

Figure 1 – Area 2 With Property Boundaries



Figure 2 – Area 3 With Property Boundaries

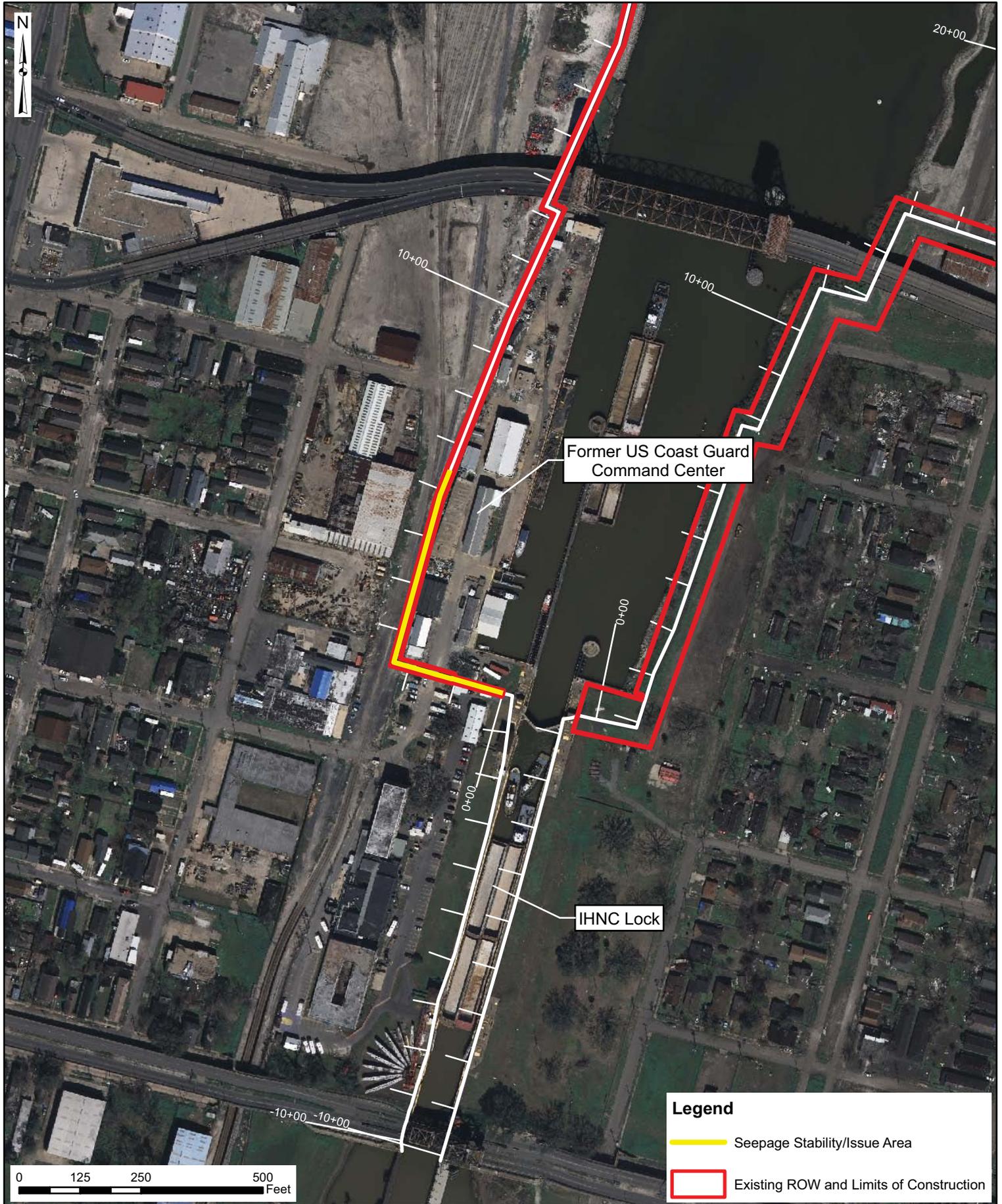


Figure 3 – Area 2 Sample Locations

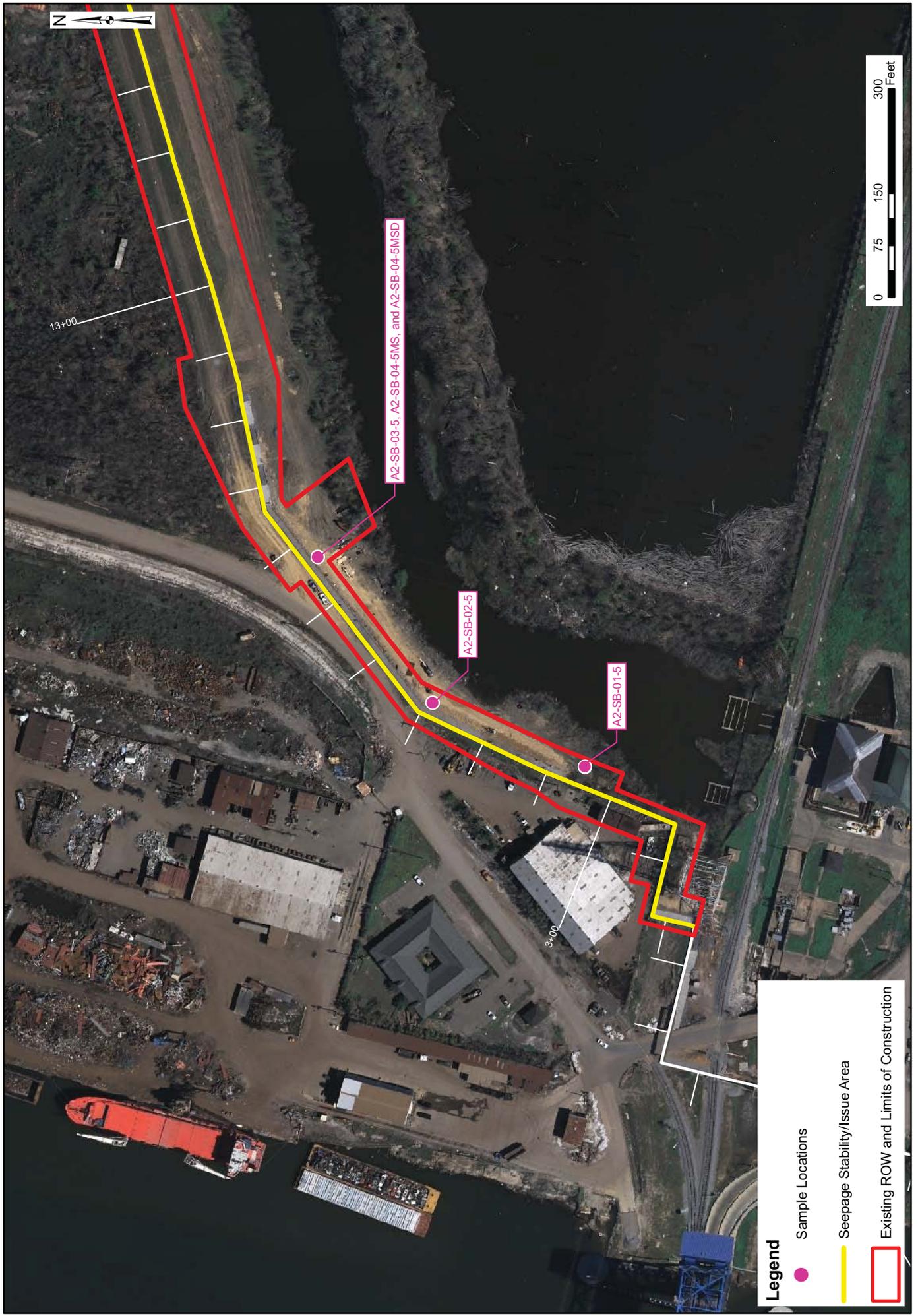
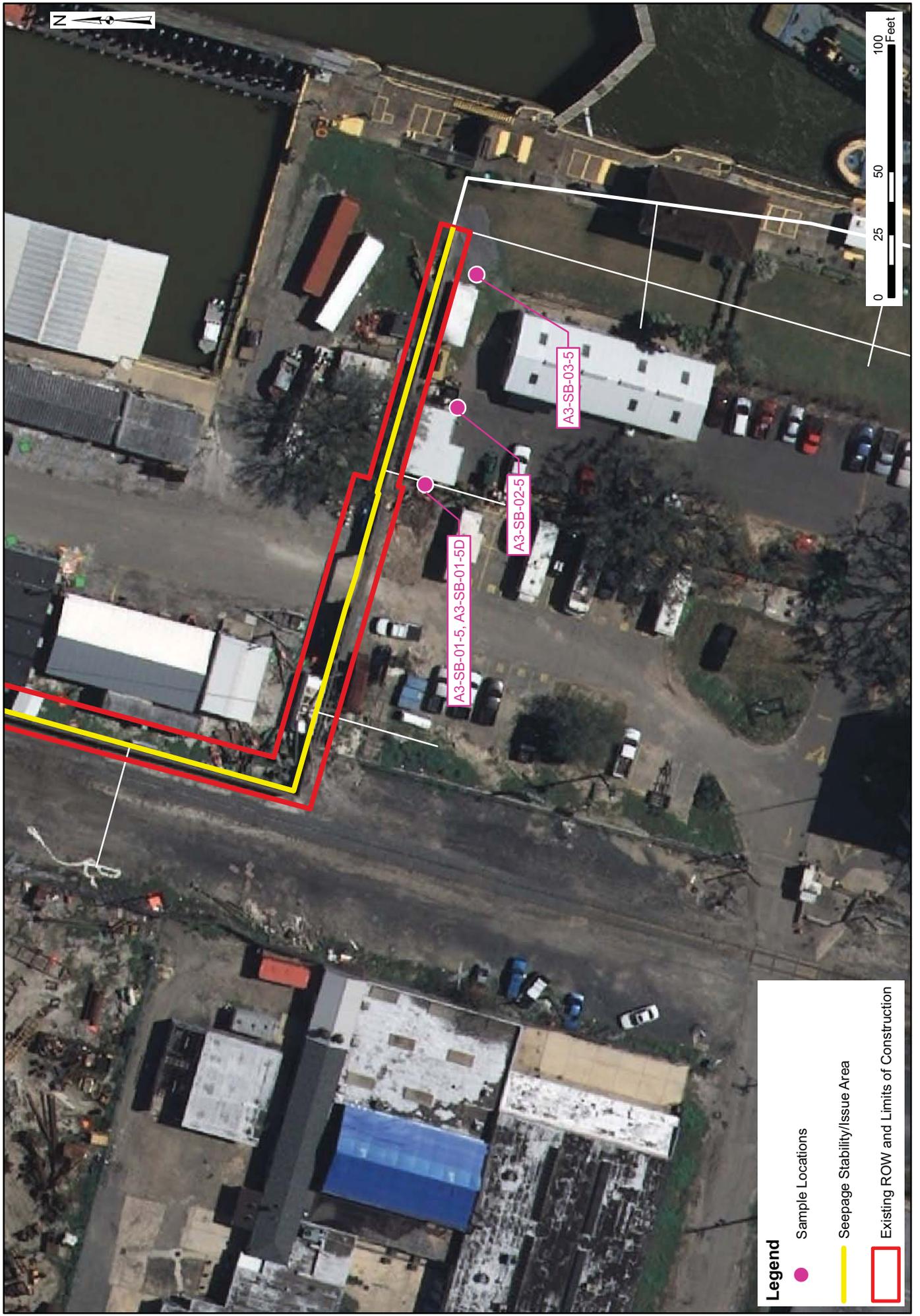


Figure 4 – Area 3 Sample Locations



STATEMENT OF WORK FOR ENVIRONMENTAL SERVICES

NEPA COMPLIANCE DOCUMENTATION

**INNER HARBOR NAVIGATION CANAL LEVEES AND FLOODWALLS RESTORATION AND REPAIR
PROJECT**

ORLEANS PARISH, LOUISIANA

1.0 INTRODUCTION

It is the Government's intent to prepare National Environmental Protection Act (NEPA) compliance documentation in the form of an Individual Environmental Report for activities related to restoring and repairing the Inner Harbor Navigation Canal (IHNC) Levees and Floodwalls in Orleans Parish, Louisiana.

The Army Corps of Engineers, New Orleans District (CEMVN) is proceeding with alternative arrangements for compliance with NEPA and will therefore not be preparing a traditional Environmental Impact Statement or Environmental Assessment NEPA compliance documentation for the project described above, instead it will take the form of an Individual Environmental Report (IER). This IER will disclose the direct, indirect, and cumulative impacts through alternative analysis found in traditional NEPA documents. This IER will require a level of detailed analysis equal to or greater than that of an Environmental Assessment.

1.1 BACKGROUND

The Army Corps of Engineers, New Orleans District (CEMVN), is proposing to restore and repair critical sections of levees and floodwalls within the IHNC to meet current seepage and stability criteria. Appendix A of this Scope of Work provides information on the alternatives, in addition to a No-action and Nonstructural Alternatives, which will be investigated in this IER.

As part of the design and planning process for this Federal project, the Government must conduct a NEPA analysis to disclose and analyze the effects of various alternatives that serve the purpose and need of this project. The Government's Technical Representative (Hurricane Protection Office Environmental Staff) will assure thorough coordination, guidance, technical assistance and review of contracted work that NEPA documents prepared either solely or in part by the contractor are consistent with the Corps' Engineering Regulations and policy approved by the Corps and recognized to be consistent and in compliance with the NEPA Council on Environmental Quality guidelines.

A Phase I Environmental Site Assessment (ESA) and Hazardous, Toxic, Radioactive Waste Land Use History will also be performed by the Contractor to investigate the potential presence of any HTRW in the vicinity of the proposed construction. The Phase I will be conducted in compliance with ASTM Standard 1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (November 1, 2006). The focus of these reports will be to review existing and past historical information regarding the site. The

reports will document the past history of the site to determine the potential presence of any HTRW, in order to avoid any areas of concern.

The Contractor shall verify the recognized environmental conditions (RECs) identified in the Phase I Environmental Site Assessment (ESA) (AECOM, 2010). The following are the RECs listed in this report:

(1) Site Gate W-1

Former US Coast Guard (USCG) Facility at 4640 Urquhart Street, New Orleans, LA 70117. Soils potentially impacted by hazardous substances or petroleum products by adjacent facility.

(2) Site 18-28+85

Southern Scrap/Southern Recycling (SS/SR), 4801 Florida Avenue, New Orleans, LA 70117. Soils potentially impacted by hazardous substances or petroleum products by adjacent facility.

The Contractor shall conduct Phase II sampling and testing at potential construction work areas with environmental concern along the Inner Harbor Navigation Canal (IHNC) and Mississippi River Gulf Outlet (MRGO) levee and floodwall. Specific tasks include:

(a) development of a sampling analysis plan (SAP) that includes a Field Sampling Plan (FSP) and a Quality Assurance Project Plan (QAPP), as well as a site-specific and health plan (SSHP) appropriate for the construction work objectives of the project; (b) sampling and testing; and,

(c) preparation of a Phase II ESA report or sampling analysis report (SAR) that includes evaluation of the sampling and testing results, including a recommendation for any necessary personnel safety requirements related to ground disturbance during construction as well as environmental compliance options during any onsite re-use of excess soil material generated or any required disposal of waste generated during construction that include, as necessary, any associated disposal quantity and cost estimates.

Enclosure 1 provides locations of construction work as well as the proposed and alternate engineering improvement methods. The Phase II ESA results shall provide information necessary for the engineering design and construction work improvements at these portions of the levee and floodwall in a safety and environmental compliant manner.

1.2 SCOPE

The Contractor shall furnish all personnel, equipment, materials, and supplies necessary to conduct any necessary meetings and activities and prepare all of, or major sections of NEPA compliance documentation and HTRW studies. The Contractor will also be responsible for furnishing all necessary personnel, equipment, materials, and supplies necessary to produce other environmental compliance documentation such as a 404(b)(1) permit evaluation, and Water Quality Certification.

The level of detail for the NEPA documentation shall be as necessary to describe impacts to important resources for each alternative and to provide an analysis of cumulative impacts and other sections as needed.

As directed, the Contractor shall coordinate with other Governmental contractors. Both phases of this work will require close coordination with engineering and design contractors assigned to this project, to insure that environmental input and constraints inform the design and construction process.

All references to days or elapsed days within this SOW refer to calendar days, unless specifically defined otherwise.

Services required by this SOW will be performed upon notice to proceed. The Government at its option may, by written order, direct the Contractor to proceed with this delivery order at any time following the effective date of the delivery order, subject to requirements described below. The Contractor will, upon written request by the Contracting Officer's Representative (COR), provide all professional services required for and related to the preparation, coordination, documentation, reproduction, distribution, and completion of this SOW.

1.3 APPROACH

This SOW encompasses the following work elements:

TASK	DESCRIPTION OF TASK
1	Kickoff Meeting and Data Compilation
2	Complete Preliminary Draft EA and FONSI 2a. Convert EA to IER
3	Complete Draft IER
4	Assist Government in Preparing Responses to Public Comments
5	Prepare Final IER with Final Review by Corps Technical Representative
6	Coordinate In-Progress Review Meetings/Attend Unscheduled Meetings
7	Conduct HTRW Phase I Analysis
8	Preparation of Administrative Record
9	Attend Public Meeting
10	Phase II ESA

1.3.1 Services under this task order include all work and materials required to complete Tasks 1 through 10 of this delivery order as identified in the above table. The Contractor shall perform these services as described herein.

1.4 APPLICABLE DOCUMENTS

The Contractor shall comply with all applicable 1) Federal, state, and local environmental statutes, regulations, and rules (including all changes and amendments); and 2) presidential executive orders in effect on the date of issuance of this task order. In particular, the Contractor shall comply with the following guidance including, but not limited to:

- a. Applicable Federal, State, Parish, City and other local laws and regulations
- b. National Environmental Policy Act (NEPA)
- c. Council on Environmental Quality (CEQ) Regulations (40 CFR 1500, et seq.)
- d. Clean Air Act
- e. Clean Water Act
- f. National Historic Preservation Act
- g. Endangered Species Act
- h. Marine, Protection, Research and Sanctuaries Act (MPRSA)
- i. Department of the Army, Engineer Regulation, ER 200-2-2 (33 CFR 230)
- j. Department of the Army, Engineer Regulation, ER 1105-2-100, especially Chapter 3, Appendix C, and Appendix E.

The contractor is responsible for obtaining any additional materials, regulations and guidance documents required for completing this task.

1.5 GOVERNMENT FURNISHED EQUIPMENT / INFORMATION

Upon request, CEMVN personnel will supply the Contractor with reference materials that will be returned within 72 hours or copies (either hard copy or electronic file) of existing environmental compliance documents, operating records and analytical results, and other CEMVN documents that are essential to completing the IER.

2.0 ENVIRONMENTAL SERVICES

2.1 SPECIFIC REQUIREMENTS

Task 1. Kickoff Meeting and Data Compilation

The Contractor Project Manager (PM) and key Project Team Members will attend a half-day Kickoff Meeting with the New Orleans District Hurricane Protection Office (HPO) Environmental Team and IHNC Project Delivery Team at the New Orleans District's office to review tasks included under this delivery order, review alternatives to be analyzed, set the deliverables schedule, and develop a proposed work plan.

The Contractor will identify and obtain baseline data available from other Federal, state, local and private agencies and coordinate with other efforts in the vicinity of the proposed actions. The Contractor will compile all data collected by the Contractor or provided by agencies and serve as the repository for all reference documents throughout the process. The collected information will be included in the administrative record at the conclusion of the IER. The Hurricane Protection Office Environmental Team, as necessary or appropriate, will provide assistance with agency coordination.

Task 2. Complete Preliminary Draft EA and DFONSI

The Contractor will analyze and prepare documentation of the most probable future conditions under each of the alternative plans, including the no action alternative. The Contractor will document environmental setting, existing conditions and important resources and determine the most probable future for those important resource impacted by the project. Those resources which are not impacted by the project must be stated, but need not be described in detail. The contractor shall follow the CEMVN EA template in preparing the EA.

The Contractor will identify potential incremental impacts which could be cumulative as defined in 40 CFR 1508.7, when added to other past, present or reasonably foreseeable future actions within the project area.

The specific format for the Preliminary Draft EA and DFONSI will be in accordance with regulatory guidance provided by the Government, using the table of contents outlined below. The text will be error free, complete, clear, concise, and grammatically correct. The main text of the report will be written in a manner suitable for reading by persons not professionally trained for the technical subject discussed. The Preliminary Draft EA will be an analytical document, with a minimum of attached reference material. The size of pages will be 8.5 by 11 inches, except for foldout maps, charts, or other illustrative material. Type size and the font used will be approved by the Government prior to printing. Drawings, photographs, and text will be sufficient to adequately cover the material, eliminating any extraneous information. The Preliminary Draft EA will also include a brief summary. The Contractor will submit five (5) hard copies of the Preliminary Draft EA and two (2) CDs containing the electronic file to the New Orleans District for in-house Government review. The Government will furnish all comments on the Preliminary Draft EA to the Contractor. A meeting between the Contractor and the Government will be held in New Orleans, Louisiana to discuss the Preliminary Draft EA and the comments and to resolve any problems or questions that may arise. The Contractor's Project Managers and any other key personnel that the Government deems necessary (estimated 4 contractor personnel) will attend this meeting.

Contractor shall use format provided by Hurricane Protection Office Environmental Team. The sections to be included in the EA are as follows:

Introduction
Purpose and Need for the Proposed Action
Authority for the Proposed Action
Prior Reports
Public Concerns
Description of the Proposed Action
Alternatives to the Proposed Action
Environmental Setting
Important Resources
Hazardous, Toxic and Radioactive Waste
Cumulative Impacts
Coordination
Mitigation
Compliance with Environmental Laws and Regulations
Conclusion
Prepared By
Literature Cited
Appendices

In support of the EA, and in order to comply with other applicable environmental laws, the Contractor shall also prepare the following compliance documentation subtasks:

- **Coordinate with Corps Technical Representative on Threatened and Endangered Species**

The Government has an agreement with resource agencies, such as US Fish and Wildlife Service and NOAA Fisheries, that the primary point of contact

for USACE projects will be a USACE employee. Therefore, all contact with the resource agencies in handling threatened and endangered species issues and compliance shall be made through and in coordination with the HPO Environmental Team.

Contractor will conduct research to identify the presence of any threatened species, endangered species, or critical habitat within the project area and identify any possible impacts to these resources. Based on this research and input from HPO Environmental Team, Contractor will prepare either (a) a request for concurrence on determination of no adverse impacts on the species or critical habitat; or (b) documentation requesting consultation with resource agencies on impacts to species or critical habitat. In some cases the contractor may be required to write a biological assessment. All contact with Federal resource agencies will be worked through the Environmental Manager. {Some of the areas (especially Orleans and NOE Lake Pontchartrain) are going to require a biological assessment due to gulf sturgeon critical habitat. Elizabeth Behrens is district Species Management Expert (SME) for sturgeon, so contractor will coordinate with Ms. Behrens regarding sturgeon issues to ensure consistency (504-862-2025).

Task 2.a. Convert EA to IER

The Contractor shall convert the EA into an IER, as to fit the most recent IER template (dated February 2009).

Task 3. Complete Draft IER

Following the review and acceptance of the Preliminary Draft IER by the Government, the Contractor will proceed with preparation of the Draft IER document. Efforts required in the preparation of the Draft IER will include:

(a) *Administrative Draft IER Meeting.* After the Contractor completes the modifications to the Preliminary Draft IER, the Contractor will conduct a meeting with the Government to discuss the Administrative Draft IER. The Administrative Draft IER will be as complete as possible and include an example of the table of contents, examples of section dividers, typical examples of tables, graphics, and charts, and an example of the text type (single-spaced), paper, and page format. In addition, an example of the front cover will also be included. The front cover of the Draft IER (and Final IER) will contain the title of the document, Document Control Number, New Orleans District and EPA, Region 6 names, contract number, date (month and year), and name of the Contractor who prepared the document. The Government will approve the Draft IER as the Administrative Draft IER. Corrections should be made as noted before reproduction. The contractor shall conduct additional interviews with impacted businesses and revise the socioeconomics section of the IER to incorporate comments from the socioeconomic SME.

(b) *Public Draft IER.* Upon approval of the Administrative Draft IER and DFONSI by the Government, the Contractor will provide a camera-ready copy of the approved Draft IER and

three (3) master CDs of the Draft IER to the Hurricane Protection Office Environmental Team, and 40 printed copies of the Draft IER to be distributed to the public. The Contractor shall stuff, seal and label the 40 printed copies using Government-provided permit envelopes and Government-provided printed mailing labels. The Hurricane Protection Office Environmental Team will be responsible for postage and mailing of the Draft IER and DFONSI to the public.

(c) *Notice of Availability.* The Contractor shall prepare a draft Notice of Availability, to be distributed to the public, using the CEMVN Notice of Availability template. Upon approval of the draft Notice of Availability by the Government, the Contractor shall make 2800 copies of the Notice of Availability. The Contractor shall stuff, seal and label the Notices using Government-provided permit envelopes and Government-provided printed mailing labels.

Task 4. Assist Government in Preparing Responses to Public Comments

(a) *Prepare Responses to Public Comments on Draft IER.* A 1-day IPR meeting will be held in the New Orleans District office to prepare responses to public comments received on the Draft IER. Following the IPR meeting, the Contractor, in coordination with the Government, will prepare draft responses to comments on the IER in electronic format and provide five (5) copies of the drafted comments and responses to the Government for review and approval. Responses to comments may include tables, graphics or additional data for review and incorporation into the text or appendices of the Final IER. All responses and changes to the document will be subject to approval by the Government prior to inclusion in the Final IER.

Task 5. Prepare Final IER & Decision Record

The Contractor will perform the following:

(a) *Prepare Final IER.* Following the Contractor's incorporation of any changes to the IER based on public comment, the Contractor will prepare a full version of the Final IER for Government review and approval as the Administrative Final IER. The Final IER format will be the same as that of the Preliminary Draft IER outlined above.

(b) *Public Final IER.* Upon approval of the Administrative Final IER by the Government, the Contractor will provide a camera-ready copy of the approved Final IER and five (5) printed copies of the Final IER to the New Orleans District. The Contractor will also provide three CD Masters of the Final IER.

(c) *Prepare Final Decision Record.* The Contractor shall complete a draft Decision Record using a template provided by the Government.

Task 6. Coordinate In-Progress Review Meetings/Attend Unscheduled Meetings

In addition to the kick-off meeting, Administrative Draft IER review meeting and public comment resolution meeting, the government or contractor will schedule and conduct up to two (2) In-Progress Review (IPR) meetings at critical points within the IER schedule. These meetings will be interactive in nature, and will require no more than half-days per meeting. It is anticipated that all IPR meetings will be held in New Orleans, Louisiana.

The Government reserves the right to request unscheduled meetings with the Contractor to review and discuss the progress and to discuss any problems or concerns that may arise during execution of the project, or to coordinate with other parties such as design contractors or Parish government. The Contractor may also request meetings with the Government. Dates and locations for meetings will be mutually agreed upon as necessary. It is anticipated that up to two (2) unscheduled meetings for the IER involving travel by the Contractor project managers to

New Orleans District (or similar distance) will be held on an as-needed basis, to discuss particular data needs or to resolve issues or concerns related to the proposed actions. Up to one (1) additional unscheduled meeting will be held at the Contractor's office, as determined necessary, or in conjunction with or concurrent with other scheduled meetings described in this SOW.

Task 7. Conduct HTRW Phase I Environmental Site Assessment

Subtask 1: Environmental Database Search

The Contractor shall review past environmental databases, as stipulated within the ASTM standards. At a minimum, the Contractor shall search the following databases, as appropriate for the property, to help determine if hazardous sites or serious local environmental problems may exist on or immediately adjacent (see radius specifications) to the property:

- * The National Priorities List (1 mile radius);
- * Delisted National Priorities Lists (½ mile radius);
- * The Comprehensive Environmental Response, Compensation, and Liability Information System (½ mile radius);
- * The Comprehensive Environmental Response, Compensation, and Liability Information System No Further Remedial Action Planned Database (½ mile radius);
- * The Solid Waste Landfills/Facilities Database (½ mile radius);
- * The Emergency Response Notification System and Hazardous Materials Incident Reporting System (¼ mile radius);
- * The Resource Conservation and Recovery Information System (½ mile radius for treatment, storage or disposal (TSD) facilities and ¼ mile radius for generators);
- * Any state listing of registered and leaking underground storage tanks (¼ and ½ mile radii, respectively);
- * The Louisiana Inactive and Abandoned Sites List (1 mile radius); and,
- * Louisiana Department of Natural Resources Oil and Gas Wells Database (1 mile radius).

In addition, the Contractor shall conduct a review of the site history, background information and preliminary data available from the State of Louisiana and/or other sources, including an environmental regulatory database search report prior to conducting site inspections. The contractor shall also verify property boundaries and past ownerships. No title search will be required. The review shall be conducted to help establish the type of activities that were previously conducted on the property. Standard historical sources that are reasonably ascertainable, such as fire insurance maps, USGS topographic maps, historical aerial photographs, city directories, and building department records shall be reviewed.

Subtask 2: Site Inspection/Interviews

The contractor shall conduct interviews with individuals having past experience and knowledge of the site, prior to conducting a detailed site inspection. Interviews with the State LDEQ regarding Large Quantity Generators (LQG) and Small Quantity Generators (SQG) located in the general vicinity of the project location are recommended. The inspection shall include the review

of available historical aerial photographs of the site and surrounding properties. The site inspection shall not be limited to the property under consideration, but the adjacent properties shall also be inspected based on legal access. Site plans and topographic maps, where available, shall also be reviewed. The site inspection shall include an inventory of former chemical usage and waste generated on the site (if available); information on aboveground and underground storage tanks; available Superfund Amendments and Reauthorization Act (SARA) Title III reporting information; environmental permitting information and permits from local, state, or federal agencies; engineering reports and surveys relevant to environmental issues; records of claims, litigation, spills, noncompliance, complaints, etc., related to environmental practices; environmental monitoring data, including groundwater and soil testing, local geology and hydrogeology in the vicinity of the site; and data on electrical equipment containing polychlorinated biphenyl (PCB) fluids. Interviews shall be conducted with knowledgeable persons regarding site history. This may include, but is not limited to current and past owners of the property.

Subtask 3: Draft Report Preparation

A draft report shall be prepared documenting the results of the research, interviews, on-site inspections, and other findings. The report shall provide an overall assessment of past activities and recognized environmental conditions, if any. The report of findings shall follow the scope and format described in ASTM E 1527-05 (which is in full compliance with the Nov 2006 EPA rule “Standards for Conducting All Appropriate Inquiries”), and shall include documentation of the qualifications of the personnel conducting the assessment and their findings, opinions, and conclusions.

The identification of any REC should include its GPS coordinates. The Horizontal Survey Data shall be referenced to North American Datum 1983 (NAD 83), National Spatial Reference System (NSRS), Louisiana State Plane Coordinate, South Zone 1702, and U.S. Survey Feet. All Vertical Survey Data shall be referenced to North American Vertical Datum (NAVD) 1988, U.S. Survey Feet. All benchmarks shall be verified either by GPS or conventional levels from an adjacent mark. All GPS derived elevations shall be established referenced to NAVD 88 following the guidelines in “NOAA Technical Memorandum NOS NGS-58” published in November 1987 (http://www.ngs.noaa.gov/PUBS_LIB/NGS-58.pdf), and DRAFT Guidelines for Establishing GPS-derived Orthometric Heights (Standards: 2 cm and 5 cm) (http://www.ngs.noaa.gov/PUBS_LIB/DRAFTGuidelinesforEstablishingGPSderivedOrthometricHeights.pdf). The current epoch is NAVD88 (2004.65).

If additional investigations are warranted, the report shall describe, in general, the activities recommended. The draft report (2 hard copies and two CD copies) shall be provided to the Corps of Engineers for review no later than 30 days after NTP.

Subtask 4: Review Draft Phase I ESA Report

The Corps of Engineers shall be given the opportunity to review the draft Phase I ESA Report to ensure compliance with the Scope of Work and to ensure all tasks and activities are addressed in the report. The Corps shall provide the contractor a list of all comments requesting clarification and resolution in the final report no later than 7 days after submittal of the draft report.

Subtask 5: Final Report /Distribution and Formal Presentation

Upon receipt of all comments, the Contractor shall make all necessary changes to the report. The Contractor shall provide 2 original copies of the final report with two copies of the report on

compact disc (CD) no later than 7 days after the receipt of comments from the Corps of Engineers.

Task 8. Prepare Administrative Record

The Contractor will compile all data collected by the Contractor or provided by agencies and serve as the secondary repository for all reference documents throughout the process. The Contractor will be responsible for providing copies of the entire administrative record, as it becomes available, to the government's Comprehensive Environmental Document contractor, who will serve as the primary repository for the entire administrative record for all IERs. At the completion of the IER, the contractor shall submit the final Administrative Record organized as follows in appendix B.

Task 9. Attend Public Meetings

USACE will host public meetings to keep the stakeholders advised of IER developments, during and after which the public will have the opportunity to provide verbal and written comments. The Contractor executing this Scope of Work will be responsible for attending all public meetings taking place during the period of performance for this Task Order, ensuring that all comments pertaining to the subject IER are fully documented. The Contractor will also coordinate with the Government prior to each monthly meeting to provide an IER status report and any visual aids needed to describe such status to the public, such as maps, renderings, and alternative schematics. It is estimated that the number of public meetings for this IER will range between one and two.

Task 10. Phase II ESA

Appendix C provides background information, project requirements, applicable regulations, references and government supplied information, project management details, and deliverables for this task.

3.0 REPORTS/SUBMITTALS/DELIVERABLES

3.1 REPORTS

3.1.1 PROGRESS REPORTS

The contractor shall prepare monthly progress reports on the status of work (to be delivered by the 15th of each month). Progress reports shall be brief (1-2 pages), describing:

- work performed and a quantitative statement of overall work progress, including percentage of work accomplished on each task.
- description of current problems that may impede performance in accomplishing planned activities, and suggested corrective actions; discussion of work to be performed during the month time frame.

3.1.2 MEETING MINUTES

The Contractor shall be responsible for generating meeting minutes for the kickoff meeting and any subsequent progress meetings. The meeting minutes shall document all items discussed and shall include a list of meeting attendees.

In addition to any unscheduled meetings subsequently needed as described above, the following summarizes the meetings to be scheduled.

3.1.3 SITE VISIT REPORTS

The Contractor shall be responsible for generating any site visit reports.

4.0 SCHEDULES

4.1 PERFORMANCE PERIOD

The period of performance for this SOW shall be no longer than 7 months from date of award. Exact dates for deliverables (tasks) will be mutually agreed upon by Contractor, Government Project Delivery Team and Hurricane Protection Office Environmental Team, based on overall project design and construction schedule. These dates shall be negotiated at the kick-off meeting for this task order. Neither party may adjust or otherwise change the schedule without prior written coordination and agreement by both parties. Any changes to these negotiated deliverables dates will be negotiated and agreed upon in writing by the Contractor and Government.

4.2 PAYMENT SCHEDULE

Invoicing and payments will be based on the following schedules:

- 50% Draft Preliminary Environmental Assessment
- 75% Public DRAFT IER
- 85% FINAL HTRW Phase I Analysis
- 100% FINAL IER

Appendix A: IHNC Levees and Floodwalls Restoration and Repair Project Description and Alternatives to be considered in Environmental Assessment

Project Description

This project includes repair and restoration of the levees and floodwalls along the Inner Harbor Navigation Canal and Gulf-Intracoastal Waterway (GIWW). Approximately 33 miles of levees and floodwalls have been examined for stability, seepage, and non-residual problematic areas. Of the 33 miles, approximately 5 miles have been recommended for repair to enhance flood protection. The area varies in protection mechanisms with earthen levees, I-Walls, L-Walls, T-Walls and closure gate structures, which all provide protection to the three sub-basins from the IHNC Lock to the Seabrook Bridge at Lake Pontchartrain and along the Gulf-Intracoastal Waterway (GIWW) from the IHNC to the IHNC Barrier which is near the Michoud Canal in eastern New Orleans.

The three sub-basins (reaches) match the areas identified in the Current Design Maximum (CDM) Water Elevation Study Hurricane and Storm Damage Reduction System - Design Guidelines (HSDRS-DG), 23 October 2007 report for improving the hurricane protection system along the existing flood protection alignment along the IHNC and the GIWW. The design Reaches contained in the CDM reports are as described below:

Reach I extends from Stations 0+00 to 380+00 and extends along the east side of the IHNC from the Lock to the GIWW and also includes the south side of the GIWW from the IHNC to Bayou Bienvenue.

Reach II comprises the east side of the IHNC from Lake Pontchartrain to the GIWW and extends along the north side of the GIWW from the IHNC to the IHNC Barrier – IHNC north and east and Citrus Back Levee.

Reach III lies along the west side of the IHNC and extends from the IHNC Lock at the Mississippi River to the Seabrook Bridge at Lake Pontchartrain.



Pertinent Data & Description of Existing Facilities

Surveys

Surveys of existing walls and levees in each Reach were furnished by the Government. Additional hydrographic surveys, taken in 2008 after the completion of the CDM reports, were also provided by the Government. All horizontal data was tied to the State Plane Coordinate System using North American Datum of 1983 (NAD83). Vertical data was tied to the North American Vertical Datum of 1988 (NAVD88 – 2004.65). In general, cross-sections were taken at 500-foot intervals and at changes in section or type of flood protection. The cross-sections extended at least 100 feet on either side of the flood protection. Cross-sections were also taken at all gate locations along the project.

Borings and Testing

Boring and testing data along existing walls and levees in each Reach were also furnished by the Government. All existing geotechnical data, along with new soil borings, cone penetrometers (CPT) data and lab testing were provided by the Government. In general, new borings were taken along the entire alignment at 1,000-foot intervals. New, 5-inch undisturbed borings and CPT's were taken at various locations along the centerline and at the toe of the protection. Boring depths typically extended to El. -50 to -100.0. CPT's were also taken at approximately 1,000 foot intervals and their depths typically extended from El. -80.0 to -100.0.

As - Built Drawings

As-built drawings for almost all of the various types of protection in each Reach were furnished by the Government for use in any and all analyses. The drawings provided detailed information of floodwall and gate structures with elevations (NGVD) and the original depth of the steel sheet piling. Site visits supplemented the As-Built information where needed to clarify existing conditions adjacent to the structures. Steel sheet piling was used for seepage cutoff in the T-Walls and for both stability and seepage cutoff in the various I-walls and L-walls in the project. New survey information shows that the top elevation of the floodwalls and levees are about 1.5 to 2 feet lower than the original constructed elevations. These new elevations are recorded to the North America Vertical Datum (NAVD), and the new lower elevations – compared to the originally constructed elevations - are the result of datum and bench mark elevation changes; and to a lesser extent, to local settlement in the project area.

Relocations Data

The As-Built drawings also provided information about utility relocations that may be required where the existing protection requires modification to meet the design requirements for each Alternative. The various utilities are tabulated on the plan sheets where the utility is located. Where possible, the As-Built (NGVD) elevation of the utility is shown. These elevations must be adjusted to the current datum and, as a result, are typically 1 to 2 feet deeper than tabulated. Site visits supplemented the As-Built information as needed, particularly with regard to overhead facilities.

Description of Existing Facilities

The following paragraphs provide a brief summary and description of the types of flood protection found in each of the Reaches. These paragraphs cannot describe all of the various wall and gate types but are intended to give a general description regarding the types of protection and their proximity to existing facilities. In general, the predominant types of flood protection that exist along the IHNC and GIWW are as follows:

Earthen levees with and without berms -these typically range from ten feet to approximately fifteen feet tall and have varying side slopes based on stability and seepage requirements.

Levee / I-walls – these structures were typically built where rights-of-way were restrictive and consist of levee embankment that is extended higher using steel sheet piling that is usually capped with structural concrete.

L-type walls – these structures are concrete structures with a concrete stem and a slab on the protected side of the wall whose foundation consists of one row of steel sheet piling and a single row of battered pre-stressed concrete or steel H-piles.

T-walls – these are concrete structures, inverted tees, that are typically founded on two rows of opposing battered piles separated by a row of steel sheet piling driven to prevent seepage.

Gate structures – numerous gated structures are provided throughout the flood protection system to allow for pedestrian, vehicle and or rail access to businesses, wharfs, warehousing and other facilities. Gate types that are typically used consist of bottom roller gates, overhead roller gates and hinged swing gates.

Alternatives for Repairs

Please reference the Engineering Alternatives Report (EAR) for all alternatives to be considered, in addition to the No Action and Non-Structural Alternatives need to be described and considered. The EAR will be provided at the kick-off meeting for this project.

Recommended Repairs (Proposed Action)

This project includes completing an analysis for completing restoration of the levees and floodwalls to both elevation +12 and to top of levee/wall. The final elevation shall be determined through this analysis but shall in no way be less than +12. All elevations shall be NAVD88 (2004.65). The existing levees/floodwalls within this Task Order have been identified within the IHNC Reach I, II, & III Engineering Alternative Report (EAR) as not meeting the Hurricane and Storm Damage Risk Reduction System (HSDRRS) seepage and stability criteria. It shall be assumed that the extent of the restoration shall extend 1000 feet either side of the station and that restoration of the levees/floodwalls shall be through the recommended repairs that are listed below.

Reach 1

Reach 1 has approximately 1600 feet of deficient areas with the following suggested methods of repair:

<i>Station</i>	<i>Type</i>	<i>Estimated</i>	<i>Recommended</i>
----------------	-------------	------------------	--------------------

		Length(ft)	Repair
28+85	Levee	500	Fill Canal
S1 14+00	I-Wall	300	Fill Canal
18+00	I-Wall	300	
Drainage Structure	Levee	500	Fill Canal

The recommended repair for Reach 1 is suggesting to use 8000 CY of contractor furnished borrow material to fill the low-lying area between stations 12+35 and 28+85.

Reach 2

Reach 2 has approximately 1.5 miles of deficient areas with the following suggested methods of repair:

Station	Type	Estimated Length (ft)	Recommended Repair
E-14	Gate		Buttress Wall
20+00	I-Wall		
30+00	I-Wall		
32+00	Gate	2000	Buttress Wall
73+00	I-Wall	200	Berm
79+00	L-Wall	3000	Berm
262+00	I-Wall		
268+00	T-Wall		
270+00	I-Wall		
278+00	I-Wall	1300	Deep Soil Mixing
449+00	I-Wall	800	Buttress Wall

454+00	I-Wall		
529+00	I-Wall		
530+00	I-Wall	200	Deep Soil Mixing

The recommended repairs for Reach 2 will include:

Deep Soil Mixing: The deep mixing method is an admixture stabilization method that uses cement, lime, slag, other pozzolonic materials, and combinations of these stabilizers to increase the strength and stiffness of soft or loose ground.

Berm: 16000CY of government approved contractor furnished borrow will be used to increase stability.

Buttress Wall: A buttress is an addition to an existing I-wall, installed in panels and connected by a concrete slab, projecting from the wall which serves to support or reinforce the wall. Buttresses are used in conjunction with sheet pile as a means of providing additional support to act against the lateral forces.

Reach 3

Reach 3 has approximately 3600 feet of deficient areas with the following suggested methods of repair:

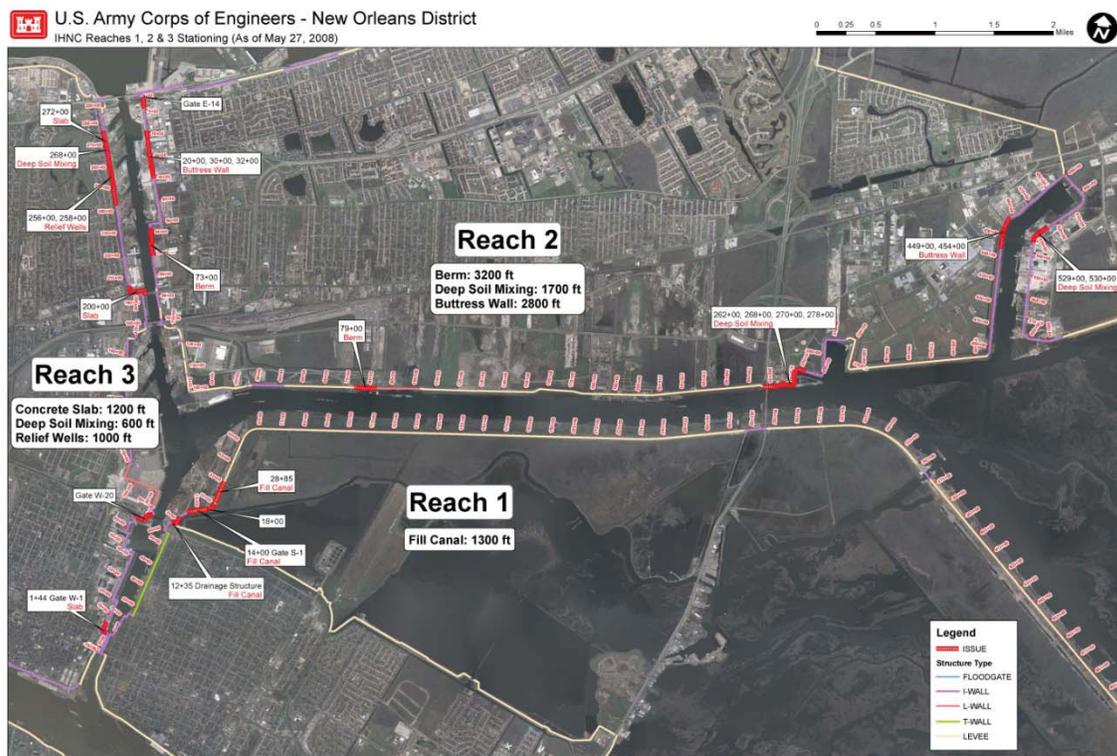
<i>Station</i>	<i>Type</i>	<i>Estimated Length(ft)</i>	<i>Recommended Repair</i>
272+00	I-Wall	500	Concrete Slab
268+00	I-Wall	600	Deep Soil Mixing
258+00	I-Wall		
256+00	I-Wall	1000	Relief Wells
248+00	I-Wall	800	
200+00	I-Wall	600	Concrete Slab
W-20	Gate		
W-1 1+44	Gate	100	Concrete Slab

The recommended repairs for Reach 3 will include:

Relief Wells: Relief Wells are vertically installed wells consisting of a well screen surrounded by a filter material designed to prevent inwash of foundation materials into the well. Relief Wells intercept underseepage and provide a controlled outlet for the water. 50 Relief wells will be installed to drain access water from the subsurface sand layer.

Deep Soil Mixing: The deep mixing method is an admixture stabilization method that uses cement, lime, slag, other pozzolonic materials, and combinations of these stabilizers to increase the strength and stiffness of soft or loose ground.

Concrete Slab: 4800 SqFt of structural concrete will be used.



Equipment

Equipment that would be required to conduct the work includes generators, cranes, dump trucks, flatbed trucks, bull dozers, excavators, rollers, graders, tractors, front end loaders, portable air compressors, welding machines, cement pumping trucks, drills, augers, portable lighting, and water trucks.

Real Estate

All construction that is to take place will occur within the existing levee/floodwall right of way. Construction is anticipated to begin between the months of July and October 2010, with duration of approximately 300 days. All access will be along existing roads, to include:

Reach 1: Primary access will be from Florida Ave, St.Claude Ave, and Jordan Ave, N. Claiborne Ave, Paris Rd. and to traverse the levee as needed.

Reach 2: Primary access will be from Jordan Road, Almonaster Blvd, N. Claiborne Ave, Japonica St, Hwy 90, and Paris Rd, with secondary access through Terminal Road, Elaine St. and Boh Bros Almonaster yard, Industrial Pkwy, and to traverse the levee as needed.

Reach 3: Primary access will be from Haynes Blvd, Frances Rd, Japonica St, Hwy 90, N. Claiborne Ave., Poland Ave, and St. Claude Ave, and to traverse the levee as needed.

Estimated Quantities

Reach 1:

Material	Units	Length of Reach	Quantity
Embankment fill	CY	1600	8000
Top Soil	CY	1600	2400
Silt Fencing	LFT	1600	1920

Reach 2:

Material	Units	Length of Reach	Quantity
Embankment fill	CY	3200	16000
Deep Soil Mixing	CY	1700	6800
Top Soil	CY	3200	4800
Concrete Form Work	Sq Ft	2800	11200
Structural Concrete	CY	2800	11200
Sheet Pile	TON	2800	5600
Silt Fencing	LFT	7700	9240
Pipe Piling	LFT	2800	7000

Reach 3:

Material	Units	Length of Reach	Quantity
Deep Soil Mixing	CY	600	2400
Concrete Form Work	Sq Ft	1200	4800
Structural Concrete	CY	1200	4800
Rebar	LFT	1200	7200
Silt Fencing	LFT	2800	3360
CMP	LFT	1000	100

Appendix B: Administrative Record Guidance

A full administrative record must be maintained that includes all documents that pertain to MVN's decision-making for a project, including those documents that are contrary to the decision. Therefore, any document that is part of the process that culminates in a decision needs to be part of the administrative record. This includes correspondence with their attachments, draft and final documents, modeling results, guidance documents, secondary sources (such as publications cited in the IERs), contracts and scopes of work, and field notes.

The administrative record will be prepared in chronological order, with the oldest document first. Only one copy of each pertinent document will be placed in the administrative record. The administrative record will be assembled in a way that facilitates review (as described below); therefore four folders to organize correspondence and documents, a fifth folder for the administrative record index and a sixth folder for attorney-client privileged information are recommended. All documents which are not originally in an electronic format will be scanned and placed in the appropriate folder. The entire administrative record (all folders except the Privileged folder) will be placed on a DVD. The attorney-client Privileged folder will be placed on a separate DVD. All scanned documents will be fully legible and reflect what is contained in the hard copies. In the process of compiling the administrative record, all documents will be indexed in the administrative record index (provided as an MS Excel file).

Numerous decisions will be made as to what is appropriate to include in the administrative record. MVN recommends being inclusive when making judgments on the compilation of documents and correspondence; however, extraneous items that do not reflect MVN's decision making process are not required to be part of the administrative record.

Based on this guidance the following questions can be used to evaluate the adequacy of the administrative record:

1. Does the administrative record include all documents and correspondence that pertain to MVN's decision-making for the project?
2. Are all documents and correspondence placed in the appropriate folder in strict chronological order and listed in the administrative record index in chronological order?
3. Are all documents and correspondence appropriately cross-referenced in the administrative record index?
4. Can an independent reviewer of the administrative record determine how MVN's decision on the project was reached? Does the administrative record defend this decision?

List of Items to be Included in the Completed Administrative Record

Suggest six separate folders for the Administrative Record (contained on a DVD)

1. Public Correspondence & Outreach
2. Governmental Agency Correspondence
3. Internal Correspondence
4. Project Documents
5. Admin_Record_Index

6. Privileged (contained on a separate DVD from the other five folders)

.pdf format is required for all documents. Additional copies should be submitted in MS Word if available. Substantial amounts of e-mails should be saved as a .pst file.

1. The Public Correspondence & Outreach Folder will include two sub-folders:

- Public Correspondence
 - Public comments received and MVN responses related to the Proposed Action and Alternatives, draft IER, and final IER. Covers everything from project development through date the public comment period for the draft IER ends. *POC: EMs, Public Affairs Office (PAO).*
 - Includes written comments (letters, e-mails, etc.), verbal comments from public meetings, etc. and MVN responses to any correspondence
 - Organized by IER, date, person, and affiliation (if applicable).
- Public Outreach
 - Public meetings: minutes, notes, transcripts, audio, attendance lists. Includes Environmental Justice and NGO public meetings. *POC: Danielle Tommaso, PAO.*
 - Advertisements: for public meetings (newspapers, e-mail, letters, postcards), and for IERs and CWA Notices. Advertisements were run in *The Times-Picayune, USA Today, The (Baton Rouge) Advocate, and Gambit Weekly*. Affidavits of publication, invoices. *POC: Danielle Tommaso, PAO.*
 - News Releases: for all actions related to IERs/GNOHSDRRS work. *POC: PAO.*
 - www.nolaenvironmental.gov: archive all pages and materials on site, site changes. *POC: Christina Hunnicutt.*
 - Weekly e-mails: Archive of weekly e-mails sent to stakeholders. *POC: Lissa Lyncker, Gib Owen.*

2. The Governmental Agency Correspondence Folder will include two sub-folders:

- Interagency Correspondence to and from MVN
 - Official correspondence: coordination letters, agreements, e-mails, etc. *POC: EMs.*
 - Unofficial correspondence: pertinent correspondence related to IERs. Letters, e-mails, etc. *POCs: EMs.*
- Interagency Meetings
 - Meetings: minutes, notes, transcriptions, etc. from the monthly interagency meetings (two per month – general team meeting, mitigation meeting), as well as any other meetings held with governmental staff. *POC: EMs, Danielle Tommaso.*
 - Organized by IER, date, person, and agency

3. The Internal Correspondence Folder will include the following:

- All emails (.pst files), memos, letters, meeting notes, etc. containing decisional information and important correspondence. *POC: EMs.*
- Organized by IER, date, person, and affiliation (if applicable).

4. The Project Documents Folder should include these items:

- Draft versions of IERs, either dated or named “V1”, “V2”, etc. *POC: EMs.*
- All IER permit applications. 404(b)(1) analysis, Coastal Zone Consistency Determination, Farmland Determinations, T&E Determination, etc. All drafts, and final documents. *POC: EMs.*
- All pertinent non-Environmental documents. EARs, geotech information, etc. – anything that went into the decision-making process. All drafts, and final documents. *POC: EMs.*
- References (in a separate sub-folder and include a digital copy of **all** references cited in the document). *POC: EMs, Mike Swanda, Valerie McCormack.*
 - Specific items to include in this folder include:
 - Photocopy and scan the cover, front page, table of contents, etc. for a book reference.
 - If a cultural resources report or protected species survey report is referenced (remember **do not include any maps of cultural resource sites or sensitive information**), save all pages digitally.
 - Phone Contact Reports: Prepare a phone contact report each time you speak with someone or receive a phone message regarding pertinent project information.
 - Internet Resources / Websites: Save a copy of ALL internet resources. This can be accomplished by printing to Adobe pdf or printing the document and scanning it in for the Administrative Record. Specifically, anything that may be updated regularly or where information may disappear from one time to the next (*e.g.*, database searches, hazardous waste searches, Green Book searches, web-based soil survey information, FEMA public flood panel search).
 - Include any emails that are specifically cited in the document text (even though they may already be in one of the Correspondence Folders).
 - A copy of any field notes.

5. The Admin Record Index Folder should include:

- An MS Excel document containing the index of the Administrative Record. A template for the Admin_Record_Index is included. See the template for the information that needs to be included on each tab. All the information / documents contained on these tabs should be included on the Administrative Record DVD, **except** for the Attorney-Client Privileged documents, which should be included on the Privileged DVD. The tabs in the index include Folder names.
- The Task Order Award for the document (Order for Supplies or Services).

- A copy of any modifications to the Award.

6. The Privileged Folder should include all attorney-client privileged information on a separate DVD.

Appendix C. Task 10 Phase II ESA Details

A Project Background

A.1 General

The hurricane protection levee / flood wall system in the IHNC and MRGO have been overtopped or scoured following Hurricanes Katrina and Rita. Emergency repair, improvement and strengthening of the flood protection system at the IHNC and MRGO in Orleans and St. Bernard Parishes were undertaken following Hurricanes Katrina and Rita. A survey of the hurricane protection system identified sections in the IHNC and MRGO alignment where improvements and strengthening are further required.

On July 2010, a Phase I ESA was performed for the IHNC and MRGO levees and floodwalls (see **Contract W91236-09-D-0075 -Task Order CZ01** or AECOM Project No.: 6015692 entitled "Phase I Environmental Site Assessment Inner Harbor Navigational Canal (IHNC) Levees and Floodwalls IHNC and Gulf Intracoastal Water Way (GIWW) New Orleans, Louisiana 70117 and 70126") to help identify areas that need special safety and environmental handling at sections of the levee and floodwall system required during additional improvement, structural strengthening or armoring of levees and floodwalls in the system. The Phase I ESA listed RECs at (1) Site Gate W-1 and (2) Site 18-28+85.

A.2 Improvement Areas

The improvement areas along the IHNC and MRGO floodwall and levee alignment include (see Enclosure Area 2 Station 17+81 to 23+52 and Area 3 Gate W-1 (100 feet of Gate). A Phase II is necessary for the buttress wall option, if the procedure of pile driving and form placement involves disturbing subsurface soil material that is brought onto the ground surface or if any ground disturbance is required.

Area 2 (Station 17+81 to 23+52) is a section of I-Wall in the IHNC and MRGO levees and floodwalls system located south of the earthen levee in Area 1. The I-wall is between the general facility of SS/SR on the flood side and Bayou Bienvenue on the protected side (see Enclosure 1). Improvements of this section include either a concrete slab or buttress wall on the protected side. Limited sampling and testing would be necessary under the buttress wall option or for any ground disturbance.

Area 3 (Gate W-1) is within 100 feet of the Gate located on the western section of the IHNC within the US Coast Guard (USCG) Facility at 4640 Urquhart Street, New Orleans. Improvements of this section include either a concrete slab or buttress wall on the protected side. The USCG operated this site for many years in compliance with LDEQ regulations, and eventually vacated and relocated the facility after Hurricane Katrina. The major operations of USCG, where aboveground storage tanks and containerized hazardous materials are stored, is concentrated on the northern portion of the facility, on the flood side of the Gate W-1 towards North Claiborne Bridge and the IHNC, away from the floodwall. The area and buildings on the southern portion of the facility, on the protected side of Gate W-1 are utilized largely as a parking lot and for administrative operations. In addition, prior to vacating and relocating, the USCG employed an environmental contractor to collect and dispose of containerized hazardous materials located on the flood side north of Gate W-1, in coordination with LDEQ (Aerostar, 2006). In addition, soil sampling north of Gate W-1 by Aerostar (2006) indicated soils contaminated with oil (see Aerostar, 2006, Boring #8). Improvements of this section include either a concrete slab or buttress wall on the protected side. Limited sampling and testing would be necessary under the buttress wall option or for any ground disturbance.

B PROJECT REQUIREMENTS

Under this Task Order, the Contractor shall perform the following tasks at two sections identified along the floodwall and levee system (see Figure 1).

- (1) Prepare/develop a Phase II ESA Sampling Analysis Plan, Site Safety Health Plan and a Quality Assurance Project Plan (QAPP) that is appropriate to the areas identified for sampling and testing. The SAP, SSHP and QAPP shall follow requirements or guidelines such as detailed in EM 200-1-3, USACE (1 September 1994 or most updated version) and in EM 385-1-1, USACE (2003 or most updated version). A total of 6 soil boring locations and a total of 6 samples (not including required QA/QC samples) from the 6 soil borings are to be collected at the proposed construction improvement locations in Enclosure 1: Area 2 Station 17+81 to 23+52 and Area 3 Gate W-1. It is anticipated that the Construction ROW is as shown in IERS 11.b and soil / ground disturbance associated with soil mixing and pile driving / form setting are about 30 feet in depth from the ground surface. Soil boring and sampling shall be conducted using a hand auger or Geoprobe with a clean stainless steel sampling tool. These samples shall be sent to a LDEQ certified laboratory for chemical testing.
 - Area 2: Layout three (3) boring locations that shall be representative of the construction work area. Collect 1 sample each on each boring representing the top 5 feet of surface – subsurface soils. For layout of boring locations, a detailed plan and section of the work area are available from HPO Environmental Manager (Lee Walker at 504-862-1444).
 - Area 3: Layout three (3) boring locations that shall be representative of the construction area. Collect 1 sample each on each boring representing the top 5 feet of surface – subsurface soils. For layout of boring locations, a detailed plan and section of the work area are available from HPO Environmental Manager (Lee Walker at 504-862-1444).
- (2) Execution: The SAP and SSHP shall be submitted and approved by the USACE-MVN prior to field execution of sampling and testing. The sampling plan shall include a table that lists the soil boring locations, the rationale for sampling at those selected boring locations, the samples to be collected, and tests required, including QA/QC samples.

Sample at designated sites and send for laboratory testing. For samples collected from Area 2 and Area 3, test for bulk analysis of VOCs, SVOCs, Pesticides / Herbicides, RCRA metals, PCBs, TPH-DRO and TPH-ORO. **Since the LDEQ EDMS database listed several citations for Naturally Occurring Radioactive Material (NORM) on the SS/SR Facility, Area 2 shall be field screened for NORM prior to soil sampling.** The NORM survey shall be performed by a person that has a current LDEQ NORM Survey Certification.

As necessary, when bulk analyses resulting in very high concentrations that exceed LDEQ RECAP industrial standards for onsite use, select two (2) samples (one from each construction work area) for TCLP testing on the same samples to determine possible

disposal methods. The government shall be re-imbursed for TCLP testing cost not utilized.

- (3) Prepare and submit a Phase II ESA or Sampling Analysis Report at completion of this project. The report will include a summary of the field activities that detail the sampling locations in Area 2 and Area 3 (in maps and tables with geographic positioning system (gps) coordinates), results of NORM survey, analytical results summary tables (presented in RECAP Appendix B format), discussion of any exceptions and deviations, evaluation and presentation of results, discussion of data quality, recommendations for excess soil management (e.g. re-use or disposal) and personnel safety during construction improvements, and conclusions. The report will also include the final safety report, copies of all field documentation, soil boring logs, the final analytical report and photographs of field activities.

Analytical Chemistry

In general, the samples collected will be analyzed using SW-846 methods (EPA, 1988). The laboratory contracted for testing of the samples shall have current LDEQ or LELAP-approved certification for parameters tested in this task order. Appropriate quality assurance/quality control samples shall be collected and tested as well. Target detection limit shall be below the RECAP generic (non-industrial) screening standards (i.e. SS_{ni}).

The Contractor shall accomplish the specific requirements of this Task Order, as well as the general requirements specified in the basic contract under which this Task Order is awarded.

C APPLICABLE REGULATIONS

The Contractor shall take all necessary actions and precautions to ensure that work accomplished under this Task Order is in accordance with all Federal, State, and local regulations on human health and safety, and the environment. The Contractor shall utilize guidelines detailed below in the execution of the action required in this Task Order.

D REFERENCES & GOVERNMENT SUPPLIED INFORMATION

ASTM E 1903-97 Standard Guide for Environmental Site Assessments: Phase II

Environmental Site Assessment.

29 CFR1910.120, Occupational Safety and Health Administration, Hazardous waste Operations And Emergency Response; Safety And Health Program, July 1998.

USACE. 2003. Safety and health requirements manual. EM 385-1-1. Department of the Army, U.S. Army Corps of Engineers. Washington, DC.

USACE. 2001. Requirements for the preparation of sampling and analysis plans. EM 2001-3. Department of the Army, U.S. Army Corps of Engineers. Washington, DC.

U.S. EPA. 1988. SW 846. Test methods for evaluating solid wastes; physical/chemical methods. U.S. Environmental Protection Agency. Washington, DC.

LDEQ, 2006 : <http://www.deq.louisiana.gov/portal/tabid/1569/Default.aspx>, LDEQ Risk Evaluation / Corrective Action Program (RECAP) regulation.

LDEQ, 2006 : <http://www.deq.louisiana.gov/portal/tabid/2147/Default.aspx>, Louisiana Environmental Laboratory Accreditation Program (LELAP)

AECOM, 2010. Final Report, Phase I Environmental Site Assessment, IHNC-MRGO, New Orleans Parish and St. Bernard Parish, Louisiana, July 2010.

Aerostar Environmental Services Inc., 2006. Hazardous Waste Removal Report, ISC New Orleans, 4640 Urquhart Street, New Orleans, Louisiana, prepared for the USCG CEU Miami, PNUM 400197, 118 pages.

LDEQ Electronic Data Management System (EDMS) webpage for Agency Interest (AI) No.1173 (Southern Scrap/Southern Recycling), <http://edms.deq.louisiana.gov/app/doc/queryresults.aspx>, access 13 August 2010.

USACE-New Orleans District, 2010, Plans and Specifications (95%), Lake Pontchartrain, LA and Vicinity, Hurricane Protection Project, IHNC Restoration of Levees, Concrete slabs / Earthwork, Orleans Parish, Louisiana.

E PROJECT MANAGEMENT

COORDINATION

All services and work required under this Task Order shall be coordinated between the Government's Contracting Officer or Technical Representative, and the Contractor's Project Manager or representative. The Government's Technical Representative at USACE-MVN is

Dr. George Bacuta, U.S. Army Corps of Engineers, New Orleans District, 504-862-2549. The MVN HPO Environmental Manager is Lee Walker (504-862-1444) while the MVN HTRW Coordinator is Dr. Christopher Brown (504/862-2508). The MVD HPO Contracting Officer is

Mr Tim Black (504/862-2918) and alternate is Mr. Rich Horton (504-862-2180). The Contractor shall coordinate site visits with the Government's Technical Representative and the Site Project Manager's representative at least 48 hours in advance for access to the site.

ROE & PERMITS

The government shall obtain and provide rights-of-entry (ROE) to the project site. The Contractor shall be responsible for obtaining any and all required work licenses and/or permits that may be necessary for performance of the services required by this Task Order. ROE for the sampling sites can be obtained from USACE-HPO. The Contractor shall contact the USACE-HPO for access to the sampling areas. Points of contact for the MRGO-IHNC levee and floodwall are Ms. Lee Walker, Dr. George Bacuta and Dr. Christopher Brown.

QUALITY CONTROL PLAN

The Contractor shall establish, maintain, and provide documentation of, to the Government's Technical Representative, an effective Quality Control (QC) Program in accordance with the Contract. As part of this QC Program, competent reviewers, independent of the field work and submittal preparation, shall review all reports and/or documents, and the Contractor shall correct errors and deficiencies in the reports and/or documents prior to submittal to the Government. Documentation verifying the Contractor's independent review shall be included with each submittal delivered.

F DELIVERABLES

The contractor shall prepare a deliverables schedule and an invoicing schedule for the proposed work. The Contractor shall prepare and submit the following to the Government.

The Government's Technical Representative is Mr. George Bacuta, Engineering Division U.S. Army Corps of Engineers, New Orleans Engineering District, 7400 Leake Avenue New Orleans, LA 70118-3651, Phone: 504/862-2549, Email: George.C.Bacuta@us.army.mil.

1. Sampling and Analysis Plan (SAP) that includes a Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP), and Site Safety Health Plan (SSHP): Submit a SAP and SSHP appropriate to sampling and testing of sections of the MRGO-IHNC levee and floodwall. This plan shall be submitted within 10 days after Notice To Proceed or NTP.

2. Phase II ESA Report or Sampling Analysis Report (SAR): The report shall be submitted after completion of sampling and testing activities and within 7 days of receipt of laboratory results of all samples.

The plans, results and reports shall be provided in both hard and electronic or soft copies. Five (5) hard copies and three (3) electronic/soft copies in Portable Document Format (PDF) with bookmarks are sufficient. A draft copy of the plans and report shall be reviewed by the Government and comments shall be incorporated into the final plans and reports.

G Submittals

- Task & Invoicing Schedule 3 days after Notice To Proceed (Electronic email acceptable)
- Draft SAP, SSHP 10 days after Notice To Proceed
- Final SAP, SSHP 3 days after receipt of USACE comments
- Draft Phase II ESA or SAR 10 days after receipt of sample testing results
- Final SAR (3 ea.) 5 days after receipt of USACE comments

ENCLOSURE 1: Project Description

This project includes repair and restoration of the levees and floodwalls along the IHNC and GIWW. Portions of the existing earthen levees, floodwalls (I-walls, T-walls, L-walls), and closure gate structures within this corridor have been identified as not meeting the HSDRRS seepage and stability criteria.

Figure 1 shows the project vicinity and reaches to be remediated. Phase II ESAs are needed along the areas labeled “Gate W-1 and “17+81 to 23+52”. The possible remediation measures to be used on these two reaches are provided in the following table, including a brief description of each repair method. All work, with the exception of equipment and material staging, would take place within the existing right-of-way (shown in red on figures 2 and 3).

Possible Repair Methods

Station	Existing Protection Type	Estimated Length (ft)	Proposed Repair Method	Alternate Repair Method
17+81 to 23+52	I-wall	300	Concrete Slab	Buttress Wall
Gate W-1	Gate	100	Concrete Slab	Buttress Wall

Buttress Wall

A concrete buttress wall is an addition to an existing I-wall which is constructed by driving piles, setting forms against (behind) the existing flood protection structure, and pouring concrete inside the forms to buttress the existing wall. These buttress pilings are installed at intervals along the wall to tie the stem and base slab together and to assist in resisting the floodwall or levee load.

Concrete Slab

A structural concrete base slab would be poured perpendicular to the adjacent floodwall on the protected side of the existing flood protection structure, to act against forces which could overturn the floodwall, also known as lateral forces. A slab differs from a buttress in that it is sufficiently able to resist the existing floodwall or levee load without the need for buttress piles. The thickness of the concrete slabs would vary between 12 inches and 24 inches and extend out approximately 8 ft from the existing I-walls or gates, to repair areas with stability concerns.

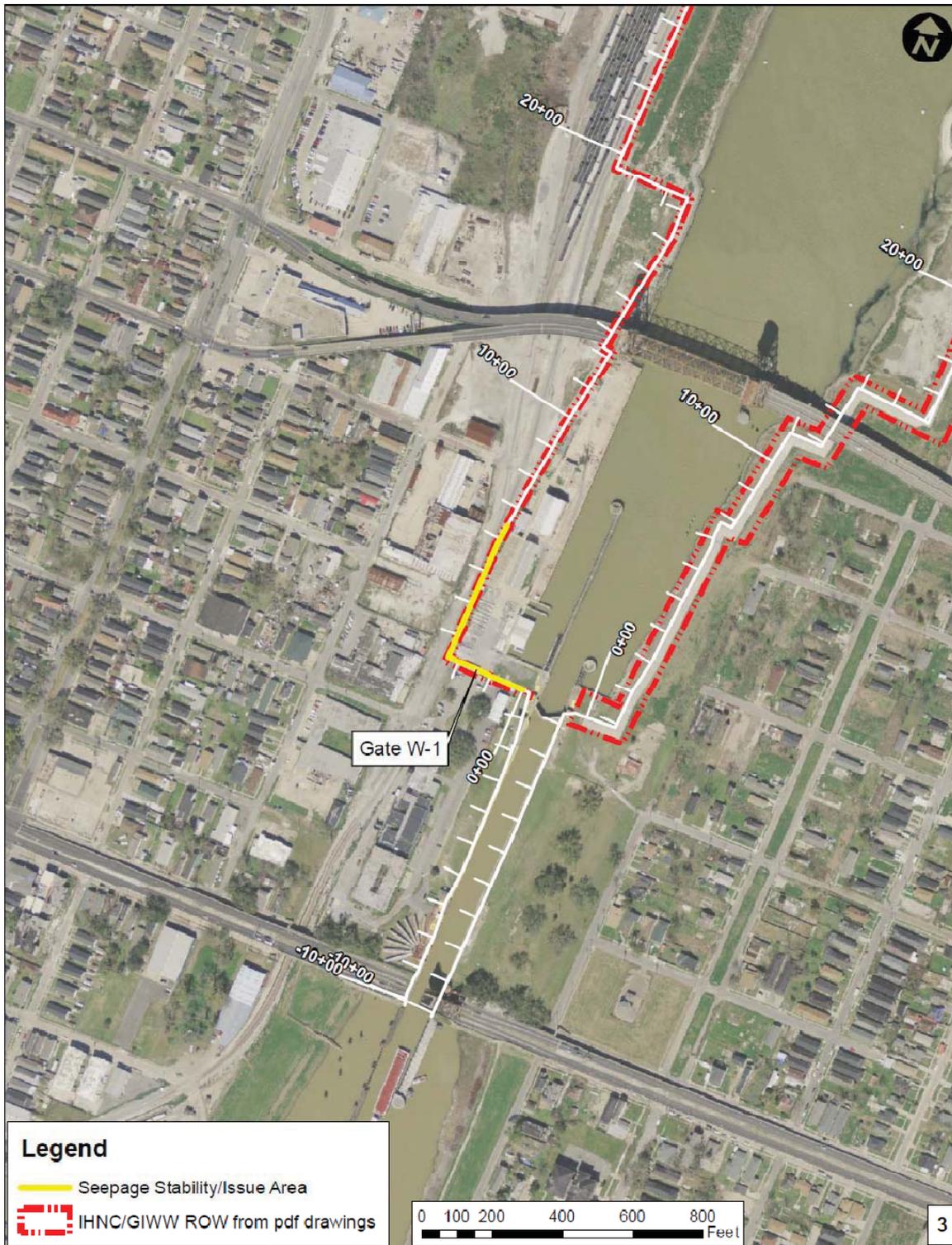


Figure 2: Limits of work (existing right-of-way) at Gate W-1 reach

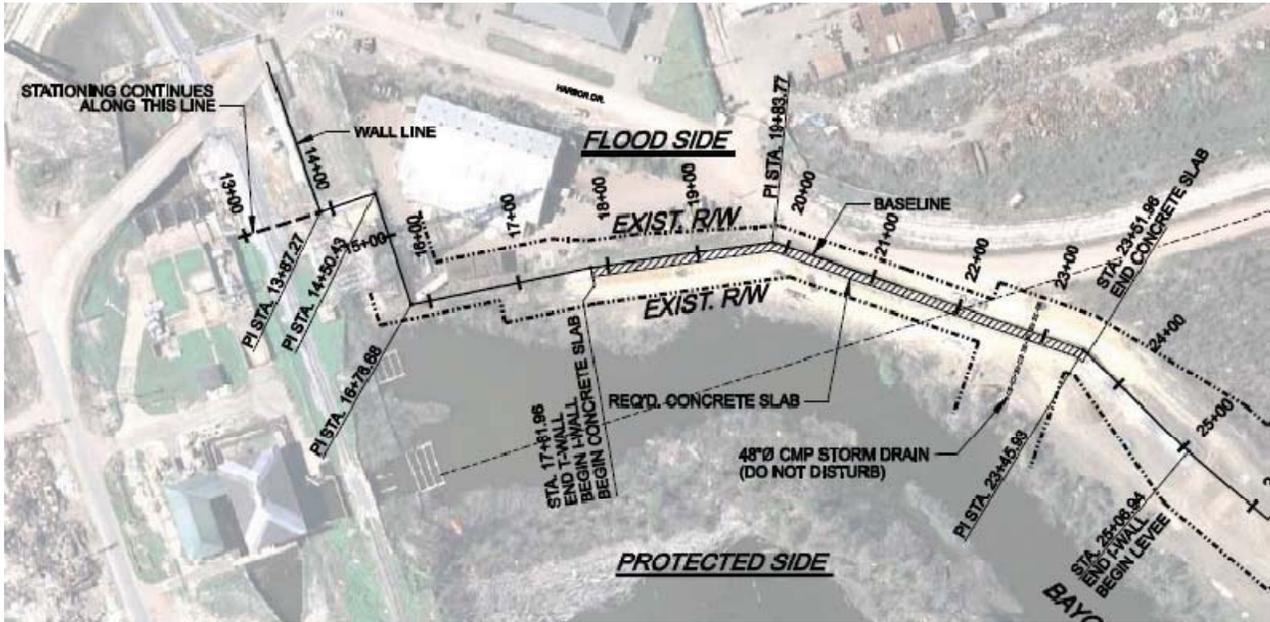


Figure 3: Limits of work (existing right-of-way) at 17+81 to 23+52



Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

January 19, 2011

Laura Sanchez
AECOM - New Orleans
1555 Poydras
Suite 1860
New Orleans, LA 70112

RE: Project 20117791
Project ID: IHNC

Dear Laura Sanchez:

Enclosed are the analytical results for sample(s) received by the laboratory on December 15, 2010. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "William R. Shackelford". The signature is fluid and cursive, written over a light gray rectangular background.

Randy Shackelford
william.shackelford@pacelabs.com



REPORT OF LABORATORY ANALYSIS

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Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20117791

Client: AECOM - New Orleans

Project ID: IHNC

Washington Department of Ecology C2078
Oregon Environmental Laboratory Accreditation - LA200001
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119
Pennsylvania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-09-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Louisiana Dept. of Health and Hospitals (NELAC) LA100024
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

1/19/2011 16:37:10



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Sample Cross Reference

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Project: 20117791

Client: AECOM - New Orleans

Project ID: IHNC

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
A2-SB-01-5 TERRA CORE	20846229	Soil	14-Dec-10 12:25	15-Dec-10 09:10
A2-SB-02-5 TERRA CORE	20846233	Soil	14-Dec-10 11:35	15-Dec-10 09:10
A2-SB-03-5 TERRA CORE	20846235	Soil	14-Dec-10 10:59	15-Dec-10 09:10
A3-SB-01-5 TERRA CORE	20846240	Soil	14-Dec-10 14:57	15-Dec-10 09:10
A3-SB-01-5D TERRA CORE	20846241	Soil	14-Dec-10 14:57	15-Dec-10 09:10
A3-SB-02-5 TERRA CORE	20846242	Soil	14-Dec-10 15:21	15-Dec-10 09:10
A3-SB-03-5 TERRA CORE	20846247	Soil	14-Dec-10 16:00	15-Dec-10 09:10
TRIP BLANK	20846248	Water	14-Dec-10 00:00	15-Dec-10 09:10
A2-SB-01-5 (TCLP-METALS)	20853976	Soil	14-Jan-11 12:25	15-Jan-11 09:10



Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20117791

Narrative detail for project management:

At the client's request, TCLP metals was logged in for sample A2-SB-01-5.



Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20117791

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

The following blank results were above reporting limits:

Batch 152241 sample 20846373 Methylene chloride

Batch 152241 sample 20846886 Methylene chloride

Laboratory Control Samples:

LCS recoveries outside of QC limits are qualified in the Report of Quality Control section.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogates:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Regulatory, Permit or Client Specified Limits:

75 results were found that exceeded regulatory, permit or client specified limits.



QC Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20117791

Analytical Method	Batch	Sample used for QC
EPA 8151	152375	Project sample A2-SB-03-5 TERRA CORE
EPA 8082	152457	Project sample A2-SB-03-5 TERRA CORE
EPA 8081	152466	Project sample A2-SB-03-5 TERRA CORE
EPA 8015 Mod Ext	152663	Project sample A2-SB-03-5 TERRA CORE
EPA 6010	152297	Project sample A2-SB-03-5 TERRA CORE
EPA 6010	154083	Batch sample from another client
EPA 6010	154083	Batch sample from another client
EPA 7471	152296	Project sample A2-SB-03-5 TERRA CORE
EPA 7470	154082	Batch sample from another client
EPA 7470	154082	Batch sample from another client
EPA 8270	152676	Project sample A2-SB-03-5 TERRA CORE
EPA 8260	152237	Batch sample from another client
EPA 8260	152237	Project sample A2-SB-03-5 TERRA CORE
EPA 8260	152241	Batch sample from another client
Dry Weight Moisture	153317	Project sample A2-SB-03-5 TERRA CORE

Narrative1 1/19/2011 16:37:41

For the sample used as the original for the DUP or MS/MSD for the batch:

Project sample means a sample from this project was used.

Client sample means a sample from the same client but in a different project was used.

Batch sample means a sample from a different client was used.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.531	220.	23-Dec-10 19:15 JAM
208-96-8	Acenaphthylene	1	ND		0.531	88.0	23-Dec-10 19:15 JAM
62-53-3	Aniline	1	ND		0.531	0.0650	23-Dec-10 19:15 JAM
120-12-7	Anthracene	1	ND		0.531	120.	23-Dec-10 19:15 JAM
56-55-3	Benzo(a)anthracene	1	ND		0.531	0.620	23-Dec-10 19:15 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		0.531	0.620	23-Dec-10 19:15 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.531	6.20	23-Dec-10 19:15 JAM
50-32-8	Benzo(a)pyrene	1	ND		0.531	0.330	23-Dec-10 19:15 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.531	190.	23-Dec-10 19:15 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.531	220.	23-Dec-10 19:15 JAM
88-85-7	Dinoseb	1	ND		0.531	0.140	23-Dec-10 19:15 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.531	1.50	23-Dec-10 19:15 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.531	0.330	23-Dec-10 19:15 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.531	0.800	23-Dec-10 19:15 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.531	500.	23-Dec-10 19:15 JAM
95-57-8	2-Chlorophenol	1	ND		0.531	1.40	23-Dec-10 19:15 JAM
218-01-9	Chrysene	1	ND		0.531	62.0	23-Dec-10 19:15 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.531	0.330	23-Dec-10 19:15 JAM
132-64-9	Dibenzofuran	1	ND		0.531	24.0	23-Dec-10 19:15 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.531	29.0	23-Dec-10 19:15 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.531	2.10	23-Dec-10 19:15 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.531	5.70	23-Dec-10 19:15 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		1.07	0.970	23-Dec-10 19:15 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.531	12.0	23-Dec-10 19:15 JAM
84-66-2	Diethylphthalate	1	ND		0.531	360.	23-Dec-10 19:15 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.531	20.0	23-Dec-10 19:15 JAM
131-11-3	Dimethylphthalate	1	ND		0.531	1500	23-Dec-10 19:15 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.531	0.250	23-Dec-10 19:15 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.531	1.70	23-Dec-10 19:15 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.531	1.00	23-Dec-10 19:15 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.531	0.390	23-Dec-10 19:15 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.531	240.	23-Dec-10 19:15 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.531	35.0	23-Dec-10 19:15 JAM
206-44-0	Fluoranthene	1	ND		0.531	220.	23-Dec-10 19:15 JAM

#Name?

Protocol 1/19/2011 16:37:42

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.531	230.	23-Dec-10 19:15 JAM
118-74-1	Hexachlorobenzene	1	ND		0.531	0.340	23-Dec-10 19:15 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.531	0.820	23-Dec-10 19:15 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.531	1.40	23-Dec-10 19:15 JAM
67-72-1	Hexachloroethane	1	ND		0.531	2.20	23-Dec-10 19:15 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.531	0.620	23-Dec-10 19:15 JAM
78-59-1	Isophorone	1	ND		0.531	0.560	23-Dec-10 19:15 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.531	1.70	23-Dec-10 19:15 JAM
91-20-3	Naphthalene	1	ND		0.531	1.50	23-Dec-10 19:15 JAM
88-74-4	2-Nitroaniline	1	ND		0.531	1.70	23-Dec-10 19:15 JAM
99-09-2	3-Nitroaniline	1	ND		0.531	1.70	23-Dec-10 19:15 JAM
100-01-6	4-Nitroaniline	1	ND		0.531	1.70	23-Dec-10 19:15 JAM
98-95-3	Nitrobenzene	1	ND		0.531	0.330	23-Dec-10 19:15 JAM
100-02-7	4-Nitrophenol	1	ND		0.531	2.60	23-Dec-10 19:15 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.531	0.330	23-Dec-10 19:15 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.531	2.10	23-Dec-10 19:15 JAM
87-86-5	Pentachlorophenol	1	ND		0.531	1.70	23-Dec-10 19:15 JAM
85-01-8	Phenanthrene	1	ND		0.531	660.	23-Dec-10 19:15 JAM
108-95-2	Phenol	1	ND		0.531	11.0	23-Dec-10 19:15 JAM
129-00-0	Pyrene	1	ND		0.531	230.	23-Dec-10 19:15 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.531	1.20	23-Dec-10 19:15 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.531	31.0	23-Dec-10 19:15 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.531	320.	23-Dec-10 19:15 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.531	1.30	23-Dec-10 19:15 JAM

58 compound(s) reported

#Name?

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Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.0703		0.0139	1.50	16-Dec-10 17:09 RMP
71-43-2	Benzene	1	ND		0.00697	0.0510	16-Dec-10 17:09 RMP
75-27-4	Bromodichloromethane	1	ND		0.00697	0.920	16-Dec-10 17:09 RMP
75-25-2	Bromoform	1	ND		0.00697	1.80	16-Dec-10 17:09 RMP
74-83-9	Bromomethane	1	ND		0.00697	0.0400	16-Dec-10 17:09 RMP
78-93-3	2-Butanone (MEK)	1	ND		0.0139	5.00	16-Dec-10 17:09 RMP
75-15-0	Carbon disulfide	1	ND		0.00697	11.0	16-Dec-10 17:09 RMP
56-23-5	Carbon tetrachloride	1	ND		0.00697	0.110	16-Dec-10 17:09 RMP
108-90-7	Chlorobenzene	1	ND		0.00697	3.00	16-Dec-10 17:09 RMP
75-00-3	Chloroethane	1	ND		0.00697	0.0350	16-Dec-10 17:09 RMP
67-66-3	Chloroform	1	ND		0.00697	0.0440	16-Dec-10 17:09 RMP
74-87-3	Chloromethane	1	ND		0.00697	0.100	16-Dec-10 17:09 RMP
124-48-1	Dibromochloromethane	1	ND		0.00697	1.00	16-Dec-10 17:09 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		0.00697	0.0100	16-Dec-10 17:09 RMP
75-34-3	1,1-Dichloroethane	1	ND		0.00697	7.50	16-Dec-10 17:09 RMP
107-06-2	1,2-Dichloroethane	1	ND		0.00697	0.0350	16-Dec-10 17:09 RMP
75-35-4	1,1-Dichloroethene	1	ND		0.00697	0.0850	16-Dec-10 17:09 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		0.00697	0.490	16-Dec-10 17:09 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		0.00697	0.770	16-Dec-10 17:09 RMP
78-87-5	1,2-Dichloropropane	1	ND		0.00697	0.0420	16-Dec-10 17:09 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		0.00697	0.0400	16-Dec-10 17:09 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		0.00697	0.0400	16-Dec-10 17:09 RMP
100-41-4	Ethylbenzene	1	ND		0.00697	19.0	16-Dec-10 17:09 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		0.00697	0.0770	16-Dec-10 17:09 RMP
75-09-2	Methylene chloride	1	ND		0.00697	0.0170	16-Dec-10 17:09 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		0.0139	6.40	16-Dec-10 17:09 RMP
78-83-1	Isobutanol	1	ND		0.349	30.0	16-Dec-10 17:09 RMP
100-42-5	Styrene	1	ND		0.00697	11.0	16-Dec-10 17:09 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		0.00697	0.0460	16-Dec-10 17:09 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		0.00697	0.00600	16-Dec-10 17:09 RMP
127-18-4	Tetrachloroethene	1	ND		0.00697	0.180	16-Dec-10 17:09 RMP
108-88-3	Toluene	1	0.00727		0.00697	20.0	16-Dec-10 17:09 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		0.00697	14.0	16-Dec-10 17:09 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		0.00697	4.00	16-Dec-10 17:09 RMP

#Name?

Protocol 1/19/2011 16:37:42

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND		0.00697	0.0580	16-Dec-10 17:09 RMP
79-01-6	Trichloroethene	1	ND		0.00697	0.0730	16-Dec-10 17:09 RMP
75-69-4	Trichlorofluoromethane	1	ND		0.00697	37.0	16-Dec-10 17:09 RMP
75-01-4	Vinyl chloride	1	ND		0.00279	0.0130	16-Dec-10 17:09 RMP
	m&p-Xylene	1	ND		0.00697	18.0	16-Dec-10 17:09 RMP
95-47-6	o-Xylene	1	ND		0.00697	18.0	16-Dec-10 17:09 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext
8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	79.4		15.6	65.0	23-Dec-10 19:27 SNP1
none	Oil Range Organics (>C28-40)	1	104.		77.8	180.	23-Dec-10 19:27 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00274	0.0280	21-Dec-10 17:10 SLF
319-84-6	alpha-BHC	1	ND		0.00274	0.00640	21-Dec-10 17:10 SLF
319-85-7	beta-BHC	1	ND		0.00274	0.0160	21-Dec-10 17:10 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00274	0.0330	21-Dec-10 17:10 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00274	1.60	21-Dec-10 17:10 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00274	1.60	21-Dec-10 17:10 SLF
72-54-8	4,4'-DDD	1	ND		0.00536	1.50	21-Dec-10 17:10 SLF
72-55-9	4,4'-DDE	1	ND		0.00536	1.70	21-Dec-10 17:10 SLF
50-29-3	4,4'-DDT	1	ND		0.00536	1.70	21-Dec-10 17:10 SLF
60-57-1	Dieldrin	1	ND		0.00536	0.0300	21-Dec-10 17:10 SLF
959-98-8	Endosulfan I	1	ND		0.00274	34.0	21-Dec-10 17:10 SLF
33213-65-9	Endosulfan II	1	ND		0.00536	34.0	21-Dec-10 17:10 SLF
72-20-8	Endrin	1	ND		0.00536	1.80	21-Dec-10 17:10 SLF
76-44-8	Heptachlor	1	ND		0.00274	0.0160	21-Dec-10 17:10 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00274	0.0530	21-Dec-10 17:10 SLF
72-43-5	Methoxychlor	1	ND		0.0269	30.0	21-Dec-10 17:10 SLF
8001-35-2	Toxaphene	1	ND		0.108	0.440	21-Dec-10 17:10 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082

8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0536	0.110	21-Dec-10 15:58 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		363.		20-Dec-10 23:53 SNP1
93-76-5	2,4,5-T	1	ND		363.		20-Dec-10 23:53 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		363.		20-Dec-10 23:53 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	8.81		1.25	12.0	21-Dec-10 17:01 KJR
7440-39-3	Barium	1	348.		25.0	550.	21-Dec-10 17:01 KJR
7440-43-9	Cadmium	1	1.85		0.624	3.90	21-Dec-10 17:01 KJR
7440-47-3	Chromium	1	29.6		1.25	100.	21-Dec-10 17:01 KJR
7439-92-1	Lead	1	107.		0.624	100.	21-Dec-10 17:01 KJR
7782-49-2	Selenium	1	ND		4.37	20.0	21-Dec-10 17:01 KJR
7440-22-4	Silver	1	ND		1.25	39.0	21-Dec-10 17:01 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846229

Matrix: Soil

% Moisture: 38.4 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	0.240		0.0250		20-Dec-10 12:13 KJR
1 compound(s) reported							



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.389	220.	23-Dec-10 18:47 JAM
208-96-8	Acenaphthylene	1	ND		0.389	88.0	23-Dec-10 18:47 JAM
62-53-3	Aniline	1	ND		0.389	0.0650	23-Dec-10 18:47 JAM
120-12-7	Anthracene	1	ND		0.389	120.	23-Dec-10 18:47 JAM
56-55-3	Benzo(a)anthracene	1	ND		0.389	0.620	23-Dec-10 18:47 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		0.389	0.620	23-Dec-10 18:47 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.389	6.20	23-Dec-10 18:47 JAM
50-32-8	Benzo(a)pyrene	1	ND		0.389	0.330	23-Dec-10 18:47 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.389	190.	23-Dec-10 18:47 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.389	220.	23-Dec-10 18:47 JAM
88-85-7	Dinoseb	1	ND		0.389	0.140	23-Dec-10 18:47 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.389	1.50	23-Dec-10 18:47 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.389	0.330	23-Dec-10 18:47 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.389	0.800	23-Dec-10 18:47 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.389	500.	23-Dec-10 18:47 JAM
95-57-8	2-Chlorophenol	1	ND		0.389	1.40	23-Dec-10 18:47 JAM
218-01-9	Chrysene	1	ND		0.389	62.0	23-Dec-10 18:47 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.389	0.330	23-Dec-10 18:47 JAM
132-64-9	Dibenzofuran	1	ND		0.389	24.0	23-Dec-10 18:47 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.389	29.0	23-Dec-10 18:47 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.389	2.10	23-Dec-10 18:47 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.389	5.70	23-Dec-10 18:47 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		0.787	0.970	23-Dec-10 18:47 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.389	12.0	23-Dec-10 18:47 JAM
84-66-2	Diethylphthalate	1	ND		0.389	360.	23-Dec-10 18:47 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.389	20.0	23-Dec-10 18:47 JAM
131-11-3	Dimethylphthalate	1	ND		0.389	1500	23-Dec-10 18:47 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.389	0.250	23-Dec-10 18:47 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.389	1.70	23-Dec-10 18:47 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.389	1.00	23-Dec-10 18:47 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.389	0.390	23-Dec-10 18:47 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.389	240.	23-Dec-10 18:47 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.389	35.0	23-Dec-10 18:47 JAM
206-44-0	Fluoranthene	1	ND		0.389	220.	23-Dec-10 18:47 JAM

#Name?

Protocol 1/19/2011 16:37:43
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.389	230.	23-Dec-10 18:47 JAM
118-74-1	Hexachlorobenzene	1	ND		0.389	0.340	23-Dec-10 18:47 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.389	0.820	23-Dec-10 18:47 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.389	1.40	23-Dec-10 18:47 JAM
67-72-1	Hexachloroethane	1	ND		0.389	2.20	23-Dec-10 18:47 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.389	0.620	23-Dec-10 18:47 JAM
78-59-1	Isophorone	1	ND		0.389	0.560	23-Dec-10 18:47 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.389	1.70	23-Dec-10 18:47 JAM
91-20-3	Naphthalene	1	ND		0.389	1.50	23-Dec-10 18:47 JAM
88-74-4	2-Nitroaniline	1	ND		0.389	1.70	23-Dec-10 18:47 JAM
99-09-2	3-Nitroaniline	1	ND		0.389	1.70	23-Dec-10 18:47 JAM
100-01-6	4-Nitroaniline	1	ND		0.389	1.70	23-Dec-10 18:47 JAM
98-95-3	Nitrobenzene	1	ND		0.389	0.330	23-Dec-10 18:47 JAM
100-02-7	4-Nitrophenol	1	ND		0.389	2.60	23-Dec-10 18:47 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.389	0.330	23-Dec-10 18:47 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.389	2.10	23-Dec-10 18:47 JAM
87-86-5	Pentachlorophenol	1	ND		0.389	1.70	23-Dec-10 18:47 JAM
85-01-8	Phenanthrene	1	ND		0.389	660.	23-Dec-10 18:47 JAM
108-95-2	Phenol	1	ND		0.389	11.0	23-Dec-10 18:47 JAM
129-00-0	Pyrene	1	ND		0.389	230.	23-Dec-10 18:47 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.389	1.20	23-Dec-10 18:47 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.389	31.0	23-Dec-10 18:47 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.389	320.	23-Dec-10 18:47 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.389	1.30	23-Dec-10 18:47 JAM

58 compound(s) reported

#Name?

Protocol 1/19/2011 16:37:43

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.0171		0.00901	1.50	16-Dec-10 17:29 RMP
71-43-2	Benzene	1	ND		0.00451	0.0510	16-Dec-10 17:29 RMP
75-27-4	Bromodichloromethane	1	ND		0.00451	0.920	16-Dec-10 17:29 RMP
75-25-2	Bromoform	1	ND		0.00451	1.80	16-Dec-10 17:29 RMP
74-83-9	Bromomethane	1	ND		0.00451	0.0400	16-Dec-10 17:29 RMP
78-93-3	2-Butanone (MEK)	1	ND		0.00901	5.00	16-Dec-10 17:29 RMP
75-15-0	Carbon disulfide	1	ND		0.00451	11.0	16-Dec-10 17:29 RMP
56-23-5	Carbon tetrachloride	1	ND		0.00451	0.110	16-Dec-10 17:29 RMP
108-90-7	Chlorobenzene	1	ND		0.00451	3.00	16-Dec-10 17:29 RMP
75-00-3	Chloroethane	1	ND		0.00451	0.0350	16-Dec-10 17:29 RMP
67-66-3	Chloroform	1	ND		0.00451	0.0440	16-Dec-10 17:29 RMP
74-87-3	Chloromethane	1	ND		0.00451	0.100	16-Dec-10 17:29 RMP
124-48-1	Dibromochloromethane	1	ND		0.00451	1.00	16-Dec-10 17:29 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		0.00451	0.0100	16-Dec-10 17:29 RMP
75-34-3	1,1-Dichloroethane	1	ND		0.00451	7.50	16-Dec-10 17:29 RMP
107-06-2	1,2-Dichloroethane	1	ND		0.00451	0.0350	16-Dec-10 17:29 RMP
75-35-4	1,1-Dichloroethene	1	ND		0.00451	0.0850	16-Dec-10 17:29 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		0.00451	0.490	16-Dec-10 17:29 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		0.00451	0.770	16-Dec-10 17:29 RMP
78-87-5	1,2-Dichloropropane	1	ND		0.00451	0.0420	16-Dec-10 17:29 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		0.00451	0.0400	16-Dec-10 17:29 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		0.00451	0.0400	16-Dec-10 17:29 RMP
100-41-4	Ethylbenzene	1	ND		0.00451	19.0	16-Dec-10 17:29 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		0.00451	0.0770	16-Dec-10 17:29 RMP
75-09-2	Methylene chloride	1	ND		0.00451	0.0170	16-Dec-10 17:29 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		0.00901	6.40	16-Dec-10 17:29 RMP
78-83-1	Isobutanol	1	ND		0.225	30.0	16-Dec-10 17:29 RMP
100-42-5	Styrene	1	ND		0.00451	11.0	16-Dec-10 17:29 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		0.00451	0.0460	16-Dec-10 17:29 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		0.00451	0.00600	16-Dec-10 17:29 RMP
127-18-4	Tetrachloroethene	1	ND		0.00451	0.180	16-Dec-10 17:29 RMP
108-88-3	Toluene	1	ND		0.00451	20.0	16-Dec-10 17:29 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		0.00451	14.0	16-Dec-10 17:29 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		0.00451	4.00	16-Dec-10 17:29 RMP

#Name?

Protocol 1/19/2011 16:37:43

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND		0.00451	0.0580	16-Dec-10 17:29 RMP
79-01-6	Trichloroethene	1	ND		0.00451	0.0730	16-Dec-10 17:29 RMP
75-69-4	Trichlorofluoromethane	1	ND		0.00451	37.0	16-Dec-10 17:29 RMP
75-01-4	Vinyl chloride	1	ND		0.00180	0.0130	16-Dec-10 17:29 RMP
	m&p-Xylene	1	ND		0.00451	18.0	16-Dec-10 17:29 RMP
95-47-6	o-Xylene	1	ND		0.00451	18.0	16-Dec-10 17:29 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext
8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		11.6	65.0	23-Dec-10 14:14 SNP1
none	Oil Range Organics (>C28-40)	1	ND		58.1	180.	23-Dec-10 14:14 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00195	0.0280	21-Dec-10 17:26 SLF
319-84-6	alpha-BHC	1	ND		0.00195	0.00640	21-Dec-10 17:26 SLF
319-85-7	beta-BHC	1	ND		0.00195	0.0160	21-Dec-10 17:26 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00195	0.0330	21-Dec-10 17:26 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00195	1.60	21-Dec-10 17:26 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00195	1.60	21-Dec-10 17:26 SLF
72-54-8	4,4'-DDD	1	ND		0.00383	1.50	21-Dec-10 17:26 SLF
72-55-9	4,4'-DDE	1	ND		0.00383	1.70	21-Dec-10 17:26 SLF
50-29-3	4,4'-DDT	1	ND		0.00383	1.70	21-Dec-10 17:26 SLF
60-57-1	Dieldrin	1	ND		0.00383	0.0300	21-Dec-10 17:26 SLF
959-98-8	Endosulfan I	1	ND		0.00195	34.0	21-Dec-10 17:26 SLF
33213-65-9	Endosulfan II	1	ND		0.00383	34.0	21-Dec-10 17:26 SLF
72-20-8	Endrin	1	ND		0.00383	1.80	21-Dec-10 17:26 SLF
76-44-8	Heptachlor	1	ND		0.00195	0.0160	21-Dec-10 17:26 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00195	0.0530	21-Dec-10 17:26 SLF
72-43-5	Methoxychlor	1	ND		0.0192	30.0	21-Dec-10 17:26 SLF
8001-35-2	Toxaphene	1	ND		0.0770	0.440	21-Dec-10 17:26 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082

8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0383	0.110	21-Dec-10 16:13 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		201.		21-Dec-10 00:15 SNP1
93-76-5	2,4,5-T	1	ND		201.		21-Dec-10 00:15 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		201.		21-Dec-10 00:15 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	2.17		0.896	12.0	21-Dec-10 17:05 KJR
7440-39-3	Barium	1	55.9		17.9	550.	21-Dec-10 17:05 KJR
7440-43-9	Cadmium	1	0.584		0.448	3.90	21-Dec-10 17:05 KJR
7440-47-3	Chromium	1	15.4		0.896	100.	21-Dec-10 17:05 KJR
7439-92-1	Lead	1	9.38		0.448	100.	21-Dec-10 17:05 KJR
7782-49-2	Selenium	1	ND		3.14	20.0	21-Dec-10 17:05 KJR
7440-22-4	Silver	1	ND		0.896	39.0	21-Dec-10 17:05 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846233

Matrix: Soil

% Moisture: 15.4 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	ND		0.0142		20-Dec-10 12:15 KJR

1 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.396	220.	23-Dec-10 20:39 JAM
208-96-8	Acenaphthylene	1	ND		0.396	88.0	23-Dec-10 20:39 JAM
62-53-3	Aniline	1	ND		0.396	0.0650	23-Dec-10 20:39 JAM
120-12-7	Anthracene	1	ND		0.396	120.	23-Dec-10 20:39 JAM
56-55-3	Benzo(a)anthracene	1	ND		0.396	0.620	23-Dec-10 20:39 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		0.396	0.620	23-Dec-10 20:39 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.396	6.20	23-Dec-10 20:39 JAM
50-32-8	Benzo(a)pyrene	1	ND		0.396	0.330	23-Dec-10 20:39 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.396	190.	23-Dec-10 20:39 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.396	220.	23-Dec-10 20:39 JAM
88-85-7	Dinoseb	1	ND		0.396	0.140	23-Dec-10 20:39 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.396	1.50	23-Dec-10 20:39 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.396	0.330	23-Dec-10 20:39 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.396	0.800	23-Dec-10 20:39 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.396	500.	23-Dec-10 20:39 JAM
95-57-8	2-Chlorophenol	1	ND		0.396	1.40	23-Dec-10 20:39 JAM
218-01-9	Chrysene	1	ND		0.396	62.0	23-Dec-10 20:39 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.396	0.330	23-Dec-10 20:39 JAM
132-64-9	Dibenzofuran	1	ND		0.396	24.0	23-Dec-10 20:39 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.396	29.0	23-Dec-10 20:39 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.396	2.10	23-Dec-10 20:39 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.396	5.70	23-Dec-10 20:39 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		0.801	0.970	23-Dec-10 20:39 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.396	12.0	23-Dec-10 20:39 JAM
84-66-2	Diethylphthalate	1	ND		0.396	360.	23-Dec-10 20:39 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.396	20.0	23-Dec-10 20:39 JAM
131-11-3	Dimethylphthalate	1	ND		0.396	1500	23-Dec-10 20:39 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.396	0.250	23-Dec-10 20:39 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.396	1.70	23-Dec-10 20:39 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.396	1.00	23-Dec-10 20:39 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.396	0.390	23-Dec-10 20:39 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.396	240.	23-Dec-10 20:39 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.396	35.0	23-Dec-10 20:39 JAM
206-44-0	Fluoranthene	1	ND		0.396	220.	23-Dec-10 20:39 JAM

#Name?

Protocol 1/19/2011 16:37:43
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.396	230.	23-Dec-10 20:39 JAM
118-74-1	Hexachlorobenzene	1	ND		0.396	0.340	23-Dec-10 20:39 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.396	0.820	23-Dec-10 20:39 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.396	1.40	23-Dec-10 20:39 JAM
67-72-1	Hexachloroethane	1	ND		0.396	2.20	23-Dec-10 20:39 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.396	0.620	23-Dec-10 20:39 JAM
78-59-1	Isophorone	1	ND		0.396	0.560	23-Dec-10 20:39 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.396	1.70	23-Dec-10 20:39 JAM
91-20-3	Naphthalene	1	ND		0.396	1.50	23-Dec-10 20:39 JAM
88-74-4	2-Nitroaniline	1	ND		0.396	1.70	23-Dec-10 20:39 JAM
99-09-2	3-Nitroaniline	1	ND		0.396	1.70	23-Dec-10 20:39 JAM
100-01-6	4-Nitroaniline	1	ND		0.396	1.70	23-Dec-10 20:39 JAM
98-95-3	Nitrobenzene	1	ND		0.396	0.330	23-Dec-10 20:39 JAM
100-02-7	4-Nitrophenol	1	ND		0.396	2.60	23-Dec-10 20:39 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.396	0.330	23-Dec-10 20:39 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.396	2.10	23-Dec-10 20:39 JAM
87-86-5	Pentachlorophenol	1	ND		0.396	1.70	23-Dec-10 20:39 JAM
85-01-8	Phenanthrene	1	ND		0.396	660.	23-Dec-10 20:39 JAM
108-95-2	Phenol	1	ND		0.396	11.0	23-Dec-10 20:39 JAM
129-00-0	Pyrene	1	ND		0.396	230.	23-Dec-10 20:39 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.396	1.20	23-Dec-10 20:39 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.396	31.0	23-Dec-10 20:39 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.396	320.	23-Dec-10 20:39 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.396	1.30	23-Dec-10 20:39 JAM

58 compound(s) reported

#Name?

Protocol 1/19/2011 16:37:43
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.0105		0.00938	1.50	16-Dec-10 17:50 RMP
71-43-2	Benzene	1	ND		0.00469	0.0510	16-Dec-10 17:50 RMP
75-27-4	Bromodichloromethane	1	ND		0.00469	0.920	16-Dec-10 17:50 RMP
75-25-2	Bromoform	1	ND		0.00469	1.80	16-Dec-10 17:50 RMP
74-83-9	Bromomethane	1	ND		0.00469	0.0400	16-Dec-10 17:50 RMP
78-93-3	2-Butanone (MEK)	1	ND		0.00938	5.00	16-Dec-10 17:50 RMP
75-15-0	Carbon disulfide	1	ND		0.00469	11.0	16-Dec-10 17:50 RMP
56-23-5	Carbon tetrachloride	1	ND		0.00469	0.110	16-Dec-10 17:50 RMP
108-90-7	Chlorobenzene	1	ND		0.00469	3.00	16-Dec-10 17:50 RMP
75-00-3	Chloroethane	1	ND		0.00469	0.0350	16-Dec-10 17:50 RMP
67-66-3	Chloroform	1	ND		0.00469	0.0440	16-Dec-10 17:50 RMP
74-87-3	Chloromethane	1	ND		0.00469	0.100	16-Dec-10 17:50 RMP
124-48-1	Dibromochloromethane	1	ND		0.00469	1.00	16-Dec-10 17:50 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		0.00469	0.0100	16-Dec-10 17:50 RMP
75-34-3	1,1-Dichloroethane	1	ND		0.00469	7.50	16-Dec-10 17:50 RMP
107-06-2	1,2-Dichloroethane	1	ND		0.00469	0.0350	16-Dec-10 17:50 RMP
75-35-4	1,1-Dichloroethene	1	ND		0.00469	0.0850	16-Dec-10 17:50 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		0.00469	0.490	16-Dec-10 17:50 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		0.00469	0.770	16-Dec-10 17:50 RMP
78-87-5	1,2-Dichloropropane	1	ND		0.00469	0.0420	16-Dec-10 17:50 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		0.00469	0.0400	16-Dec-10 17:50 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		0.00469	0.0400	16-Dec-10 17:50 RMP
100-41-4	Ethylbenzene	1	ND		0.00469	19.0	16-Dec-10 17:50 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		0.00469	0.0770	16-Dec-10 17:50 RMP
75-09-2	Methylene chloride	1	ND		0.00469	0.0170	16-Dec-10 17:50 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		0.00938	6.40	16-Dec-10 17:50 RMP
78-83-1	Isobutanol	1	ND		0.234	30.0	16-Dec-10 17:50 RMP
100-42-5	Styrene	1	ND		0.00469	11.0	16-Dec-10 17:50 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		0.00469	0.0460	16-Dec-10 17:50 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		0.00469	0.00600	16-Dec-10 17:50 RMP
127-18-4	Tetrachloroethene	1	ND		0.00469	0.180	16-Dec-10 17:50 RMP
108-88-3	Toluene	1	ND		0.00469	20.0	16-Dec-10 17:50 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		0.00469	14.0	16-Dec-10 17:50 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		0.00469	4.00	16-Dec-10 17:50 RMP

#Name?

Protocol 1/19/2011 16:37:43

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND		0.00469	0.0580	16-Dec-10 17:50 RMP
79-01-6	Trichloroethene	1	ND		0.00469	0.0730	16-Dec-10 17:50 RMP
75-69-4	Trichlorofluoromethane	1	ND		0.00469	37.0	16-Dec-10 17:50 RMP
75-01-4	Vinyl chloride	1	ND		0.00188	0.0130	16-Dec-10 17:50 RMP
	m&p-Xylene	1	ND		0.00469	18.0	16-Dec-10 17:50 RMP
95-47-6	o-Xylene	1	ND		0.00469	18.0	16-Dec-10 17:50 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext

8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		11.7	65.0	23-Dec-10 16:08 SNP1
none	Oil Range Organics (>C28-40)	1	ND		58.3	180.	23-Dec-10 16:08 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00201	0.0280	21-Dec-10 17:42 SLF
319-84-6	alpha-BHC	1	ND		0.00201	0.00640	21-Dec-10 17:42 SLF
319-85-7	beta-BHC	1	ND		0.00201	0.0160	21-Dec-10 17:42 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00201	0.0330	21-Dec-10 17:42 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00201	1.60	21-Dec-10 17:42 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00201	1.60	21-Dec-10 17:42 SLF
72-54-8	4,4'-DDD	1	ND		0.00394	1.50	21-Dec-10 17:42 SLF
72-55-9	4,4'-DDE	1	ND		0.00394	1.70	21-Dec-10 17:42 SLF
50-29-3	4,4'-DDT	1	ND		0.00394	1.70	21-Dec-10 17:42 SLF
60-57-1	Dieldrin	1	ND		0.00394	0.0300	21-Dec-10 17:42 SLF
959-98-8	Endosulfan I	1	ND		0.00201	34.0	21-Dec-10 17:42 SLF
33213-65-9	Endosulfan II	1	ND		0.00394	34.0	21-Dec-10 17:42 SLF
72-20-8	Endrin	1	ND		0.00394	1.80	21-Dec-10 17:42 SLF
76-44-8	Heptachlor	1	ND		0.00201	0.0160	21-Dec-10 17:42 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00201	0.0530	21-Dec-10 17:42 SLF
72-43-5	Methoxychlor	1	ND		0.0197	30.0	21-Dec-10 17:42 SLF
8001-35-2	Toxaphene	1	ND		0.0792	0.440	21-Dec-10 17:42 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082

8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0394	0.110	21-Dec-10 16:29 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		197.		21-Dec-10 00:38 SNP1
93-76-5	2,4,5-T	1	ND		197.		21-Dec-10 00:38 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		197.		21-Dec-10 00:38 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	5.44		0.963	12.0	21-Dec-10 16:47 KJR
7440-39-3	Barium	1	93.6		19.3	550.	21-Dec-10 16:47 KJR
7440-43-9	Cadmium	1	0.825		0.481	3.90	21-Dec-10 16:47 KJR
7440-47-3	Chromium	1	16.9		0.963	100.	21-Dec-10 16:47 KJR
7439-92-1	Lead	1	12.7		0.481	100.	21-Dec-10 16:47 KJR
7782-49-2	Selenium	1	ND		3.37	20.0	21-Dec-10 16:47 KJR
7440-22-4	Silver	1	ND		0.963	39.0	21-Dec-10 16:47 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846235

Matrix: Soil

% Moisture: 17.6 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	0.0223		0.0146		20-Dec-10 12:04 KJR
1 compound(s) reported							



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.484	220.	23-Dec-10 17:51 JAM
208-96-8	Acenaphthylene	1	ND		0.484	88.0	23-Dec-10 17:51 JAM
62-53-3	Aniline	1	ND		0.484	0.0650	23-Dec-10 17:51 JAM
120-12-7	Anthracene	1	ND		0.484	120.	23-Dec-10 17:51 JAM
56-55-3	Benzo(a)anthracene	1	ND		0.484	0.620	23-Dec-10 17:51 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		0.484	0.620	23-Dec-10 17:51 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.484	6.20	23-Dec-10 17:51 JAM
50-32-8	Benzo(a)pyrene	1	ND		0.484	0.330	23-Dec-10 17:51 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.484	190.	23-Dec-10 17:51 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.484	220.	23-Dec-10 17:51 JAM
88-85-7	Dinoseb	1	ND		0.484	0.140	23-Dec-10 17:51 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.484	1.50	23-Dec-10 17:51 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.484	0.330	23-Dec-10 17:51 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.484	0.800	23-Dec-10 17:51 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.484	500.	23-Dec-10 17:51 JAM
95-57-8	2-Chlorophenol	1	ND		0.484	1.40	23-Dec-10 17:51 JAM
218-01-9	Chrysene	1	ND		0.484	62.0	23-Dec-10 17:51 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.484	0.330	23-Dec-10 17:51 JAM
132-64-9	Dibenzofuran	1	ND		0.484	24.0	23-Dec-10 17:51 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.484	29.0	23-Dec-10 17:51 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.484	2.10	23-Dec-10 17:51 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.484	5.70	23-Dec-10 17:51 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		0.977	0.970	23-Dec-10 17:51 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.484	12.0	23-Dec-10 17:51 JAM
84-66-2	Diethylphthalate	1	ND		0.484	360.	23-Dec-10 17:51 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.484	20.0	23-Dec-10 17:51 JAM
131-11-3	Dimethylphthalate	1	ND		0.484	1500	23-Dec-10 17:51 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.484	0.250	23-Dec-10 17:51 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.484	1.70	23-Dec-10 17:51 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.484	1.00	23-Dec-10 17:51 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.484	0.390	23-Dec-10 17:51 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.484	240.	23-Dec-10 17:51 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.484	35.0	23-Dec-10 17:51 JAM
206-44-0	Fluoranthene	1	ND		0.484	220.	23-Dec-10 17:51 JAM

#Name?

Protocol 1/19/2011 16:37:43

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.484	230.	23-Dec-10 17:51 JAM
118-74-1	Hexachlorobenzene	1	ND		0.484	0.340	23-Dec-10 17:51 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.484	0.820	23-Dec-10 17:51 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.484	1.40	23-Dec-10 17:51 JAM
67-72-1	Hexachloroethane	1	ND		0.484	2.20	23-Dec-10 17:51 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.484	0.620	23-Dec-10 17:51 JAM
78-59-1	Isophorone	1	ND		0.484	0.560	23-Dec-10 17:51 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.484	1.70	23-Dec-10 17:51 JAM
91-20-3	Naphthalene	1	ND		0.484	1.50	23-Dec-10 17:51 JAM
88-74-4	2-Nitroaniline	1	ND		0.484	1.70	23-Dec-10 17:51 JAM
99-09-2	3-Nitroaniline	1	ND		0.484	1.70	23-Dec-10 17:51 JAM
100-01-6	4-Nitroaniline	1	ND		0.484	1.70	23-Dec-10 17:51 JAM
98-95-3	Nitrobenzene	1	ND		0.484	0.330	23-Dec-10 17:51 JAM
100-02-7	4-Nitrophenol	1	ND		0.484	2.60	23-Dec-10 17:51 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.484	0.330	23-Dec-10 17:51 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.484	2.10	23-Dec-10 17:51 JAM
87-86-5	Pentachlorophenol	1	ND		0.484	1.70	23-Dec-10 17:51 JAM
85-01-8	Phenanthrene	1	ND		0.484	660.	23-Dec-10 17:51 JAM
108-95-2	Phenol	1	ND		0.484	11.0	23-Dec-10 17:51 JAM
129-00-0	Pyrene	1	ND		0.484	230.	23-Dec-10 17:51 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.484	1.20	23-Dec-10 17:51 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.484	31.0	23-Dec-10 17:51 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.484	320.	23-Dec-10 17:51 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.484	1.30	23-Dec-10 17:51 JAM

58 compound(s) reported

#Name?

Protocol 1/19/2011 16:37:43
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.530		0.0156	1.50	17-Dec-10 19:07 RMP
71-43-2	Benzene	1	ND		0.00780	0.0510	17-Dec-10 19:07 RMP
75-27-4	Bromodichloromethane	1	ND		0.00780	0.920	17-Dec-10 19:07 RMP
75-25-2	Bromoform	1	ND		0.00780	1.80	17-Dec-10 19:07 RMP
74-83-9	Bromomethane	1	ND		0.00780	0.0400	17-Dec-10 19:07 RMP
78-93-3	2-Butanone (MEK)	1	0.0717		0.0156	5.00	17-Dec-10 19:07 RMP
75-15-0	Carbon disulfide	1	ND		0.00780	11.0	17-Dec-10 19:07 RMP
56-23-5	Carbon tetrachloride	1	ND		0.00780	0.110	17-Dec-10 19:07 RMP
108-90-7	Chlorobenzene	1	ND		0.00780	3.00	17-Dec-10 19:07 RMP
75-00-3	Chloroethane	1	ND		0.00780	0.0350	17-Dec-10 19:07 RMP
67-66-3	Chloroform	1	ND		0.00780	0.0440	17-Dec-10 19:07 RMP
74-87-3	Chloromethane	1	ND		0.00780	0.100	17-Dec-10 19:07 RMP
124-48-1	Dibromochloromethane	1	ND		0.00780	1.00	17-Dec-10 19:07 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		0.00780	0.0100	17-Dec-10 19:07 RMP
75-34-3	1,1-Dichloroethane	1	ND		0.00780	7.50	17-Dec-10 19:07 RMP
107-06-2	1,2-Dichloroethane	1	ND		0.00780	0.0350	17-Dec-10 19:07 RMP
75-35-4	1,1-Dichloroethene	1	ND		0.00780	0.0850	17-Dec-10 19:07 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		0.00780	0.490	17-Dec-10 19:07 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		0.00780	0.770	17-Dec-10 19:07 RMP
78-87-5	1,2-Dichloropropane	1	ND		0.00780	0.0420	17-Dec-10 19:07 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		0.00780	0.0400	17-Dec-10 19:07 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		0.00780	0.0400	17-Dec-10 19:07 RMP
100-41-4	Ethylbenzene	1	ND		0.00780	19.0	17-Dec-10 19:07 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		0.00780	0.0770	17-Dec-10 19:07 RMP
75-09-2	Methylene chloride	1	ND		0.00780	0.0170	17-Dec-10 19:07 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		0.0156	6.40	17-Dec-10 19:07 RMP
78-83-1	Isobutanol	1	ND		0.390	30.0	17-Dec-10 19:07 RMP
100-42-5	Styrene	1	ND		0.00780	11.0	17-Dec-10 19:07 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		0.00780	0.0460	17-Dec-10 19:07 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		0.00780	0.00600	17-Dec-10 19:07 RMP
127-18-4	Tetrachloroethene	1	ND		0.00780	0.180	17-Dec-10 19:07 RMP
108-88-3	Toluene	1	ND		0.00780	20.0	17-Dec-10 19:07 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		0.00780	14.0	17-Dec-10 19:07 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		0.00780	4.00	17-Dec-10 19:07 RMP

#Name?

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Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND		0.00780	0.0580	17-Dec-10 19:07 RMP
79-01-6	Trichloroethene	1	ND		0.00780	0.0730	17-Dec-10 19:07 RMP
75-69-4	Trichlorofluoromethane	1	ND		0.00780	37.0	17-Dec-10 19:07 RMP
75-01-4	Vinyl chloride	1	ND		0.00312	0.0130	17-Dec-10 19:07 RMP
	m&p-Xylene	1	ND		0.00780	18.0	17-Dec-10 19:07 RMP
95-47-6	o-Xylene	1	ND		0.00780	18.0	17-Dec-10 19:07 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext

8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		14.2	65.0	23-Dec-10 14:42 SNP1
none	Oil Range Organics (>C28-40)	1	ND		71.0	180.	23-Dec-10 14:42 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00242	0.0280	21-Dec-10 18:30 SLF
319-84-6	alpha-BHC	1	ND		0.00242	0.00640	21-Dec-10 18:30 SLF
319-85-7	beta-BHC	1	ND		0.00242	0.0160	21-Dec-10 18:30 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00242	0.0330	21-Dec-10 18:30 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00242	1.60	21-Dec-10 18:30 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00242	1.60	21-Dec-10 18:30 SLF
72-54-8	4,4'-DDD	1	ND		0.00475	1.50	21-Dec-10 18:30 SLF
72-55-9	4,4'-DDE	1	ND		0.00475	1.70	21-Dec-10 18:30 SLF
50-29-3	4,4'-DDT	1	ND		0.00475	1.70	21-Dec-10 18:30 SLF
60-57-1	Dieldrin	1	ND		0.00475	0.0300	21-Dec-10 18:30 SLF
959-98-8	Endosulfan I	1	ND		0.00242	34.0	21-Dec-10 18:30 SLF
33213-65-9	Endosulfan II	1	ND		0.00475	34.0	21-Dec-10 18:30 SLF
72-20-8	Endrin	1	ND		0.00475	1.80	21-Dec-10 18:30 SLF
76-44-8	Heptachlor	1	ND		0.00242	0.0160	21-Dec-10 18:30 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00242	0.0530	21-Dec-10 18:30 SLF
72-43-5	Methoxychlor	1	ND		0.0238	30.0	21-Dec-10 18:30 SLF
8001-35-2	Toxaphene	1	ND		0.0955	0.440	21-Dec-10 18:30 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082
8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0475	0.110	21-Dec-10 17:17 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		347.		21-Dec-10 01:47 SNP1
93-76-5	2,4,5-T	1	ND		347.		21-Dec-10 01:47 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		347.		21-Dec-10 01:47 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	12.0		1.15	12.0	21-Dec-10 17:08 KJR
7440-39-3	Barium	1	188.		23.0	550.	21-Dec-10 17:08 KJR
7440-43-9	Cadmium	1	1.19		0.574	3.90	21-Dec-10 17:08 KJR
7440-47-3	Chromium	1	20.2		1.15	100.	21-Dec-10 17:08 KJR
7439-92-1	Lead	1	13.9		0.574	100.	21-Dec-10 17:08 KJR
7782-49-2	Selenium	1	ND		4.02	20.0	21-Dec-10 17:08 KJR
7440-22-4	Silver	1	ND		1.15	39.0	21-Dec-10 17:08 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846240

Matrix: Soil

% Moisture: 31.9 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	0.0339		0.0238		20-Dec-10 12:17 KJR
1 compound(s) reported							



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.443	220.	23-Dec-10 18:20 JAM
208-96-8	Acenaphthylene	1	ND		0.443	88.0	23-Dec-10 18:20 JAM
62-53-3	Aniline	1	ND		0.443	0.0650	23-Dec-10 18:20 JAM
120-12-7	Anthracene	1	ND		0.443	120.	23-Dec-10 18:20 JAM
56-55-3	Benzo(a)anthracene	1	ND		0.443	0.620	23-Dec-10 18:20 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		0.443	0.620	23-Dec-10 18:20 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.443	6.20	23-Dec-10 18:20 JAM
50-32-8	Benzo(a)pyrene	1	ND		0.443	0.330	23-Dec-10 18:20 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.443	190.	23-Dec-10 18:20 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.443	220.	23-Dec-10 18:20 JAM
88-85-7	Dinoseb	1	ND		0.443	0.140	23-Dec-10 18:20 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.443	1.50	23-Dec-10 18:20 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.443	0.330	23-Dec-10 18:20 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.443	0.800	23-Dec-10 18:20 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.443	500.	23-Dec-10 18:20 JAM
95-57-8	2-Chlorophenol	1	ND		0.443	1.40	23-Dec-10 18:20 JAM
218-01-9	Chrysene	1	ND		0.443	62.0	23-Dec-10 18:20 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.443	0.330	23-Dec-10 18:20 JAM
132-64-9	Dibenzofuran	1	ND		0.443	24.0	23-Dec-10 18:20 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.443	29.0	23-Dec-10 18:20 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.443	2.10	23-Dec-10 18:20 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.443	5.70	23-Dec-10 18:20 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		0.895	0.970	23-Dec-10 18:20 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.443	12.0	23-Dec-10 18:20 JAM
84-66-2	Diethylphthalate	1	ND		0.443	360.	23-Dec-10 18:20 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.443	20.0	23-Dec-10 18:20 JAM
131-11-3	Dimethylphthalate	1	ND		0.443	1500	23-Dec-10 18:20 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.443	0.250	23-Dec-10 18:20 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.443	1.70	23-Dec-10 18:20 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.443	1.00	23-Dec-10 18:20 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.443	0.390	23-Dec-10 18:20 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.443	240.	23-Dec-10 18:20 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.443	35.0	23-Dec-10 18:20 JAM
206-44-0	Fluoranthene	1	ND		0.443	220.	23-Dec-10 18:20 JAM

#Name?

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Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.443	230.	23-Dec-10 18:20 JAM
118-74-1	Hexachlorobenzene	1	ND		0.443	0.340	23-Dec-10 18:20 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.443	0.820	23-Dec-10 18:20 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.443	1.40	23-Dec-10 18:20 JAM
67-72-1	Hexachloroethane	1	ND		0.443	2.20	23-Dec-10 18:20 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.443	0.620	23-Dec-10 18:20 JAM
78-59-1	Isophorone	1	ND		0.443	0.560	23-Dec-10 18:20 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.443	1.70	23-Dec-10 18:20 JAM
91-20-3	Naphthalene	1	ND		0.443	1.50	23-Dec-10 18:20 JAM
88-74-4	2-Nitroaniline	1	ND		0.443	1.70	23-Dec-10 18:20 JAM
99-09-2	3-Nitroaniline	1	ND		0.443	1.70	23-Dec-10 18:20 JAM
100-01-6	4-Nitroaniline	1	ND		0.443	1.70	23-Dec-10 18:20 JAM
98-95-3	Nitrobenzene	1	ND		0.443	0.330	23-Dec-10 18:20 JAM
100-02-7	4-Nitrophenol	1	ND		0.443	2.60	23-Dec-10 18:20 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.443	0.330	23-Dec-10 18:20 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.443	2.10	23-Dec-10 18:20 JAM
87-86-5	Pentachlorophenol	1	ND		0.443	1.70	23-Dec-10 18:20 JAM
85-01-8	Phenanthrene	1	ND		0.443	660.	23-Dec-10 18:20 JAM
108-95-2	Phenol	1	ND		0.443	11.0	23-Dec-10 18:20 JAM
129-00-0	Pyrene	1	ND		0.443	230.	23-Dec-10 18:20 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.443	1.20	23-Dec-10 18:20 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.443	31.0	23-Dec-10 18:20 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.443	320.	23-Dec-10 18:20 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.443	1.30	23-Dec-10 18:20 JAM

58 compound(s) reported

#Name?

Protocol 1/19/2011 16:37:44
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.388		0.0132	1.50	16-Dec-10 19:10 RMP
71-43-2	Benzene	1	ND		0.00660	0.0510	16-Dec-10 19:10 RMP
75-27-4	Bromodichloromethane	1	ND		0.00660	0.920	16-Dec-10 19:10 RMP
75-25-2	Bromoform	1	ND		0.00660	1.80	16-Dec-10 19:10 RMP
74-83-9	Bromomethane	1	ND		0.00660	0.0400	16-Dec-10 19:10 RMP
78-93-3	2-Butanone (MEK)	1	0.0555		0.0132	5.00	16-Dec-10 19:10 RMP
75-15-0	Carbon disulfide	1	ND		0.00660	11.0	16-Dec-10 19:10 RMP
56-23-5	Carbon tetrachloride	1	ND		0.00660	0.110	16-Dec-10 19:10 RMP
108-90-7	Chlorobenzene	1	ND		0.00660	3.00	16-Dec-10 19:10 RMP
75-00-3	Chloroethane	1	ND		0.00660	0.0350	16-Dec-10 19:10 RMP
67-66-3	Chloroform	1	ND		0.00660	0.0440	16-Dec-10 19:10 RMP
74-87-3	Chloromethane	1	ND		0.00660	0.100	16-Dec-10 19:10 RMP
124-48-1	Dibromochloromethane	1	ND		0.00660	1.00	16-Dec-10 19:10 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		0.00660	0.0100	16-Dec-10 19:10 RMP
75-34-3	1,1-Dichloroethane	1	ND		0.00660	7.50	16-Dec-10 19:10 RMP
107-06-2	1,2-Dichloroethane	1	ND		0.00660	0.0350	16-Dec-10 19:10 RMP
75-35-4	1,1-Dichloroethene	1	ND		0.00660	0.0850	16-Dec-10 19:10 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		0.00660	0.490	16-Dec-10 19:10 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		0.00660	0.770	16-Dec-10 19:10 RMP
78-87-5	1,2-Dichloropropane	1	ND		0.00660	0.0420	16-Dec-10 19:10 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		0.00660	0.0400	16-Dec-10 19:10 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		0.00660	0.0400	16-Dec-10 19:10 RMP
100-41-4	Ethylbenzene	1	ND		0.00660	19.0	16-Dec-10 19:10 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		0.00660	0.0770	16-Dec-10 19:10 RMP
75-09-2	Methylene chloride	1	ND		0.00660	0.0170	16-Dec-10 19:10 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		0.0132	6.40	16-Dec-10 19:10 RMP
78-83-1	Isobutanol	1	ND		0.330	30.0	16-Dec-10 19:10 RMP
100-42-5	Styrene	1	ND		0.00660	11.0	16-Dec-10 19:10 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		0.00660	0.0460	16-Dec-10 19:10 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		0.00660	0.00600	16-Dec-10 19:10 RMP
127-18-4	Tetrachloroethene	1	ND		0.00660	0.180	16-Dec-10 19:10 RMP
108-88-3	Toluene	1	ND		0.00660	20.0	16-Dec-10 19:10 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		0.00660	14.0	16-Dec-10 19:10 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		0.00660	4.00	16-Dec-10 19:10 RMP

#Name?

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Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND		0.00660	0.0580	16-Dec-10 19:10 RMP
79-01-6	Trichloroethene	1	ND		0.00660	0.0730	16-Dec-10 19:10 RMP
75-69-4	Trichlorofluoromethane	1	ND		0.00660	37.0	16-Dec-10 19:10 RMP
75-01-4	Vinyl chloride	1	ND		0.00264	0.0130	16-Dec-10 19:10 RMP
	m&p-Xylene	1	ND		0.00660	18.0	16-Dec-10 19:10 RMP
95-47-6	o-Xylene	1	ND		0.00660	18.0	16-Dec-10 19:10 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext
8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		13.1	65.0	23-Dec-10 13:45 SNP1
none	Oil Range Organics (>C28-40)	1	ND		65.3	180.	23-Dec-10 13:45 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00228	0.0280	21-Dec-10 18:47 SLF
319-84-6	alpha-BHC	1	ND		0.00228	0.00640	21-Dec-10 18:47 SLF
319-85-7	beta-BHC	1	ND		0.00228	0.0160	21-Dec-10 18:47 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00228	0.0330	21-Dec-10 18:47 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00228	1.60	21-Dec-10 18:47 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00228	1.60	21-Dec-10 18:47 SLF
72-54-8	4,4'-DDD	1	ND		0.00447	1.50	21-Dec-10 18:47 SLF
72-55-9	4,4'-DDE	1	ND		0.00447	1.70	21-Dec-10 18:47 SLF
50-29-3	4,4'-DDT	1	ND		0.00447	1.70	21-Dec-10 18:47 SLF
60-57-1	Dieldrin	1	ND		0.00447	0.0300	21-Dec-10 18:47 SLF
959-98-8	Endosulfan I	1	ND		0.00228	34.0	21-Dec-10 18:47 SLF
33213-65-9	Endosulfan II	1	ND		0.00447	34.0	21-Dec-10 18:47 SLF
72-20-8	Endrin	1	ND		0.00447	1.80	21-Dec-10 18:47 SLF
76-44-8	Heptachlor	1	ND		0.00228	0.0160	21-Dec-10 18:47 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00228	0.0530	21-Dec-10 18:47 SLF
72-43-5	Methoxychlor	1	ND		0.0224	30.0	21-Dec-10 18:47 SLF
8001-35-2	Toxaphene	1	ND		0.0900	0.440	21-Dec-10 18:47 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082
8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0447	0.110	21-Dec-10 17:35 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		311.		21-Dec-10 02:10 SNP1
93-76-5	2,4,5-T	1	ND		311.		21-Dec-10 02:10 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		311.		21-Dec-10 02:10 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	4.60		1.17	12.0	21-Dec-10 17:12 KJR
7440-39-3	Barium	1	138.		23.5	550.	21-Dec-10 17:12 KJR
7440-43-9	Cadmium	1	1.05		0.587	3.90	21-Dec-10 17:12 KJR
7440-47-3	Chromium	1	18.7		1.17	100.	21-Dec-10 17:12 KJR
7439-92-1	Lead	1	11.8		0.587	100.	21-Dec-10 17:12 KJR
7782-49-2	Selenium	1	ND		4.11	20.0	21-Dec-10 17:12 KJR
7440-22-4	Silver	1	ND		1.17	39.0	21-Dec-10 17:12 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-01-5D TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846241

Matrix: Soil

% Moisture: 26.6 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	0.0218		0.0190		20-Dec-10 12:18 KJR
1 compound(s) reported							



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.424	220.	23-Dec-10 19:43 JAM
208-96-8	Acenaphthylene	1	ND		0.424	88.0	23-Dec-10 19:43 JAM
62-53-3	Aniline	1	ND		0.424	0.0650	23-Dec-10 19:43 JAM
120-12-7	Anthracene	1	ND		0.424	120.	23-Dec-10 19:43 JAM
56-55-3	Benzo(a)anthracene	1	0.732		0.424	0.620	23-Dec-10 19:43 JAM
205-99-2	Benzo(b)fluoranthene	1	1.20		0.424	0.620	23-Dec-10 19:43 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.424	6.20	23-Dec-10 19:43 JAM
50-32-8	Benzo(a)pyrene	1	0.735		0.424	0.330	23-Dec-10 19:43 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.424	190.	23-Dec-10 19:43 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.424	220.	23-Dec-10 19:43 JAM
88-85-7	Dinoseb	1	ND		0.424	0.140	23-Dec-10 19:43 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.424	1.50	23-Dec-10 19:43 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.424	0.330	23-Dec-10 19:43 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.424	0.800	23-Dec-10 19:43 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.424	500.	23-Dec-10 19:43 JAM
95-57-8	2-Chlorophenol	1	ND		0.424	1.40	23-Dec-10 19:43 JAM
218-01-9	Chrysene	1	0.788		0.424	62.0	23-Dec-10 19:43 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.424	0.330	23-Dec-10 19:43 JAM
132-64-9	Dibenzofuran	1	ND		0.424	24.0	23-Dec-10 19:43 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.424	29.0	23-Dec-10 19:43 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.424	2.10	23-Dec-10 19:43 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.424	5.70	23-Dec-10 19:43 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		0.857	0.970	23-Dec-10 19:43 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.424	12.0	23-Dec-10 19:43 JAM
84-66-2	Diethylphthalate	1	ND		0.424	360.	23-Dec-10 19:43 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.424	20.0	23-Dec-10 19:43 JAM
131-11-3	Dimethylphthalate	1	ND		0.424	1500	23-Dec-10 19:43 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.424	0.250	23-Dec-10 19:43 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.424	1.70	23-Dec-10 19:43 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.424	1.00	23-Dec-10 19:43 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.424	0.390	23-Dec-10 19:43 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.424	240.	23-Dec-10 19:43 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.424	35.0	23-Dec-10 19:43 JAM
206-44-0	Fluoranthene	1	1.67		0.424	220.	23-Dec-10 19:43 JAM

#Name?

Protocol 1/19/2011 16:37:44
Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.424	230.	23-Dec-10 19:43 JAM
118-74-1	Hexachlorobenzene	1	ND		0.424	0.340	23-Dec-10 19:43 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.424	0.820	23-Dec-10 19:43 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.424	1.40	23-Dec-10 19:43 JAM
67-72-1	Hexachloroethane	1	ND		0.424	2.20	23-Dec-10 19:43 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.424	0.620	23-Dec-10 19:43 JAM
78-59-1	Isophorone	1	ND		0.424	0.560	23-Dec-10 19:43 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.424	1.70	23-Dec-10 19:43 JAM
91-20-3	Naphthalene	1	ND		0.424	1.50	23-Dec-10 19:43 JAM
88-74-4	2-Nitroaniline	1	ND		0.424	1.70	23-Dec-10 19:43 JAM
99-09-2	3-Nitroaniline	1	ND		0.424	1.70	23-Dec-10 19:43 JAM
100-01-6	4-Nitroaniline	1	ND		0.424	1.70	23-Dec-10 19:43 JAM
98-95-3	Nitrobenzene	1	ND		0.424	0.330	23-Dec-10 19:43 JAM
100-02-7	4-Nitrophenol	1	ND		0.424	2.60	23-Dec-10 19:43 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.424	0.330	23-Dec-10 19:43 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.424	2.10	23-Dec-10 19:43 JAM
87-86-5	Pentachlorophenol	1	ND		0.424	1.70	23-Dec-10 19:43 JAM
85-01-8	Phenanthrene	1	0.556		0.424	660.	23-Dec-10 19:43 JAM
108-95-2	Phenol	1	ND		0.424	11.0	23-Dec-10 19:43 JAM
129-00-0	Pyrene	1	1.29		0.424	230.	23-Dec-10 19:43 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.424	1.20	23-Dec-10 19:43 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.424	31.0	23-Dec-10 19:43 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.424	320.	23-Dec-10 19:43 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.424	1.30	23-Dec-10 19:43 JAM

58 compound(s) reported

#Name?

Protocol 1/19/2011 16:37:44
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 21-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.158	M1	0.0120	1.50	21-Dec-10 11:56 RMP
71-43-2	Benzene	1	ND	M1	0.00598	0.0510	21-Dec-10 11:56 RMP
75-27-4	Bromodichloromethane	1	ND	M1	0.00598	0.920	21-Dec-10 11:56 RMP
75-25-2	Bromoform	1	ND	M1	0.00598	1.80	21-Dec-10 11:56 RMP
74-83-9	Bromomethane	1	ND	M1	0.00598	0.0400	21-Dec-10 11:56 RMP
78-93-3	2-Butanone (MEK)	1	ND	M1	0.0120	5.00	21-Dec-10 11:56 RMP
75-15-0	Carbon disulfide	1	ND	M1	0.00598	11.0	21-Dec-10 11:56 RMP
56-23-5	Carbon tetrachloride	1	ND	M1	0.00598	0.110	21-Dec-10 11:56 RMP
108-90-7	Chlorobenzene	1	ND	M1	0.00598	3.00	21-Dec-10 11:56 RMP
75-00-3	Chloroethane	1	ND	M1	0.00598	0.0350	21-Dec-10 11:56 RMP
67-66-3	Chloroform	1	ND	M1	0.00598	0.0440	21-Dec-10 11:56 RMP
74-87-3	Chloromethane	1	ND	M1	0.00598	0.100	21-Dec-10 11:56 RMP
124-48-1	Dibromochloromethane	1	ND	M1	0.00598	1.00	21-Dec-10 11:56 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND	M1	0.00598	0.0100	21-Dec-10 11:56 RMP
75-34-3	1,1-Dichloroethane	1	ND	M1	0.00598	7.50	21-Dec-10 11:56 RMP
107-06-2	1,2-Dichloroethane	1	ND	M1	0.00598	0.0350	21-Dec-10 11:56 RMP
75-35-4	1,1-Dichloroethene	1	ND	M1	0.00598	0.0850	21-Dec-10 11:56 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND	M1	0.00598	0.490	21-Dec-10 11:56 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND	M1	0.00598	0.770	21-Dec-10 11:56 RMP
78-87-5	1,2-Dichloropropane	1	ND	M1	0.00598	0.0420	21-Dec-10 11:56 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND	M1	0.00598	0.0400	21-Dec-10 11:56 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND	M1	0.00598	0.0400	21-Dec-10 11:56 RMP
100-41-4	Ethylbenzene	1	ND	M1	0.00598	19.0	21-Dec-10 11:56 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND	M1	0.00598	0.0770	21-Dec-10 11:56 RMP
75-09-2	Methylene chloride	1	ND	M1	0.00598	0.0170	21-Dec-10 11:56 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND	M1	0.0120	6.40	21-Dec-10 11:56 RMP
78-83-1	Isobutanol	1	ND	M1	0.299	30.0	21-Dec-10 11:56 RMP
100-42-5	Styrene	1	ND	M1	0.00598	11.0	21-Dec-10 11:56 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND	M1	0.00598	0.0460	21-Dec-10 11:56 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND	M1	0.00598	0.00600	21-Dec-10 11:56 RMP
127-18-4	Tetrachloroethene	1	ND	M1	0.00598	0.180	21-Dec-10 11:56 RMP
108-88-3	Toluene	1	ND	M1	0.00598	20.0	21-Dec-10 11:56 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND	M1	0.00598	14.0	21-Dec-10 11:56 RMP
71-55-6	1,1,1-Trichloroethane	1	ND	M1	0.00598	4.00	21-Dec-10 11:56 RMP

#Name?

Protocol 1/19/2011 16:37:44
 Limits are corrected for sample size, dilution and moisture content if applicable.
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 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 21-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND	M1	0.00598	0.0580	21-Dec-10 11:56 RMP
79-01-6	Trichloroethene	1	ND	M1	0.00598	0.0730	21-Dec-10 11:56 RMP
75-69-4	Trichlorofluoromethane	1	ND	M1	0.00598	37.0	21-Dec-10 11:56 RMP
75-01-4	Vinyl chloride	1	ND	M1	0.00239	0.0130	21-Dec-10 11:56 RMP
	m&p-Xylene	1	ND	M1	0.00598	18.0	21-Dec-10 11:56 RMP
95-47-6	o-Xylene	1	ND	M1	0.00598	18.0	21-Dec-10 11:56 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext
8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		12.9	65.0	23-Dec-10 17:33 SNP1
none	Oil Range Organics (>C28-40)	1	ND		64.3	180.	23-Dec-10 17:33 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00220	0.0280	21-Dec-10 19:19 SLF
319-84-6	alpha-BHC	1	ND		0.00220	0.00640	21-Dec-10 19:19 SLF
319-85-7	beta-BHC	1	ND		0.00220	0.0160	21-Dec-10 19:19 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00220	0.0330	21-Dec-10 19:19 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00220	1.60	21-Dec-10 19:19 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00220	1.60	21-Dec-10 19:19 SLF
72-54-8	4,4'-DDD	1	ND		0.00432	1.50	21-Dec-10 19:19 SLF
72-55-9	4,4'-DDE	1	ND		0.00432	1.70	21-Dec-10 19:19 SLF
50-29-3	4,4'-DDT	1	ND		0.00432	1.70	21-Dec-10 19:19 SLF
60-57-1	Dieldrin	1	ND		0.00432	0.0300	21-Dec-10 19:19 SLF
959-98-8	Endosulfan I	1	ND		0.00220	34.0	21-Dec-10 19:19 SLF
33213-65-9	Endosulfan II	1	ND		0.00432	34.0	21-Dec-10 19:19 SLF
72-20-8	Endrin	1	ND		0.00432	1.80	21-Dec-10 19:19 SLF
76-44-8	Heptachlor	1	ND		0.00220	0.0160	21-Dec-10 19:19 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00220	0.0530	21-Dec-10 19:19 SLF
72-43-5	Methoxychlor	1	ND		0.0217	30.0	21-Dec-10 19:19 SLF
8001-35-2	Toxaphene	1	ND		0.0869	0.440	21-Dec-10 19:19 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082

8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0432	0.110	21-Dec-10 17:51 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		253.		21-Dec-10 02:33 SNP1
93-76-5	2,4,5-T	1	ND		253.		21-Dec-10 02:33 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		253.		21-Dec-10 02:33 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	3.83		0.985	12.0	21-Dec-10 17:22 KJR
7440-39-3	Barium	1	110.		19.7	550.	21-Dec-10 17:22 KJR
7440-43-9	Cadmium	1	0.568		0.493	3.90	21-Dec-10 17:22 KJR
7440-47-3	Chromium	1	9.92		0.985	100.	21-Dec-10 17:22 KJR
7439-92-1	Lead	1	44.6		0.493	100.	21-Dec-10 17:22 KJR
7782-49-2	Selenium	1	ND		3.45	20.0	21-Dec-10 17:22 KJR
7440-22-4	Silver	1	ND		0.985	39.0	21-Dec-10 17:22 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-02-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846242

Matrix: Soil

% Moisture: 23.1 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	0.0337		0.0205		20-Dec-10 12:20 KJR
1 compound(s) reported							



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
83-32-9	Acenaphthene	1	ND		0.378	220.	23-Dec-10 20:11 JAM
208-96-8	Acenaphthylene	1	ND		0.378	88.0	23-Dec-10 20:11 JAM
62-53-3	Aniline	1	ND		0.378	0.0650	23-Dec-10 20:11 JAM
120-12-7	Anthracene	1	ND		0.378	120.	23-Dec-10 20:11 JAM
56-55-3	Benzo(a)anthracene	1	0.411		0.378	0.620	23-Dec-10 20:11 JAM
205-99-2	Benzo(b)fluoranthene	1	0.572		0.378	0.620	23-Dec-10 20:11 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		0.378	6.20	23-Dec-10 20:11 JAM
50-32-8	Benzo(a)pyrene	1	ND		0.378	0.330	23-Dec-10 20:11 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		0.378	190.	23-Dec-10 20:11 JAM
85-68-7	Butylbenzylphthalate	1	ND		0.378	220.	23-Dec-10 20:11 JAM
88-85-7	Dinoseb	1	ND		0.378	0.140	23-Dec-10 20:11 JAM
106-47-8	3&4-Chloroaniline	1	ND		0.378	1.50	23-Dec-10 20:11 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		0.378	0.330	23-Dec-10 20:11 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		0.378	0.800	23-Dec-10 20:11 JAM
91-58-7	2-Chloronaphthalene	1	ND		0.378	500.	23-Dec-10 20:11 JAM
95-57-8	2-Chlorophenol	1	ND		0.378	1.40	23-Dec-10 20:11 JAM
218-01-9	Chrysene	1	0.448		0.378	62.0	23-Dec-10 20:11 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		0.378	0.330	23-Dec-10 20:11 JAM
132-64-9	Dibenzofuran	1	ND		0.378	24.0	23-Dec-10 20:11 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		0.378	29.0	23-Dec-10 20:11 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		0.378	2.10	23-Dec-10 20:11 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		0.378	5.70	23-Dec-10 20:11 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		0.765	0.970	23-Dec-10 20:11 JAM
120-83-2	2,4-Dichlorophenol	1	ND		0.378	12.0	23-Dec-10 20:11 JAM
84-66-2	Diethylphthalate	1	ND		0.378	360.	23-Dec-10 20:11 JAM
105-67-9	2,4-Dimethylphenol	1	ND		0.378	20.0	23-Dec-10 20:11 JAM
131-11-3	Dimethylphthalate	1	ND		0.378	1500	23-Dec-10 20:11 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		0.378	0.250	23-Dec-10 20:11 JAM
51-28-5	2,4-Dinitrophenol	1	ND		0.378	1.70	23-Dec-10 20:11 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		0.378	1.00	23-Dec-10 20:11 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		0.378	0.390	23-Dec-10 20:11 JAM
117-84-0	Di-n-octylphthalate	1	ND		0.378	240.	23-Dec-10 20:11 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		0.378	35.0	23-Dec-10 20:11 JAM
206-44-0	Fluoranthene	1	0.908		0.378	220.	23-Dec-10 20:11 JAM

#Name?

Protocol 1/19/2011 16:37:44
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152676

Method: EPA 8270

GCMS SVOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
86-73-7	Fluorene	1	ND		0.378	230.	23-Dec-10 20:11 JAM
118-74-1	Hexachlorobenzene	1	ND		0.378	0.340	23-Dec-10 20:11 JAM
87-68-3	Hexachloro-1,3-butadiene	1	ND		0.378	0.820	23-Dec-10 20:11 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		0.378	1.40	23-Dec-10 20:11 JAM
67-72-1	Hexachloroethane	1	ND		0.378	2.20	23-Dec-10 20:11 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		0.378	0.620	23-Dec-10 20:11 JAM
78-59-1	Isophorone	1	ND		0.378	0.560	23-Dec-10 20:11 JAM
91-57-6	2-Methylnaphthalene	1	ND		0.378	1.70	23-Dec-10 20:11 JAM
91-20-3	Naphthalene	1	ND		0.378	1.50	23-Dec-10 20:11 JAM
88-74-4	2-Nitroaniline	1	ND		0.378	1.70	23-Dec-10 20:11 JAM
99-09-2	3-Nitroaniline	1	ND		0.378	1.70	23-Dec-10 20:11 JAM
100-01-6	4-Nitroaniline	1	ND		0.378	1.70	23-Dec-10 20:11 JAM
98-95-3	Nitrobenzene	1	ND		0.378	0.330	23-Dec-10 20:11 JAM
100-02-7	4-Nitrophenol	1	ND		0.378	2.60	23-Dec-10 20:11 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		0.378	0.330	23-Dec-10 20:11 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		0.378	2.10	23-Dec-10 20:11 JAM
87-86-5	Pentachlorophenol	1	ND		0.378	1.70	23-Dec-10 20:11 JAM
85-01-8	Phenanthrene	1	0.783		0.378	660.	23-Dec-10 20:11 JAM
108-95-2	Phenol	1	ND		0.378	11.0	23-Dec-10 20:11 JAM
129-00-0	Pyrene	1	0.721		0.378	230.	23-Dec-10 20:11 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		0.378	1.20	23-Dec-10 20:11 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		0.378	31.0	23-Dec-10 20:11 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		0.378	320.	23-Dec-10 20:11 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		0.378	1.30	23-Dec-10 20:11 JAM

58 compound(s) reported

#Name?

Protocol 1/19/2011 16:37:45
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	0.0664		0.0111	1.50	16-Dec-10 19:51 RMP
71-43-2	Benzene	1	ND		0.00555	0.0510	16-Dec-10 19:51 RMP
75-27-4	Bromodichloromethane	1	ND		0.00555	0.920	16-Dec-10 19:51 RMP
75-25-2	Bromoform	1	ND		0.00555	1.80	16-Dec-10 19:51 RMP
74-83-9	Bromomethane	1	ND		0.00555	0.0400	16-Dec-10 19:51 RMP
78-93-3	2-Butanone (MEK)	1	ND		0.0111	5.00	16-Dec-10 19:51 RMP
75-15-0	Carbon disulfide	1	ND		0.00555	11.0	16-Dec-10 19:51 RMP
56-23-5	Carbon tetrachloride	1	ND		0.00555	0.110	16-Dec-10 19:51 RMP
108-90-7	Chlorobenzene	1	ND		0.00555	3.00	16-Dec-10 19:51 RMP
75-00-3	Chloroethane	1	ND		0.00555	0.0350	16-Dec-10 19:51 RMP
67-66-3	Chloroform	1	ND		0.00555	0.0440	16-Dec-10 19:51 RMP
74-87-3	Chloromethane	1	ND		0.00555	0.100	16-Dec-10 19:51 RMP
124-48-1	Dibromochloromethane	1	ND		0.00555	1.00	16-Dec-10 19:51 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		0.00555	0.0100	16-Dec-10 19:51 RMP
75-34-3	1,1-Dichloroethane	1	ND		0.00555	7.50	16-Dec-10 19:51 RMP
107-06-2	1,2-Dichloroethane	1	ND		0.00555	0.0350	16-Dec-10 19:51 RMP
75-35-4	1,1-Dichloroethene	1	ND		0.00555	0.0850	16-Dec-10 19:51 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		0.00555	0.490	16-Dec-10 19:51 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		0.00555	0.770	16-Dec-10 19:51 RMP
78-87-5	1,2-Dichloropropane	1	ND		0.00555	0.0420	16-Dec-10 19:51 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		0.00555	0.0400	16-Dec-10 19:51 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		0.00555	0.0400	16-Dec-10 19:51 RMP
100-41-4	Ethylbenzene	1	ND		0.00555	19.0	16-Dec-10 19:51 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		0.00555	0.0770	16-Dec-10 19:51 RMP
75-09-2	Methylene chloride	1	ND		0.00555	0.0170	16-Dec-10 19:51 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		0.0111	6.40	16-Dec-10 19:51 RMP
78-83-1	Isobutanol	1	ND		0.277	30.0	16-Dec-10 19:51 RMP
100-42-5	Styrene	1	ND		0.00555	11.0	16-Dec-10 19:51 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		0.00555	0.0460	16-Dec-10 19:51 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		0.00555	0.00600	16-Dec-10 19:51 RMP
127-18-4	Tetrachloroethene	1	ND		0.00555	0.180	16-Dec-10 19:51 RMP
108-88-3	Toluene	1	ND		0.00555	20.0	16-Dec-10 19:51 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		0.00555	14.0	16-Dec-10 19:51 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		0.00555	4.00	16-Dec-10 19:51 RMP

#Name?

Protocol 1/19/2011 16:37:45
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152237

Method: EPA 8260

GCMS VOAs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
79-00-5	1,1,2-Trichloroethane	1	ND		0.00555	0.0580	16-Dec-10 19:51 RMP
79-01-6	Trichloroethene	1	ND		0.00555	0.0730	16-Dec-10 19:51 RMP
75-69-4	Trichlorofluoromethane	1	ND		0.00555	37.0	16-Dec-10 19:51 RMP
75-01-4	Vinyl chloride	1	ND		0.00222	0.0130	16-Dec-10 19:51 RMP
	m&p-Xylene	1	ND		0.00555	18.0	16-Dec-10 19:51 RMP
95-47-6	o-Xylene	1	ND		0.00555	18.0	16-Dec-10 19:51 RMP

40 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152663

Method: EPA 8015 Mod Ext
8015 TPH Extractables Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 22-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		11.0	65.0	23-Dec-10 18:02 SNP1
none	Oil Range Organics (>C28-40)	1	ND		55.0	180.	23-Dec-10 18:02 SNP1

2 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152466

Method: EPA 8081

8081 Pests Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		0.00195	0.0280	21-Dec-10 19:03 SLF
319-84-6	alpha-BHC	1	ND		0.00195	0.00640	21-Dec-10 19:03 SLF
319-85-7	beta-BHC	1	ND		0.00195	0.0160	21-Dec-10 19:03 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		0.00195	0.0330	21-Dec-10 19:03 SLF
5103-71-9	alpha-Chlordane	1	ND		0.00195	1.60	21-Dec-10 19:03 SLF
5103-74-2	gamma-Chlordane	1	ND		0.00195	1.60	21-Dec-10 19:03 SLF
72-54-8	4,4'-DDD	1	ND		0.00382	1.50	21-Dec-10 19:03 SLF
72-55-9	4,4'-DDE	1	ND		0.00382	1.70	21-Dec-10 19:03 SLF
50-29-3	4,4'-DDT	1	ND		0.00382	1.70	21-Dec-10 19:03 SLF
60-57-1	Dieldrin	1	ND		0.00382	0.0300	21-Dec-10 19:03 SLF
959-98-8	Endosulfan I	1	ND		0.00195	34.0	21-Dec-10 19:03 SLF
33213-65-9	Endosulfan II	1	ND		0.00382	34.0	21-Dec-10 19:03 SLF
72-20-8	Endrin	1	ND		0.00382	1.80	21-Dec-10 19:03 SLF
76-44-8	Heptachlor	1	ND		0.00195	0.0160	21-Dec-10 19:03 SLF
1024-57-3	Heptachlor epoxide	1	ND		0.00195	0.0530	21-Dec-10 19:03 SLF
72-43-5	Methoxychlor	1	ND		0.0191	30.0	21-Dec-10 19:03 SLF
8001-35-2	Toxaphene	1	ND		0.0768	0.440	21-Dec-10 19:03 SLF

17 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152457

Method: EPA 8082
8082 PCBs Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 20-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		0.0382	0.110	21-Dec-10 18:06 SLF

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152375

Method: EPA 8151

8151 Herbs Low Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 17-Dec-10

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		233.		21-Dec-10 02:56 SNP1
93-76-5	2,4,5-T	1	ND		233.		21-Dec-10 02:56 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		233.		21-Dec-10 02:56 SNP1

3 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152297

Method: EPA 6010

Metals, ICP, Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	3.91		0.914	12.0	21-Dec-10 17:26 KJR
7440-39-3	Barium	1	96.2		18.3	550.	21-Dec-10 17:26 KJR
7440-43-9	Cadmium	1	0.615		0.457	3.90	21-Dec-10 17:26 KJR
7440-47-3	Chromium	1	10.7		0.914	100.	21-Dec-10 17:26 KJR
7439-92-1	Lead	1	26.5		0.457	100.	21-Dec-10 17:26 KJR
7782-49-2	Selenium	1	ND		3.20	20.0	21-Dec-10 17:26 KJR
7440-22-4	Silver	1	ND		0.914	39.0	21-Dec-10 17:26 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A3-SB-03-5 TERRA CORE

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846247

Matrix: Soil

% Moisture: 13.2 Corrected

Description: None

Prep Level: Soil

Batch: 152296

Method: EPA 7471

Mercury Soil

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 18-Dec-10

Units: mg/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	0.0184		0.0157		20-Dec-10 12:22 KJR

1 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: TRIP BLANK

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846248

Matrix: Water

% Moisture: n/a

Description: None

Prep Level: Water

Batch: 152241

Method: EPA 8260

GCMS VOAs Water

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
67-64-1	Acetone	1	ND		10.0		16-Dec-10 16:38 RMP
71-43-2	Benzene	1	ND		5.00		16-Dec-10 16:38 RMP
75-27-4	Bromodichloromethane	1	ND		5.00		16-Dec-10 16:38 RMP
75-25-2	Bromoform	1	ND		5.00		16-Dec-10 16:38 RMP
74-83-9	Bromomethane	1	ND		5.00		16-Dec-10 16:38 RMP
78-93-3	2-Butanone (MEK)	1	ND		10.0		16-Dec-10 16:38 RMP
75-15-0	Carbon disulfide	1	ND		5.00		16-Dec-10 16:38 RMP
56-23-5	Carbon tetrachloride	1	ND		5.00		16-Dec-10 16:38 RMP
108-90-7	Chlorobenzene	1	ND		5.00		16-Dec-10 16:38 RMP
75-00-3	Chloroethane	1	ND		5.00		16-Dec-10 16:38 RMP
67-66-3	Chloroform	1	ND		5.00		16-Dec-10 16:38 RMP
74-87-3	Chloromethane	1	ND		5.00		16-Dec-10 16:38 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		5.00		16-Dec-10 16:38 RMP
124-48-1	Dibromochloromethane	1	ND		5.00		16-Dec-10 16:38 RMP
106-93-4	1,2-Dibromoethane (EDB)	1	ND		5.00		16-Dec-10 16:38 RMP
75-71-8	Dichlorodifluoromethane	1	ND		5.00		16-Dec-10 16:38 RMP
75-34-3	1,1-Dichloroethane	1	ND		5.00		16-Dec-10 16:38 RMP
107-06-2	1,2-Dichloroethane	1	ND		5.00		16-Dec-10 16:38 RMP
75-35-4	1,1-Dichloroethene	1	ND		5.00		16-Dec-10 16:38 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00		16-Dec-10 16:38 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00		16-Dec-10 16:38 RMP
78-87-5	1,2-Dichloropropane	1	ND		5.00		16-Dec-10 16:38 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00		16-Dec-10 16:38 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00		16-Dec-10 16:38 RMP
100-41-4	Ethylbenzene	1	ND		5.00		16-Dec-10 16:38 RMP
591-78-6	2-Hexanone	1	ND		10.0		16-Dec-10 16:38 RMP
98-82-8	Isopropylbenzene (Cumene)	1	ND		5.00		16-Dec-10 16:38 RMP
79-20-9	Methyl acetate	1	ND		10.0		16-Dec-10 16:38 RMP
75-09-2	Methylene chloride	1	21.0	A11,B	5.00		16-Dec-10 16:38 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0		16-Dec-10 16:38 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		5.00		16-Dec-10 16:38 RMP
100-42-5	Styrene	1	ND		5.00		16-Dec-10 16:38 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00		16-Dec-10 16:38 RMP
127-18-4	Tetrachloroethene	1	ND		5.00		16-Dec-10 16:38 RMP

#Name?

Protocol 1/19/2011 16:37:45

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: TRIP BLANK

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20846248

Matrix: Water

% Moisture: n/a

Description: None

Prep Level: Water

Batch: 152241

Method: EPA 8260

GCMS VOAs Water

Collected: 14-Dec-10

Received: 15-Dec-10

Prepared: 16-Dec-10

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
108-88-3	Toluene	1	ND		5.00		16-Dec-10 16:38 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		5.00		16-Dec-10 16:38 RMP
79-00-5	1,1,2-Trichloroethane	1	ND		5.00		16-Dec-10 16:38 RMP
79-01-6	Trichloroethene	1	ND		5.00		16-Dec-10 16:38 RMP
75-69-4	Trichlorofluoromethane	1	ND		5.00		16-Dec-10 16:38 RMP
75-01-4	Vinyl chloride	1	ND		5.00		16-Dec-10 16:38 RMP
	m&p-Xylene	1	ND		5.00		16-Dec-10 16:38 RMP
95-47-6	o-Xylene	1	ND		5.00		16-Dec-10 16:38 RMP

42 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 (TCLP-METALS)

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20853976 (TCLP)

Matrix: Soil

% Moisture: 0 Not Corrected

Description: None

Prep Level: TCLP

Batch: 154083

Method: EPA 6010 (TCLP)

Metals, ICP, TCLP Leachate

Collected: 14-Jan-11

Received: 15-Jan-11

Prepared: 19-Jan-11

Units: mg/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7440-38-2	Arsenic	1	ND		0.200	5.00	19-Jan-11 15:16 KJR
7440-39-3	Barium	1	ND		2.00	100.	19-Jan-11 15:16 KJR
7440-43-9	Cadmium	1	ND		0.100	1.00	19-Jan-11 15:16 KJR
7440-47-3	Chromium	1	ND		0.200	5.00	19-Jan-11 15:16 KJR
7439-92-1	Lead	1	ND		0.200	5.00	19-Jan-11 15:16 KJR
7782-49-2	Selenium	1	ND		0.200	1.00	19-Jan-11 15:16 KJR
7440-22-4	Silver	1	ND		0.200	5.00	19-Jan-11 15:16 KJR

7 compound(s) reported



Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: AECOM - New Orleans

Client ID: A2-SB-01-5 (TCLP-METALS)

Project: 20117791

Project ID: IHNC

Site: None

Lab ID: 20853976 (TCLP)

Matrix: Soil

% Moisture: 0 Not Corrected

Description: None

Prep Level: TCLP

Batch: 154082

Method: EPA 7470 (TCLP)

Mercury TCLP

Collected: 14-Jan-11

Received: 15-Jan-11

Prepared: 19-Jan-11

Units: mg/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
7439-97-6	Mercury	1	ND		0.000200	0.200	19-Jan-11 14:24 KJR

1 compound(s) reported



Surrogate Recovery

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152676

Project: 20117791

Method: Soil GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20848599	152676 BLANK 1		70	85	67	80	71	87		
20848600	152676 LCS 1		90	94	72	77	77	89		
20846229	A2-SB-01-5 TERRA CORE		44	66	52	57	47	52		
20846233	A2-SB-02-5 TERRA CORE		64	81	64	77	65	68		
20846235	A2-SB-03-5 TERRA CORE		69	83	63	82	65	72		
20848601	A2-SB-03-5 TERRA CORE MS 1		92	99	69	81	72	86		
20848602	A2-SB-03-5 TERRA CORE MSD		74	79	58	66	61	67		
20846240	A3-SB-01-5 TERRA CORE		37	58	40	50	36	44		
20846241	A3-SB-01-5D TERRA CORE		58	78	54	73	56	71		
20846242	A3-SB-02-5 TERRA CORE		63	82	60	79	62	68		
20846247	A3-SB-03-5 TERRA CORE		59	79	48	71	54	65		

QC limits: 10-124 22-119 17-110 10-125 13-121 30-149

Sur 1: 2,4,6-Tribromophenol (S)
 Sur 2: 2-Fluorobiphenyl (S)
 Sur 3: 2-Fluorophenol (S)
 Sur 4: Nitrobenzene-d5 (S)

Sur 5: Phenol-d5 (S)
 Sur 6: Terphenyl-d14 (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152237

Project: 20117791

Method: Soil GC/MS Volatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20846351	152237 BLANK 1	S1	130 *	84	92					
20846841	152237 BLANK 2	S1	130 *	80	89					
20847784	152237 BLANK 3		116	102	109					
20846352	152237 LCS 1		126 *	77	94					
20846842	152237 LCS 2		128 *	74	94					
20847785	152237 LCS 3		113	96	111					
20846229	A2-SB-01-5 TERRA CORE	S1	173 *	86	87					
20846233	A2-SB-02-5 TERRA CORE	S1	134 *	83	92					
20846235	A2-SB-03-5 TERRA CORE	S1	149 *	94	101					
20846355	A2-SB-03-5 TERRA CORE MS 2		134 *	82	91					
20846356	A2-SB-03-5 TERRA CORE MSD		139 *	86	98					
20846240	A3-SB-01-5 TERRA CORE	S1	142 *	80	87					
20846241	A3-SB-01-5D TERRA CORE	S1	136 *	84	94					
20846242	A3-SB-02-5 TERRA CORE		147 *	108	104					
20846247	A3-SB-03-5 TERRA CORE	S1	150 *	84	89					
20846353	CHANNEL-3 MS 1		136 *	86	95					
20846354	CHANNEL-3 MSD 1		136 *	85	92					

QC limits: 68-124 72-126 79-119

Sur 1: 4-Bromofluorobenzene (S)
 Sur 2: Dibromofluoromethane (S)
 Sur 3: Toluene-d8 (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152241

Project: 20117791

Method: Water GC/MS Volatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20846373	152241 BLANK 1	S1	113	118	120 *					
20846886	152241 BLANK 2	S1	113	117	122 *					
20846374	152241 LCS 1		102	114	119					
20846887	152241 LCS 2		99	102	115					
20846375	MW-1 MS 1		97	107	115					
20846376	MW-1 MSD 1		101	108	115					
20846248	TRIP BLANK		95	108	116					

QC limits: 68-124 72-126 79-119

Sur 1: 4-Bromofluorobenzene (S)
Sur 2: Dibromofluoromethane (S)
Sur 3: Toluene-d8 (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152375

Project: 20117791

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20847100	152375 BLANK 1		102	104						
20847101	152375 LCS 1		117	111						
20846229	A2-SB-01-5 TERRA CORE		36	36						
20846233	A2-SB-02-5 TERRA CORE		61	61						
20846235	A2-SB-03-5 TERRA CORE		48	47						
20847102	A2-SB-03-5 TERRA CORE MS 1		120	112						
20847103	A2-SB-03-5 TERRA CORE MSD		119	117						
20846240	A3-SB-01-5 TERRA CORE		56	55						
20846241	A3-SB-01-5D TERRA CORE		66	66						
20846242	A3-SB-02-5 TERRA CORE		38	37						
20846247	A3-SB-03-5 TERRA CORE		34	33						

QC limits: 10-169 10-161

Sur 1: 2,4-DCPA (Conf)(S)
Sur 2: 2,4-DCPA (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152457

Project: 20117791

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20847702	152457 BLANK 1		71	67	69	66				
20847703	152457 LCS 1		84	77	81	73				
20846229	A2-SB-01-5 TERRA CORE		37	36	47	49				
20846233	A2-SB-02-5 TERRA CORE		30	28	57	53				
20846235	A2-SB-03-5 TERRA CORE		31	28	48	54				
20847704	A2-SB-03-5 TERRA CORE MS 1		75	68	60	76				
20847705	A2-SB-03-5 TERRA CORE MSD		53	47	51	58				
20846240	A3-SB-01-5 TERRA CORE		41	37	60	64				
20846241	A3-SB-01-5D TERRA CORE		37	34	68	70				
20846242	A3-SB-02-5 TERRA CORE		44	42	72	67				
20846247	A3-SB-03-5 TERRA CORE		60	56	66	64				

QC limits: 30-187 15-184 30-178 10-171

- Sur 1: Decachlorobiphenyl (Conf)(S)
- Sur 2: Decachlorobiphenyl (S)
- Sur 3: Tetrachloro-m-xylene (Conf)(S)
- Sur 4: Tetrachloro-m-xylene (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152466

Project: 20117791

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20847765	152466 BLANK 1		85	81	81	82				
20847766	152466 LCS 1		82	77	71	74				
20846229	A2-SB-01-5 TERRA CORE		43	30	19	44				
20846233	A2-SB-02-5 TERRA CORE		27	25	57	58				
20846235	A2-SB-03-5 TERRA CORE		33	26	72	57				
20847767	A2-SB-03-5 TERRA CORE MS 1		56	46	85	63				
20847768	A2-SB-03-5 TERRA CORE MSD		41	36	86	63				
20846240	A3-SB-01-5 TERRA CORE		39	33	70	65				
20846241	A3-SB-01-5D TERRA CORE		37	31	66	67				
20846242	A3-SB-02-5 TERRA CORE		47	44	71	72				
20846247	A3-SB-03-5 TERRA CORE		67	58	69	70				

QC limits: 15-179 15-177 10-144 10-178

Sur 1: Decachlorobiphenyl (Conf)(S)
Sur 2: Decachlorobiphenyl (S)
Sur 3: Tetrachloro-m-xylene (Conf)(S)
Sur 4: Tetrachloro-m-xylene (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152663

Project: 20117791

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20848535	152663 BLANK 1		82	77						
20848536	152663 LCS 1		89	86						
20846229	A2-SB-01-5 TERRA CORE		82	64						
20846233	A2-SB-02-5 TERRA CORE		88	58						
20846235	A2-SB-03-5 TERRA CORE		76	40						
20848537	A2-SB-03-5 TERRA CORE MS 1		91	80						
20848538	A2-SB-03-5 TERRA CORE MSD		83	80						
20846240	A3-SB-01-5 TERRA CORE		74	49						
20846241	A3-SB-01-5D TERRA CORE		78	43						
20846242	A3-SB-02-5 TERRA CORE		80	48						
20846247	A3-SB-03-5 TERRA CORE		87	63						

QC limits: 16-147 16-127

Sur 1: n-Pentacosane (S)
Sur 2: o-Terphenyl (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152676 **Project:** 20117791 **LCS:** 20848600 23-Dec-10 10:56
Method: Soil GC/MS Semivolatile Organics **MS:** 20848601 23-Dec-10 21:07
Units: ug/kg **MSD:** 20848602 23-Dec-10 21:34
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	QC Limits			Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec	RPD	LCS	MS/MSD	RPD	
Acenaphthene	1670	1520	91	1990		1900	1530	96	77	22 *	46-110	10-138	20	
Acenaphthylene	1670	1560	94	1990		1950	1570	98	79	21 *	47-110	10-130	20	
Aniline	1670	1520	91	1990		1610	1260	81	63	24 *	28-130	10-156	22	
Anthracene	1670	1630	98	1990		2010	1610	101	81	22 *	48-111	10-135	20	
Benzo(a)anthracene	1670	1560	93	1990	153.	1930	1570	89	71	20	47-110	10-136	20	
Benzo(b)fluoranthene	1670	1500	90	1990	257.	2320	2000	103	88	14	44-111	10-152	20	
Benzo(k)fluoranthene	1670	1560	94	1990	79.2	2240	1870	109	90	18	45-112	10-145	20	
Benzo(a)pyrene	1670	1630	98	1990	161.	2050	1710	95	78	18	47-112	10-135	20	
Butylbenzylphthalate	1670	1600	96	1990		1900	1480	95	74	25 *	42-121	10-164	20	
3&4-Chloroaniline	1670	1440	86	1990		1710	1360	86	68	23 *	21-121	10-128	21	
bis(2-Chloroethyl) ether	1670	1350	81	1990		1700	1370	85	68	22 *	41-113	17-131	20	
2-Chloronaphthalene	1670	1540	92	1990		1930	1550	97	78	22 *	47-110	16-120	20	
2-Chlorophenol	1670	1210	73	1990		1550	1270	78	64	20	42-110	16-118	20	
Chrysene	1670	1570	94	1990	206.	1940	1600	87	70	19	46-110	10-134	20	
Dibenz(a,h)anthracene	1670	1480	89	1990		943.	727.	47	37	26 *	38-121	10-121	20	
Dibenzofuran	1670	1560	94	1990		1970	1600	99	80	21 *	48-110	10-129	20	
1,2-Dichlorobenzene	1670	1460	88	1990		1820	1490	92	74	20	44-110	18-120	20	
1,3-Dichlorobenzene	1670	1460	88	1990		1850	1510	93	76	20	43-110	17-118	20	
1,4-Dichlorobenzene	1670	1430	86	1990		1810	1480	91	74	20	43-110	18-118	20	
3,3'-Dichlorobenzidine	1670	1800	108	1990		2250	1630	113	82	32 *	34-132	10-142	22	
2,4-Dichlorophenol	1670	1390	83	1990		1660	1380	83	69	18	37-110	10-121	20	
Diethylphthalate	1670	1540	93	1990		1910	1560	96	78	21 *	45-117	14-128	20	
2,4-Dimethylphenol	1670	1350	81	1990		1280	1130	64	57	12	33-110	10-128	20	
Dimethylphthalate	1670	1540	93	1990		1950	1590	98	80	20	46-114	14-129	20	
2,4-Dinitrophenol	1670	1070	64	1990		427.	260.	21	13	49 *	10-115	10-130	20	
2,4-Dinitrotoluene	1670	1500	90	1990		1920	1550	96	78	22	44-111	10-136	22	
2,6-Dinitrotoluene	1670	1560	94	1990		1980	1590	99	80	22 *	47-110	10-130	20	
Di-n-octylphthalate	1670	1570	94	1990		2780	2450	140	123	13	36-129	10-204	20	
bis(2-Ethylhexyl)phthalate	1670	1580	95	1990		1840	1480	92	74	21 *	41-122	10-164	20	
Fluoranthene	1670	1570	94	1990	353.	2010	1700	83	67	17	44-114	10-142	20	
Fluorene	1670	1550	93	1990		1910	1560	96	78	20	46-110	10-138	20	
Hexachloro-1,3-butadiene	1670	1650	99	1990		1950	1670	98	84	15	35-110	10-125	20	
Hexachlorobenzene	1670	1590	95	1990		1940	1540	98	77	23 *	45-110	10-123	20	
Hexachlorocyclopentadiene	1670	1690	102	1990		687.	506.	35	25	30 *	13-111	10-112	24	
Hexachloroethane	1670	1460	88	1990		1840	1510	92	76	20	42-110	10-130	20	
Indeno(1,2,3-cd)pyrene	1670	1480	89	1990		892.	699.	45	35	24 *	38-120	10-123	20	
Isophorone	1670	1380	83	1990		1760	1460	89	73	19	36-110	10-132	20	
2-Methylnaphthalene	1670	1540	92	1990		1930	1610	97	81	18	37-110	10-143	20	
Naphthalene	1670	1420	85	1990		1780	1480	90	74	18	36-110	10-133	20	
2-Nitroaniline	1670	1420	85	1990		1860	1480	94	74	23 *	45-114	10-139	20	
3-Nitroaniline	1670	1480	89	1990		1810	1430	91	72	24 *	35-117	10-131	23	

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152676 **Project:** 20117791 **LCS:** 20848600 23-Dec-10 10:56
Method: Soil GC/MS Semivolatile Organics **MS:** 20848601 23-Dec-10 21:07
Units: ug/kg **MSD:** 20848602 23-Dec-10 21:34
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
4-Nitroaniline	1670	1460	88	1990		1840	1470	92	74	22 *	37-122	10-145	21	
Nitrobenzene	1670	1420	85	1990		1790	1480	90	74	19	37-110	10-130	20	
4-Nitrophenol	1670	1120	67	1990		1060	877.	53	44	19	26-129	10-138	26	
N-Nitroso-di-n-propylamine	1670	1270	76	1990		1680	1340	85	67	23 *	41-119	10-143	20	
N-Nitrosodiphenylamine	1670	1920	115	1990		2470	1950	124	98	24 *	42-123	10-159	20	
2,2'-Oxybis(1-chloropropane)	1670	1240	74	1990		1560	1260	78	63	21 *	32-122	12-130	20	
Pentachlorophenol	1670	991.	59	1990		1030	893.	52	45	14	29-119	10-143	21	
Phenanthrene	1670	1530	92	1990	250.	1940	1600	85	68	19	46-110	10-142	20	
Phenol	1670	1150	69	1990		1310	1110	66	55	17	40-110	10-122	20	
Pyrene	1670	1640	99	1990	313.	1990	1610	84	65	21 *	41-115	10-166	20	
2,4,5-Trichlorophenol	1670	1390	83	1990		1680	1360	84	68	21 *	44-110	11-120	20	
2,4,6-Trichlorophenol	1670	1290	78	1990		1590	1310	80	66	20	44-110	10-122	20	

53 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152237 **Project:** 20117791 **LCS:** 20846352 16-Dec-10 12:44
Method: Soil GC/MS Volatile Organics **MS:** 20846355 16-Dec-10 18:10
Units: ug/kg **MSD:** 20846356 16-Dec-10 18:30
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Acetone	50.0	49.7	99	47.7	10.5	63.7	47.4	112	75	29 *	10-200	10-211	20	
Benzene	50.0	53.3	107	47.7		45.5	43.1	96	88	6	63-133	54-141	20	
Bromodichloromethane	50.0	58.2	116	47.7		47.8	46.5	100	95	3	65-132	62-136	20	
Bromoform	50.0	64.4	129	47.7		52.8	52.4	111	107	1	50-151	48-153	20	
Bromomethane	50.0	46.3	93	47.7		41.6	39.8	87	81	4	48-149	46-151	20	
2-Butanone (MEK)	50.0	44.8	90	47.7		41.5	35.6	87	73	15	11-169	10-184	20	
Carbon disulfide	50.0	57.1	114	47.7		52.0	49.9	109	102	4	23-151	11-161	20	
Carbon tetrachloride	50.0	60.7	121	47.7		53.4	50.7	112	103	5	54-144	49-146	20	
Chlorobenzene	50.0	53.8	108	47.7		43.3	42.7	91	87	2	69-131	67-136	20	
Chloroethane	50.0	46.2	92	47.7		40.7	40.0	85	82	2	31-189	22-185	20	
Chloroform	50.0	49.7	99	47.7		44.9	42.4	94	87	6	68-132	64-138	20	
Chloromethane	50.0	40.9	82	47.7		37.2	35.9	78	73	4	25-160	23-163	20	
1,2-Dibromo-3-chloropropane	50.0	56.9	114	47.7		44.7	44.3	94	91	1	34-147	32-155	20	
Dibromochloromethane	50.0	58.4	117	47.7		50.5	44.9	106	92	12	59-137	57-141	20	
1,1-Dichloroethane	50.0	46.0	92	47.7		42.2	39.8	89	81	6	62-135	59-139	20	
1,2-Dichloroethane	50.0	62.9	126	47.7		51.4	49.6	108	101	3	58-144	56-150	20	
1,1-Dichloroethene	50.0	54.0	108	47.7		50.2	48.7	105	99	3	46-152	32-164	20	
cis-1,2-Dichloroethene	50.0	43.6	87	47.7		39.2	37.9	82	77	3	62-132	59-137	20	
trans-1,2-Dichloroethene	50.0	47.3	95	47.7		43.0	41.3	90	84	4	55-136	51-141	20	
1,2-Dichloropropane	50.0	50.7	101	47.7		43.2	39.8	91	81	8	62-129	61-133	20	
cis-1,3-Dichloropropene	50.0	54.7	109	47.7		42.2	38.9	88	79	8	61-139	58-139	20	
trans-1,3-Dichloropropene	50.0	60.0	120	47.7		46.4	44.5	97	91	4	58-143	54-150	20	
Ethylbenzene	50.0	53.0	106	47.7		43.7	42.4	92	87	3	69-130	63-136	20	
Isobutanol	1050	948.	90	1000		1260	1020	126	99	21 *	10-178	10-188	20	
Methylene chloride	50.0	53.9	108	47.7		46.6	44.3	98	90	5	37-171	31-166	20	
4-Methyl-2-pentanone (MIBK)	50.0	58.2	116	47.7		52.0	43.9	109	90	17	38-161	34-170	20	
Methyl-tert-butyl ether	50.0	50.7	101	47.7		46.2	44.1	97	90	5	48-152	47-159	20	
Styrene	50.0	53.9	108	47.7		35.9	38.5	75	79	7	71-135	60-143	20	
1,1,1,2-Tetrachloroethane	50.0	55.7	111	47.7		47.4	45.9	100	94	3	68-137	65-140	20	
1,1,1,2,2-Tetrachloroethane	50.0	50.5	101	47.7		44.0	40.7	92	83	8	34-161	28-169	20	
Tetrachloroethene	50.0	56.5	113	47.7		46.8	43.2	98	88	8	52-159	43-161	20	
Toluene	50.0	53.4	107	47.7		44.1	42.9	93	88	3	66-131	58-137	20	
1,2,4-Trichlorobenzene	50.0	54.1	108	47.7		22.6	27.4	47	56	19	50-140	47-146	20	
1,1,1-Trichloroethane	50.0	48.4	97	47.7		44.8	42.1	94	86	6	63-131	58-135	20	
1,1,2-Trichloroethane	50.0	56.9	114	47.7		46.3	43.1	97	88	7	62-134	59-139	20	
Trichloroethene	50.0	56.1	112	47.7		48.2	45.4	101	93	6	67-134	57-144	20	
Trichlorofluoromethane	50.0	62.9	126	47.7		57.0	53.9	120	110	6	40-187	17-190	20	
Vinyl chloride	50.0	44.4	89	47.7		41.5	39.6	87	81	5	37-149	29-152	20	
m&p-Xylene	100.	107.	107	95.4		88.0	85.6	92	87	3	67-135	60-139	20	
o-Xylene	50.0	52.5	105	47.7		42.9	41.4	90	84	4	66-131	61-136	20	

40 compound(s) reported

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152237
Method: Soil GC/MS Volatile Organics

Project: 20117791 **LCS:** 20846842 17-Dec-10 18:27

MS:

Units: ug/kg **MSD:**

Original for MS:

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Acetone	50.0	37.8	76									10-200		
Benzene	50.0	45.8	92									63-133		
Bromodichloromethane	50.0	52.9	106									65-132		
Bromoform	50.0	68.1	136									50-151		
Bromomethane	50.0	41.6	83									48-149		
2-Butanone (MEK)	50.0	33.1	66									11-169		
Carbon disulfide	50.0	46.7	93									23-151		
Carbon tetrachloride	50.0	58.1	116									54-144		
Chlorobenzene	50.0	50.8	102									69-131		
Chloroethane	50.0	39.1	78									31-189		
Chloroform	50.0	42.9	86									68-132		
Chloromethane	50.0	30.3	61									25-160		
1,2-Dibromo-3-chloropropane	50.0	50.3	101									34-147		
Dibromochloromethane	50.0	57.4	115									59-137		
1,1-Dichloroethane	50.0	36.9	74									62-135		
1,2-Dichloroethane	50.0	59.7	119									58-144		
1,1-Dichloroethene	50.0	46.1	92									46-152		
cis-1,2-Dichloroethene	50.0	37.0	74									62-132		
trans-1,2-Dichloroethene	50.0	39.5	79									55-136		
1,2-Dichloropropane	50.0	42.3	85									62-129		
cis-1,3-Dichloropropene	50.0	46.7	93									61-139		
trans-1,3-Dichloropropene	50.0	52.3	105									58-143		
Ethylbenzene	50.0	48.7	97									69-130		
Isobutanol	1050	756.	72									10-178		
Methylene chloride	50.0	45.3	91									37-171		
4-Methyl-2-pentanone (MIBK)	50.0	48.6	97									38-161		
Methyl-tert-butyl ether	50.0	42.0	84									48-152		
Styrene	50.0	50.5	101									71-135		
1,1,1,2-Tetrachloroethane	50.0	54.2	108									68-137		
1,1,2,2-Tetrachloroethane	50.0	41.1	82									34-161		
Tetrachloroethene	50.0	59.7	119									52-159		
Toluene	50.0	47.0	94									66-131		
1,2,4-Trichlorobenzene	50.0	51.1	102									50-140		
1,1,1-Trichloroethane	50.0	44.1	88									63-131		
1,1,2-Trichloroethane	50.0	50.7	101									62-134		
Trichloroethene	50.0	53.3	107									67-134		
Trichlorofluoromethane	50.0	58.6	117									40-187		
Vinyl chloride	50.0	34.0	68									37-149		
m&p-Xylene	100.	100.	100									67-135		
o-Xylene	50.0	49.1	98									66-131		

40 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152237
Method: Soil GC/MS Volatile Organics

Project: 20117791 **LCS:** 20847785 21-Dec-10 11:35

MS:

Units: ug/kg **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits		Max RPD	Qu
											LCS	MS/MSD		
Acetone	50.0	41.2	82									10-200		
Benzene	50.0	53.5	107									63-133		
Bromodichloromethane	50.0	56.8	114									65-132		
Bromoform	50.0	64.9	130									50-151		
Bromomethane	50.0	45.6	91									48-149		
2-Butanone (MEK)	50.0	44.8	90									11-169		
Carbon disulfide	50.0	52.5	105									23-151		
Carbon tetrachloride	50.0	60.6	121									54-144		
Chlorobenzene	50.0	54.6	109									69-131		
Chloroethane	50.0	47.1	94									31-189		
Chloroform	50.0	49.9	100									68-132		
Chloromethane	50.0	36.2	72									25-160		
1,2-Dibromo-3-chloropropane	50.0	50.6	101									34-147		
Dibromochloromethane	50.0	58.2	116									59-137		
1,1-Dichloroethane	50.0	45.5	91									62-135		
1,2-Dichloroethane	50.0	60.1	120									58-144		
1,1-Dichloroethene	50.0	53.5	107									46-152		
cis-1,2-Dichloroethene	50.0	45.3	91									62-132		
trans-1,2-Dichloroethene	50.0	47.1	94									55-136		
1,2-Dichloropropane	50.0	51.7	103									62-129		
cis-1,3-Dichloropropene	50.0	54.6	109									61-139		
trans-1,3-Dichloropropene	50.0	58.8	118									58-143		
Ethylbenzene	50.0	54.3	109									69-130		
Isobutanol	1050	898.	86									10-178		
Methylene chloride	50.0	53.6	107									37-171		
4-Methyl-2-pentanone (MIBK)	50.0	53.8	108									38-161		
Methyl-tert-butyl ether	50.0	49.3	99									48-152		
Styrene	50.0	54.4	109									71-135		
1,1,1,2-Tetrachloroethane	50.0	58.2	116									68-137		
1,1,2,2-Tetrachloroethane	50.0	47.9	96									34-161		
Tetrachloroethene	50.0	56.7	113									52-159		
Toluene	50.0	53.7	107									66-131		
1,2,4-Trichlorobenzene	50.0	56.8	114									50-140		
1,1,1-Trichloroethane	50.0	50.1	100									63-131		
1,1,2-Trichloroethane	50.0	56.2	112									62-134		
Trichloroethene	50.0	58.9	118									67-134		
Trichlorofluoromethane	50.0	65.3	131									40-187		
Vinyl chloride	50.0	43.7	87									37-149		
m&p-Xylene	100.	110.	110									67-135		
o-Xylene	50.0	52.9	106									66-131		

40 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 152241 **Project:** 20117791 **LCS:** 20846374 16-Dec-10 12:59
Method: Water GC/MS Volatile Organics **MS:** 20846375 17-Dec-10 18:28
Units: ug/L **MSD:** 20846376 17-Dec-10 18:49
Original for MS: Batch Sample 20846348

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Acetone	50.0	40.8	82	50.0		43.2	40.6	87	81	6	10-200	10-211	20	
Benzene	50.0	49.7	99	50.0		48.8	49.5	98	99	1	63-133	54-141	20	
Bromodichloromethane	50.0	53.9	108	50.0		52.7	53.8	106	108	2	65-132	62-136	20	
Bromoform	50.0	56.7	113	50.0		55.2	56.4	110	113	2	50-151	48-153	20	
Bromomethane	50.0	52.2	104	50.0		49.1	48.0	98	96	2	48-149	46-151	20	
2-Butanone (MEK)	50.0	49.1	98	50.0		44.3	45.8	89	92	3	11-169	10-184	20	
Carbon disulfide	50.0	70.6	141	50.0		66.6	64.1	133	128	4	23-151	11-161	20	
Carbon tetrachloride	50.0	51.2	102	50.0		50.6	51.1	101	102	1	54-144	49-146	20	
Chlorobenzene	50.0	49.7	99	50.0		49.1	49.2	98	98	0	69-131	67-136	20	
Chloroethane	50.0	59.9	120	50.0		52.7	53.7	105	107	2	31-189	22-185	20	
Chloroform	50.0	54.4	109	50.0		52.2	53.5	104	107	3	68-132	64-138	20	
Chloromethane	50.0	45.6	91	50.0		40.5	41.4	81	83	2	25-160	23-163	20	
1,2-Dibromo-3-chloropropane	50.0	51.0	102	50.0		50.4	48.9	101	98	3	34-147	32-155	20	
Dibromochloromethane	50.0	53.3	107	50.0		50.7	51.3	101	103	1	59-137	57-141	20	
1,2-Dibromoethane (EDB)	50.0	55.3	111	50.0		53.6	51.7	107	104	3	57-146	55-151	20	
1,1-Dichloroethane	50.0	52.9	106	50.0		52.2	51.9	104	104	1	62-135	59-139	20	
1,2-Dichloroethane	50.0	55.7	111	50.0		53.7	53.9	107	108	0	58-144	56-150	20	
1,1-Dichloroethene	50.0	55.4	111	50.0		56.9	51.5	114	103	10	46-152	32-164	20	
cis-1,2-Dichloroethene	50.0	50.3	101	50.0		49.1	49.6	98	99	1	62-132	59-137	20	
trans-1,2-Dichloroethene	50.0	52.5	105	50.0		50.7	51.7	102	103	2	55-136	51-141	20	
1,2-Dichloropropane	50.0	50.7	101	50.0		49.4	50.9	99	102	3	62-129	61-133	20	
cis-1,3-Dichloropropene	50.0	52.0	104	50.0		48.9	49.9	98	100	2	61-139	58-139	20	
trans-1,3-Dichloropropene	50.0	53.4	107	50.0		51.1	51.6	102	103	1	58-143	54-150	20	
Ethylbenzene	50.0	49.6	99	50.0		49.0	48.6	98	97	1	69-130	63-136	20	
2-Hexanone	50.0	54.5	109	50.0		50.1	50.0	100	100	0	21-155	16-166	20	
Isopropylbenzene (Cumene)	50.0	49.6	99	50.0		47.8	49.0	96	98	3	54-143	51-148	20	
Methylene chloride	50.0	88.8	178 *	50.0	20.6	69.3	67.6	97	94	3	37-171	31-166	20	All
4-Methyl-2-pentanone (MIBK)	50.0	59.7	119	50.0		54.3	55.5	109	111	2	38-161	34-170	20	
Methyl-tert-butyl ether	50.0	60.7	121	50.0		58.2	58.5	116	117	0	48-152	47-159	20	
Styrene	50.0	50.9	102	50.0		49.7	50.6	99	101	2	71-135	60-143	20	
1,1,2,2-Tetrachloroethane	50.0	53.8	108	50.0		50.6	52.6	101	105	4	34-161	28-169	20	
Tetrachloroethene	50.0	50.5	101	50.0		46.2	45.4	92	91	2	52-159	43-161	20	
Toluene	50.0	50.9	102	50.0		49.8	50.1	100	100	1	66-131	58-137	20	
1,1,1-Trichloroethane	50.0	48.1	96	50.0		47.2	47.0	94	94	1	63-131	58-135	20	
1,1,2-Trichloroethane	50.0	52.2	104	50.0		50.9	50.5	102	101	1	62-134	59-139	20	
Trichloroethene	50.0	50.0	100	50.0		49.6	49.8	99	100	0	67-134	57-144	20	
Trichlorofluoromethane	50.0	57.3	115	50.0		53.2	54.8	106	110	3	40-187	17-190	20	
Vinyl chloride	50.0	51.8	104	50.0		46.3	47.5	93	95	3	37-149	29-152	20	
m&p-Xylene	100.	98.2	98	100.		96.9	97.0	97	97	0	67-135	60-139	20	
o-Xylene	50.0	49.5	99	50.0		48.5	49.5	97	99	2	66-131	61-136	20	

40 compound(s) reported

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152663 **Project:** 20117791 **LCS:** 20848536 23-Dec-10 11:16
Method: Soil GC Semivolatile Organics **MS:** 20848537 23-Dec-10 16:36
Units: mg/kg **MSD:** 20848538 23-Dec-10 17:05
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Diesel Range Organics (C10-2 1 compound(s) reported	40.0	27.7	69	47.5	8.10	37.6	32.4	62	51	15	44-131	10-175	20	

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152466 **Project:** 20117791 **LCS:** 20847766 21-Dec-10 16:38
Method: Soil GC Semivolatile Organics **MS:** 20847767 21-Dec-10 17:58
Units: ug/kg **MSD:** 20847768 21-Dec-10 18:14
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Aldrin	16.7	12.0	72	19.8		15.4	16.7	78	83	8	28-135	10-167	22	
alpha-BHC	16.7	11.1	67	19.8		18.9	20.9	96	104	10	27-135	10-175	20	
beta-BHC	16.7	12.9	78	19.8		17.8	18.9	90	94	6	30-136	10-188	24	
gamma-BHC (Lindane)	16.7	11.9	72	19.8		23.2	21.3	117	106	8	29-136	10-181	21	
alpha-Chlordane	16.7	12.4	75	19.8		16.9	17.9	86	89	6	31-139	10-180	20	
gamma-Chlordane	16.7	12.5	75	19.8		16.9	18.3	85	91	8	32-138	10-176	20	
4,4'-DDD	16.7	12.2	73	19.8		16.6	16.9	84	84	2	31-145	10-188	20	
4,4'-DDE	16.7	12.3	74	19.8		14.9	15.5	76	77	4	32-142	10-182	20	
4,4'-DDT	16.7	13.2	79	19.8		16.1	16.9	81	84	5	29-136	10-181	20	
Dieldrin	16.7	12.4	74	19.8		18.0	19.1	91	95	6	32-137	10-170	20	
Endosulfan I	16.7	5.09	31	19.8		13.2	16.2	67	81	21	10-121	10-160	24	
Endosulfan II	16.7	5.19	31	19.8		14.9	17.6	75	88	17	10-123	10-175	20	
Endrin	16.7	13.3	80	19.8		19.0	19.8	96	99	4	31-168	10-204	20	
Heptachlor	16.7	12.4	75	19.8		16.7	17.8	84	89	7	31-135	10-161	25	
Heptachlor epoxide	16.7	12.4	75	19.8		18.3	19.4	93	96	6	26-133	10-177	23	
Methoxychlor	16.7	14.2	85	19.8		19.5	20.1	99	100	3	27-155	10-207	23	

16 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152457 **Project:** 20117791 **LCS:** 20847703 21-Dec-10 14:15
Method: Soil GC Semivolatile Organics **MS:** 20847704 21-Dec-10 16:45
Units: ug/kg **MSD:** 20847705 21-Dec-10 17:00
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
PCB-1016 (Aroclor 1016)	333.	160.	48	392.		306.	258.	78	65	17	25-139	10-144	28	
PCB-1260 (Aroclor 1260)	333.	170.	51	392.		297.	239.	76	61	22	29-138	10-168	26	

2 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152375 **Project:** 20117791 **LCS:** 20847101 20-Dec-10 15:50
Method: Soil GC Semivolatile Organics **MS:** 20847102 21-Dec-10 1:01
Units: ug/kg **MSD:** 20847103 21-Dec-10 1:24
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
2,4-D	667.	745.	112	2040		1990	2470	98	123	22	10-189	10-165	35	
2,4,5-T	66.7	65.5	98	204.		197.	277.	97	138	34	20-193	10-178	34	
2,4,5-TP (Silvex)	66.7	71.2	107	204.		212.	236.	104	117	11	34-188	10-184	34	

3 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152297
Method: Soil ICP Metals

Project: 20117791 **LCS:** 20846706 21-Dec-10 16:44
MS: 20846707 21-Dec-10 16:51
Units: mg/kg **MSD:** 20846708 21-Dec-10 16:54
Original for MS: Project Sample 20846235

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits		Max RPD	Qu
											LCS	MS/MSD		
Arsenic	100.	79.5	80	94.8	5.44	82.8	83.2	82	81	0	71-122	53-130	20	
Barium	100.	92.2	92	94.8	93.6	181.	231.	93	142	24 *	75-124	23-175	20	
Cadmium	100.	79.0	79	94.8	0.825	75.3	74.9	79	77	0	68-125	56-124	20	
Chromium	100.	92.2	92	94.8	16.9	116.	115.	105	102	1	71-125	54-138	20	
Lead	100.	78.8	79	94.8	12.7	82.9	88.1	74	78	6	72-125	38-146	20	
Selenium	100.	75.2	75	94.8		74.2	75.3	78	78	1	67-120	52-125	20	
Silver	50.0	42.9	86	47.4		43.7	44.1	92	92	1	64-126	22-151	20	

7 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 154083
Method: TCLP ICP Metals

Project: 20117791 **LCS:**
MS: 20854155 19-Jan-11 15:00
Units: mg/L **MSD:** 20854156 19-Jan-11 15:04
Original for MS: Batch Sample 20853823

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits		Max RPD	Qu
											LCS	MS/MSD		
Arsenic				2.00	0.00356	1.96	1.91	98	95	3	66-130	20		
Barium				2.00	0.0707	2.15	2.10	104	102	2	61-132	20		
Cadmium				2.00		1.78	1.71	89	86	4	66-123	20		
Chromium				2.00	0.00664	1.97	1.92	98	96	3	62-128	20		
Lead				2.00	0.00388	1.70	1.63	85	81	4	58-130	20		
Selenium				2.00	0.00590	1.90	1.91	95	95	0	66-129	20		
Silver				1.00		0.981	0.977	98	98	0	28-156	20		

7 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 154082
Method: TCLP Mercury

Project: 20117791 **LCS:**
MS: 20854153 19-Jan-11 14:28
Units: mg/L **MSD:** 20854154 19-Jan-11 14:29
Original for MS: Batch Sample 20853823

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Mercury				0.001000	0.0000782	0.000895	0.00113	89	113	23 *	75-125		20	
1 compound(s) reported														

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 152296 **Project:** 20117791 **LCS:** 20846702 20-Dec-10 12:03
Method: Soil Mercury **MS:** 20846703 20-Dec-10 12:10
Units: mg/kg **MSD:** 20846704 20-Dec-10 12:12
Original for MS: Project Sample 20846235

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Mercury	0.0250	0.0238	95	0.0227	0.0223	0.0237	0.0797	6 *	246 *	108 *	80-120	75-125	20	Q1
1 compound(s) reported														

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152676 BLANK 1

Project: 20117791

Lab ID: 20848599

Prep Level: Soil

Batch: 152676

Method: Soil GC/MS Semivolatile Organics

Prepared: 22-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: ug/kg	Analysis
					Reporting Limit	
83-32-9	Acenaphthene	1	ND		330.	23-Dec-10 10:28 JAM
208-96-8	Acenaphthylene	1	ND		330.	23-Dec-10 10:28 JAM
62-53-3	Aniline	1	ND		330.	23-Dec-10 10:28 JAM
120-12-7	Anthracene	1	ND		330.	23-Dec-10 10:28 JAM
56-55-3	Benzo(a)anthracene	1	ND		330.	23-Dec-10 10:28 JAM
205-99-2	Benzo(b)fluoranthene	1	ND		330.	23-Dec-10 10:28 JAM
207-08-9	Benzo(k)fluoranthene	1	ND		330.	23-Dec-10 10:28 JAM
50-32-8	Benzo(a)pyrene	1	ND		330.	23-Dec-10 10:28 JAM
92-52-4	Biphenyl (Diphenyl)	1	ND		330.	23-Dec-10 10:28 JAM
85-68-7	Butylbenzylphthalate	1	ND		330.	23-Dec-10 10:28 JAM
106-47-8	3&4-Chloroaniline	1	ND		330.	23-Dec-10 10:28 JAM
111-44-4	bis(2-Chloroethyl) ether	1	ND		330.	23-Dec-10 10:28 JAM
91-58-7	2-Chloronaphthalene	1	ND		330.	23-Dec-10 10:28 JAM
95-57-8	2-Chlorophenol	1	ND		330.	23-Dec-10 10:28 JAM
218-01-9	Chrysene	1	ND		330.	23-Dec-10 10:28 JAM
53-70-3	Dibenz(a,h)anthracene	1	ND		330.	23-Dec-10 10:28 JAM
132-64-9	Dibenzofuran	1	ND		330.	23-Dec-10 10:28 JAM
95-50-1	1,2-Dichlorobenzene	1	ND		330.	23-Dec-10 10:28 JAM
541-73-1	1,3-Dichlorobenzene	1	ND		330.	23-Dec-10 10:28 JAM
106-46-7	1,4-Dichlorobenzene	1	ND		330.	23-Dec-10 10:28 JAM
91-94-1	3,3'-Dichlorobenzidine	1	ND		667.	23-Dec-10 10:28 JAM
120-83-2	2,4-Dichlorophenol	1	ND		330.	23-Dec-10 10:28 JAM
84-66-2	Diethylphthalate	1	ND		330.	23-Dec-10 10:28 JAM
105-67-9	2,4-Dimethylphenol	1	ND		330.	23-Dec-10 10:28 JAM
131-11-3	Dimethylphthalate	1	ND		330.	23-Dec-10 10:28 JAM
99-65-0	1,3-Dinitrobenzene	1	ND		330.	23-Dec-10 10:28 JAM
51-28-5	2,4-Dinitrophenol	1	ND		330.	23-Dec-10 10:28 JAM
121-14-2	2,4-Dinitrotoluene	1	ND		330.	23-Dec-10 10:28 JAM
606-20-2	2,6-Dinitrotoluene	1	ND		330.	23-Dec-10 10:28 JAM
117-84-0	Di-n-octylphthalate	1	ND		330.	23-Dec-10 10:28 JAM
88-85-7	Dinoseb	1	ND		330.	23-Dec-10 10:28 JAM
117-81-7	bis(2-Ethylhexyl)phthalate	1	ND		330.	23-Dec-10 10:28 JAM
206-44-0	Fluoranthene	1	ND		330.	23-Dec-10 10:28 JAM
86-73-7	Fluorene	1	ND		330.	23-Dec-10 10:28 JAM

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Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152676 BLANK 1

Project: 20117791

Lab ID: 20848599

Prep Level: Soil

Batch: 152676

Method: Soil GC/MS Semivolatile Organics

Prepared: 22-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: ug/kg	Analysis
					Reporting Limit	
87-68-3	Hexachloro-1,3-butadiene	1	ND		330.	23-Dec-10 10:28 JAM
118-74-1	Hexachlorobenzene	1	ND		330.	23-Dec-10 10:28 JAM
77-47-4	Hexachlorocyclopentadiene	1	ND		330.	23-Dec-10 10:28 JAM
67-72-1	Hexachloroethane	1	ND		330.	23-Dec-10 10:28 JAM
193-39-5	Indeno(1,2,3-cd)pyrene	1	ND		330.	23-Dec-10 10:28 JAM
78-59-1	Isophorone	1	ND		330.	23-Dec-10 10:28 JAM
91-57-6	2-Methylnaphthalene	1	ND		330.	23-Dec-10 10:28 JAM
91-20-3	Naphthalene	1	ND		330.	23-Dec-10 10:28 JAM
88-74-4	2-Nitroaniline	1	ND		330.	23-Dec-10 10:28 JAM
99-09-2	3-Nitroaniline	1	ND		330.	23-Dec-10 10:28 JAM
100-01-6	4-Nitroaniline	1	ND		330.	23-Dec-10 10:28 JAM
98-95-3	Nitrobenzene	1	ND		330.	23-Dec-10 10:28 JAM
100-02-7	4-Nitrophenol	1	ND		330.	23-Dec-10 10:28 JAM
621-64-7	N-Nitroso-di-n-propylamine	1	ND		330.	23-Dec-10 10:28 JAM
86-30-6	N-Nitrosodiphenylamine	1	ND		330.	23-Dec-10 10:28 JAM
108-60-1	2,2'-Oxybis(1-chloropropane)	1	ND		330.	23-Dec-10 10:28 JAM
87-86-5	Pentachlorophenol	1	ND		330.	23-Dec-10 10:28 JAM
85-01-8	Phenanthrene	1	ND		330.	23-Dec-10 10:28 JAM
108-95-2	Phenol	1	ND		330.	23-Dec-10 10:28 JAM
129-00-0	Pyrene	1	ND		330.	23-Dec-10 10:28 JAM
95-94-3	1,2,4,5-Tetrachlorobenzene	1	ND		330.	23-Dec-10 10:28 JAM
58-90-2	2,3,4,6-Tetrachlorophenol	1	ND		330.	23-Dec-10 10:28 JAM
95-95-4	2,4,5-Trichlorophenol	1	ND		330.	23-Dec-10 10:28 JAM
88-06-2	2,4,6-Trichlorophenol	1	ND		330.	23-Dec-10 10:28 JAM

#Name?

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Blank Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Blank ID: 152237 BLANK 1

Project: 20117791

Lab ID: 20846351

Prep Level: Soil

Batch: 152237

Method: Soil GC/MS Volatile Organics

Prepared: 16-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: ug/kg	Analysis
					Reporting Limit	
67-64-1	Acetone	1	ND		10.0	16-Dec-10 12:23 RMP
71-43-2	Benzene	1	ND		5.00	16-Dec-10 12:23 RMP
75-27-4	Bromodichloromethane	1	ND		5.00	16-Dec-10 12:23 RMP
75-25-2	Bromoform	1	ND		5.00	16-Dec-10 12:23 RMP
74-83-9	Bromomethane	1	ND		5.00	16-Dec-10 12:23 RMP
78-93-3	2-Butanone (MEK)	1	ND		10.0	16-Dec-10 12:23 RMP
75-15-0	Carbon disulfide	1	ND		5.00	16-Dec-10 12:23 RMP
56-23-5	Carbon tetrachloride	1	ND		5.00	16-Dec-10 12:23 RMP
108-90-7	Chlorobenzene	1	ND		5.00	16-Dec-10 12:23 RMP
75-00-3	Chloroethane	1	ND		5.00	16-Dec-10 12:23 RMP
67-66-3	Chloroform	1	ND		5.00	16-Dec-10 12:23 RMP
74-87-3	Chloromethane	1	ND		5.00	16-Dec-10 12:23 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		5.00	16-Dec-10 12:23 RMP
124-48-1	Dibromochloromethane	1	ND		5.00	16-Dec-10 12:23 RMP
106-93-4	1,2-Dibromoethane (EDB)	1	ND		5.00	16-Dec-10 12:23 RMP
75-71-8	Dichlorodifluoromethane	1	ND		5.00	16-Dec-10 12:23 RMP
75-34-3	1,1-Dichloroethane	1	ND		5.00	16-Dec-10 12:23 RMP
107-06-2	1,2-Dichloroethane	1	ND		5.00	16-Dec-10 12:23 RMP
75-35-4	1,1-Dichloroethene	1	ND		5.00	16-Dec-10 12:23 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00	16-Dec-10 12:23 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00	16-Dec-10 12:23 RMP
78-87-5	1,2-Dichloropropane	1	ND		5.00	16-Dec-10 12:23 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00	16-Dec-10 12:23 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00	16-Dec-10 12:23 RMP
100-41-4	Ethylbenzene	1	ND		5.00	16-Dec-10 12:23 RMP
591-78-6	2-Hexanone	1	ND		10.0	16-Dec-10 12:23 RMP
78-83-1	Isobutanol	1	ND		250.	16-Dec-10 12:23 RMP
98-82-8	Isopropylbenzene (Cumene)	1	ND		5.00	16-Dec-10 12:23 RMP
79-20-9	Methyl acetate	1	ND		10.0	16-Dec-10 12:23 RMP
75-09-2	Methylene chloride	1	ND		5.00	16-Dec-10 12:23 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0	16-Dec-10 12:23 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		5.00	16-Dec-10 12:23 RMP
100-42-5	Styrene	1	ND		5.00	16-Dec-10 12:23 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00	16-Dec-10 12:23 RMP

#Name?

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Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152237 BLANK 1

Project: 20117791

Lab ID: 20846351

Prep Level: Soil

Batch: 152237

Method: Soil GC/MS Volatile Organics

Prepared: 16-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u>	Analysis
					Reporting Limit	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00	16-Dec-10 12:23 RMP
127-18-4	Tetrachloroethene	1	ND		5.00	16-Dec-10 12:23 RMP
108-88-3	Toluene	1	ND		5.00	16-Dec-10 12:23 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00	16-Dec-10 12:23 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		5.00	16-Dec-10 12:23 RMP
79-00-5	1,1,2-Trichloroethane	1	ND		5.00	16-Dec-10 12:23 RMP
79-01-6	Trichloroethene	1	ND		5.00	16-Dec-10 12:23 RMP
75-69-4	Trichlorofluoromethane	1	ND		5.00	16-Dec-10 12:23 RMP
75-01-4	Vinyl chloride	1	ND		5.00	16-Dec-10 12:23 RMP
	m&p-Xylene	1	ND		5.00	16-Dec-10 12:23 RMP
95-47-6	o-Xylene	1	ND		5.00	16-Dec-10 12:23 RMP



Blank Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Blank ID: 152237 BLANK 2

Project: 20117791

Lab ID: 20846841

Prep Level: Soil

Batch: 152237

Method: Soil GC/MS Volatile Organics

Prepared: 17-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: ug/kg	Analysis
					Reporting Limit	
67-64-1	Acetone	1	ND		10.0	17-Dec-10 18:07 RMP
71-43-2	Benzene	1	ND		5.00	17-Dec-10 18:07 RMP
75-27-4	Bromodichloromethane	1	ND		5.00	17-Dec-10 18:07 RMP
75-25-2	Bromoform	1	ND		5.00	17-Dec-10 18:07 RMP
74-83-9	Bromomethane	1	ND		5.00	17-Dec-10 18:07 RMP
78-93-3	2-Butanone (MEK)	1	ND		10.0	17-Dec-10 18:07 RMP
75-15-0	Carbon disulfide	1	ND		5.00	17-Dec-10 18:07 RMP
56-23-5	Carbon tetrachloride	1	ND		5.00	17-Dec-10 18:07 RMP
108-90-7	Chlorobenzene	1	ND		5.00	17-Dec-10 18:07 RMP
75-00-3	Chloroethane	1	ND		5.00	17-Dec-10 18:07 RMP
67-66-3	Chloroform	1	ND		5.00	17-Dec-10 18:07 RMP
74-87-3	Chloromethane	1	ND		5.00	17-Dec-10 18:07 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		5.00	17-Dec-10 18:07 RMP
124-48-1	Dibromochloromethane	1	ND		5.00	17-Dec-10 18:07 RMP
106-93-4	1,2-Dibromoethane (EDB)	1	ND		5.00	17-Dec-10 18:07 RMP
75-71-8	Dichlorodifluoromethane	1	ND		5.00	17-Dec-10 18:07 RMP
75-34-3	1,1-Dichloroethane	1	ND		5.00	17-Dec-10 18:07 RMP
107-06-2	1,2-Dichloroethane	1	ND		5.00	17-Dec-10 18:07 RMP
75-35-4	1,1-Dichloroethene	1	ND		5.00	17-Dec-10 18:07 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00	17-Dec-10 18:07 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00	17-Dec-10 18:07 RMP
78-87-5	1,2-Dichloropropane	1	ND		5.00	17-Dec-10 18:07 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00	17-Dec-10 18:07 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00	17-Dec-10 18:07 RMP
100-41-4	Ethylbenzene	1	ND		5.00	17-Dec-10 18:07 RMP
591-78-6	2-Hexanone	1	ND		10.0	17-Dec-10 18:07 RMP
78-83-1	Isobutanol	1	ND		250.	17-Dec-10 18:07 RMP
98-82-8	Isopropylbenzene (Cumene)	1	ND		5.00	17-Dec-10 18:07 RMP
79-20-9	Methyl acetate	1	ND		10.0	17-Dec-10 18:07 RMP
75-09-2	Methylene chloride	1	ND		5.00	17-Dec-10 18:07 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0	17-Dec-10 18:07 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		5.00	17-Dec-10 18:07 RMP
100-42-5	Styrene	1	ND		5.00	17-Dec-10 18:07 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00	17-Dec-10 18:07 RMP

#Name?

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Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152237 BLANK 2

Project: 20117791

Lab ID: 20846841

Prep Level: Soil

Batch: 152237

Method: Soil GC/MS Volatile Organics

Prepared: 17-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u>	Analysis
					Reporting Limit	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00	17-Dec-10 18:07 RMP
127-18-4	Tetrachloroethene	1	ND		5.00	17-Dec-10 18:07 RMP
108-88-3	Toluene	1	ND		5.00	17-Dec-10 18:07 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00	17-Dec-10 18:07 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		5.00	17-Dec-10 18:07 RMP
79-00-5	1,1,2-Trichloroethane	1	ND		5.00	17-Dec-10 18:07 RMP
79-01-6	Trichloroethene	1	ND		5.00	17-Dec-10 18:07 RMP
75-69-4	Trichlorofluoromethane	1	ND		5.00	17-Dec-10 18:07 RMP
75-01-4	Vinyl chloride	1	ND		5.00	17-Dec-10 18:07 RMP
	m&p-Xylene	1	ND		5.00	17-Dec-10 18:07 RMP
95-47-6	o-Xylene	1	ND		5.00	17-Dec-10 18:07 RMP



Blank Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Blank ID: 152237 BLANK 3

Project: 20117791

Lab ID: 20847784

Prep Level: Soil

Batch: 152237

Method: Soil GC/MS Volatile Organics

Prepared: 21-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: ug/kg Reporting Limit	Analysis
67-64-1	Acetone	1	ND		10.0	21-Dec-10 11:15 RMP
71-43-2	Benzene	1	ND		5.00	21-Dec-10 11:15 RMP
75-27-4	Bromodichloromethane	1	ND		5.00	21-Dec-10 11:15 RMP
75-25-2	Bromoform	1	ND		5.00	21-Dec-10 11:15 RMP
74-83-9	Bromomethane	1	ND		5.00	21-Dec-10 11:15 RMP
78-93-3	2-Butanone (MEK)	1	ND		10.0	21-Dec-10 11:15 RMP
75-15-0	Carbon disulfide	1	ND		5.00	21-Dec-10 11:15 RMP
56-23-5	Carbon tetrachloride	1	ND		5.00	21-Dec-10 11:15 RMP
108-90-7	Chlorobenzene	1	ND		5.00	21-Dec-10 11:15 RMP
75-00-3	Chloroethane	1	ND		5.00	21-Dec-10 11:15 RMP
67-66-3	Chloroform	1	ND		5.00	21-Dec-10 11:15 RMP
74-87-3	Chloromethane	1	ND		5.00	21-Dec-10 11:15 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		5.00	21-Dec-10 11:15 RMP
124-48-1	Dibromochloromethane	1	ND		5.00	21-Dec-10 11:15 RMP
106-93-4	1,2-Dibromoethane (EDB)	1	ND		5.00	21-Dec-10 11:15 RMP
75-71-8	Dichlorodifluoromethane	1	ND		5.00	21-Dec-10 11:15 RMP
75-34-3	1,1-Dichloroethane	1	ND		5.00	21-Dec-10 11:15 RMP
107-06-2	1,2-Dichloroethane	1	ND		5.00	21-Dec-10 11:15 RMP
75-35-4	1,1-Dichloroethene	1	ND		5.00	21-Dec-10 11:15 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00	21-Dec-10 11:15 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00	21-Dec-10 11:15 RMP
78-87-5	1,2-Dichloropropane	1	ND		5.00	21-Dec-10 11:15 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00	21-Dec-10 11:15 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00	21-Dec-10 11:15 RMP
100-41-4	Ethylbenzene	1	ND		5.00	21-Dec-10 11:15 RMP
591-78-6	2-Hexanone	1	ND		10.0	21-Dec-10 11:15 RMP
78-83-1	Isobutanol	1	ND		250.	21-Dec-10 11:15 RMP
98-82-8	Isopropylbenzene (Cumene)	1	ND		5.00	21-Dec-10 11:15 RMP
79-20-9	Methyl acetate	1	ND		10.0	21-Dec-10 11:15 RMP
75-09-2	Methylene chloride	1	ND		5.00	21-Dec-10 11:15 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0	21-Dec-10 11:15 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		5.00	21-Dec-10 11:15 RMP
100-42-5	Styrene	1	ND		5.00	21-Dec-10 11:15 RMP
630-20-6	1,1,1,2-Tetrachloroethane	1	ND		5.00	21-Dec-10 11:15 RMP

#Name?

Protocol Blank 1/19/2011 16:37:5

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152237 BLANK 3

Project: 20117791

Lab ID: 20847784

Prep Level: Soil

Batch: 152237

Method: Soil GC/MS Volatile Organics

Prepared: 21-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u>	Analysis
					Reporting Limit	
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00	21-Dec-10 11:15 RMP
127-18-4	Tetrachloroethene	1	ND		5.00	21-Dec-10 11:15 RMP
108-88-3	Toluene	1	ND		5.00	21-Dec-10 11:15 RMP
120-82-1	1,2,4-Trichlorobenzene	1	ND		5.00	21-Dec-10 11:15 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		5.00	21-Dec-10 11:15 RMP
79-00-5	1,1,2-Trichloroethane	1	ND		5.00	21-Dec-10 11:15 RMP
79-01-6	Trichloroethene	1	ND		5.00	21-Dec-10 11:15 RMP
75-69-4	Trichlorofluoromethane	1	ND		5.00	21-Dec-10 11:15 RMP
75-01-4	Vinyl chloride	1	ND		5.00	21-Dec-10 11:15 RMP
	m&p-Xylene	1	ND		5.00	21-Dec-10 11:15 RMP
95-47-6	o-Xylene	1	ND		5.00	21-Dec-10 11:15 RMP



Blank Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Blank ID: 152241 BLANK 1

Project: 20117791

Lab ID: 20846373

Prep Level: Water

Batch: 152241

Method: Water GC/MS Volatile Organics

Prepared: 16-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: ug/L Reporting Limit	Analysis
67-64-1	Acetone	1	ND		10.0	16-Dec-10 12:38 RMP
71-43-2	Benzene	1	ND		5.00	16-Dec-10 12:38 RMP
75-27-4	Bromodichloromethane	1	ND		5.00	16-Dec-10 12:38 RMP
75-25-2	Bromoform	1	ND		5.00	16-Dec-10 12:38 RMP
74-83-9	Bromomethane	1	ND		5.00	16-Dec-10 12:38 RMP
78-93-3	2-Butanone (MEK)	1	ND		10.0	16-Dec-10 12:38 RMP
75-15-0	Carbon disulfide	1	ND		5.00	16-Dec-10 12:38 RMP
56-23-5	Carbon tetrachloride	1	ND		5.00	16-Dec-10 12:38 RMP
108-90-7	Chlorobenzene	1	ND		5.00	16-Dec-10 12:38 RMP
75-00-3	Chloroethane	1	ND		5.00	16-Dec-10 12:38 RMP
67-66-3	Chloroform	1	ND		5.00	16-Dec-10 12:38 RMP
74-87-3	Chloromethane	1	ND		5.00	16-Dec-10 12:38 RMP
96-12-8	1,2-Dibromo-3-chloropropane	1	ND		5.00	16-Dec-10 12:38 RMP
124-48-1	Dibromochloromethane	1	ND		5.00	16-Dec-10 12:38 RMP
106-93-4	1,2-Dibromoethane (EDB)	1	ND		5.00	16-Dec-10 12:38 RMP
75-71-8	Dichlorodifluoromethane	1	ND		5.00	16-Dec-10 12:38 RMP
75-34-3	1,1-Dichloroethane	1	ND		5.00	16-Dec-10 12:38 RMP
107-06-2	1,2-Dichloroethane	1	ND		5.00	16-Dec-10 12:38 RMP
75-35-4	1,1-Dichloroethene	1	ND		5.00	16-Dec-10 12:38 RMP
156-59-2	cis-1,2-Dichloroethene	1	ND		5.00	16-Dec-10 12:38 RMP
156-60-5	trans-1,2-Dichloroethene	1	ND		5.00	16-Dec-10 12:38 RMP
78-87-5	1,2-Dichloropropane	1	ND		5.00	16-Dec-10 12:38 RMP
10061-01-5	cis-1,3-Dichloropropene	1	ND		5.00	16-Dec-10 12:38 RMP
10061-02-6	trans-1,3-Dichloropropene	1	ND		5.00	16-Dec-10 12:38 RMP
100-41-4	Ethylbenzene	1	ND		5.00	16-Dec-10 12:38 RMP
591-78-6	2-Hexanone	1	ND		10.0	16-Dec-10 12:38 RMP
98-82-8	Isopropylbenzene (Cumene)	1	ND		5.00	16-Dec-10 12:38 RMP
79-20-9	Methyl acetate	1	ND		10.0	16-Dec-10 12:38 RMP
75-09-2	Methylene chloride	1	28.4	A11	5.00	16-Dec-10 12:38 RMP
108-10-1	4-Methyl-2-pentanone (MIBK)	1	ND		10.0	16-Dec-10 12:38 RMP
1634-04-4	Methyl-tert-butyl ether	1	ND		5.00	16-Dec-10 12:38 RMP
100-42-5	Styrene	1	ND		5.00	16-Dec-10 12:38 RMP
79-34-5	1,1,2,2-Tetrachloroethane	1	ND		5.00	16-Dec-10 12:38 RMP
127-18-4	Tetrachloroethene	1	ND		5.00	16-Dec-10 12:38 RMP

#Name?

Protocol Blank 1/19/2011 16:37:5

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152241 BLANK 1

Project: 20117791

Lab ID: 20846373

Prep Level: Water

Batch: 152241

Method: Water GC/MS Volatile Organics

Prepared: 16-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/L</u> Reporting Limit	Analysis
108-88-3	Toluene	1	ND		5.00	16-Dec-10 12:38 RMP
71-55-6	1,1,1-Trichloroethane	1	ND		5.00	16-Dec-10 12:38 RMP
79-00-5	1,1,2-Trichloroethane	1	ND		5.00	16-Dec-10 12:38 RMP
79-01-6	Trichloroethene	1	ND		5.00	16-Dec-10 12:38 RMP
75-69-4	Trichlorofluoromethane	1	ND		5.00	16-Dec-10 12:38 RMP
75-01-4	Vinyl chloride	1	ND		5.00	16-Dec-10 12:38 RMP
	m&p-Xylene	1	ND		5.00	16-Dec-10 12:38 RMP
95-47-6	o-Xylene	1	ND		5.00	16-Dec-10 12:38 RMP



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152375 BLANK 1

Project: 20117791

Lab ID: 20847100

Prep Level: Soil

Batch: 152375

Method: Soil GC Semivolatile Organics

Prepared: 17-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u> Reporting Limit	Analysis
94-75-7	2,4-D	1	ND		66.7	20-Dec-10 15:27 SNP1
93-76-5	2,4,5-T	1	ND		66.7	20-Dec-10 15:27 SNP1
93-72-1	2,4,5-TP (Silvex)	1	ND		66.7	20-Dec-10 15:27 SNP1



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152457 BLANK 1

Project: 20117791

Lab ID: 20847702

Prep Level: Soil

Batch: 152457

Method: Soil GC Semivolatile Organics

Prepared: 20-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u> Reporting Limit	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	ND		33.3	21-Dec-10 13:54 SLF
11104-28-2	PCB-1221 (Aroclor 1221)	1	ND		33.3	21-Dec-10 13:54 SLF
11141-16-5	PCB-1232 (Aroclor 1232)	1	ND		33.3	21-Dec-10 13:54 SLF
53469-21-9	PCB-1242 (Aroclor 1242)	1	ND		33.3	21-Dec-10 13:54 SLF
12672-29-6	PCB-1248 (Aroclor 1248)	1	ND		33.3	21-Dec-10 13:54 SLF
11097-69-1	PCB-1254 (Aroclor 1254)	1	ND		33.3	21-Dec-10 13:54 SLF
11096-82-5	PCB-1260 (Aroclor 1260)	1	ND		33.3	21-Dec-10 13:54 SLF



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152466 BLANK 1

Project: 20117791

Lab ID: 20847765

Prep Level: Soil

Batch: 152466

Method: Soil GC Semivolatile Organics

Prepared: 20-Dec-10

CAS Num	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u>	Analysis
					Reporting Limit	
309-00-2	Aldrin	1	ND		1.70	21-Dec-10 16:21 SLF
319-84-6	alpha-BHC	1	ND		1.70	21-Dec-10 16:21 SLF
319-85-7	beta-BHC	1	ND		1.70	21-Dec-10 16:21 SLF
58-89-9	gamma-BHC (Lindane)	1	ND		1.70	21-Dec-10 16:21 SLF
5103-71-9	alpha-Chlordane	1	ND		1.70	21-Dec-10 16:21 SLF
5103-74-2	gamma-Chlordane	1	ND		1.70	21-Dec-10 16:21 SLF
72-54-8	4,4'-DDD	1	ND		3.33	21-Dec-10 16:21 SLF
72-55-9	4,4'-DDE	1	ND		3.33	21-Dec-10 16:21 SLF
50-29-3	4,4'-DDT	1	ND		3.33	21-Dec-10 16:21 SLF
60-57-1	Dieldrin	1	ND		3.33	21-Dec-10 16:21 SLF
959-98-8	Endosulfan I	1	ND		1.70	21-Dec-10 16:21 SLF
33213-65-9	Endosulfan II	1	ND		3.33	21-Dec-10 16:21 SLF
72-20-8	Endrin	1	ND		3.33	21-Dec-10 16:21 SLF
76-44-8	Heptachlor	1	ND		1.70	21-Dec-10 16:21 SLF
1024-57-3	Heptachlor epoxide	1	ND		1.70	21-Dec-10 16:21 SLF
72-43-5	Methoxychlor	1	ND		16.7	21-Dec-10 16:21 SLF
8001-35-2	Toxaphene	1	ND		66.7	21-Dec-10 16:21 SLF



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152663 BLANK 1

Project: 20117791

Lab ID: 20848535

Prep Level: Soil

Batch: 152663

Method: Soil GC Semivolatile Organics

Prepared: 22-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>mg/kg</u> Reporting Limit	Analysis
none	Diesel Range Organics (C10-28)	1	ND		10.0	23-Dec-10 10:48 SPP1
none	Oil Range Organics (>C28-40)	1	ND		50.0	23-Dec-10 10:48 SPP1



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152297 BLANK 1

Project: 20117791

Lab ID: 20846705

Prep Level: Soil

Batch: 152297

Method: Soil ICP Metals

Prepared: 18-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>mg/kg</u> Reporting Limit	Analysis
7440-38-2	Arsenic	1	ND		1.00	21-Dec-10 16:40 KJR
7440-39-3	Barium	1	ND		20.0	21-Dec-10 16:40 KJR
7440-43-9	Cadmium	1	ND		0.500	21-Dec-10 16:40 KJR
7440-47-3	Chromium	1	ND		1.00	21-Dec-10 16:40 KJR
7439-92-1	Lead	1	ND		0.500	21-Dec-10 16:40 KJR
7782-49-2	Selenium	1	ND		3.50	21-Dec-10 16:40 KJR
7440-22-4	Silver	1	ND		1.00	21-Dec-10 16:40 KJR



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 154083 BLANK 1

Project: 20117791

Lab ID: 20854048

Prep Level: TCLP

Batch: 154083

Method: TCLP ICP Metals

Prepared: 19-Jan-11

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>mg/L</u> Reporting Limit	Analysis
7440-38-2	Arsenic	1	ND		0.200	19-Jan-11 14:00 KJR
7440-39-3	Barium	1	0.0175	J	2.00	19-Jan-11 14:00 KJR
7440-43-9	Cadmium	1	ND		0.100	19-Jan-11 14:00 KJR
7440-47-3	Chromium	1	0.0125	J	0.200	19-Jan-11 14:00 KJR
7439-92-1	Lead	1	0.00495	J	0.200	19-Jan-11 14:00 KJR
7782-49-2	Selenium	1	ND		0.200	19-Jan-11 14:00 KJR
7440-22-4	Silver	1	ND		0.200	19-Jan-11 14:00 KJR



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 152296 BLANK 1

Project: 20117791

Lab ID: 20846701

Prep Level: Soil

Batch: 152296

Method: Soil Mercury

Prepared: 18-Dec-10

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>mg/kg</u> Reporting Limit	Analysis
7439-97-6	Mercury	1	ND		0.0200	20-Dec-10 12:01 KJR



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 154082 BLANK 1

Project: 20117791

Lab ID: 20854044

Prep Level: TCLP

Batch: 154082

Method: TCLP Mercury

Prepared: 19-Jan-11

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>mg/L</u> Reporting Limit	Analysis
7439-97-6	Mercury	1	ND		0.000200	19-Jan-11 14:01 KJR



Definitions/Qualifiers

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20117791

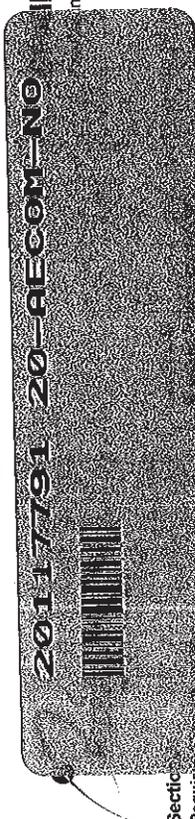
Value	Description
A11	This analyte is a common solvent. Its presence in field samples may be an artifact of sample collection, transport, laboratory storage or analysis.
M1	The sample required reextraction and/or reanalysis due to surrogate recoveries outside the QC limits. Reanalysis yielded similar results, indicating a sample matrix effect. The results reported are from the original analysis.
Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
S1	The surrogate recovery was above the QC limit. The data are reported without qualification since the associated target analytes were not detected in the sample.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

Chains of Custody

20117791 20-AECOM-NO

IN-OF-CUSTODY / Analytical Request Document

n-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section C Invoice Information: Page: 1 of 1 1280044

Attention: Luvia Sanchez
 Company Name: AECOM
 Address: 1555 Poydras St. 1860
 Pace Quote Reference: NO LA 70112
 Pace Project Manager: I HNC
 Pace Profile #: 60156962

Report To: Erika Grace
 Copy To: Luvia Sanchez
 Address: Laura.Sanchez@aecom.com
 Purchase Order No.:
 Project Name: I HNC
 Project Number: 60156962

REGULATORY AGENCY: NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

Site Location STATE: CA

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB			DATE	TIME						
1	AZ-SB-01-5 Terra Core Kit	DW WT WW P SL OL WP AR TS OT	SL G		G	12/14		1225	6		X		20846229	
2	AZ-SB-01-5		G		G			1135	3		X		233	
3	AZ-SB-02-5 Terra Core Kit		G		G			1055	3		X		235	
4	AZ-SB-02-5								6		X			
5	AZ-SB-03-5 Terra Core Kit								2		X			
6	AZ-SB-03-5								6		X			
7	AZ-SB-03-5 Terra Core Kit								2		X			
8	AZ-SB-03-5MS								6		X			
9	AZ-SB-03-5MSD Terra Core Kit								2		X			
10	AZ-SB-03-5MSD													
11														
12														

RELINQUISHED BY / AFFILIATION: Luvia Sanchez AECOM 12/14/10 1302
 DATE: 12/14/10 9:10
 ACCEPTED BY / AFFILIATION: J. Sanchez AECOM 12/15/10 2:00
 DATE: 12/15/10 09/10 2:00

ADDITIONAL COMMENTS: Southern Scrap

RELINQUISHED BY / AFFILIATION: Luvia Sanchez AECOM 12/14/10 1302
 DATE: 12/14/10 9:10
 ACCEPTED BY / AFFILIATION: J. Sanchez AECOM 12/15/10 2:00
 DATE: 12/15/10 09/10 2:00

RECEIVED ON: Ice (Y/N) X Sealed Cooler (Y/N) X Custody (Y/N) X Samples Intact (Y/N) X

Temp In °C: 2.0

SAMPLER NAME AND SIGNATURE: Luvia Sanchez
 PRINT Name of SAMPLER: Luvia Sanchez
 SIGNATURE of SAMPLER: Luvia Sanchez
 DATE Signed (MM/DD/YYYY): 12/14/10

ORIGINAL

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



20117791

Page: 1280046 of 1280046

Section A
 Required Client Information:
 Company: AECOM
 Address: 1555 Paydras St. Ste 1860
 Email To: erikagrave@aecom.com
 Phone: 941-234-3000
 Requested Due Date/TAT: standard

Section B
 Required Project Information:
 Report To: Erika Grace
 Copy To: Laura Sanchez
 Purchase Order No.: 1HNC
 Project Name: 10156962

Section C
 Invoice Information:
 Attention: Laura Sanchez
 Company Name: AECOM
 Address: 1555 Paydras St. Ste 1860
 Site Location: CA
 State: CA

Section D
 Regulatory Agency:
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

ITEM #	Matrix Codes MATRIX / CODE	Sample ID (A-Z, 0-9 / -)	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see vaild codes to left)	SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₃ Methanol Other	Analysis Test ↑ TCB * HOLD * metals - total SUC Rest / Lab / CB / PH VOCs	Requested Analysis Filtered (Y/N)	Temp in °C	Received on Ice (Y/N)	Sealed Cooler Custody (Y/N)	Samples Intact (Y/N)	
			COMPOSITE START	COMPOSITE END/GRAB			DATE	TIME									DATE
1	DW	A3-SB-01-5			G			1457	6		X						20846240
2	WT	A3-SB-01-5			C			1512	3		X						241
3	WW	A3-SB-01-5D TerraCare kit			G			1512	6		X						242
4	P	A3-SB-01-5D			C			1521	3		X						247
5	SL	A3-SB-01-5 TerraCare kit			G			1545	6		X						
6	OL	A3-SB-02-5			C			1600	3		X						
7	WP	A3-SB-03-5 TerraCare kit			G			1608	6		X						
8	AR	A3-SB-03-5			C				3		X						
9	TS																
10	OT																
11	Other																
12																	

ADDITIONAL COMMENTS
 Relinquished by / Affiliation: Laura Sanchez DATE: 12/14/10 TIME: 16:30
 Relinquished by / Affiliation: Laura Sanchez DATE: 12/15/10 TIME: 9:10

ACCEPTED BY / AFFILIATION
 DATE: 12-15-10 TIME: 0910

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Laura Sanchez DATE Signed: 12/14/10
 SIGNATURE of SAMPLER: Laura Sanchez

ORIGINAL



1000 Riverbend Blvd., Suite F
St. Rose, LA 70087

Sample Condition

20117791 20-RECOM-NO

Courier: Pace Courier Hackbarth Fed X UPS DHL USPS Customer Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: Yes No

Thermometer Used: Therm Fisher IR 1
 Therm Fisher IR 2
 Therm Fisher IR 4

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 12-15-10 J

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?"	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1	
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2	
Chain of Custody Complete:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3	Temp Blank not on COC
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5	
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8	
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10	
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11	
All containers needing preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13	If No, was preservative added? <input type="checkbox"/> Yes <input type="checkbox"/> No If added record lot no.: HNO3 _____ H2SO4 _____
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14	
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16	
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	17	
Pace Trip Blank Lot # (if purchased):	<u>N/A</u>	18	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Driller - Cheryl - Earth
 Laura Sanchez
 Dec 14 2010
 HNC - Southern Scrap Sue Raines
 Weather clear sunny + cold 35°F
 Arrive on site @ 9:00 am
 Driller is already on site - Peter from
 Kintergy came out to verify that no
 utilities were located in work area.
 Called Lee Walker left message called
 Erica Grace verified that no inserts
 required - disposable sleeves + clean decon
 bowls and spoons for each boring.
 Trouble getting equipment past barrier -
 had to come in around the back-side
 Boring #3 started at 10:20 am.
 Sampled A2-SB-03-5 TerraCore Kit -
 metals/SVOC bottle + TCLP bottle - (could
 not fill - ran out of material) 1st
 core sleeve 1-4 feet - 2nd core sleeve
 5-8 feet - used 1st foot only -
 also did A2-SB-03-5 MS samples
 and A2-SB-03-5 MSD samples -
 time 10-11:15 completed first boring.
 GPS coordinated @ → unknown - GPS is
 not working properly - Zoe + I will bring
 another into the field tomorrow morning
 locations are marked w/ flags -

Soil Description A2-SB-03-5
 no reading on PID - 0.0
 no apparent staining no odor - clay
 material - orange lightly compacted
 1-3 feet - tighter orange to gray clay
 4-5 feet - some organic material
 JS

Boring #2 started at 11:15 Sample
 A2-SB-02-5 - Terra core kit, metals/
 SVOC bottle + TCLP bottle, time
 11:15 to 11:55, PID - 0.0
 Soil Description A2-SB-02-5
 no staining or odor clay material
 orange lightly compacted 1-3 feet
 dark orange to gray tighter 4-5 feet
 more organic material than 03.
 JS

Boring #3 started @ 12:05
 Sampled A2-SB-01-5 Terra core kit
 metals/SVOC bottle + TCLP bottle time
 12:10 to 12:30 PID - 0.0
 Soil Description A2-SB-01-5
 1st foot primarily organic 4-5 ft. some organic
 2-5 ft gray clay very compact + sticky
 no staining or odor
 JS

A3-SB-01-5 Sample + Duplicate
 IHC - Locks arrived @ 1445
 Weather clear - cold 45-50°F P.D. 0.0
 1st foot - grave 1 1/2 to 2ft - sandy w/ clay
 2- 5 ft of tight gray clay Terra core metal / slab
 No obvious staining / odor + TCLP

A3-SB-02-5 Sample has a lot
 of rock to 3ft then sandy clay
 from 3 to 4 feet then gray tighter clay
 from 4 to 5 feet - 1st foot basically
 crumbled away upon opening sleeve
 No odor / No staining - trace metals
 SVOC bottle + TCLP P.D. 0.0 15/12/08
 15:21

A3-SB-03-5 Spring @ 15:55

Soil Description - Dark brown near
 surface crumbly - intermittent soft / rocky
 then layers of clay 6" soft crumbly w/
 6" - 1 ft - clay / sand 1 ft - 2 ft crumbly w/ rock
 2 - 3 1/2 - sandy clay 3 1/2 - 4 clay
 and then clayey sand. Almost all sand
 below 5 ft. No odor / No staining P.D. 0.0
 Terra core kit, metals, SVOC, TCLP @ 16:08

JS

General Information: - multi-rac #095-508449
 All Terra core grab samples were taken
 in 2-3 foot interval for consistency.
 Would have been taken at reading of
 highest VOC but all readings = 0.0.
 No rinseate samples were collected
 per Eriker Grace - we had 7 decon
 SS bowls + spoons + driller used disposable
 plastic sleeves. Driller took 1-4 foot
 sample then 4-8 foot sample of
 which we used only 1st foot. Had
 to take complete sleeves because
 the boring would not hold just the
 first foot.

J. Sanchez
 12/14/10

GPS locations collected - next
 page



Tailgate Safety Meeting Log*

This sign-in log documents the topics of the tailgate safety briefing and individual attendance at the briefing. Personnel who perform work operations onsite are required to attend each safety briefing and acknowledge their ability to ask questions and receipt of such briefings daily. Please provide a brief narrative of the following topics as applicable to the Project.

Meeting Leader <i>Laura Sanchez</i>	Signature <i>Laura D. Sanchez</i>
Date/Time <i>12/14/10 9:00</i>	Project Name & Location <i>IHNC - So Scrap / Lock</i>
Weather Conditions <i>clear / cold</i>	Project Number <i>60156962</i>

Topic	Discussion (Circle one)
Today's Scope of Work (All tasks)	<input checked="" type="radio"/> yes / NA
Schedule / New Work / Scope Changes	yes / <input checked="" type="radio"/> NA
Reviewed Procedures, THA, etc.	<input checked="" type="radio"/> yes / NA
Emergency Action Plan & Procedures	<input checked="" type="radio"/> yes / NA
Communications Protocol	<input checked="" type="radio"/> yes / NA
Required PPE	<input checked="" type="radio"/> yes / NA
Required Monitoring / Instruments	<input checked="" type="radio"/> yes / NA
Site Control / Work Zones / Security	<input checked="" type="radio"/> yes / NA
Access / Egress / Slips, Trips, & Falls	<input checked="" type="radio"/> yes / NA
Smoking, Eating, & Drinking	<input checked="" type="radio"/> yes / NA
Washroom / Facilities Location	yes / <input checked="" type="radio"/> NA
Heat/Cold Stress	<input checked="" type="radio"/> yes / NA
Exclusion Areas Barricades / Cones	yes / <input checked="" type="radio"/> NA
Required Permits, Passes, Keys, etc.	<input checked="" type="radio"/> yes / NA
Decon Procedures / IDW Mngmt	<input checked="" type="radio"/> yes / NA
Equipment Inspections / Safety Checklists	<input checked="" type="radio"/> yes / NA

Comments/Other:

Tailgate Meeting Attendees	
Printed Name	Signature
<i>SUSAN RAINES</i>	<i>[Signature]</i>
<i>Laura Sanchez</i>	<i>Laura D. Sanchez</i>

*This form is to be utilized for documenting daily safety meetings and stored with project files upon completion

Six Questions for Success – As your final preparedness take two minutes to think through and answer these questions:

1. What are we about to do?
2. What equipment are we going to use?
3. Have I/we been trained to use this equipment?
4. Have I/we been trained to do this job?
5. How can I/we be hurt?
6. How can I/we prevent this incident?

If you and your team aren't prepared to do the assigned work, **STOP WORK**, and take time to properly prepare.

End of Day Sign-off: Site Safety Officer Signature

Karen D. Smeby

No Incidents Occurred

Number of Near Misses/Observations Reported _____

All Incidents Reported to Supervisor, SH&E Manager and Reporting Line

Lessons Learned/Comments/Other:

Saw a dead snake - reminded us to be aware of wildlife.

At lock - USCG said LA one-call does not mark their property - we had to watch for pipes/lines visually before deciding where to place boring.



Photo 1: View of Area 2 from the west, facing east. The flags depict the area which was surveyed for Naturally Occurring Radioactive Materials (NORM).



Photo 2: View of a portion of Area 2 from the east, facing west, with the junction with the flood wall in the background.



Photo 3: One of the grid flags from the NORM survey, adjacent to the drainage pipe, facing south, showing lack of access for NORM surveyor.



Photo 4: Additional grid flag adjacent to the drainage pipe.



Photo 5: Grid flag adjacent to large metal debris in the outfall canal, facing south, adjacent to the drainage pipe.



Photo 6: View of all of Area 2, facing southwest, showing levee, floodwall and overgrown outfall canal.



Photo 7: view of Area 2, flagged for NORM survey, facing northeast.



Photo 8: view of geoprobe at Area 2 soil boring location #3, facing northeast.



Photo 9: plastic sleeves of geoprobe Area 2 soil boring3, top 1-4 feet, bottom 4-8 feet. MultiRAE gas meter, sampling bowl and spoon and terracores are present in picture.



Photo 10: soil from sleeves was acquired from 1-5 feet, place in bowl and mixed.



Photo 11:
homogenized
material being
transferred into
sample jar.



Photo 12: mixing
the soil.



Photo 13: view of geoprobe at Area 2 soil boring location #2, facing northwest.



Photo 14: plastic sleeves of geoprobe Area 2 soil boring2, 1-4 feet removed from sleeve, 4-8 feet still enclosed in sleeve.



Photo 15: plastic sleeves of geoprobe Area 2 soil boring 2, 1-4 feet removed from sleeve, 4-8 feet still enclosed in sleeve.



Photo 16: view of geoprobe at Area 3 soil boring location #1, facing northwest.



Photo 17: view of geoprobe at Area 3 soil boring location #1, facing northwest.



Photo 18: plastic sleeves of geoprobe Area 3, soil boring 1, top 1-4 feet, bottom representing 4 to 5 feet.



Photo 19: view of
geoprobe at Area 3
soil boring location
#2, facing north.



Photo 20: view of
geoprobe at Area 3
soil boring location
#3, facing northeast.



Photo 21: view of geoprobe at Area 3 soil boring location #3, facing west-northwest.



Photo 22: plastic sleeves of geoprobe Area 3, soil boring3, bottom 1-4 feet, top 4-8 feet.



Photo 23: showing the bottom halves of Area 3, soil boring3, note that everything below 5 feet is sand, while the 3 to 4 foot section is primarily clay.



Photo 24: showing the top halves of Area 3, soil boring3, note that everything 4 to 5 feet is clayey sand, while the 1 to 2 foot section is soft crumbly clay with significant amount of gravel.



RADIOLOGICAL SURVEY REPORT OF THE ARMY
CORPS OF ENGINEERS LEVEE SECTION
NEW ORLEANS, LOUISIANA

Prepared for
Zoe Knesl
AECOM

Prepared By
PSC Industrial Outsourcing, LP
36226 Highway 30
Geismar, LA 70734

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1.0 INTRODUCTOIN

This report presents the results of the radiological survey performed by PSC Industrial Outsourcing, LP (PSC) of Area 2 NORM Survey of a section of levee in New Orleans, La . The radiological survey was performed at the request of Carol Freeman, AECOM. On-site observations and measurements were performed by PSC and AECOM personnel on December 8, 2010. The Lead Technician for this work was Keith Lemoine, Project Manager, with PSC.

1.1 SITE DESCRIPTION

The project site is located near the address of 4801 Florida Avenue, New Orleans, La. 70117. The subject property encompasses a concrete wall on top of a stretch of levee near the address listed above.

1.2 REPORT ORGANIZATION

Methods used during the radiological survey of the site are given in Section 2.0. Radiation measurements and soil sampling results are given in Section 3.0. Data acquired during the survey are given in section 3.1.2.

2.0 METHODS

2.1 SURVEY METHODOLOGY

2.1.1 Property

The Area of Concern (AOC) were marked by pin flags placed onsite by AECOM prior to PSC's arrival. The suspect areas were determined by AECOM personnel prior to the arrival of PSC. The AOC was inspected by performing a scoping radiological survey of the entire property in a regular pattern while observing the response of a gamma radiation survey instrument. The general site AOC is shown in Appendix A. Under the direction of AECOM, PSC surveyed the levee area denoted in the map provided by AECOM. The map of the AOC is provided in Appendix B.

2.2 INSTRUMENTATION

Radiological survey instruments used at the site included a gamma-ray scintillation probe (Ludlum Model 44-2, S/N PR250764) coupled with a count ratemeter (Ludlum Model 3, S/N 244423)). Calibration certificates for these instruments are provided in Appendix C.

2.3 EXTERNAL RADIATION MEASUREMENTS

The external radiation exposure rates were measured by walking the AOC in a grid like pattern approximately one meter by one meter. Any gamma exposure rates greater than natural background were documented on a field survey form.

AOC's were surveyed (scanned) with the portable survey instruments by slowly moving the gamma-ray scintillation probe in a serpentine fashion over the entire area of each grid as near as practical to the ground surface.

3.0 RESULTS

3.1 EXTERNAL GAMMA EXPOSURE RATES

Natural background exposure rates measured at main entrance on the area of property ranged from approximately 8 microrentgens per hour ($\mu\text{R/hr}$) to 10 $\mu\text{R/hr}$ at surface level with an average exposure rate of approximately 10 $\mu\text{R/hr}$.

3.1.1 Levee Area

Gamma exposure rates, greater than natural background, were recorded during the walkover survey (scan) of the AOC. Exposure rates at the ground surface ranged from 8 $\mu\text{R/hr}$ to approximately 10 $\mu\text{R/hr}$ on the property. No exposure rates greater than twice natural background were observed throughout the levee area.

3.1.2 Survey Results

Listed below are the average gamma exposure rate readings for each grid. The figures are reported in microroentgens per hour ($\mu\text{R/hr}$).

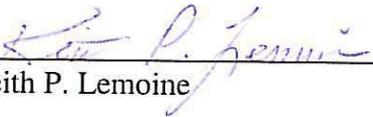
Grid Location	Readings in $\mu\text{R/hr}$	Grid Location	Readings in $\mu\text{R/hr}$
A1	8	B1	11
A2	6	B2	10
A3	6	B3	10
A4	6	B4	10
A5	6	B5	10
A6	6	B6	10
A7	6	B7	10
A8	6	B8	10
A9	6	B9	10
A10	6	B10	10
A11	6	B11	10
A12	6	B12	10
A13	6	B13	10
A14	6	B14	10
A15	6	B15	10
A16	6	B16	10
A17	6	B17	10
C1	10		
C2	10		
C3	10		

No gamma exposures rates reading greater than twice background levels were located in any of the grids listed above. Grids D, E, and F were under water and were not able to be surveyed.

4.0 SIGNATURE SHEET

4.1 Survey Certification

I hereby certify that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my personal inquiry of those individuals immediately responsible for obtaining the information, I hereby represent in writing that the information contained herein is true, accurate, and complete to the best of my knowledge, information, and belief.



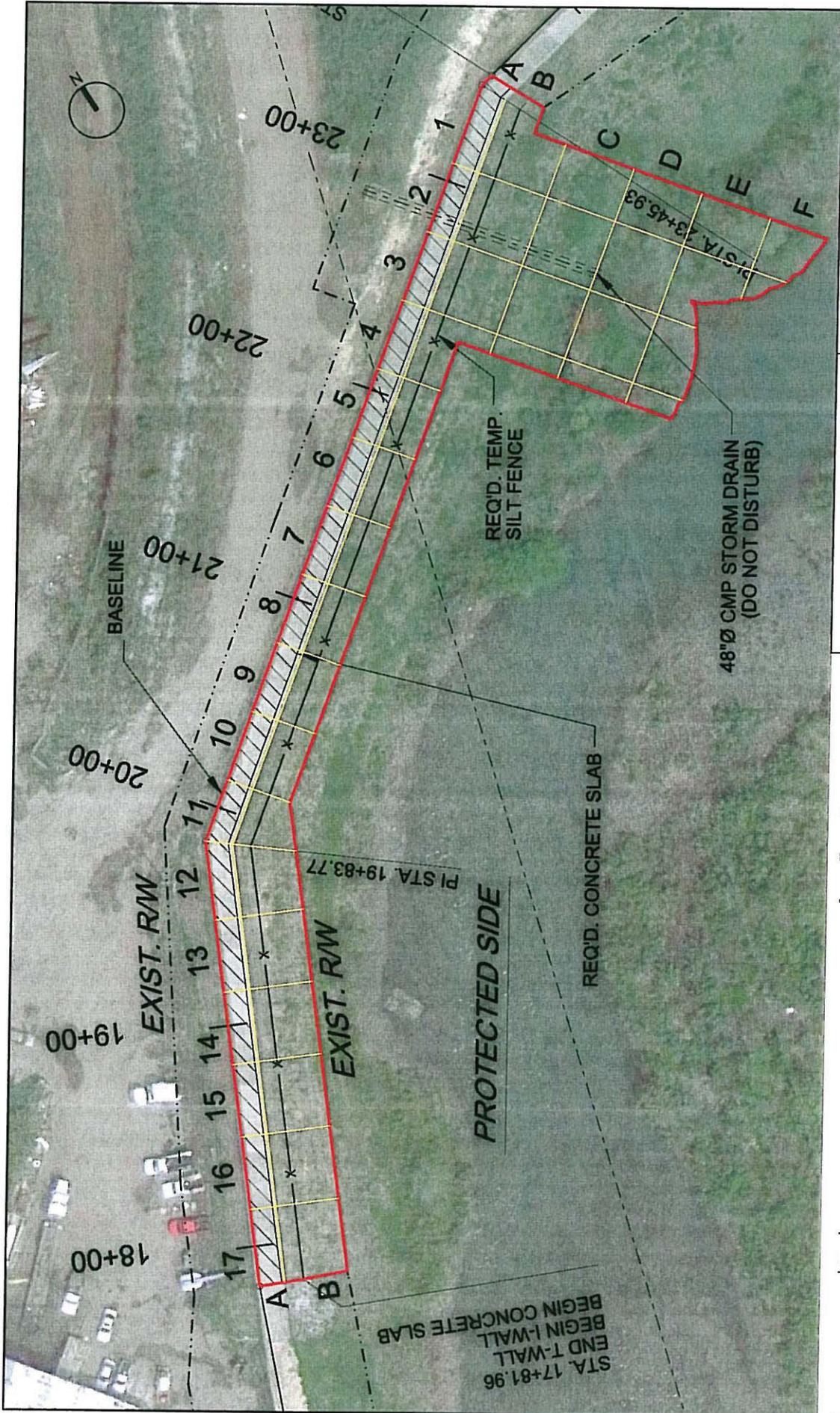
Keith P. Lemoine

12-10-10

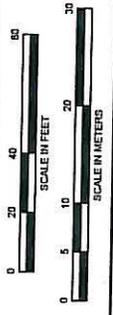
Date

Appendix A

Appendix B



Legend
 — Area to be Surveyed



AECOM

Area 2 NORM Survey

Appendix C

NDT REPAIR SERVICE, INC.

P.O. BOX 2931
MORGAN CITY, LA 70381
PHONE: 985-385-3293
FAX: 985-385-3299

*****SURVEY INSTRUMENT CERTIFICATE OF CALIBRATION*****

CUSTOMER: P. S. C.

Baton Rouge, La.

*****DESCRIPTION OF INSTRUMENT*****

MANUFACTURER: Ludlum

MODEL: 3 SERIAL: 244923

DETECTOR MODEL/TYPE: 44-2 SERIAL: N/A

DATE CALIBRATED: 03-17-10 CALIBRATION DUE: 03-17-11

CALIBRATED BY: B. Bellard Jr.

TEMPERATURE: 70° BAROMETRIC PRESSURE: 29.80 HUMIDITY: 63%

PROBE GEOMETRY: Front of probe facing radiation.

INSTRUMENT RANGE

PULSE/FIELD STRENGTH (CPM and/or uR/HR)

METER READING (CPM and/or uR/HR)

<u>X100</u>	<u>4000 uR</u>	<u>4005 uR</u>
<u>X100</u>	<u>1000 uR</u>	<u>1006 uR</u>
<u>X10</u>	<u>400 uR</u>	<u>405 uR</u>
<u>X10</u>	<u>100 uR</u>	<u>106 uR</u>
<u>X1</u>	<u>40 uR</u>	<u>40 uR</u>
<u>X1</u>	<u>10 uR</u>	<u>10 uR</u> *
<u>X.1</u>	<u>4 uR</u>	<u>4 uR</u>
<u>X.1</u>	<u>1 uR</u>	<u>1 uR</u>

COMMENTS: * Electronically Calibrated

ENERGY CALIBRATED TO CS-137 (662 keV); TRACEABLE TO N.I.S.T. NDT REPAIR SERVICE, INC. CERTIFIES THE ABOVE NAMED INSTRUMENT HAS BEEN CALIBRATED IN ACCORDANCE WITH 10 CFR, MIL-STD-45662A AND ANSI N323-1978. PULSE CALIBRATION PERFORMED USING A LUDLUM MODEL 500 PULSER.

LOUISIANA LICENSE NO. LA6631-L01

PROCEDURE NO. N-RT105

NDT REPAIR SERVICE, INC.

P.O. BOX 2931
MORGAN CITY, LA 70381
PHONE: 985-385-3293
FAX: 985-385-3299

*****SURVEY INSTRUMENT CERTIFICATE OF CALIBRATION*****

CUSTOMER: P.S.C.
Baton Rouge, La.

*****DESCRIPTION OF INSTRUMENT*****

MANUFACTURER: Ludlum
MODEL: 3 SERIAL: 244423
DETECTOR MODEL/TYPE: 44-9 SERIAL: PR257952
DATE CALIBRATED: 03-17-10 CALIBRATION DUE: 03-17-11
CALIBRATED BY: B. Bellard Jr.
TEMPERATURE: 70° BAROMETRIC PRESSURE: 29.80 HUMIDITY: 63%
PROBE GEOMETRY: Front of probe facing radiation.

<u>INSTRUMENT RANGE</u>	<u>PULSE/FIELD STRENGTH</u> (CPM and/or uR/HR)	<u>METER READING</u> (CPM and/or uR/HR)
<u>X100</u>	<u>200 mR</u>	<u>400 Kcpm</u>
<u>X100</u>	<u>50 mR</u>	<u>150 Kcpm</u>
<u>X10</u>	<u>20 mR</u>	<u>80 Kcpm</u>
<u>X10</u>	<u>5 mR</u>	<u>22.5 Kcpm</u>
<u>X1</u>	<u>2 mR</u>	<u>8 Kcpm</u>
<u>X1</u>	<u>.5 mR</u>	<u>3 Kcpm</u>
<u>X.1</u>	<u>.2 mR</u>	<u>650cpm</u> *
<u>X.1</u>	<u>.05 mR</u>	<u>175cpm</u>

COMMENTS: * Electronically Calibrated

ENERGY CALIBRATED TO CS-137 (662 keV); TRACEABLE TO N.I.S.T. NDT REPAIR SERVICE, INC. CERTIFIES THE ABOVE NAMED INSTRUMENT HAS BEEN CALIBRATED IN ACCORDANCE WITH 10 CFR, MIL-STD-45662A AND ANSI N323-1978. PULSE CALIBRATION PERFORMED USING A LUDLUM MODEL 500 PULSER.

LOUISIANA LICENSE NO. LA6631-L01

PROCEDURE NO. N-RT105

Appendix D

Certificate of Qualification

This is to certify that

Keith P. Lemoine

has completed an approved eight hour training course in

Radiation Surveying and Control

The course included instruction for Radiation Surveyors as required by LAC 33:XX, Chapter 14, Appendix A. The course also included instruction for workers as required by LAC 33:XX.1012 (10CFR19.12), a practical survey exercise, and a written examination.

Certification Date: April 10, 2000

Location: Baton Rouge, Louisiana



Mark Krohn
Instructor
American Radiation Services, Inc.



Certificate of Qualification

This is to certify that

Keith P. Lemoine

has completed an approved refresher training course as a

NORM Radiation Safety Officer

Certification Date: April 9, 2003



Mark W. Krohn
American Radiation Services, Inc.

Location: Baton Rouge, Louisiana



DATA ASSESSMENT REPORT

Data assessment is a systematic process for reviewing a body of data against a predefined set of criteria to provide assurance that the data meet project Data Quality Objective (DQO) requirements. The purpose of the data assessment process is to determine if and how the usability of the analytical data is affected by the overall analytical processes and sample collection and handling procedures. If specific DQOs are not met, the data are qualified (i.e., data flags are assigned to sample results) in accordance with guidelines established by the United States Environmental Protection Agency (USEPA). Data assessment allows the data user to adequately determine if the data can be used for its intended purpose. The data acceptance criteria are established according to Standard Operating Procedures (SOPs) and Statements of Work (SOWs) provided to the contracted analytical laboratory. The assessment of data quality and usability involves five components, as described below.

- 1) **Field Sampling Check** is a process to ensure that all samples were collected and the laboratory analyses were performed as stipulated in the applicable site-specific Work Plan or Field Sampling Plan (FSP). Inspection of sample preservation procedures, sample handling, analysis requested, sample description and ID, cooler receipt forms, holding time evaluation, and Chain of Custody procedures are all evaluated to ensure that the evidentiary nature of the samples and the resulting analytical data have not been compromised.
- 2) **Data Verification** is a process for determining the completeness, correctness, consistency, and compliance of a data package in accordance with requirements contained in the applicable SOW and/or contract-specific requirements. This is a review of the data package, electronic data deliverable (EDD), and invoice received from the contract laboratory to ensure that the contract required information is present and complete prior to data validation.
- 3) **Data Review** is a process of reviewing the primary quality control (QC) data provided by the laboratory and the results of any internal quality assurance (QA)/QC samples, such as field blanks, trip blanks, equipment blanks or ambient blanks, field split samples, and duplicate samples, to ascertain any effect the laboratory's procedures or the sample collection process has on the data.
- 4) **Data Evaluation** is a process to determine if the data meet project-specific DQOs and contract requirements. This evaluation may involve a review of field sampling and sample management procedures, laboratory audits, Performance Evaluation (PE) sample results, and any other data quality indicators that are available.
- 5) **Data Validation** is a process to determine the accuracy and precision of analytical data generated and to identify any anomalies encountered. The validation process is performed in accordance with USEPA regional or national functional guidelines, project-specific guidelines, and

compliance with the requirements of each analytical method. Two major components of data validation are laboratory performance and matrix interferences. Evaluation of laboratory performance is a check for compliance for each analytical method to determine if the samples were analyzed within the prescribed acceptance criteria of the method. Evaluation of matrix interferences involves the analysis of surrogate spike recoveries, matrix spike recoveries, and duplicate sample results. Data not meeting project-specific DQOs or the requirements of the analytical method are qualified with data flags according to referenced guidelines.

Data Assessment Procedures

AECOM performed independent QC checks of field and laboratory procedures that were used in collecting and analyzing the data. The QC checks verify that the data collected are of appropriate quality for the intended data use and that the DQOs were met. The steps and guidelines followed during the data validation process were modeled on the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2004), *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999), and *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services* (USEPA, July 1999). In addition, method-specific criteria set forth in the compendium of analytical methods found in the *Test Methods for Evaluation Solid Waste (SW-846), Update III* (USEPA, June 1997) are also evaluated during the validation process. This validation process has been adapted to meet the DQO requirements for generation of definitive critical data.

Data Validation Results

The analytical data (soil samples) were collected on December 14, 2010 for IHNC – Levees and Floodwalls Phase II ESA in New Orleans, Louisiana. The analytical data were validated according to the procedures outlined above. Where data flags have been applied to this data set, they are separated by a slash “/” and presented in the following format:

Laboratory Flag / Result Flags / Analysis Flags

- **Laboratory Flag:** This flag precedes the first slash and is added by the laboratory as a result of QC excursions from the analytical method. These flags are laboratory-specific and are described in the associated laboratory report.
- **Result Flags:** These are presented after the first slash and are added by AECOM based on data validation procedures and guidelines. They tell how and if the data should be used.
- **Analysis Flags:** These flags are presented after the second slash and are added by AECOM to inform the data user of any specific QA/QC problems that were encountered.

Any data requiring qualification as a result of the validation process were assigned data flags, as discussed below. The validation flags indicate how any QC excursions may have impacted the usability of the data.

Volatile Organic Compounds by Method 8260B

Detections in sample A2-SB-01-5 were qualified “J/I” due to surrogate recoveries above the established criteria of 40-160% (173%). These qualifiers indicate the results are over-estimations and should be considered biased high.

Semivolatile Organic Compounds by Method 8270C

Results of 2,4-dinitrophenol in sample A2-SB-03-5 were qualified “/M/D” due to the relative percent difference between the matrix spike and matrix spike duplicate exceeding the established criteria of 40% (49%). These qualifiers indicate imprecision with laboratory methodology, instrumentation, or matrix interference.

DRO and ORO by Method 8015B (M)

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Pesticides by Method 8081A

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

PCBs by Method 8082

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Herbicides by Method 8151A

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Metals by Method 6010B/7471A

Results of mercury in sample A2-SB-03-5 were qualified “/M/m” due to a percent recovery in the associated matrix spike sample below the established criteria of 65-165% (6%). These qualifiers indicate the result should be considered biased low.

Results of mercury in sample A2-SB-03-5 were also qualified “/M/D” due to the relative percent difference between the matrix spike and matrix spike duplicate exceeding the established criteria of 35%

(108%). These qualifiers indicate imprecision with laboratory methodology, instrumentation, or matrix interference.

TCLP Metals by Method 6010B/7470A

Results of the validation process indicate that the data analyzed for this method are acceptable for their intended use and no data flags are required.

Data Summary and Usability

None of the QC excursions encountered during the validation of this data set resulted in any of the data being rejected. Therefore, the data associated with this laboratory batch should be considered compliant and adequate for its intended use.

References

United States Environmental Protection Agency (USEPA), June 1997. *Test Methods for Evaluating Solid Waste (SW-846), 3rd Edition, Update III.*

United States Environmental Protection Agency (USEPA), July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services, Revision 2.1, EPA Region IV.*

United States Environmental Protection Agency (USEPA), October 1999. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.* Publication #EPA540/R-99/008.

United States Environmental Protection Agency (USEPA), July 2004. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* Publication #EPA540/R-04/004.