7440-39-3	**2000000**	292000	NO	46900	33200	80200	59600
Beryllium	7440-41-7	**8000**	0	NO	<394	<400	<400	<391
Boron	7440-42-8	**#N/A**	35500	#N/A	<3940	<4000	<4000	<3910
Cadmium	7440-43-9	**20000**	1900	NO	<394	<400	<400	<391
Chromium	7440-47-3	**100000**	12600	NO	3520	3310	2510	3370
Cobalt	7440-48-4	**4400000**	20700	NO	5030	1740	1520	1400
Copper	7440-50-8	**1500000**	552000	NO	69500	3780	3570	3730
Lead	7439-92-1	**100000**	387000	**YES**	44600	6770	6640	7310
Lithium	7439-93-2	**#N/A**	3730	#N/A	<1970	<2000	<2000	<1950
Manganese	7439-96-5	**#N/A**	81700	#N/A	47600	50100	17800	20100
Molybdenum	7439-98-7	**#N/A**	3540	#N/A	512	<400	<400	<391
Nickel	7440-02-0	**1500000**	8890	NO	2940	2330	1740	1970
Selenium	7782-49-2	**20000**	429	NO	<394	<400	<400	429
Silver	7440-22-4	**100000**	1590	NO	<394	<400	<400	<391
Strontium	7440-24-6	**#N/A**	90500	#N/A	72100	13200	26700	24700
Thallium	7440-28-0	**4000**	0	NO	<394	<400	<400	<391
Tin	7440-31-5	**#N/A**	936	#N/A	<394	<400	<400	<391
Titanium	7440-32-6	**#N/A**	44400	#N/A	23100	32100	10800	16700
Vanadium	7440-62-2	**520000**	9160	NO	6710	9160	6080	8210
Zinc	7440-66-6	**280000**	209000	NO	15900	<8000	<8000	<7810
Mercury	7439-97-6	**4000**	0	NO	<0.012	0.02	0.013	0.012
1,1,1,2-Tetrachloroethane	630-20-6	**46**	0	NO	<5.26	<5.45	<3.91	<5.28
1,1,1-Trichloroethane	71-55-6	**4000**	0	NO	<5.26	<5.45	<3.91	<5.28
1,1,2,2-Tetrachloroethane	79-34-5	**6**	0	NO	<5.26	<5.45	<3.91	<5.28
1,1,2-Trichloroethane	79-00-5	**58**	0	NO	<5.26	<5.45	<3.91	<5.28
1,1-Dichloroethane	75-34-3	**7500**	0	NO	<5.26	<5.45	<3.91	<5.28
1,1-Dichloroethene	75-35-4	**85**	0	NO	<5.26	<5.45	<3.91	<5.28
1,1-Dichloropropene	563-58-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,2,3-Trichlorobenzene	87-61-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,2,3-Trichloropropane	96-18-4	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,2,4-Trichlorobenzene	120-82-1	**14000**	0	NO	<5.26	<5.45	<3.91	<5.28
1,2,4-Trimethylbenzene	95-63-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,2-Dibromo-3-chloropropane	96-12-8	**10**	0	NO	<5.26	<5.45	<3.91	<5.28
1,2-Dibromoethane	106-93-4	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,2-Dichlorobenzene	95-50-1	**29000**	0	NO	<5.26	<5.45	<3.91	<5.28
1,2-Dichloroethane	107-06-2	**35**	0	NO	<5.26	<5.45	<3.91	<5.28
1,2-Dichloropropane	78-87-5	**42**	0	NO	<5.26	<5.45	<3.91	<5.28
1,3,5-Trimethylbenzene	108-67-8	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,3-Dichlorobenzene	541-73-1	**2100**	0	NO	<5.26	<5.45	<3.91	<5.28
1,3-Dichloropropane	142-28-9	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
1,3-Dichloropropylene	542-75-6	**40**	0	NO	<10.5	<10.9	<7.82	<10.6
1,4-Dichlorobenzene	106-46-7	**5700**	0	NO	<5.26	<5.45	<3.91	<5.28
2,2-Dichloropropane	594-20-7	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
2-Butanone	78-93-3	**5000**	6.07	NO	<5.26	<5.45	<3.91	<5.28
2-Chlorotoluene	95-49-8	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
2-Hexanone	591-78-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
4-Chlorotoluene	106-43-4	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
4-Isopropyltoluene	99-87-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
4-Methyl-2-pentanone	108-10-1	**6400**	0	NO	<5.26	<5.45	<3.91	<5.28
Acetone	67-64-1	**1500**	42.5	NO	<26.3	<27.3	<19.5	<26.4
Benzene	71-43-2	**51**	0	NO	<1.05	<1.09	<0.782	<1.06
Bromobenzene	108-86-1	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Bromochloromethane	74-97-5	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Bromodichloromethane	75-27-4	**920**	0	NO	<5.26	<5.45	<3.91	<5.28
Bromoform	75-25-2	**1800**	0	NO	<5.26	<5.45	<3.91	<5.28
Bromomethane	74-83-9	**40**	8.11	NO	<5.26	<5.45	<3.91	<5.28
Carbon disulfide	75-15-0	**11000**	0	NO	<5.26	<5.45	<3.91	<5.28
Carbon tetrachloride	56-23-5	**110**	0	NO	<5.26	<5.45	<3.91	<5.28
Chlorobenzene	108-90-7	**3000**	0	NO	<5.26	<5.45	<3.91	<5.28
Chloroethane	75-00-3	**35**	0	NO	<5.26	<5.45	<3.91	<5.28
Chloroform	67-66-3	**300**	0	NO	<5.26	<5.45	<3.91	<5.28
Chloromethane	74-87-3	**100**	0	NO	<5.26	<5.45	<3.91	<5.28
Dibromochloromethane	124-48-1	**1000**	0	NO	<5.26	<5.45	<3.91	<5.28
Dibromomethane	74-95-3	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Dichlorodifluoromethane	75-71-8	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Ethyl methacrylate	97-63-2	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Ethylbenzene	100-41-4	**19000**	0	NO	<5.26	<5.45	<3.91	<5.28
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<5.26	<5.45	<3.91	<5.28
Isobutyl alcohol	78-83-1	**30000**	0	NO	<26.3	<27.3	<19.5	<26.4
Isopropylbenzene (Cumene)	98-82-8	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Methyl iodide	74-88-4	**#N/A**	11.2	#N/A	<5.26	<5.45	<3.91	<5.28
Methylene chloride	75-09-2	**17**	9.77	NO	<10.5	<10.9	<7.82	<10.6
Naphthalene	91-20-3	**1500**	0	NO	<5.26	<5.45	<3.91	<5.28
Styrene	100-42-5	**11000**	0	NO	<5.26	<5.45	<3.91	<5.28
Tetrachloroethene	127-18-4	**180**	0	NO	<5.26	<5.45	<3.91	<5.28
Toluene	108-88-3	**20000**	0	NO	<5.26	<5.45	<3.91	<5.28
Trichloroethene	79-01-6	**73**	0	NO	<5.26	<5.45	<3.91	<5.28
Trichlorofluoromethane	75-69-4	**37000**	0	NO	<5.26	<5.45	<3.91	<5.28
Vinyl acetate	108-05-4	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
Vinyl chloride	75-01-4	**13**	0	NO	<5.26	<5.45	<3.91	<5.28
Xylene (total)	1330-20-7	**120000**	0	NO	<15.8	<16.4	<11.7	<15.8
cis-1,2-Dichloroethene	156-59-2	**490**	0	NO	<5.26	<5.45	<3.91	<5.28
cis-1,3-Dichloropropene	10061-01-5	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
cis-1,4-Dichloro-2-Butene	1476-11-5	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
n-Butylbenzene	104-51-8	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
n-Propylbenzene	103-65-1	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
sec-Butylbenzene	135-98-8	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
tert-Butyl methyl ether (MTBE)	1634-04-4	**77**	0	NO	<5.26	<5.45	<3.91	<5.28
tert-Butylbenzene	98-06-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
trans-1,2-Dichloroethene	156-60-5	**770**	0	NO	<5.26	<5.45	<3.91	<5.28
trans-1,3-Dichloropropene	10061-02-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28
trans-1,4-Dichloro-2-butene	110-57-6	**#N/A**	0	#N/A	<5.26	<5.45	<3.91	<5.28

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160728-PPS3-S06	PCH-20160728-PPS4-S06	PCH-20160728-PPS5-S06	PCH-20160728-PPS5-S06-FD
		(ppb)			0-6"	0-6"	0-6"	0-6"
1,2,4,5-Tetrachlorobenzene	95-94-3	**6900**	0	NO	<327	<326	<329	<328
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<65.3	<65.1	<65.8	<65.6
2,3,4,6-Tetrachlorophenol	58-90-2	**31000**	0	NO	<327	<326	<329	<328
2,4,5-Trichlorophenol	95-95-4	**320000**	0	NO	<327	<326	<329	<328
2,4,6-Trichlorophenol	88-06-2	**1300**	0	NO	<327	<326	<329	<328
2,4-Dichlorophenol	120-83-2	**12000**	0	NO	<327	<326	<329	<328
2,4-Dimethylphenol	105-67-9	**20000**	0	NO	<327	<326	<329	<328
2,4-Dinitrophenol	51-28-5	**1700**	0	NO	<327	<326	<329	<328
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<327	<326	<329	<328
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<327	<326	<329	<328
2-Chloronaphthalene	91-58-7	**500000**	0	NO	<327	<326	<329	<328
2-Chlorophenol	95-57-8	**1400**	0	NO	<327	<326	<329	<328
2-Methylnaphthalene	91-57-6	**1700**	0	NO	<327	<326	<329	<328
2-Nitroaniline	88-74-4	**1700**	0	NO	<1630	<1630	<1640	<1640
3,3'-Dichlorobenzidine	91-94-1	**1800**	0	NO	<653	<651	<658	<656
3-Nitroaniline	99-09-2	**1700**	0	NO	<1630	<1630	<1640	<1640
4-Nitroaniline	100-01-6	**1700**	0	NO	<1630	<1630	<1640	<1640
4-Nitrophenol	100-02-7	**2600**	0	NO	<1630	<1630	<1640	<1640
Acenaphthene	83-32-9	**220000**	0	NO	<327	<326	<329	<328
Acenaphthylene	208-96-8	**88000**	0	NO	<327	<326	<329	<328
Anthracene	120-12-7	**120000**	0	NO	<327	<326	<329	<328
Benzo(a)anthracene	56-55-3	**2900**	0	NO	<327	<326	<329	<328
Benzo(a)pyrene	50-32-8	**330**	0	NO	<327	<326	<329	<328
Benzo(b)fluoranthene	205-99-2	**2900**	0	NO	<327	<326	<329	<328
Benzo(k)fluoranthene	207-08-9	**29000**	0	NO	<327	<326	<329	<328
Biphenyl	92-52-4	**#N/A**	0	#N/A	<327	<326	<329	<328
Bis(2-Chloroethyl)ether	111-44-4	**330**	0	NO	<327	<326	<329	<328
Bis(2-Chloroisopropyl)ether	108-60-1	**800**	0	NO	<327	<326	<329	<328
Bis(2-Ethylhexyl)phthalate	117-81-7	**79000**	0	NO	<327	<326	<329	<328
Butyl benzyl phthalate	85-68-7	**220000**	0	NO	<327	<326	<329	<328
Chrysene	218-01-9	**76000**	0	NO	<327	<326	<329	<328
Di-n-butyl phthalate	84-74-2	**#N/A**	0	#N/A	<327	<326	<329	<328
Di-n-octyl phthalate	117-84-0	**3500000**	0	NO	<327	<326	<329	<328
Dibenz(a,h)anthracene	53-70-3	**330**	0	NO	<327	<326	<329	<328
Dibenzofuran	132-64-9	**24000**	0	NO	<327	<326	<329	<328
Diethyl phthalate	84-66-2	**360000**	0	NO	<327	<326	<329	<328
Dimethyl phthalate	131-11-3	**1500000**	0	NO	<327	<326	<329	<328
Diphenylamine	122-39-4	**#N/A**	0	#N/A	<327	<326	<329	<328
Fluoranthene	206-44-0	**1200000**	0	NO	<327	<326	<329	<328
Fluorene	86-73-7	**230000**	0	NO	<327	<326	<329	<328
Hexachlorobenzene	118-74-1	**2000**	0	NO	<327	<326	<329	<328
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<327	<326	<329	<328
Hexachloroethane	67-72-1	**2200**	0	NO	<327	<326	<329	<328
Indeno(1,2,3-cd)pyrene	193-39-5	**2900**	0	NO	<327	<326	<329	<328
Isophorone	78-59-1	**560**	0	NO	<327	<326	<329	<328
Nitrobenzene	98-95-3	**330**	0	NO	<327	<326	<329	<328
Pentachlorophenol	87-86-5	**1700**	0	NO	<1630	<1630	<1640	<1640
Phenanthrene	85-01-8	**660000**	0	NO	<327	<326	<329	<328
Phenol	108-95-2	**11000**	0	NO	<327	<326	<329	<328
Pyrene	129-00-0	**1100000**	0	NO	<327	<326	<329	<328
n-Nitrosodi-n-propylamine	621-64-7	**330**	0	NO	<327	<326	<329	<328
n-Nitrosodiphenylamine	86-30-6	**2100**	0	NO	<327	<326	<329	<328
1,3,5-Trinitrobenzene	99-35-4	**#N/A**	0	#N/A	<238	<250	<250	<248
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<476	<500	<500	<495
2,4,6-Trinitrotoluene	118-96-7	**#N/A**	0	#N/A	<476	<500	<500	<495
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<476	<500	<500	<495
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<476	<500	<500	<495
2-Amino-4,6-dinitrotoluene	35572-78-2	**#N/A**	0	#N/A	<476	<500	<500	<495
2-Nitrotoluene	88-72-2	**#N/A**	0	#N/A	<476	<500	<500	<495
3-Nitrotoluene	99-08-1	**#N/A**	0	#N/A	<476	<500	<500	<495
4-Amino-2,6-dinitrotoluene	19406-51-0	**#N/A**	0	#N/A	<476	<500	<500	<495
4-Nitrotoluene	99-99-0	**#N/A**	0	#N/A	<476	<500	<500	<495
HMX	2691-41-0	**#N/A**	0	#N/A	<238	<250	<250	<248
Nitrobenzene	98-95-3	**330**	0	NO	<327	<326	<329	<328
RDX	121-82-4	**#N/A**	0	#N/A	<238	<250	<250	<248
Tetryl	479-45-8	**#N/A**	0	#N/A	<238	<250	<250	<248
2,3,7,8-TCDD	1746-01-6	**#N/A**	7.68	#N/A	0.272 J	0.682 J	0.891 J	0.823 JK
1,2,3,7,8-PeCDD	40321-76-4	**#N/A**	32.7	#N/A	0.734	1.74 J	1.45 J	1.25 J
1,2,3,4,7,8-HxCDD	39227-28-6	**#N/A**	34.1	#N/A	0.682 JK	1.31 J	1.54 JK	1.09 JK
1,2,3,6,7,8-HxCDD	57653-85-7	**#N/A**	59.1	#N/A	0.871 J	1.99 J	1.98 J	1.8 J
1,2,3,7,8,9-HxCDD	19408-74-3	**#N/A**	53.5	#N/A	1.06 JK	5.2	4.85	4.41 J
1,2,3,4,6,7,8-HpCDD	35822-46-9	**#N/A**	558	#N/A	11.1	38.2	51.6	42.2
1,2,3,4,6,7,8,9-OCDD	3268-87-9	**#N/A**	2790	#N/A	443	1270	2380	1810
2,3,7,8-TCDF	51207-31-9	**#N/A**	67.5	#N/A	0.856 J	<0.236	<0.226	<0.29
1,2,3,7,8-PeCDF	57117-41-6	**#N/A**	106	#N/A	1.31 J	0.191 JK	0.171 J	0.259 JK
2,3,4,7,8-PeCDF	57117-31-4	**#N/A**	241	#N/A	2.57 J	<0.128	0.136 J	0.305 JK
1,2,3,4,7,8-HxCDF	70648-26-9	**#N/A**	270	#N/A	3.62 J	<0.157	0.202 J	0.403 J
1,2,3,6,7,8-HxCDF	57117-44-9	**#N/A**	262	#N/A	3.41 J	0.592 JK	0.737 J	0.91 J
2,3,4,6,7,8-HxCDF	60851-34-5	**#N/A**	419	#N/A	3.95 J	<0.151	0.21 JK	0.455 J
1,2,3,7,8,9-HxCDF	72918-21-9	**#N/A**	151	#N/A	1.55 J	0.886 J	0.97 J	1.03 JK
1,2,3,4,6,7,8-HpCDF	67562-39-4	**#N/A**	1410	#N/A	10.7	0.639 JK	0.601 J	1.7 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	**#N/A**	218	#N/A	1.52 J	<0.159	0.116 J	0.32 J
1,2,3,4,6,7,8,9-OCDF	39001-02-0	**#N/A**	1570	#N/A	7.21 J	<0.475	0.465 J	1.55 J
Perchlorate	14797-73-0	**#N/A**	308	#N/A	21.6	21.1	30.9	36.4

Notes:

N/A - Not Applicable

(1) - LDEQ 2003 RECAP Screening Standard (Minimum of the SOILi and SOILgw, reported in ug/kg)

Constituent concentration exceeds the RECAP Screening Standard.

Detection limit exceeds the RECAP Screening Standard for that constituent.

Constituent concentration exceeds detection limit, but has no RECAP Screening Standard.

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

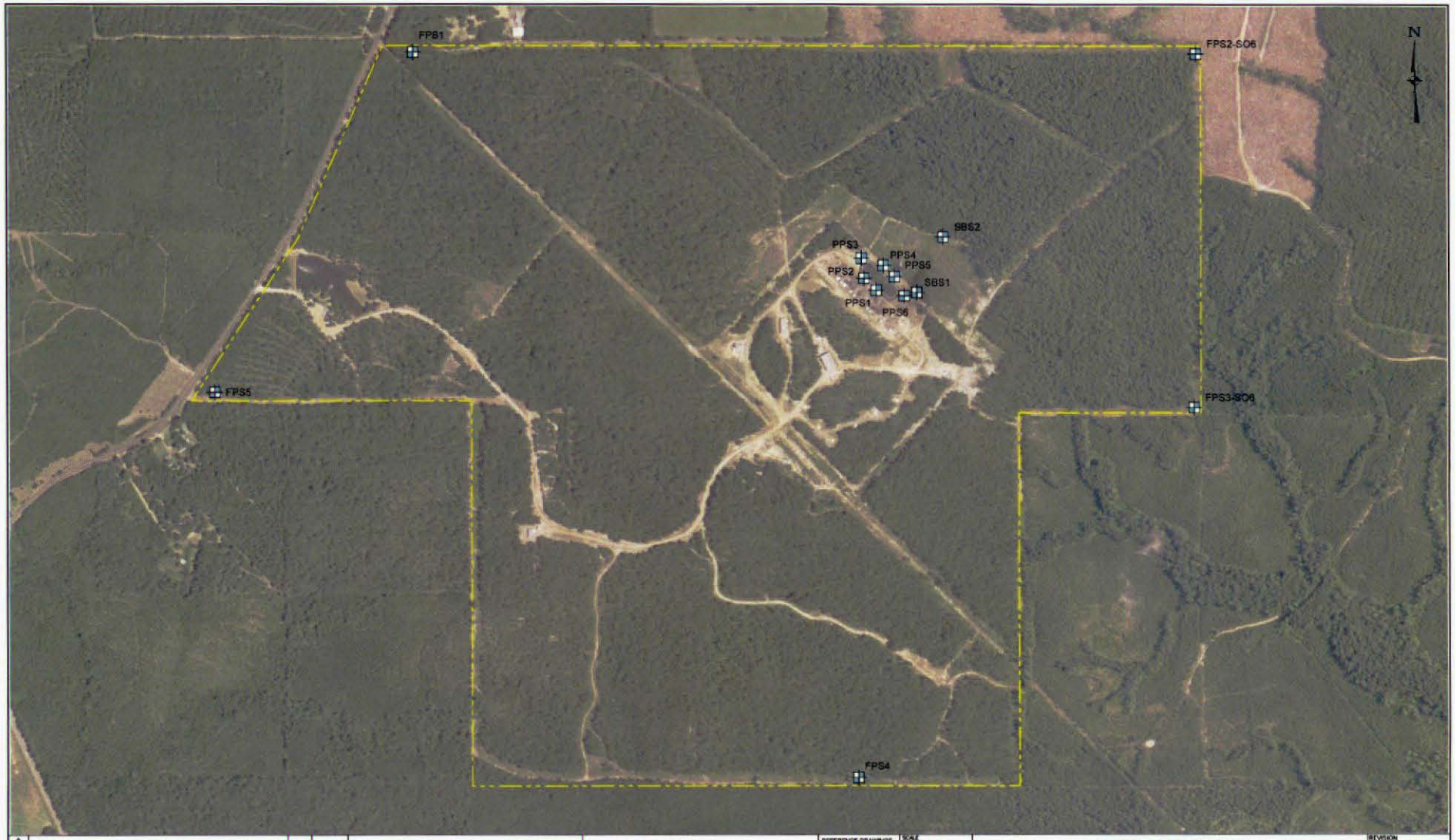
Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160729-PPS6-S06	PCH-20160728-SBS1	PCH-20160729-SBS2
		(ppb)			0-6"	0-6"	0-6"
Nitrate	14797-55-8	**20000000**	1.8	NO	<0.500	1.8	<0.500
Nitrite	14797-65-0	**2000000**	0	NO	<0.500	<0.500	<0.500
Ammonia	7664-41-7	**#N/A**	0	#N/A	<200	<200	<200
Aluminum	7429-90-5	**#N/A**	4900000	#N/A	2470000	4600000	1020000
Antimony	7440-36-0	**12000**	2730	NO	<787	2730	<794
Arsenic	7440-38-2	**12000**	2400	NO	1000	2140	<397
Barium	7440-39-3	**2000000**	292000	NO	22500	292000	15900
Beryllium	7440-41-7	**8000**	0	NO	<394	<391	<397
Boron	7440-42-8	**#N/A**	35500	#N/A	<3940	35500	<3970
Cadmium	7440-43-9	**20000**	1900	NO	<394	1900	<397
Chromium	7440-47-3	**100000**	12600	NO	1930	12600	675
Cobalt	7440-48-4	**4400000**	20700	NO	1130	16400	617
Copper	7440-50-8	**1500000**	552000	NO	17600	552000	2070
Lead	7439-92-1	**100000**	387000	**YES**	9740	387000	3250
Lithium	7439-93-2	**#N/A**	3730	#N/A	2130	3730	<1980
Manganese	7439-96-5	**#N/A**	81700	#N/A	7330	43800	5490
Molybdenum	7439-98-7	**#N/A**	3540	#N/A	<394	3540	<397
Nickel	7440-02-0	**1500000**	8890	NO	<787	8890	<794
Selenium	7782-49-2	**20000**	429	NO	<394	<391	<397
Silver	7440-22-4	**100000**	1590	NO	<394	1590	<397
Strontium	7440-24-6	**#N/A**	90500	#N/A	71900	56500	13300
Thallium	7440-28-0	**4000**	0	NO	<394	<391	<397
Tin	7440-31-5	**#N/A**	936	#N/A	<394	936	<397
Titanium	7440-32-6	**#N/A**	44400	#N/A	8210	23100	27100
Vanadium	7440-62-2	**520000**	9160	NO	5170	5060	2440
Zinc	7440-66-6	**280000**	209000	NO	<7870	209000	<7940
Mercury	7439-97-6	**4000**	0	NO	0.014	0.024	<0.012
1,1,1,2-Tetrachloroethane	630-20-6	**46**	0	NO	<4.56	<5.11	<4.91
1,1,1-Trichloroethane	71-55-6	**4000**	0	NO	<4.56	<5.11	<4.91
1,1,2,2-Tetrachloroethane	79-34-5	**6**	0	NO	<4.56	<5.11	<4.91
1,1,2-Trichloroethane	79-00-5	**58**	0	NO	<4.56	<5.11	<4.91
1,1-Dichloroethane	75-34-3	**7500**	0	NO	<4.56	<5.11	<4.91
1,1-Dichloroethene	75-35-4	**85**	0	NO	<4.56	<5.11	<4.91
1,1-Dichloropropene	563-58-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,2,3-Trichlorobenzene	87-61-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,2,3-Trichloropropane	96-18-4	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,2,4-Trichlorobenzene	120-82-1	**14000**	0	NO	<4.56	<5.11	<4.91
1,2,4-Trimethylbenzene	95-63-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,2-Dibromo-3-chloropropane	96-12-8	**10**	0	NO	<4.56	<5.11	<4.91
1,2-Dibromoethane	106-93-4	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,2-Dichlorobenzene	95-50-1	**29000**	0	NO	<4.56	<5.11	<4.91
1,2-Dichloroethane	107-06-2	**35**	0	NO	<4.56	<5.11	<4.91
1,2-Dichloropropane	78-87-5	**42**	0	NO	<4.56	<5.11	<4.91
1,3,5-Trimethylbenzene	108-67-8	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,3-Dichlorobenzene	541-73-1	**2100**	0	NO	<4.56	<5.11	<4.91
1,3-Dichloropropane	142-28-9	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
1,3-Dichloropropylene	542-75-6	**40**	0	NO	<9.13	<10.2	<9.82
1,4-Dichlorobenzene	106-46-7	**5700**	0	NO	<4.56	<5.11	<4.91
2,2-Dichloropropane	594-20-7	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
2-Butanone	78-93-3	**5000**	6.07	NO	<4.56	<5.11	<4.91
2-Chlorotoluene	95-49-8	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
2-Hexanone	591-78-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
4-Chlorotoluene	106-43-4	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
4-Isopropyltoluene	99-87-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
4-Methyl-2-pentanone	108-10-1	**6400**	0	NO	<4.56	<5.11	<4.91
Acetone	67-64-1	**1500**	42.5	NO	<22.8	41.7	<24.6
Benzene	71-43-2	**51**	0	NO	<0.913	<1.02	<0.982
Bromobenzene	108-86-1	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Bromochloromethane	74-97-5	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Bromodichloromethane	75-27-4	**920**	0	NO	<4.56	<5.11	<4.91
Bromoform	75-25-2	**1800**	0	NO	<4.56	<5.11	<4.91
Bromomethane	74-83-9	**40**	8.11	NO	<4.56	8.11	<4.91
Carbon disulfide	75-15-0	**11000**	0	NO	<4.56	<5.11	<4.91
Carbon tetrachloride	56-23-5	**110**	0	NO	<4.56	<5.11	<4.91
Chlorobenzene	108-90-7	**3000**	0	NO	<4.56	<5.11	<4.91
Chloroethane	75-00-3	**35**	0	NO	<4.56	<5.11	<4.91
Chloroform	67-66-3	**300**	0	NO	<4.56	<5.11	<4.91
Chloromethane	74-87-3	**100**	0	NO	<4.56	<5.11	<4.91
Dibromochloromethane	124-48-1	**1000**	0	NO	<4.56	<5.11	<4.91
Dibromomethane	74-95-3	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Dichlorodifluoromethane	75-71-8	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Ethyl methacrylate	97-63-2	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Ethylbenzene	100-41-4	**19000**	0	NO	<4.56	<5.11	<4.91
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<4.56	<5.11	<4.91
Isobutyl alcohol	78-83-1	**30000**	0	NO	<22.8	<25.6	<24.6
Isopropylbenzene (Cumene)	98-82-8	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Methyl iodide	74-88-4	**#N/A**	11.2	#N/A	<4.56	11.2	<4.91
Methylene chloride	75-09-2	**17**	9.77	NO	<9.13	<10.2	<9.82
Naphthalene	91-20-3	**1500**	0	NO	<4.56	<5.11	<4.91
Styrene	100-42-5	**11000**	0	NO	<4.56	<5.11	<4.91
Tetrachloroethene	127-18-4	**180**	0	NO	<4.56	<5.11	<4.91
Toluene	108-88-3	**20000**	0	NO	<4.56	<5.11	<4.91
Trichloroethene	79-01-6	**73**	0	NO	<4.56	<5.11	<4.91
Trichlorofluoromethane	75-69-4	**37000**	0	NO	<4.56	<5.11	<4.91
Vinyl acetate	108-05-4	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
Vinyl chloride	75-01-4	**13**	0	NO	<4.56	<5.11	<4.91
Xylene (total)	1330-20-7	**120000**	0	NO	<13.7	<15.3	<14.7
cis-1,2-Dichloroethene	156-59-2	**490**	0	NO	<4.56	<5.11	<4.91
cis-1,3-Dichloropropene	10061-01-5	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
cis-1,4-Dichloro-2-Butene	1476-11-5	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
n-Butylbenzene	104-51-8	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
n-Propylbenzene	103-65-1	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
sec-Butylbenzene	135-98-8	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
tert-Butyl methyl ether (MTBE)	1634-04-4	**77**	0	NO	<4.56	<5.11	<4.91
tert-Butylbenzene	98-06-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
trans-1,2-Dichloroethene	156-60-5	**770**	0	NO	<4.56	<5.11	<4.91
trans-1,3-Dichloropropene	10061-02-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91
trans-1,4-Dichloro-2-butene	110-57-6	**#N/A**	0	#N/A	<4.56	<5.11	<4.91

Table 2
Soil Analytical Data Summary
Clean Harbors Colfax, Louisiana

Constituent	CAS#	LDEQ RECAP Screening Levels[1]	Maximum	RECAP SL Exceedance?	PCH-20160729-PPS6-S06	PCH-20160728-SBS1	PCH-20160729-SBS2
		(ppb)			0-6"	0-6"	0-6"
1,2,4,5-Tetrachlorobenzene	95-94-3	**6900**	0	NO	<330	<330	<326
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<66.0	<66.0	<65.1
2,3,4,6-Tetrachlorophenol	58-90-2	**31000**	0	NO	<330	<330	<326
2,4,5-Trichlorophenol	95-95-4	**320000**	0	NO	<330	<330	<326
2,4,6-Trichlorophenol	88-06-2	**1300**	0	NO	<330	<330	<326
2,4-Dichlorophenol	120-83-2	**12000**	0	NO	<330	<330	<326
2,4-Dimethylphenol	105-67-9	**20000**	0	NO	<330	<330	<326
2,4-Dinitrophenol	51-28-5	**1700**	0	NO	<330	<330	<326
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<330	<330	<326
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<330	<330	<326
2-Chloronaphthalene	91-58-7	**500000**	0	NO	<330	<330	<326
2-Chlorophenol	95-57-8	**1400**	0	NO	<330	<330	<326
2-Methylnaphthalene	91-57-6	**1700**	0	NO	<330	<330	<326
2-Nitroaniline	88-74-4	**1700**	0	NO	<1650	<1650	<1630
3,3'-Dichlorobenzidine	91-94-1	**1800**	0	NO	<660	<660	<651
3-Nitroaniline	99-09-2	**1700**	0	NO	<1650	<1650	<1630
4-Nitroaniline	100-01-6	**1700**	0	NO	<1650	<1650	<1630
4-Nitrophenol	100-02-7	**2600**	0	NO	<1650	<1650	<1630
Acenaphthene	83-32-9	**220000**	0	NO	<330	<330	<326
Acenaphthylene	208-96-8	**88000**	0	NO	<330	<330	<326
Anthracene	120-12-7	**120000**	0	NO	<330	<330	<326
Benzo(a)anthracene	56-55-3	**2900**	0	NO	<330	<330	<326
Benzo(a)pyrene	50-32-8	**330**	0	NO	<330	<330	<326
Benzo(b)fluoranthene	205-99-2	**2900**	0	NO	<330	<330	<326
Benzo(k)fluoranthene	207-08-9	**29000**	0	NO	<330	<330	<326
Biphenyl	92-52-4	**#N/A**	0	#N/A	<330	<330	<326
Bis(2-Chloroethyl)ether	111-44-4	**330**	0	NO	<330	<330	<326
Bis(2-Chloroisopropyl)ether	108-60-1	**800**	0	NO	<330	<330	<326
Bis(2-Ethylhexyl)phthalate	117-81-7	**79000**	0	NO	<330	<330	<326
Butyl benzyl phthalate	85-68-7	**220000**	0	NO	<330	<330	<326
Chrysene	218-01-9	**76000**	0	NO	<330	<330	<326
Di-n-butyl phthalate	84-74-2	**#N/A**	0	#N/A	<330	<330	<326
Di-n-octyl phthalate	117-84-0	**3500000**	0	NO	<330	<330	<326
Dibenz(a,h)anthracene	53-70-3	**330**	0	NO	<330	<330	<326
Dibenzofuran	132-64-9	**24000**	0	NO	<330	<330	<326
Diethyl phthalate	84-66-2	**360000**	0	NO	<330	<330	<326
Dimethyl phthalate	131-11-3	**1500000**	0	NO	<330	<330	<326
Diphenylamine	122-39-4	**#N/A**	0	#N/A	<330	<330	<326
Fluoranthene	206-44-0	**1200000**	0	NO	<330	<330	<326
Fluorene	86-73-7	**230000**	0	NO	<330	<330	<326
Hexachlorobenzene	118-74-1	**2000**	0	NO	<330	<330	<326
Hexachlorobutadiene	87-68-3	**5500**	0	NO	<330	<330	<326
Hexachloroethane	67-72-1	**2200**	0	NO	<330	<330	<326
Indeno(1,2,3-cd)pyrene	193-39-5	**2900**	0	NO	<330	<330	<326
Isophorone	78-59-1	**560**	0	NO	<330	<330	<326
Nitrobenzene	98-95-3	**330**	0	NO	<330	<330	<326
Pentachlorophenol	87-86-5	**1700**	0	NO	<1650	<1650	<1630
Phenanthrene	85-01-8	**660000**	0	NO	<330	<330	<326
Phenol	108-95-2	**11000**	0	NO	<330	<330	<326
Pyrene	129-00-0	**1100000**	0	NO	<330	<330	<326
n-Nitrosodi-n-propylamine	621-64-7	**330**	0	NO	<330	<330	<326
n-Nitrosodiphenylamine	86-30-6	**2100**	0	NO	<330	<330	<326
1,3,5-Trinitrobenzene	99-35-4	**#N/A**	0	#N/A	<250	<250	<250
1,3-Dinitrobenzene	99-65-0	**250**	0	NO	<500	<500	<500
2,4,6-Trinitrotoluene	118-96-7	**#N/A**	0	#N/A	<500	<500	<500
2,4-Dinitrotoluene	121-14-2	**1000**	0	NO	<500	<500	<500
2,6-Dinitrotoluene	606-20-2	**390**	0	NO	<500	<500	<500
2-Amino-4,6-dinitrotoluene	35572-78-2	**#N/A**	0	#N/A	<500	<500	<500
2-Nitrotoluene	88-72-2	**#N/A**	0	#N/A	<500	<500	<500
3-Nitrotoluene	99-08-1	**#N/A**	0	#N/A	<500	<500	<500
4-Amino-2,6-dinitrotoluene	19406-51-0	**#N/A**	0	#N/A	<500	<500	<500
4-Nitrotoluene	99-99-0	**#N/A**	0	#N/A	<500	<500	<500
HMX	2691-41-0	**#N/A**	0	#N/A	<250	<250	<250
Nitrobenzene	98-95-3	**330**	0	NO	<330	<330	<326
RDX	121-82-4	**#N/A**	0	#N/A	<250	<250	<250
Tetryl	479-45-8	**#N/A**	0	#N/A	<250	<250	<250
2,3,7,8-TCDD	1746-01-6	**#N/A**	7.68	#N/A	0.232 J	7.68	<0.0624
1,2,3,7,8-PeCDD	40321-76-4	**#N/A**	32.7	#N/A	0.386 J	32.7	0.099 JK
1,2,3,4,7,8-HxCDD	39227-28-6	**#N/A**	34.1	#N/A	0.43 JK	34.1	0.116 J
1,2,3,6,7,8-HxCDD	57653-85-7	**#N/A**	59.1	#N/A	0.58 J	59.1	0.219 J
1,2,3,7,8,9-HxCDD	19408-74-3	**#N/A**	53.5	#N/A	0.966 J	53.5	0.237 J
1,2,3,4,6,7,8-HpCDD	35822-46-9	**#N/A**	558	#N/A	22.8	558	6.71
1,2,3,4,6,7,8,9-OCDD	3268-87-9	**#N/A**	2790	#N/A	1520	2790	325
2,3,7,8-TCDF	51207-31-9	**#N/A**	67.5	#N/A	<0.269	67.5	0.168 JK
1,2,3,7,8-PeCDF	57117-41-6	**#N/A**	106	#N/A	0.245 J	106	0.101 JK
2,3,4,7,8-PeCDF	57117-31-4	**#N/A**	241	#N/A	0.22 JK	241	0.118 J
1,2,3,4,7,8-HxCDF	70648-26-9	**#N/A**	270	#N/A	<0.185	270	0.14 JK
1,2,3,6,7,8-HxCDF	57117-44-9	**#N/A**	262	#N/A	0.344 JK	262	0.146 JK
2,3,4,6,7,8-HxCDF	60851-34-5	**#N/A**	419	#N/A	0.274 JK	419	0.157 JK
1,2,3,7,8,9-HxCDF	72918-21-9	**#N/A**	151	#N/A	0.36 JK	151	0.0934 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	**#N/A**	1410	#N/A	0.745 J	1410	0.43 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	**#N/A**	218	#N/A	<0.119	218	<0.0803
1,2,3,4,6,7,8,9-OCDF	39001-02-0	**#N/A**	1570	#N/A	0.805 J	1570	0.377 J
Perchlorate	14797-73-0	**#N/A**	308	#N/A	24.3	20.2	4.54

Notes:
N/A - Not Applicable
(1) - LDEQ 2003 RECAP Screening Standard (Minimum of the SOILi and SOILgw, reported in ug/kg)
Constituent concentration exceeds the RECAP Screening Standard.
Detection limit exceeds the RECAP Screening Standard for that constituent.
Constituent concentration exceeds detection limit, but has no RECAP Screening Standard.

Figures



REV	DESCRIPTION OF REVISION	BY	DATE
△			
△			
△			
△			
△			
△			

DEQ LOUISIANA

AECOM
7389 Florida Blvd., Suite 300
Baton Rouge, Louisiana 70806
225/922-5700

REFERENCE DRAWINGS

SCALE 1" = 660'
DESIGNED
DRAWN WPS
CHECKED CD
PEER REVIEWED
DATE 09/16/16

CLEAN HARBORS COLFAX FACILITY
COLFAX, LOUISIANA

FACILITY LAYOUT
AND
SOIL SAMPLING LOCATIONS

REVISION △
PROJECT
FIGURE 2

REV	DESCRIPTION OF REVISION	BY	DATE
△			
△			
△			
△			
△			
△			

DEQ LOUISIANA

AECOM
7389 Florida Blvd., Suite 300
Baton Rouge, Louisiana 70806
225/922-5700

REFERENCE DRAWINGS

SCALE 1" = 200'
DESIGNED
DRAWN MPS
CHECKED CD
PEER REVIEWED
DATE 09/16/16

CLEAN HARBORS COLFAX FACILITY
COLFAX, LOUISIANA

RETENTION POND
AND
STREAMBED SOIL SAMPLING LOCATIONS

REVISION △
PROJECT
FIGURE 3