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SUPPLEMENTAL SITE INSPECTION REPORT FOR BASE REALIGNMENT AND CLOSURE PARCELS REVISION 2 WITH TRANSMITTAL LETTER NAS KEY WEST FL
9/24/1999
TETRA TECH NUS

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TETRA TECH NUS, INC.
900 Trail Ridge Road ▪ Aiken, South Carolina 29803
(803) 649-7963 ▪ FAX (803) 641-0375 ▪ www.tetratech.com

AIK-99-0271

September 24, 1999

Project Number HK 7593 *Via U.S. Mail*

Mr. Dudley Patrick - Code 1858
Southern Division
NAVFACENGCOM
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Reference: CLEAN Contract No. N62467-94-D-0888
Contract Task Order No. 0032

Subject: Supplemental Site Inspection Report, Rev. 2
Naval Air Station Key West, Florida

Dear Mr. Patrick:

Tetra Tech NUS, Inc. is pleased to submit the Rev. 2 (Final) Supplemental Site Inspection Report, Base Realignment and Closure (BRAC) Parcels at NAS Key West, Florida. This report contains change bars in the margins to designate text that has changed since Revision 1. Please replace the corresponding pages in the Rev. 1 version of the report with the enclosed pages. TtNUS has also enclosed an instruction document to assist with updating the Rev. 1 copy of the report to Rev. 2. At your request, copies of this document are being sent to members of the NAS Key West Partnering Team and the Restoration Advisory Board (RAB). I am planning on receiving regulatory concurrence on this final report within 30 days.

Please call me at (803) 649-7963, extension 345, if you have any questions regarding the enclosed document.

Sincerely,

Q A Record

C. M. Bryan
Task Order Manager

c: Ms. Debbie Wroblewski/DER (Cover Letter Only)
Mr. T. Ballard, EPA (2 copies)
Mr. J. Caspary, FDEP (2 copies)
Mr. R. Demes, NAS Key West
Mr. P. Williams, NAS Key West (2 copies)
Mr. J. Gallagher, Ecology & Environment, Inc.
Ms. R. Orlandi, RAB Community Member
Ms. M. Stafford, RAB Community Member
Mr. M. Ingram, RAB Community Member
Ms. R. Haag, South Florida Water Management District
Mr. M. Perry/File
File: 7593-7.6.3

INSTRUCTIONS

Instructions to Revision 2 of the Supplemental Site Inspection Report for BRAC Parcels at Truman Annex. Please replace the following pages.

Remove	Insert
Cover and Spine	Cover and Spine
Title Page	Title Page
Signature Page	Signature Page
Table of Contents	Table of Contents
Chapter 1, pages 1-15 through 1-16	**Chapter 1**, pages 1-15 through 1-16
Chapter 2, pages 2-3 through 2-6, 2-17 through 2-20, 2-27 through 2-28, and 2-31 through 2-32	**Chapter 2**, pages 2-3 through 2-6, 2-17 through 2-20, 2-27 through 2-28, and 2-31 through 2-32
Chapter 3, pages 3-1 through 3-4, 3-9 through 3-10, 3-21 through 3-24, 3-29 through 3-32, 3-57 through 3-58, 3-63 through 3-64	**Chapter 3**, pages 3-1 through 3-4, 3-9 through 3-10, 3-21 through 3-24, 3-29 through 3-32, 3-57 through 3-58, 3-63 through 3-64
Chapter 4	Chapter 4
References	References
Appendix F	Appendix F

Supplemental Site Inspection Report

for

BRAC Parcels

Naval Air Station Key West, Florida

Southern Division Naval Facilities Engineering Command

Contract Number N62467-94-D-0888

Contract Task Order 0032

September 1999

Revision 2

SUPPLEMENTAL SITE INSPECTION REPORT

for

BRAC Parcels

Naval Air Station
Key West, Florida

Q A Record

Southern Division
Naval Facilities Engineering Command

Contract Number N62467-94-D-0888

Contract Task Order 0032

September 1999

Revision 2

AIK-99-0271
Rev. 2

SUPPLEMENTAL SITE INSPECTION REPORT

FOR

BRAC PARCELS
NAVAL AIR STATION
KEY WEST, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Submitted by:
Tetra Tech NUS
661 Andersen Drive
Foster Plaza 7
Pittsburgh, Pennsylvania 15220

CONTRACT NUMBER N62467-94-D-0888
CONTRACT TASK ORDER 0032

September 1999

PREPARED UNDER THE SUPERVISION OF:

CHUCK BRYAN
TASK ORDER MANAGER
TETRA TECH NUS
AIKEN, SOUTH CAROLINA

APPROVED FOR SUBMITTAL BY:

DEBBIE WROBLEWSKI
PROGRAM MANAGER
TETRA TECH NUS
PITTSBURGH, PENNSYLVANIA

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1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS) has performed a Supplemental Site Inspection (SSI) of Base Realignment and Closure (BRAC) Properties at the Naval Air Station (NAS) Key West, Florida on behalf of the U.S. Navy, Naval Facilities Engineering Command, Southern Division (SouthDiv). This SSI Report was completed under Comprehensive Long-Term Environmental Action - Navy (CLEAN) Contract Number N62467-94-D-0888, Contract Task Order 0032.

1.1 PURPOSE AND SCOPE OF REPORT

This SSI was conducted under the authority of the BRAC Act of 1992 and was designed to gather information to support a reclassification of five BRAC Parcels designated as "grey" during the development of their draft Environmental Baseline Studies (EBSs). The "grey" Parcel categorization used in the EBSs means areas that have not been evaluated or that require additional evaluation. A Parcel cannot be considered for deed transfer until all environmental investigative and, if necessary, remedial actions have been completed. The Parcel can then be reclassified into a category eligible for deed transfer. The goal of this report is to evaluate the data gathered during the SSI field effort and determine the need for any additional remedial activities prior to reclassification.

The five BRAC Parcels addressed in this report are located at:

- Hamaca Hawk Missile Site (Parcel A)
- Truman Annex (Parcels C, D, E, and F)

Hamaca Hawk Missile Site and Truman Annex Parcels D and F are addressed in Section 4.0, Confirmation Sampling. For the purpose of this report, Parcel C subzones 3 and 4 are considered as one site and referred to in this report as the Defense Reutilization and Marketing Office (DRMO) Waste Storage Area. Parcel E subzones 3 and 9 are considered the footprint areas of Buildings 102, 103, and 104. Parcel E subzone 2 is referred to as the former location of Building 136. The subzone designations were developed for those areas and used during site inspection (SI) activities that are documented in the SI Report (B&R Environmental, 1998a) and the SI Workplan (B&R Environmental, 1998c). The results of the SI at these areas indicated the need for performing additional SI activities.

1.2 REPORT ORGANIZATION

This SSI report consists of four major sections and six appendices. Section 1 provides an introduction, the purpose and scope of the report, a facility description, an explanation of the Data Quality Objective (DQO) Process, a synopsis of field procedures, an overview of the data quality assessment process, and a discussion of the data interpretation and presentation methods employed in this report. An overview of the base environmental setting is provided in the SI Report (B&R Environmental 1998a). Sections 2 through 4 contain discussions of the supplemental sampling at Parcel E; interim remedial action (IRA) delineation sampling at Parcels C and E; and IRA confirmation sampling at Parcels A, C, D, E, and F, respectively. These sections provide additional descriptions of individual sites within each Parcel and present the results of the SSI for each site.

Appendix A presents the responses to comments on the SSI Report submitted by the Florida Department of Environmental Protection (FDEP) and the United States Environmental Protection Agency (EPA). Appendix B provides field documentation including a summary of all amendments to and deviations from the SSI Workplan (TtNUS, 1998); copies of all field data sheets including boring logs, sample collection forms, well development logs, and well completion logs; and survey data. Appendix C provides documentation in support of the estimated risk process as described in Section 1.8.1.4.2. Appendix D consists of a compact disk, which contains the complete SSI data set used in the decision-making process. The electronic data are included in standard database format (BRAC-SSI.dbf) and portable document format (BRAC-SSI.pdf). In addition, the results of the data validation process are included electronically on the compact disk. Appendix E describes the application of the EPA Max Test to determine a probability of decision error based on composite sample results for the DRMO Waste Storage Area and Building 136. Appendix F presents a comparison of the data results from the sampling at DRMO Waste Storage Area using the Palintest Scanning Analyzer and from a contracted offsite laboratory. Appendix G provides a comparison of CLP data deliverable and COA data results from the contracted laboratory.

1.3 NAS KEY WEST DESCRIPTION

Several installations in various parts of the lower Florida Keys comprise NAS Key West. The U.S. Navy manages 5,660 acres of land divided into 20 separate tracts in the lower Florida Keys, concentrated around Key West and Boca Chica Key (Figure 1-1) in southern Monroe County (B&R Environmental, 1998a). Key West, one of the two most western major islands of the Florida Keys, is approximately 150 miles southwest of Miami and 90 miles north of Havana, Cuba. Key West connects to the mainland by the Overseas Highway (U.S. Highway No. 1).

The missions for NAS Key West changed dramatically in 1974, resulting in the relocation of several units. At present, NAS Key West is proceeding with realignment of aviation operations, a research laboratory, communications intelligence, counternarcotics operations, a weather service, and several other activities. In addition to the Naval activities and units, other Department of Defense (DOD) and Federal agencies at NAS Key West include the U.S. Air Force, U.S. Army, and U.S. Coast Guard (USCG).

The five BRAC Parcels addressed by this report are all located on the island of Key West (Figure 1-2). These Parcels are located in two geographically distinct areas (Truman Annex and Key West Interior), as discussed below. As part of the DQO Process (see Section 1.6), each BRAC Parcel was broken into a number of sites based on the geographical boundaries and the previous uses.

1.3.1 Truman Annex

The Truman Annex BRAC Parcels addressed in this report (Figure 1-2) include:

- Parcel C – DRMO
- Parcel D – Seminole Battery
- Parcel E – Buildings 102, 103, and 104
- Parcel F – Building 223

These four Parcels (along with Parcel K, not addressed in this report) make up a contiguous piece of land that is part of the Navy's Truman Annex Facility located on the southwest end of Key West. The area is flat terrain and slopes gently to the southwest.

Truman Annex has had a long history as a defense facility. In 1823, after the Truman Annex Parcels were purchased by an American citizen, the Navy was dispatched to Key West to remove pirates inhabiting most of the island. The Navy then occupied the northernmost portion of the west end of Key West. The Army acquired land on the western end of Key West in 1845 to build Fort Zachary Taylor, which provided support during the Mexican-American War. Seminole Battery was constructed to carry out defenses during the Civil War. Much of the land consisted of salt ponds, which limited further construction. From 1909 to 1919, the United States conducted landfill operations on the northern portion of the island in the area from the Army pier to the Naval Station.

Gradually, the Navy assumed control of the entire western tip of Key West. As early as 1918, and particularly during the 1940s through the early 1970s, submarines were berthed at eight finger piers in the

turning basin. Most of the buildings along the quay were used for support of schools, units, and activities relating to submarines. The majority of the support buildings were demolished after 1982.

1.3.2 Key West Interior

The Key West Interior BRAC Parcel addressed by this report is on the eastern end of Key West (Figure 1-2). Hamaca Hawk Missile Site (Parcel A) is located off Government Road to the northwest of the Key West International Airport. Parcel A, which has flat terrain marked by several surface-water bodies, is adjacent to additional inland water bodies. Portions of the Parcel drain to the onsite surface-water body that drains to the adjacent surface waters.

Based on historical maps and aerial photographs, the land for the Hawk Missile Site was previously salt ponds that were filled by the U.S. Army in order to adapt the area for use as a missile site. This facility was built in 1964 as a defense site to repel a possible Cuban and Russian assault as a result of the Cuban Missile Crisis. It was used for coastal defense until the early 1980s when it was transferred to the Navy. The Navy did not use the property but allowed its use for homeless veterans in 1994 and 1995. During the 10 months in which homeless veterans occupied the site, wastewater from showers and washing machines was discharged into the onsite wetlands.

1.4 KEY WEST ENVIRONMENTAL SETTING

A detailed description of the Key West environmental setting is contained in the *Site Inspection Report for Nine BRAC Parcels* (B&R Environmental, 1998a).

1.5 FIELD PROCEDURES

All methods and procedures employed in the course of the field investigation are discussed in the *BRAC SSI Workplan* (TtNUS, 1998). Any change in methodology from that stated in the workplan, usually due to unexpected field conditions, is addressed in Appendix B. Issues and procedures that are addressed by the BRAC SSI Workplan include the following:

- Project management
- Health and safety
- Equipment
- Decontamination

- Surveying
- Monitoring well installation
- Sample collection, handling, and analysis
- Investigation derived waste (IDW)
- Documentation
- Data management
- Quality assurance

1.6 DATA MANAGEMENT

The DQO Process (EPA, 1994) was used as a tool by the NAS Key West Partnering Team to determine the type, quantity, and quality of data needed to support the development of the BRAC SSI Workplan. The DQO Process was performed on the 10 Key West BRAC Parcels categorized as "grey." As a systematic planning tool based on the scientific method, the seven-step DQO Process helps establish criteria for defensible decision-making at the onset of a study and develops a data-collection design based on these criteria. The DQO Process also helps develop recommendations based on SSI findings for each Parcel. The NAS Key West Partnering Team is made up of the key decision makers for environmental restoration and remediation at NAS Key West. The members include representatives from the FDEP, U.S. EPA, SouthDiv, NAS Key West, and the U.S. Navy's remedial and investigative contractors.

The seven steps of the DQO Process identify such information as the goal of the investigation, the inputs needed to reach the goal and make a decision, the temporal and areal boundaries of the investigation, the level of confidence required to support a decision, and finally, a sampling design that is adequate to support the decision-making process. A complete discussion of each step of the DQO Process as it relates to the BRAC SSI is provided in Section 2.0 of the BRAC SSI Workplan. Important elements of the DQO Process include the following:

- Identification of subzones that do not require additional data (i.e., SSI sampling and analysis)
- Identification of the media (e.g., soil and groundwater) and parameters of interest in each subzone
- Selection of analytical methods
- Selection of action levels
- Constraints on data collection

- Quantifying the desirable level of confidence in decisions
- Determining sample size for each medium

1.7 DATA QUALITY ASSESSMENT

Maintaining data quality was a key issue at each stage of the data-handling process. Accordingly, procedures were used in each step of the process to ensure the integrity of the sample data generated during the SSI field investigation. Each stage of the data-handling process, including quality control, data generation at the laboratory, data review, and database assembly is discussed below.

1.7.1 Laboratory Quality Control

Laboratory quality control (QC) procedures are designed to ensure the consistency and continuity of the data. Standard QC analyses were performed throughout laboratory handling of the BRAC SSI samples. This included the routine analysis of matrix spike and matrix duplicate samples, laboratory method blanks, and laboratory control samples. Laboratory instrument calibrations were performed and verified based on the requirements of the individual analytical methods. In order to ensure that data quality standards were met or surpassed, Accutest Laboratories Inc. personnel reviewed all QC procedures and analyses prior to the completion of data packages. Appendix E (Quality Assurance Elements) of the BRAC SSI Workplan provides a more detailed discussion of laboratory quality assurance requirements and procedures (TtNUS, 1998a).

1.7.2 Data Review

All data packages submitted by the laboratory underwent a formal data review that included the following elements:

- Complete verification of the electronic results against the Chain of Custody (COC) and the result reported on the Certificates of Analysis (COA)
- Review of holding times
- Review of all blank samples submitted as a routine part of the sample collection process (trip blanks, field blanks, and rinsate blanks) in order to eliminate false positives
- Review of laboratory calibration logs for gross non-compliance with QC requirements

- 10 percent of sample data collected was delivered as CLP and this data was fully validated by TtNUS chemists. A comparison of COA and CLP data is included in Appendix G.

1.7.3 Database Assembly

Once the review process of the SSI data packages was completed, the electronic data were assembled in a database in order to facilitate the interpretation and analysis of results. A series of electronic checks were performed and documented in order to ensure the integrity of the data set. This included confirming the presence of each sample in the database, demonstrating that the appropriate analytical fractions were present for each sample, verifying consistent sample and parameter nomenclature in the electronic data set, checking units for consistency, and reviewing key fields for blank or other inappropriate entries. The electronic QC process also identified duplicate samples, generated an average result for each duplicate sample location, and verified that only one set of results for each location was accepted into the final data set.

1.8 SUPPLEMENTAL SITE INSPECTION METHODOLOGY

Section 4 presents results of confirmation sampling at Parcels C and E.

1.8.1 Investigation Results

Section 2 of the BRAC SSI Report presents the results of the field investigation. Section 3 presents data collected to delineate the extent of soil contamination in support of the IRAs at Parcels C and E. Section 4 presents the results of confirmation sampling following the execution of the IRAs at Parcels C and E.

1.8.1.1 Site Characterization

Each section begins with a brief historical account of the each Parcel's uses and activities as well as its geographic and physical features, a description of any previous investigations, and the rationale and scope of the SSI. Each section is then divided into Parcel- and site-specific subsections. Each subsection provides a description of the specific area being addressed, details the findings at that location, evaluates these findings, and recommends an appropriate course of action. The site-specific conclusions are then summarized in a "Conclusions and Recommendations" section for each Parcel.

1.8.1.2 Determination of Background Levels

In 1996, a comprehensive background data set assembled for use as a tool in the *Supplemental RFI/RI Report for Eight Sites* (B&R Environmental, 1998b). At that time the background data set was used to characterize the nature and extent of contamination and to assist in the performance of ecological and human health risk assessments at the eight sites that were investigated. The Comprehensive Background Report, Appendix F of the *Supplemental RFI/RI for Eight Sites* (B&R Environmental, 1998b) provides a complete discussion of how calculations were performed and how background data were identified. A subset of the background data set that consisted of the most current background sampling results was used during the DQO Process to statistically determine site sample sizes and to screen data from the BRAC SI and SSI.

For consistency and comparability, all data included in the BRAC background data set were collected during the same time period and was analyzed by the same laboratory. Background levels were calculated based on chemical-analytical data from background samples collected in the vicinity of Key West, Florida. The background data set used for the BRAC SSI can be found in Appendix C of the *BRAC SSI Workplan* (TtNUS, 1998).

1.8.1.3 Modifications to the Parcel Data Sets

In general, the electronic data set developed for site characterization and analysis directly reflects the information presented in the laboratory data packages. A few modifications and exclusions were necessary, as follows:

- Data from field duplicate samples were averaged in order to obtain a single set of results for each sample location within a given investigation. The individual duplicate results were maintained in the electronic database for completeness, but only the calculated averages were used in site characterization and analysis.

- A standardized set of parameter names was used throughout the data set, and the assignment of parameters to analytical fractions was also standardized.

- As described in Section 1.7.2, all analytical results underwent data review, which occasionally resulted in changes to the data set.

1.8.1.4 Evaluation of Supplemental Site Investigation Findings

Detected chemicals at each Parcel were compared to action levels for each media and type of sample (e.g., grab or composite). Analytes that exceeded the selected action levels are the primary focus of the discussion. The analytes that exceeded the action levels are shown on maps within the site-specific discussion of contamination findings. For reference, all detected parameters are presented in the data tables that accompany the discussion.

1.8.1.4.1 Action Levels

Applicable or Relevant and Appropriate Requirements (ARARs) and Screening Action Levels (SALs) were obtained from various state agencies, Federal agencies, and research institutions. These values were considered as potential screening criteria in evaluating the SSI findings at each Parcel. Either a residential or industrial set of action levels were considered for each Parcel based on the future use designation as defined in the *Draft Key West Base Reuse Plan* (BAP, 1997). The selected screening criteria for soil at areas sampled to delineate contamination were appropriately modified as described in the EPA *Soil Screening Guidance: Technical Basis Document* (EPA, 1996). Twice the average background concentration (as discussed in Section 1.8.1.2) was used as an additional screen. All potential action levels considered for soil, sediment, and groundwater are presented in Appendix C of the *BRAC SSI Workplan* (TtNUS, 1998). The last columns of each table identify the value selected for use in screening the parameters detected in each media.

Legally binding action levels, guidance values, and potentially applicable guidance values from other media were all evaluated as part of action level selection in the DQO Process. For inorganics, commonly found in background samples from the vicinity of NAS Key West, twice the average background concentration was also considered as a potential action level. The decision logic used to compare these various values and select the action levels is shown in Figure 1-3.

1.8.1.4.2 Estimated Risk Process

As discussed in Section 3.2 of the *BRAC SI Workplan* (B&R Environmental, 1998c), consistent and appropriate recommendations must be made for sites where action levels are exceeded. Estimated risks were calculated for chemicals detected in excess of their action levels at their maximum detected concentrations. Human health risk estimates for soil were calculated from the Supplemental RFI/RI Investigations' human health risk assessments (B&R Environmental, 1997a) where risk values were available for compounds in question. For each site, risk estimates were based on either residential, trespasser, or site/occupational worker scenarios based on site future use as described in the *Base*

Reuse Plan (BAP, 1997). Where one or two risk values were available for a given compound, estimates were based on a ratio of detection concentrations and risk values. Where three or more risk values were available for a given compound, estimates were calculated from a trend analysis. In instances where risk values were not available from the RCRA Facility Investigation/Remedial Investigations (RFI/RIs) for a given compound, generic remedial goal options (RGOs) were used as benchmarks. Either a residential or industrial risk-based concentration was used based on each subzone's future use as described in the *Base Reuse Plan* (BAP, 1997). Appendix C contains supporting documentation for risk estimation calculations.

Ecological risks were characterized for sediment and groundwater. Groundwater-to-surface-water migration of groundwater contaminants is possible at NAS Key West, especially since groundwater is shallow. However, ecological receptors are not directly exposed to groundwater, and no groundwater thresholds have been developed based on ecological concerns. Therefore, groundwater concentrations of chemicals that exceeded action levels were compared to surface-water screening values (where available) as a conservative scenario (e.g., no attenuation or dilution) in accordance with EPA Region 4 (EPA, 1995) and FDEP requirements. Factors such as frequency of detection, frequency of samples that exceeded action levels, comparison to background (for inorganics), and magnitude of exceedances were utilized in assessing ecological risks.

As in the groundwater analysis, factors such as frequency of detection, frequency of samples that exceeded action levels, comparison to background (for inorganics), and magnitude of exceedances were utilized in assessing ecological risks. In addition, concentrations of analytes in surface water and sediment that exceeded action levels were compared to other screening values (where available). For example, sediment chemicals that exceeded action levels were compared to effects range-low (ER-L) and effects range-median (ER-M) values developed by the National Oceanic and Atmospheric Administration, as well as to threshold effects level (TEL) and probable effects level (PEL) values developed by FDEP. Any screening levels used in addition to action levels are provided in the text or in Appendix C.

1.8.1.4.3 Data Tables

Data tables are included within each site-specific discussion under the SSI findings for each Parcel. Each table lists only the chemicals that were detected in the specific site being discussed. For example, if a chemical was not detected in any sample for a given site, it is not listed in the table containing that site's data. These tables provide an inclusive list of the analytes detected at the Parcel by site. Data validation qualifiers are provided in these tables and are defined at the end of each table. Rejected data and

nondetects are not included in the tables but the data is included in Appendix D in the Electronic Data Set:.

As stated in the *BRAC SSI Workplan* (TtNUS, 1998), the common essential nutrients calcium, magnesium, potassium, and sodium are not listed in the data tables of the SSI Report.

1.8.1.4.4 Contaminant Distribution Maps

Maps were created for each site to present the concentration and distribution of the analytes that were detected in excess of action levels for each Parcel. The intent of these maps is to display the distribution and extent of analytes, to identify areas of greatest impact, and to link the release and, if applicable, the migration of contaminants to the Parcel's physical features and/or environmental setting. Chemical concentrations are shown at each sampling point where an action level was exceeded. Other considerations made during the preparation of the contaminant distribution maps are discussed below:

- Non-detect data and data that fell below the action level for a given chemical are not represented on the maps.

- Each map provides the action levels that were used as a basis of comparison for each chemical shown. Appendix C of the *BRAC SSI Workplan* (TtNUS, 1998) provides an inclusive list of all the ARARs, SALs, and background values that were evaluated as potential screening criteria for the SSI findings discussion.

- For soil, laboratories commonly report organic concentrations in micrograms per kilogram (µg/kg), while inorganic concentrations are reported in milligrams per kilogram (mg/kg). These standardized units are maintained throughout the text, tables, and maps.

- Concentrations of contaminants in groundwater are normally reported in micrograms per liter (µg/L). These standardized units are maintained throughout the text, tables, and maps.

- The maps distinguish between organic and inorganic parameters in order to carry through the standardized units in an easily recognizable and consistent fashion.

1.8.1.4.5 Conclusions and Recommendations

Conclusions were prepared for each site and for each Parcel to summarize the SSI findings. Recommendations based on the findings were developed for each Parcel in cooperation with the NAS Key West Partnering Team and in accordance with the DQO Process (TtNUS, 1998).

1.9 DELINEATION SAMPLING METHODOLOGY

This section describes methodology used to conduct the delineation sampling at the BRAC Parcels, NAS Key West. Results from the BRAC SSI delineation sampling are presented in Section 3.

1.9.1 Sampling Objectives

The purpose of performing delineation sampling was to identify areas of sites that because of excessive contamination require excavation.

1.9.1.1 IRA Delineation Sampling

Soil was the medium of interest at Former Building 136 and the DRMO Waste Storage Area based on the results from the SI conducted during 1997 to 1998.

During the BRAC SSI, delineation sampling was performed at Truman Annex, Parcel C (DRMO Waste Storage Area) and Parcel E (Buildings 102, 103, and 104). The Truman Annex DRMO Waste Storage Area, delineation sampling occurred at the Former Oil Container (Pre-1942) and Scrap Metal and Refugee Item Storage Area (Parcel C, subzone 3) and the Former Scrap Metal Storage Area (Parcel C, subzone 4). The Former Building 136 (Parcel E, subzone 2) was sampled as part of the Truman Annex Buildings 102, 103 and 104 Parcel.

At each site, grids were established to determine sampling locations. The sites were divided into 100-foot by 100-foot gridblocks, and five sampling locations were placed in each full size gridblock. When partial gridblocks were encountered, the number of sample locations was determined by the size of the gridblock (two, three, or four sample locations were placed in smaller gridblocks). At each location samples were taken at three depths: 0-2 ft below land surface (bls), 2-5 ft bls, and 5-8 ft bls or into the saturated zone. Samples for each depth in each gridblock were combined to yield a composite sample. This produced three composite samples for each gridblock. At least one composite sample was taken in the saturated zone at each location.

The objective of the delineation sampling (soil screening) is to estimate the mean contaminant concentration within each gridblock. Composite sampling allows for the physical averaging that occurs during compositing is consistent with the intended use of the data. In addition, composite sampling allows for the use of a larger number of locations while controlling analytical costs, since several individual samples are physically mixed (homogenized) and one or more subsamples are drawn from the mixture and submitted for analysis (EPA, 1996).

The EPA's *Soil Screening Guidance: User's Guide* and *Technical Basis Document* (EPA, 1996) provided the project with guidance on delineation sampling and methodologies for using composite samples. It describes dividing sites into 0.5 acre "exposure areas" (EAs), assuming the EA is a suburban residential lot corresponding to 0.5 acre. The EA is subdivided into four equal sectors, each containing a minimum of four sample locations. A composite sample can result from samples taken across all sectors or within sectors. Therefore, if there are four sample locations within each sector of the EA there will be four composite samples for the EA when compositing across sectors. When compositing within sectors, the number of sectors determines the number of composite samples within an EA.

As described above, Former Building 136 Area and the DRMO Waste Storage Area were divided into gridblocks containing five sample locations within a full gridblock and less in partial gridblocks. These gridblocks have been interpreted as sectors, and four sectors make up an EA. The resulting EA is approximately 1.0 acre, twice the size of an EA described in EPA's *Soil Screening Guidance.* The EA is assumed to be reused as residential, but it does not represent the typical suburban residential lot (of 0.5 acre). Due to the size of these sectors the composite samples were taken from sample locations within their sector. The sample locations and sectors were derived using a systematic grid sampling method with a random starting point. Five sample locations per composite were considered adequate for delineation sampling. When contamination was found in excess of action levels, only specified gridblocks or sectors could be excavated. This philosophy follows the Piazza Road simulation described in the EPA's *Soil Screening Guidance.* The simulation results show that compositing within sectors may be an option for site managers who want to know whether one sector of an EA is more contaminated than the other. Compositing within sectors may lead the site manager to draw conclusions about the mean contaminant concentration in that sector only (EPA, 1996).

For subsurface soil sampling, EPA recommends taking two or three soil borings located in the areas suspected of having the highest contaminant concentrations within the source. The soil sampling locations are based primarily on knowledge of likely surface soil contamination patterns and subsurface conditions. However, in the case of Former Building 136 and the DRMO Waste Storage Area, high contaminant concentration areas could not be identified based on SI sampling. Soil borings were spaced

evenly within each gridblock. Samples taken started at the ground surface and continued until the water table was reached, as described in EPA's *Soil Screening Guidance* (EPA, 1996).

The EPA's *Soil Screening Guidance* (EPA, 1996) also discusses calculating site-specific Soil Screening Levels (SSLs) for surface and subsurface soils based on site-specific data and toxicity criteria. Action levels based on ARARs and SALs obtained from various state agencies had been previously used in the SI. Background levels were also used to calculate action levels when no published screening criteria were available. To determine SSLs for composite sampling, the *Soil Screening Guidance* (EPA, 1996) recommended using the following formula:

$$\text{Composite SSL} = \frac{\text{SSL}}{\sqrt{C}}$$

Where: SSL – discrete Soil Screening Level

C – number of sample locations per composite

The SSL used for discrete sampling is divided by the square root of the number of sample locations that make up the composite sample. Table 1-1 presents sample gridblocks and the number of discrete samples per composite. This composite SSL was used for delineation sampling in the BRAC SSI. The SSL for gridblocks with two to five samples are given in Table 1-2.

1.9.1.2 Assessing Composite Sample Data Quality

The Max Test, as described in EPA's *Soil Screening Guidance* (EPA, 1996) is used to determine a probability of decision error based on the composite sample results from the DRMO Waste Storage Area and the Former Building 136 Area. Appendix E describes the application of the Max Test to the sample results, and presents the analysis of the Max Test data results.

1.9.1.3 Palintest Scanning Analyzer

The EPA's *Soil Screening Guidance: Technical Basis Document* recommends that before individual specimens (discrete samples) are composited, such specimens should be split. This will allow one portion of the specimen to be composited with the other specimens, and the remaining portion to be stored for potential future analysis, maintaining the spatial integrity of each specimen. Therefore, if the concentration of a contaminant in a composite sample is high, the splits of the individual specimens from

which it was composited can be analyzed discretely to determine which individual specimen(s) have high concentrations of the contaminant. This will allow the site manager to determine which portion within an EA is contaminated without making a repeat visit to the site (EPA, 1996). Due to lead being a contaminant of concern, the above recommendation was followed using the Palintest Analyzation method for lead analysis.

At the DRMO Waste Storage Area, composite samples as well as discrete samples were analyzed for lead on site using the Palintest Scanning Analyzer. To save on analysis costs only the composite samples were analyzed offsite at a contracted laboratory. The discrete sample results provide data to be used to evaluate the composite sample results, thereby identifying the portion of a gridblock that has contaminant levels above or below the action level for lead. This makes it possible to identify a smaller excavation area, saving on remediation costs. Appendix F presents a comparison of the data results of the Palintest Scanning Analyzer to the composite results from the offsite contracted laboratory.

1.10 CONFIRMATION SAMPLING METHODOLOGY

This section describes the methodology used to conduct the confirmation sampling at the BRAC Parcels, NAS Key West. Section 4 presents the results from the confirmation sampling.

1.10.1 Sampling Objective

The objective of confirmation sampling is to verify IRA effectiveness. Sampling results, combined with site characteristics and institutional controls, should demonstrate that the IRA has reduced residual contamination to concentrations that are protective of human health and the environment.

1.10.2 Background

Section 3.2.3 of the SSI Workplan (TtNUS, 1999b) describes the sampling and analysis plan for confirmation sampling. The following paragraphs and subsections summarize site-specific aspects of confirmation sampling methodology, including any changes to the workplan. When field conditions warranted, a field task modification request form was completed to document the basis for, and approval of, changes to the workplan. Appendix B includes completed field task modification request forms that are pertinent to confirmation sampling.

As described in the SSI Workplan, the method used to determine the number of samples to be taken at each area is from *The Guidance Document for Verification of Soil Remediation* (Michigan DEQ, 1994). The methodology varies depending on the size of the site to be sampled. Small sites (less than 10,890

square feet) were to have a minimum of four samples, one in each sidewall. The number of samples for medium-sized sites (10,890 square feet to 130,680 square feet) depended on a grid interval that was to be established using a formula that factored in the site area. A minimum of 12 samples would be taken for a medium-sized site. None of the Key West sites fit the "large site" category.

The Partnering Team took one exception to the workplan methodology for determining the number of samples to be taken; the Team decided not to take samples in excavation floors. Appendix B includes the completed field task modification request form for the blanket elimination of excavation floor sampling. This decision is based on the No-Further Action Criteria with Institutional or Engineering Controls [62-785.680(2) F.A.C.] of the Florida Department of Environmental Protection Brownfields Cleanup Rule Criteria. A condition of the No-Further Action Criteria states: "Alternative soil cleanup target levels been established by the person responsible for brownfield site rehabilitation agreeing to one or more of the following: (b) 2. the enactment of an institutional control, in which case the contaminant concentrations in soil below two feet below land surface may exceed the direct exposure I cleanup target levels but may not exceed the applicable leachability cleanup target levels specified in Table II. [62-785.680(2)(b) 2. F.A.C.]" Therefore, in accordance with this criteria the Partnering Team made the decision to leave low levels of contaminated soil below 2 feet below land surface in place on several BRAC sites that have undergone IRAs. The institutional controls will be used on an as needed basis for the sites. The Navy will document the institutional controls in the decision documents for the affected sites.

In addition to the institutional controls, the Partnering Team made the decision not to excavate beneath impermeable objects (i.e., roads, concrete pads, building foundations), and to backfill the soil excavation sites with 2 feet of clean fill (Hawk Missile Site had one sediment excavation IRA) to act as an engineering control. This decision is consistent with the portion of the Brownfields Cleanup Rule that states: "the implementation of engineering controls, such as permanent cover, that prevent human exposure and limit water infiltration ... [62-785.680(2)(b) 4. F.A.C.]." Each of these engineering controls were used on an "as needed" basis for the sites.

Field duplicates were collected independently from the same location. The field duplicate was collected and sent to the offsite laboratory without identification of which sample had been duplicated, allowing statistical analysis of laboratory analytical accuracy. Analytical results from a sample and its duplicate are reported as an average.

Confirmation samples from excavation sidewalls were obtained using a stainless steel spoon and bowl. The sampler used the spoon to dig into the sidewall to collect soil that had not been contacted by the bucket of the excavator and then placed the soil into the bowl. Once enough soil was collected to fill the sample container or containers, the sampler removed any rocks or organics from the soil, mixed the soil

well, and transferred the homogenized soil to the sample container. The sample containers were placed in a cooler for transport. The spoon and bowl were decontaminated before reuse to prevent cross contamination. Surface Soil Sample Log Sheets were used to document the sampling activity (Appendix B).

The Palintest® Scanning Analyzer was used for on site lead analysis at Hawk Missile Site subzone A9, and DRMO subzones C3 and C4. This on-site analysis was necessary so that immediate lead content results could be obtained for decision-making purposes. To produce effective data and make efficient field decisions, three analyses were performed per sample. The results of these three analyses were averaged for a final lead content result. A percent relative standard deviation limit of 20 percent was used for acceptability of the three results for a sample. Tables in each of the applicable sections include the final results from the Palintest® analyses are included in applicable sections. The entire Palintest data set is included in Tables F-4, F-5, and F-6 of Appendix F. Shading in these tables represents an exceedance of the 500 mg/kg soil action level for lead.

1.10.3 Sampling Locations

The following subsections discuss site-specific aspects of confirmation sampling methodology. Section 4 contains figures that show the locations of each site.

1.10.3.1 Hawk Missile Site Sewage Lift Station (Parcel A, Subzone 4)

The SI report identified one inorganic (arsenic) in excess of its applicable action level at three locations on the Sewage Lift Station Site. The SSI Workplan established this as a small 25-foot by 35-foot excavation area and called for taking 7 confirmation samples, 3 in the floor and 4 in the sidewalls, and analyzing for inorganics. Following excavation, five sidewall confirmation samples were taken from the sidewalls for analysis. The analytical results still indicated elevated arsenic levels, so additional lateral excavation was performed. The excavation reached bedrock, thus no soil remained for further confirmation sampling.

1.10.3.2 Hawk Missile Site Area Around Sample Location SD-08 (Parcel A, Subzone 9)

The SI sample results for SD-08 indicated levels of an inorganic (lead) and an organic (the pesticide 4,4'-DDE) in excess of their applicable action levels. Thus, the SSI Workplan established this as a small 25-foot by 35-foot site and called for taking 7 samples after excavation, 3 in the floor and 4 in the sidewalls, and analyzing for inorganics and pesticides. After excavation, the four sidewall confirmation samples were taken for analysis. This sample location is known as an seasonal wet area. At the time of

SI sampling, the area was wet and sediment sampling and analysis techniques were used. At the time of confirmation sampling, however, the area was dry and soil sampling and analysis techniques were used.

1.10.3.3 Area Around Sample Location SD-05 (Parcel A, Subzone 9)

The SI sample results for SD-05 indicated levels of an inorganic (lead) and a pesticide (4,4'-DDE) in excess of their applicable action levels. Thus, the SSI Workplan established this as a small site, approximately 60-feet by 60 feet, and called for taking 9 samples after excavation, 5 in the floor and 4 in the sidewalls, and analyzing for inorganics and pesticides. The excavation was limited by bedrock and mangrove root mass, thus no soil remained for confirmation sampling. Appendix B includes the completed field task modification request form for this change to the workplan.

1.10.3.4 Between Buildings 261 and 284 (Parcel C, Subzone 1)

The SI sampling results for the area between Buildings 261 and 284 indicated levels of an inorganic (lead) at one location, an SVOC [benzo(a)pyrene] at two locations, and the PCB Aroclor-1260 at one location in excess of their applicable action levels. Thus, the SSI Workplan established this as a small site, 40 feet by 140 feet, and called for taking 12 samples after excavation, 7 in the floor and 5 in sidewalls, and analyzing for inorganics and PCBs. After excavation, eight sidewall confirmation samples were taken for analysis.

1.10.3.5 DRMO Storage Area (Parcel C, Subzones 3 and 4)

The SI sampling results at DRMO indicated levels of two inorganics (antimony and lead) and one SVOC [benzo(a)pyrene] in excess of their applicable action levels. As described in Section 3.3, the IRA delineation sampling identified additional inorganics and organics at levels that were in excess of applicable action levels. The SSI Workplan indicated five small areas and two medium areas for excavation at DRMO. A total of 98 samples were planned for these excavation areas (including floor and sidewall samples). However, as described in Section 1.10.2, floor samples were eliminated from the confirmation sampling methodology.

Analytical results that followed the initial excavation and confirmation sampling indicated elevated concentrations of inorganics and SVOCs. Based on these results, additional investigative sampling, excavation, and confirmation sampling was required. A total of 116 sidewall samples were taken at the DRMO Storage Area, including samples taken from sidewalls that were subsequently excavated, surface samples intended to help determine the necessary extent of additional excavation, and the final excavation sidewalls.

1.10.3.6 Seminole Battery Building 261 Hazardous Waste Storage (Parcel D, Subzone 1)

A single SI sample result indicated one inorganic (arsenic) at its applicable action level and two SVOCs [benzo(a)pyrene and benzo(b)fluoranthene] in excess of their applicable action levels. The SI report recommended further action and the SSI Workplan established this as a small site, 25-feet square, and called for taking 7 confirmation samples after excavation, three in the floor and four in sidewalls, and analyzing for inorganics and SVOCs. Following excavation activities, four sidewall confirmation samples were collected for analysis.

1.10.3.7 Former Location of Building 136 (Parcel E, Subzone 2)

The SI sampling results indicated one inorganic (arsenic) and three SVOCs [benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene] in excess of their applicable action levels. Benzo(a)pyrene is the only exceedance to appear at a second location. Thus, the SSI Workplan established this as medium site, approximately 150 feet by 275 feet, and called for taking 13 samples after excavation (10 in the floor and 3 in sidewalls) and analyzing for inorganics and SVOCs. As described in Section 3.6, the IRA delineation sampling identified two inorganics (lead and arsenic) and four organics [benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene] at concentrations that exceeded applicable action levels. After initial excavation and sampling, additional excavating was performed and a total of 22 sidewall samples were taken for analysis.

1.10.3.8 Area Around Buildings 102 and 104 (Parcel E, Subzone 3)

The SI sampling results indicated two SVOCs [benzo(a)pyrene at three locations and indeno(1,2,3-cd)pyrene at one location] in excess of their applicable action levels. Thus, the SSI Workplan established two sites (one west of Building 104 and one east of Building 102) and called for taking nine samples after excavation from each (five in the floor and four in sidewalls). The samples were analyzed for inorganics and SVOCs. Following excavation, four sidewall confirmation samples were collected from each site for analysis.

1.10.3.9 Area Around Building 103 (Parcel E, Subzone 9)

The SI sampling results indicated five SVOCs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene, at one location] and one PCB (Aroclor-1254, at two locations) in excess of their applicable action levels. Thus, the SSI Workplan established two small sites and called for taking nine samples after each excavation (five in the floor and

four in sidewalls of each excavation) and analyzing for SVOCs and PCBs. Following excavation activities, eleven sidewall confirmation samples were collected from the two excavations for analysis.

1.10.3.10 Former Lube Area (Parcel F, Subzone 1)

The SI sampling results indicated one inorganic (arsenic) at one location in excess of its applicable action level. The SI report recommended further action, and the SSI Workplan called for taking seven samples after excavation, (three in the floor and four in sidewalls) and analyzing for inorganics. Following excavation of a 25-foot square by 2-foot deep area, four sidewall confirmation samples were collected for analysis.

1.10.3.11 Building 223 Equipment Repair Shop (Parcel F, Subzone 3)

The SI sampling results indicated one inorganic (arsenic) at two locations in excess of its applicable action level. The SI report recommended further action, and the SSI Workplan called for taking seven samples after excavation (three in the floor and four in sidewalls) and analyzing for inorganics. Following excavation of a 25-foot square by 2-foot deep area, four sidewall confirmation samples were collected for analysis.

TABLE 1-1
FORMER DRMO STORAGE AREA - GRYZNC-SZN3 AND SZN4
NUMBER OF DISCRETE SAMPLES PER COMPOSITE SAMPLE AT EACH GRID LOCATION

Grid Location	Samples per Composite	Grid Location	Samples per Composite	Grid Location	Samples per Composite
C1	5	C11	5	C21	5
C2	5	C12	5	C22	5
C3	2	C13	5	C23	5
C4	5	C14	4	C24	3
C5	5	C15	5	C25	5
C6	3	C16	5	C26	5
C7	5	C17	5	C27	3
C8	5	C18	5	C28	3
C9	5	C19	5	C29	4
C10	5	C20	5	C30	5

TABLE 1-2

RESIDENTIAL SOIL SCREENING LEVELS FOR DISCRETE AND COMPOSITE SAMPLES
PAGE 1 OF 2

Parameter	Screening Values	Discrete Samples Per Composite			
		5 Samples	4 Samples	3 Samples	2 Samples
INORGANICS (mg/kg)					
Aluminum	75000	33541.02	37500	43301.3	53033.0
Antimony	26	11.63	13	15.01	18.38
Arsenic	2.66	1.19	1.33	1.54	1.88
Barium	5200	2325.5	2600	3002.2	3677.0
Beryllium	0.2	0.089	0.1	0.115	0.141
Cadmium	37	16.55	18.5	21.36	26.16
Calcium	NA	NA	NA	NA	NA
Chromium	290	129.7	145	167.4	205.1
Cobalt	4700	2101.9	2350	2713.5	3323.4
Copper	3100	1386.4	1550	1789.8	2192.0
Iron	23000	10285.9	11500	13279.1	16263.5
Lead	500	223.6	250	288.7	353.6
Magnesium	NA	NA	NA	NA	NA
Manganese	370	165.5	185	213.6	261.6
Mercury	23	10.29	11.5	13.28	16.26
Nickel	1500	670.8	750	866.0	1060.7
Potassium	NA	NA	NA	NA	NA
Selenium	390	174.4	195	225.2	275.8
Silver	390	174.4	195	225.2	275.8
Sodium	NA	NA	NA	NA	NA
Thallium	5.5	2.46	2.75	3.18	3.89
Tin	44000	19677.398	22000	25403.4	31112.698
Vanadium	490	219.1	245	282.9	346.5
Zinc	23000	10285.9	11500	13279.1	16263.5
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)					
1,2,4-trichlorobenzene	780000	348826.6	390000	450333.21	551543.29
1,2-dichlorobenzene	820000	366715.15	410000	473427.22	579827.56
1,3-dichlorobenzene	1700000	760263.11	850000	981495.46	1202081.5
1,4-dichlorobenzene	7500	3354.1	3750	4330.1	5303.3
2,4,5-trichlorophenol	7100000	3175216.5	3550000	4099186.9	5020458.1
2,4,6-trichlorophenol	87000	38907.6	43500	50229.5	61518.3
2,4-dichlorophenol	220000	98387.0	110000	127017.06	155563.49
2,4-dimethylphenol	1200000	536656.31	600000	692820.32	848528.14
2,4-dinitrophenol	160000	71554.2	80000	92376.0	113137.08
2,4-dinitrotoluene	130000	58137.8	65000	75055.5	91923.9
2,6-dinitrotoluene	71000	31752.2	35500	40991.9	50204.6
2-chloronaphthalene	560000	250439.61	280000	323316.15	395979.8
2-chlorophenol	280000	125219.81	140000	161658.08	197989.9
2-methyl-4,6-dinitrophenol	NA	NA	NA	NA	NA
2-methylnaphthalene	960000	429325.05	480000	554256.26	678822.51
2-methylphenol	2600000	1162755.3	1300000	1501110.7	1838477.6
2-nitroaniline	4000	1788.9	2000	2309.4	2828.4
2-nitrophenol	NA	NA	NA	NA	NA
3 & 4-methylphenol	340000	152052.62	170000	196299.09	240416.31
3,3'-dichlorobenzidine	1400	626.1	700	808.3	989.9
3-nitroaniline	230000	102859.13	115000	132790.56	162634.56
4-bromophenyl phenyl ether	4500000	2012461.2	2250000	2598076.2	3181980.5
4-chloro-3-methylphenol	140000000	62609903	70000000	80829038	98994949
4-chloroaniline	240000	107331.26	120000	138564.06	169705.63
4-chlorophenyl phenyl ether	NA	NA	NA	NA	NA
4-nitroaniline	230000	102859.13	115000	132790.56	162634.56
4-nitrophenol	4800000	2146625.3	2400000	2771281.3	3394112.5
Acenaphthene	2800000	1252198.1	1400000	1616580.8	1979899

TABLE 1-2

RESIDENTIAL SOIL SCREENING LEVELS FOR DISCRETE AND COMPOSITE SAMPLES

Parameter	Screening Values	Discrete Samples Per Composite			
		5 Samples	4 Samples	3 Samples	2 Samples
Acenaphthylene	670000	299633.11	335000	386824.68	473761.54
Anthracene	20000000	8944271.9	10000000	11547005	14142136
Benzo(a)anthracene	1400	626.1	700	808.3	989.9
Benzo(a)pyrene	100	44.72	50	57.74	70.71
Benzo(b)fluoranthene	1400	626.1	700	808.3	989.9
Benzo(g,h,i)perylene	14000	6261.0	7000	8082.9	9899.5
Benzo(k)fluoranthene	14000	6261.0	7000	8082.9	9899.5
Bis(2-chloroethoxy) methane	170000	76026.3	85000	98149.5	120208.15
Bis(2-chloroethyl)ether	500	223.6	250	288.7	353.6
Bis(2-ethylhexyl) phthalate	48000	21466.3	24000	27712.8	33941.1
Butyl benzyl phthalate	15000000	6708203.9	7500000	8660254	10606602
Carbazole	42000	18783.0	21000	24248.7	29698.5
Chrysene	140000	62609.903	70000	80829.0	98994.9
Dibenzo(a,h) anthracene	100	44.72	50	57.74	70.71
Dibenzofuran	240000	107331.26	120000	138564.06	169705.63
Diethyl phthalate	56000000	25043961	28000000	32331615	39597980
Dimethyl phthalate	630000000	281744565	315000000	363730670	445477272
Di-n-butyl phthalate	7300000	3264659.2	3650000	4214657	5161879.5
Di-n-octyl phthalate	1500000	670820.39	750000	866025.4	1060660.2
Fluoranthene	2900000	1296919.4	1450000	1674315.8	2050609.7
Fluorene	2400000	1073312.6	1200000	1385640.6	1697056.3
Hexachlorobenzene	600	268.3	300	346.4	424.3
Hexachlorobutadiene	3100	1386.4	1550	1789.8	2192.0
Hexachlorocyclopenta diene	550000	245967.48	275000	317542.65	388908.73
Hexachloroethane	27000	12074.8	13500	15588.5	19091.9
Indeno(1,2,3-cd) pyrene	1400	626.1	700	808.3	989.9

Parameter	Screening Values	Discrete Samples Per Composite			
		5 Samples	4 Samples	3 Samples	2 Samples
Isophorone	670000	299633.11	335000	386824.68	473761.54
Naphthalene	1300000	581377.67	650000	750555.35	919238.82
Nitrobenzene	22000	9838.7	11000	12701.7	15556.3
n-nitroso-di-n-propylamine	NA	NA	NA	NA	NA
n-nitrosodiphenylamine	73000	32646.6	36500	42146.6	51618.795
Pentachlorophenol	5400	2415.0	2700	3117.7	3818.4
Phenanthrene	1700000	760263.11	850000	981495.46	1202081.5
Phenol	34000000	15205262	17000000	19629909	24041631
Pyrene	2200000	983869.91	1100000	1270170.6	1555634.9
VOLATILE ORGANIC COMPOUNDS (µg/kg)					
Bis(2-chloroisopropyl) ether	9100	4069.6	4550	5253.9	6434.7

TABLE 1-2

RESIDENTIAL SOIL SCREENING LEVELS FOR DISCRETE AND COMPOSITE SAMPLES
PAGE 1 OF 2

Parameter	Screening Values	Discrete Samples Per Composite			
		5 Samples	4 Samples	3 Samples	2 Samples
INORGANICS (mg/kg)					
Aluminum	75000	33541.02	37500	43301.3	53033.0
Antimony	26	11.63	13	15.01	18.38
Arsenic	2.66	1.19	1.33	1.54	1.88
Barium	5200	2325.5	2600	3002.2	3677.0
Beryllium	0.2	0.089	0.1	0.115	0.141
Cadmium	37	16.55	18.5	21.36	26.16
Calcium	NA	NA	NA	NA	NA
Chromium	290	129.7	145	167.4	205.1
Cobalt	4700	2101.9	2350	2713.5	3323.4
Copper	3100	1386.4	1550	1789.8	2192.0
Iron	23000	10285.9	11500	13279.1	16263.5
Lead	500	223.6	250	288.7	353.6
Magnesium	NA	NA	NA	NA	NA
Manganese	370	165.5	185	213.6	261.6
Mercury	23	10.29	11.5	13.28	16.26
Nickel	1500	670.8	750	866.0	1060.7
Potassium	NA	NA	NA	NA	NA
Selenium	390	174.4	195	225.2	275.8
Silver	390	174.4	195	225.2	275.8
Sodium	NA	NA	NA	NA	NA
Thallium	5.5	2.46	2.75	3.18	3.89
Tin	44000	19677.398	22000	25403.4	31112.698
Vanadium	490	219.1	245	282.9	346.5
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TABLE 1-2

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PAGE 2 OF 2

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n-nitroso-di-n-propylamine	NA	NA	NA	NA	NA
n-nitrosodiphenylamine	73000	32646.6	36500	42146.6	51618.795
Pentachlorophenol	5400	2415.0	2700	3117.7	3818.4
Phenanthrene	1700000	760263.11	850000	981495.46	1202081.5
Phenol	34000000	15205262	17000000	19629909	24041631
Pyrene	2200000	983869.91	1100000	1270170.6	1555634.9
VOLATILE ORGANIC COMPOUNDS (µg/kg)					
Bis(2-chloroisopropyl) ether	9100	4069.6	4550	5253.9	6434.7

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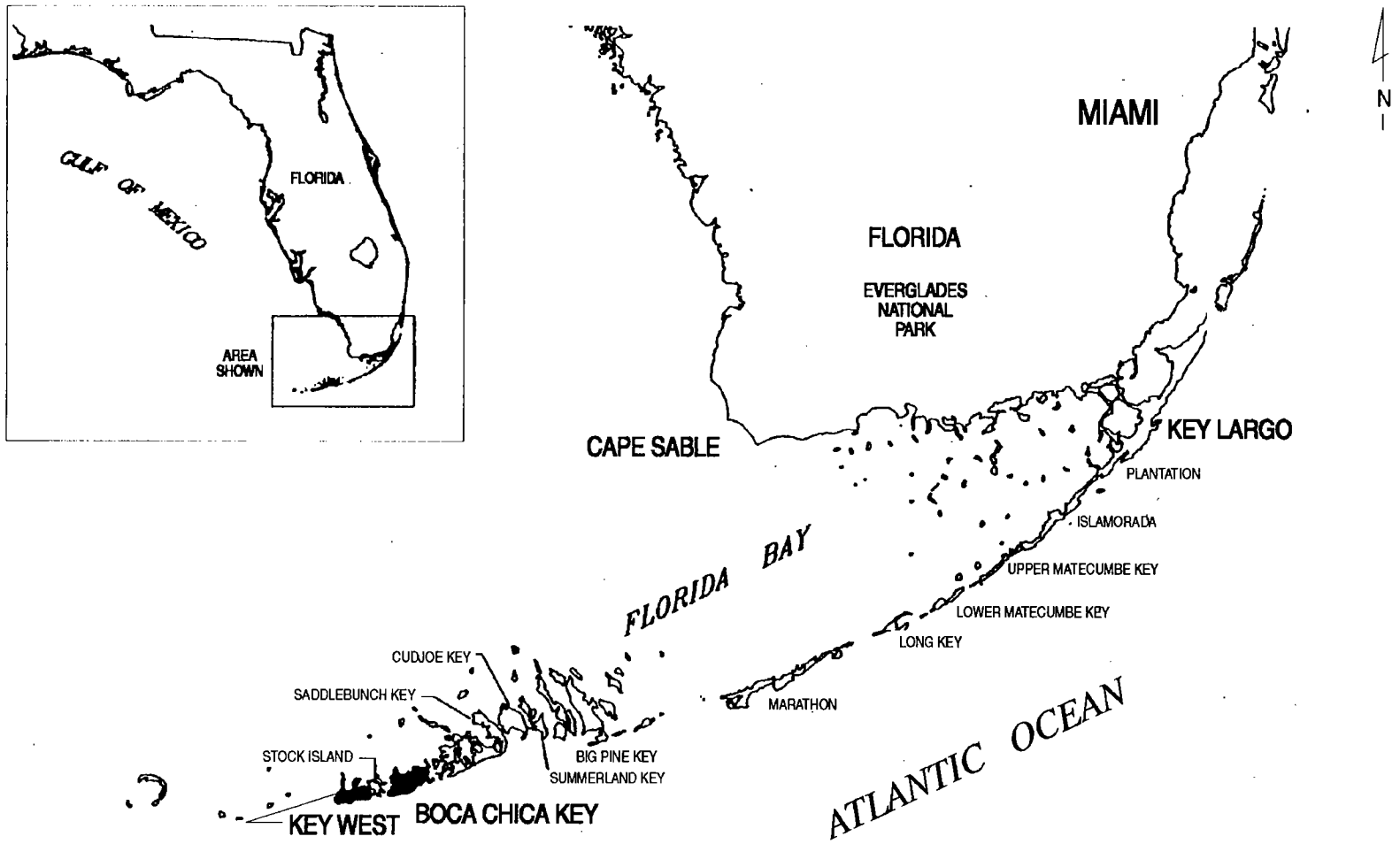

DRAWN BY MDB	DATE 11/12/98	SUPPLEMENTAL SITE INSPECTION REPORT FOR BRAC PARCELS FIGURE 1-1. LOCATION MAP NAVAL AIR STATION KEY WEST NAVY SOUTHERN DIVISION NAS KEY WEST, FLORIDA	CONTRACT NO. 7593
CHECKED BY -	DATE -		APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE N.T.S.			DRAWING NO. F1-1BRAC.PPT**F1-1LINK.TIF REV. 1

FORM POWERPOINT-SD_AH.PPT-REV 0-3/98

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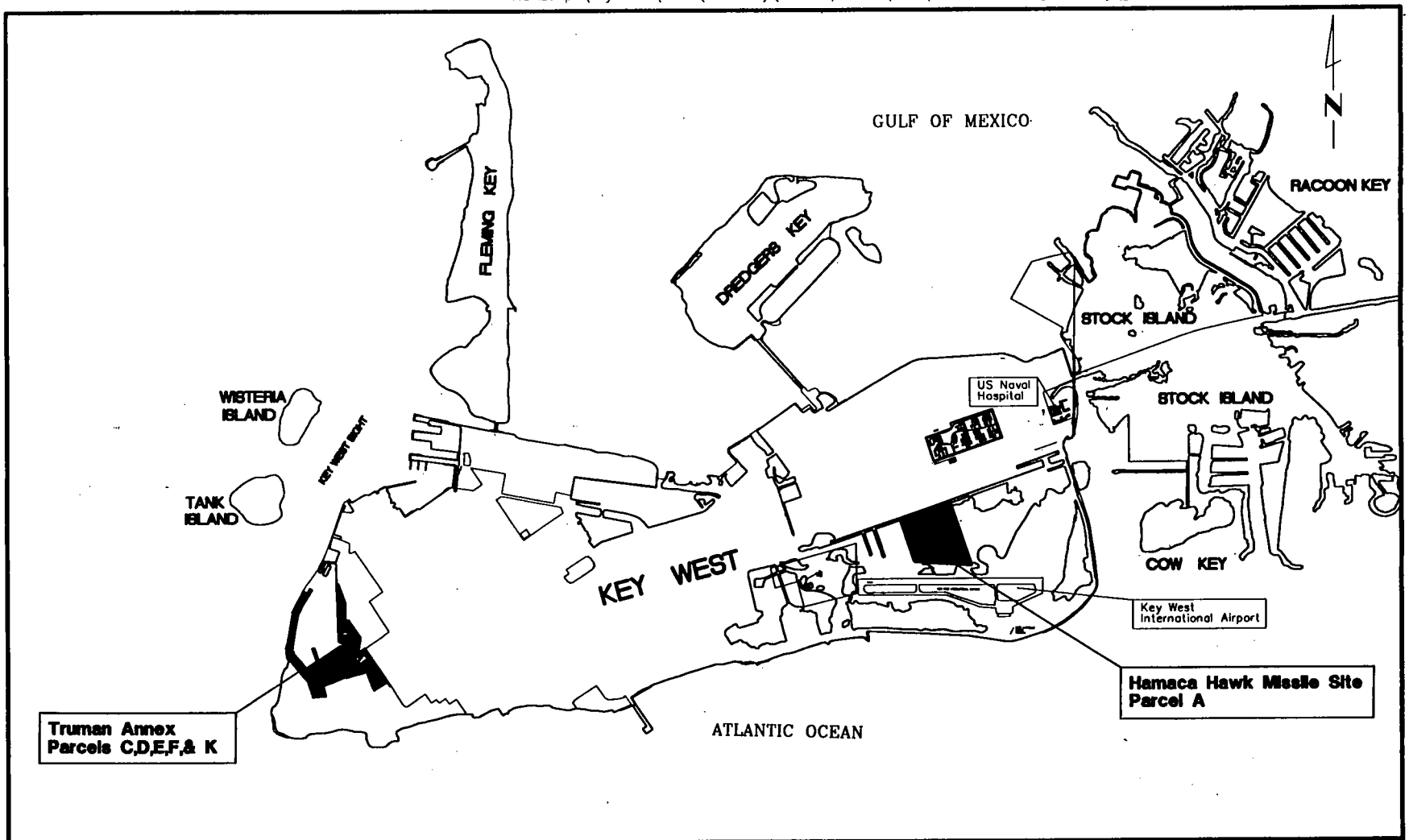
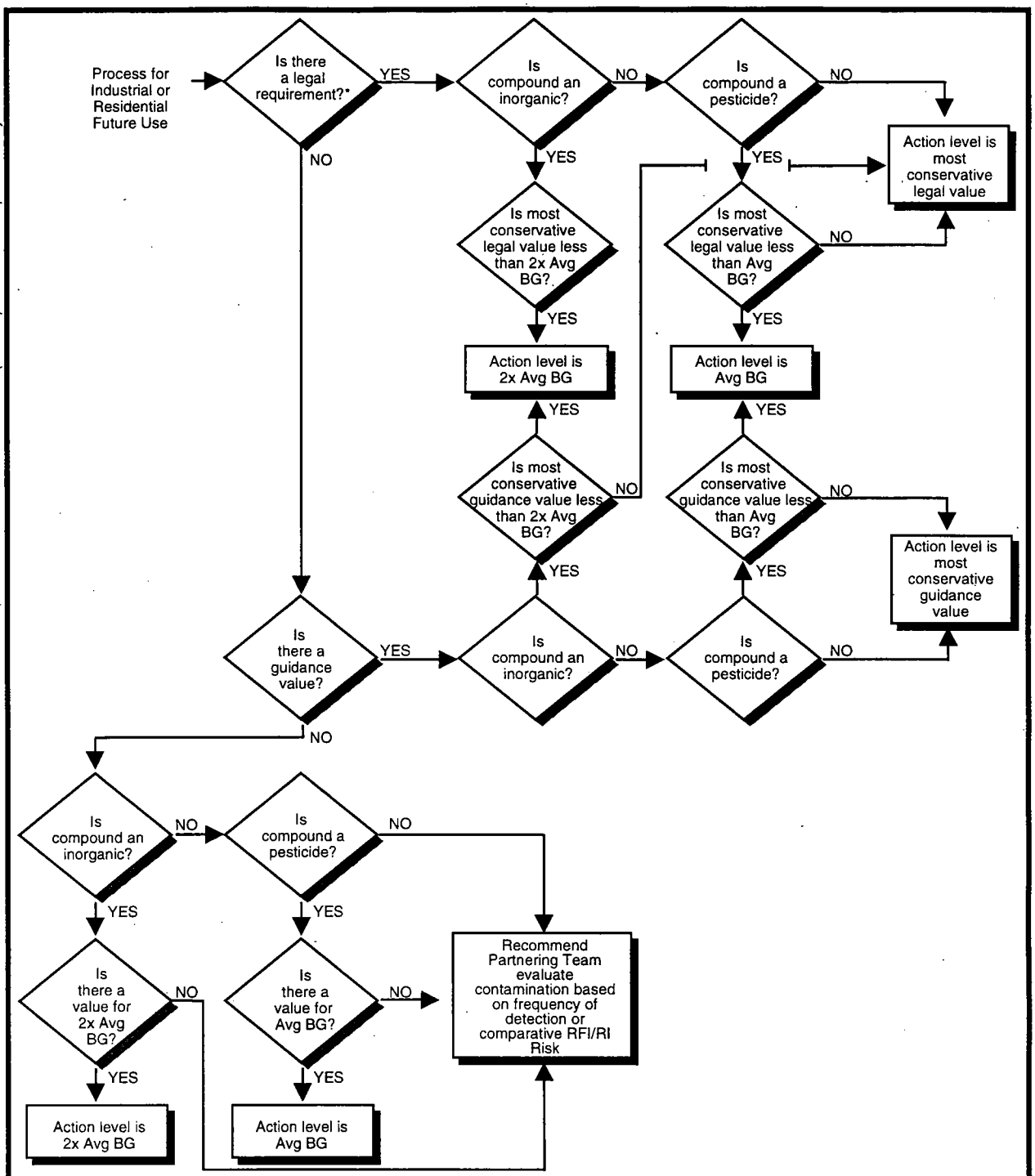


DRAWN BY MDB DATE 11/03/98	SUPPLEMENTAL SITE INSPECTION REPORT FIGURE 1-2. LOCATION MAP BRAC PROPERTIES & PARCELS NAVY SOUTHERN DIVISION NAS KEY WEST, FLORIDA	CONTRACT NO. 7593	
CHECKED BY DATE		APPROVED BY DATE	
COST/SCHED-AREA		APPROVED BY DATE	
SCALE N.T.S.		DRAWING NO. 98031202.DWG	REV. 0

FORM CADD NO. SDV_AH12.DWG - REV 0 - 1/20/98

P: KEY WEST/BRAC (CTO 032)/Mod 4 SSI/SSI Report/Pubs Only/Grfx/F1-4DEC.PPT



*A residential or industrial set of action levels were considered for the Parcels based on the future use determination made in the Key West Reuse Plan (BAP, 1997).

DRAWN BY RBP	DATE ----	SUPPLEMENTAL SITE INSPECTION REPORT FIGURE 1-3. DECISION LOGIC FOR ACTION LEVEL SELECTION NAVY SOUTHERN DIVISION NAS KEY WEST, FLORIDA	CONTRACT NO. 7593
CHECKED BY	DATE		APPROVED BY / DATE
COST/SCHED-AREA			APPROVED BY / DATE
SCALE -			DRAWING NO. F1-4DEC.PPT / REV. 0

FORM POWERPOINT-SD_AH.PPT-REV 0-3/98

2.0 SUPPLEMENTAL SITE INSPECTION SAMPLING AT TRUMAN ANNEX BUILDINGS 102, 103, AND 104 (PARCEL E)

2.1 PARCEL E DESCRIPTION

Parcel E (Figure 2-1) includes the area known as the Inner Mole Pier on Truman Annex. For a more detailed description of Parcel E see the *SI Report for Nine BRAC Parcels* (Brown & Root Environmental, 1998a). The area of interest for the SSI includes Building 102 (Former Torpedo Overhaul and Storehouse), Building 103 (Former Central Power Plant), and Building 104 (Former Battery Overhaul and Storage), which are still standing but are out of service. Knowledge of the specific operations that were performed in these buildings is limited but the operations are assumed to relate to naval submarine support activities. Hazardous materials, specifically VOCs, SVOCs, and inorganics, are believed to have been used in each of the buildings. PCBs are known to have been present in transformers at Building 103. In the mid-1980s, these transformers were removed from the building.

2.2 INVESTIGATION HISTORY

This section describes SI and SSI investigations for the Truman Annex Buildings 102, 103, and 104. The *SI Report for Nine BRAC Parcels* (Brown & Root Environmental, 1998a) contains information regarding other investigations that took place prior to the SI.

During the SI 10 subzones for Parcel E (1, 2, 3, 4, 5, 6, 8, 9, 10, and 11) were evaluated to determine a need for physical investigations. However, subzones 6, 8, 10, and 11 were eliminated from further evaluation based on site history. Seven subzones within Parcel E (subzones 1, 2, 3, 4, 5, 7, and 9) required sampling and analysis under the BRAC SI. Fuels, oils, metals, solvents, PCBs, and acids were considered to be potential soil contaminants at Parcel E during the DQO Process utilized to prepare the BRAC SI Workplan.

Six soil subzones (i.e., 1, 2, 3, 4, 5, and 9) and one groundwater subzone (subzone 7) were investigated during the SI field investigation. Further action was recommended at subzone 2 where detected concentrations of arsenic were indicative of potential human health risks. An Interim Removal Action (IRA) was recommended at subzones 1, 3, and 4 to remove potentially contaminated soil and is further addressed in Sections 3 and 4 of this report. Further action was recommended at the remaining subzones 5 and 9 due to possible soil contamination in excess of action levels and which could pose human health risks. The compound 2-hexanone was detected in subzones 3 and 9 but not at levels

indicative of human health risks. However, detections of benzo(a)pyrene and indeno(1,2,3-cd)pyrene were indicative of potential human health risks at soil subzones 3 and 9. Subzone 9 (Building 103) had detections of aroclor-1254, benzo(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene which indicate potential carcinogenic risks. Due to the nature of contaminants detected in subzones 3 and 9 further action is recommended. An SSI was recommended for subzones 3 and 9. The SSI at Buildings 102, 103, and 104 focused on confirming the suspected presence of contamination under the footprints of the buildings. The groundwater underneath the footprints of the buildings was also sampled during the SSI (Table 2-1).

2.3 BUILDINGS 102, 103, AND 104 SOIL

The following sections present the contaminants detected, compare the detected concentrations with selected soil screening values, and provide conclusions on the SSI findings for the footprint area beneath Buildings 102, 103, and 104.

2.3.1 Site Description

Acids, solvents, and fuel from building operations were considered to be potential contaminants at Buildings 102 and 104. Fuel, oils, and PCBs were considered to be potential contaminants at Building 103. During the DQO Process, four soil sample locations were placed inside each of Buildings 102 and 104 and eight in Building 103. Soil samples were collected from 14 of the 16 locations. Two locations inside Building 103 were not sampled because of difficulties in accessing locations due to building conditions (see Appendix B). One sample was collected at the surface, one at 3-5 ft bls and one at 8-10 ft bls or the saturated zone. In cases where the saturated zone was not encountered by 10 ft bls, one additional sample was collected in the saturated zone (yielding four soil samples from one location). Complete analytical results are presented in Appendix D.

2.3.2 SSI Findings

Soil contamination was investigated by analyzing surface and subsurface soil samples from the footprint of Buildings 102, 103, and 104 for VOCs, SVOCs, PCBs, and inorganics. The results of these analyses were compared with action levels selected from a variety of sources including background levels as discussed in Section 1.8.1.2 and ARARs and SALs from various state and Federal agencies and research institutions. The selection of action levels is discussed in Section 1.8.1.4.1. Analytes detected in the soil samples are listed in Tables 2-2 through 2-4. Figures 2-2 through 2-5 show the location of occurrences of analytes that exceeded action levels and indicate possible surface soil contamination.

Several organics including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i) perylene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were detected in excess of their selected action levels. Benzo(g,h,i)perylene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceeded their action levels in one sample E09-SS-118. Benzo(a)pyrene was detected at concentrations in excess of its action level at 7 sample locations, while benzo(a)anthracene was found in three samples at concentrations above the action level, and benzo(b)fluoranthene was detected at two locations in excess of its action level. Only four inorganics were detected at concentrations above the action levels. Lead and beryllium were found in one sample each at concentrations that exceeded their selected action levels. Arsenic was detected in excess of action levels in five samples from four locations at concentrations in excess of its action level, and cadmium was found in two samples in excess of its action levels.

Several inorganics and organics were detected in soil samples from the footprints of Buildings 102, 103, and 104 at concentrations below their action levels. The inorganics detected included aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, tin, vanadium, and zinc. SVOCs detected included 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethyhexyl)phthalate, carbazole, chrysene, diethylphthalate, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene. VOCs detected included benzene, chloroform, ethylbenzene, tetrachloroethene, toluene, and trichloroethene and one PCB, Aroclor-1254, was detected. Table 2-5 shows the number of detections for each inorganic and organic parameter found in soils at Buildings 102, 103, and 104 and the number of detections that exceed selected action levels.

2.3.3 Conclusions and Recommendations

Acids, solvents, oils, PCBs, and fuel are considered to be potential soil contaminants beneath the footprint of Buildings 102, 103, and 104. Lead, arsenic, beryllium, cadmium, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene were considered as exceedances within the footprints of Buildings 102, 103, and 104. Estimated risks were calculated for these 10 chemicals as described in Section 1.8.1.4.2. Calculations, estimates and the process used to estimate the potential risks can be found in Appendix C, Table C-2. Based on the trespasser risk scenario, the maximum result for arsenic is indicative of a potential carcinogenic health risk. Further action at Buildings 102, 103, and 104 is recommended.

2.4 BUILDINGS 102, 103, AND 104 GROUNDWATER

The following sections describe groundwater beneath Buildings 102, 103, and 104; present the contaminants detected; compare the detected concentrations with selected groundwater-screening values, and provide conclusions on the SSI findings for groundwater specifically beneath Buildings 102, 103, and 104.

2.4.1 Description

Fuels, oils, metals, and solvents were considered as potential groundwater contaminants at Truman Annex. Fifteen groundwater-screening samples were collected from the area in and around Buildings 102, 103, and 104. These groundwater samples were analyzed for VOCs, SVOCs, and inorganics. A single existing monitoring well was also sampled outside Building 103. Complete analytical results for the 16 groundwater samples are provided in Appendix D.

2.4.2 SSI Findings

Groundwater contamination was investigated by analyzing groundwater from 15 temporary monitoring wells for VOCs, SVOCs, and inorganics (i.e., four each in Buildings 102 and 104; three in Building 103; and four just outside Building 103). One permanent monitoring well (MW-17) north of Building 103 was also sampled for the same compounds. The results of these analyses were compared with action levels that were selected from a variety of sources including background levels as discussed in Section 1.8.1.2 and ARARs and SALs from various state and Federal agencies and research institutions. The selection of action levels is discussed in Section 1.8.1.4.1. Chemicals detected in the groundwater samples are listed in Table 2-6. Figure 2-6 shows the occurrence of analytes that exceeded action levels and indicated possible groundwater contamination.

The sample collected from E07-GS-19 primarily contained a petroleum product. Therefore, analytical results could not be obtained for SVOCs and VOCs in this sample. The analysis was required to be diluted causing the equipment accuracy to be significantly diminished.

Benzene was detected at levels in excess of its 1 µg/L action level in three wells in Building 102 and two wells in Building 103. Phenanthrene exceeded its 8.3 µg/L action level in two of four wells in Building 102 as well as in a single well in Building 104. Three inorganics (i.e., cadmium, lead, and antimony) were identified as exceedances in samples taken from wells in Building 103. Antimony was also detected in Building 104 groundwater at concentrations that exceed the selected action levels. Carbazole, dibenzofuran, phenanthrene, tetrachloroethene, and trichloroethene were all exceedances from a single well (E07-GS-29) in Building 104.

Several organics and inorganics were detected in groundwater at Buildings 102, 103, and 104 at concentrations below the selected action levels. Inorganics detected included aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, iron, lead, manganese, nickel, selenium, silver, tin, vanadium, and zinc. SVOCs detected included 2-methylnaphthalene, acenaphthene, dibenzofuran, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene. VOCs detected included benzene, cis-1,2-dichloroethene, ethylbenzene, toluene, and xylenes total. Table 2-7 shows the number of detections for each organic and inorganic parameter found in groundwater at Buildings 102, 103, and 104, and the number of those detections that exceed selected action levels.

2.4.3 Conclusions and Recommendations

Fuels, oils, metals, and solvents are considered to be potential sources of contamination in the groundwater beneath Buildings 102, 103, and 104. The maximum detected concentrations were used in the estimated risk process as described in Section 1.8.1.4.2. The risk calculations, estimates and the process used to estimate the potential risks can be found in Appendix C. Although antimony, cadmium, and lead results are not indicative of health risks based on the trespasser scenario risk estimate, the maximum results for carbazole, dibenzofuran, phenanthrene, benzene, tetrachloroethene, and trichloroethene are indicative of potential carcinogenic and noncarcinogenic health risk. However, access to this groundwater is restricted and movement of groundwater is assumed to be slow, which would reduce the potential risk posed by the chemicals detected in the groundwater. Additional discussion by the NAS Key West Partnering Team is recommended for the groundwater beneath Buildings 102, 103, and 104 to determine if reasonable scenarios exist for groundwater exposure at this site.

2.5 BUILDINGS SURFACES SWIPE SAMPLES

Surface area swipe samples were collected from the floor and walls of each building, to identify any surface contamination. Five samples were collected from Building 102, four from Building 103, and three from Building 104. Figure 2-7 presents each sample location.

This method of swipe sampling and analysis cannot be used to determine the quantity of any contaminants but rather it determines if a chemical of concern is present.

Metals and SVOCs were found to be present in all three buildings. In addition to metals and SVOCs Aroclor-1254, a PCB, was found in Building 103 at all sample locations. Table 2-8 presents all detections as a result of swipe sample analysis. This data is available for any future circumstances that would required the demolition of these buildings.

TABLE 2-1

COMPOUNDS AND MEDIA OF INTEREST AT TRUMAN ANNEX BUILDINGS 102, 103, AND 104 (PARCEL E) NAS KEY WEST

Building/Area	Medium	Number of Locations	Number of Samples	Parameter Group			
				VOCs	SVOCs	Inorganics	PCBs
Buildings 102, 103, and 104	SO	14	39	X	X	X	X
Buildings 102, 103, and 104	GW	16	16	X	X	X	

SO = Surface soil
GW = Groundwater

TABLE 2-2

CHEMICALS DETECTED IN BUILDING 102 SOIL
NAS KEY WEST
PAGE 1 OF 5

Location	Parameter	Result	Qual(*)
INORGANICS (mg/kg)			
E03-SS-07A	Aluminum	446	
E03-SS-07A	Arsenic	3.3	
E03-SS-07A	Barium	15.8	
E03-SS-07A	Cadmium	0.13	
E03-SS-07A	Chromium	3.6	
E03-SS-07A	Cobalt	2.4	
E03-SS-07A	Copper	5.6	
E03-SS-07A	Iron	5450	
E03-SS-07A	Lead	27	
E03-SS-07A	Manganese	30.1	
E03-SS-07A	Nickel	1.4	
E03-SS-07A	Selenium	0.34	
E03-SS-07A	Tin	3.4	
E03-SS-07A	Vanadium	2.3	
E03-SS-07A	Zinc	32	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-07A	Benzo(a)pyrene	183	J
E03-SS-07A	Benzo(b)fluoranthene	251	J
E03-SS-07A	Benzo(k)fluoranthene	141	J
E03-SS-07A	Chrysene	87.1	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-07A	Benzene	1.2	J
INORGANICS (mg/kg)			
E03-SS-07B	Aluminum	249	
E03-SS-07B	Arsenic	0.88	
E03-SS-07B	Barium	15.7	
E03-SS-07B	Cadmium	0.56	
E03-SS-07B	Chromium	5.1	
E03-SS-07B	Copper	2.7	
E03-SS-07B	Iron	276	
E03-SS-07B	Lead	2.3	
E03-SS-07B	Manganese	6.6	
E03-SS-07B	Nickel	2.2	
E03-SS-07B	Selenium	1	
E03-SS-07B	Tin	1.7	
E03-SS-07B	Vanadium	2.6	
E03-SS-07B	Zinc	56.3	
INORGANICS (mg/kg)			
E03-SS-07C	Aluminum	209	
E03-SS-07C	Arsenic	0.84	
E03-SS-07C	Barium	15.7	
E03-SS-07C	Cadmium	0.19	
E03-SS-07C	Chromium	1.8	
E03-SS-07C	Copper	2.1	
E03-SS-07C	Iron	175	
E03-SS-07C	Lead	3	
E03-SS-07C	Manganese	2.8	
E03-SS-07C	Nickel	1	
E03-SS-07C	Selenium	0.89	
E03-SS-07C	Tin	3.9	
E03-SS-07C	Vanadium	1.5	
E03-SS-07C	Zinc	9.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-07C	2-methylnaphthalene	30400	
E03-SS-07C	Acenaphthene	3250	
E03-SS-07C	Anthracene	1260	J
E03-SS-07C	Benzo(a)anthracene	303	J
E03-SS-07C	Chrysene	252	J
E03-SS-07C	Fluoranthene	1340	J

TABLE 2-2

CHEMICALS DETECTED IN BUILDING 102 SOIL
NAS KEY WEST
PAGE 2 OF 5

Location	Parameter	Result	Qual(*)
E03-SS-07C	Fluorene	4130	
E03-SS-07C	Naphthalene	14600	
E03-SS-07C	Phenanthrene	7780	
E03-SS-07C	Pyrene	1170	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-07C	Tetrachloroethene	175	J
INORGANICS (mg/kg)			
E03-SS-08-A	Aluminum	784	
E03-SS-08-A	Arsenic	1.7	
E03-SS-08-A	Barium	19.7	
E03-SS-08-A	Cadmium	0.31	
E03-SS-08-A	Chromium	4.3	
E03-SS-08-A	Cobalt	0.56	
E03-SS-08-A	Copper	9.7	
E03-SS-08-A	Iron	5260	
E03-SS-08-A	Lead	57.9	
E03-SS-08-A	Manganese	23.9	
E03-SS-08-A	Nickel	1.7	
E03-SS-08-A	Tin	4.2	
E03-SS-08-A	Vanadium	2.8	
E03-SS-08-A	Zinc	39.9	
INORGANICS (mg/kg)			
E03-SS-08-B	Aluminum	1150	
E03-SS-08-B	Arsenic	2.6	
E03-SS-08-B	Barium	26.5	
E03-SS-08-B	Cadmium	0.2	
E03-SS-08-B	Chromium	7.1	
E03-SS-08-B	Copper	13.4	
E03-SS-08-B	Iron	1860	
E03-SS-08-B	Lead	79.9	

Location	Parameter	Result	Qual(*)
E03-SS-08-B	Manganese	18.5	
E03-SS-08-B	Nickel	1.9	
E03-SS-08-B	Tin	10.4	
E03-SS-08-B	Vanadium	7.1	
E03-SS-08-B	Zinc	57.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-08-B	Acenaphthylene	92.4	J
E03-SS-08-B	Benzo(a)pyrene	162	J
E03-SS-08-B	Benzo(b)fluoranthene	166	J
E03-SS-08-B	Benzo(g,h,i)perylene	225	J
E03-SS-08-B	Benzo(k)fluoranthene	138	J
E03-SS-08-B	Indeno(1,2,3-cd)pyrene	146	J
INORGANICS (mg/kg)			
E03-SS-08-C	Aluminum	802	
E03-SS-08-C	Arsenic	2.5	
E03-SS-08-C	Barium	28.5	
E03-SS-08-C	Cadmium	0.23	
E03-SS-08-C	Chromium	6	
E03-SS-08-C	Copper	18.1	
E03-SS-08-C	Iron	1700	
E03-SS-08-C	Lead	93.2	
E03-SS-08-C	Manganese	14.1	
E03-SS-08-C	Mercury	0.08	
E03-SS-08-C	Nickel	2	
E03-SS-08-C	Tin	6.6	
E03-SS-08-C	Vanadium	5.4	
E03-SS-08-C	Zinc	71	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-08-C	2-methylnaphthalene	17100	
E03-SS-08-C	Acenaphthene	1910	J

TABLE 2-2

CHEMICALS DETECTED IN BUILDING 102 SOIL
NAS KEY WEST
PAGE 3 OF 5

Location	Parameter	Result	Qual(*)
E03-SS-08-C	Anthracene	944	J
E03-SS-08-C	Benzo(a)anthracene	500	J
E03-SS-08-C	Chrysene	350	J
E03-SS-08-C	Fluoranthene	2160	J
E03-SS-08-C	Fluorene	2730	
E03-SS-08-C	Naphthalene	1930	J
E03-SS-08-C	Phenanthrene	6130	
E03-SS-08-C	Pyrene	1460	J
INORGANICS (mg/kg)			
E03-SS-09A	Aluminum	168	
E03-SS-09A	Arsenic	0.61	
E03-SS-09A	Barium	13.3	
E03-SS-09A	Cadmium	0.07	
E03-SS-09A	Chromium	2.3	
E03-SS-09A	Cobalt	9.6	
E03-SS-09A	Copper	4.8	
E03-SS-09A	Iron	366	
E03-SS-09A	Lead	15.7	
E03-SS-09A	Manganese	4.4	
E03-SS-09A	Selenium	0.62	
E03-SS-09A	Tin	19.3	
E03-SS-09A	Vanadium	1.5	
E03-SS-09A	Zinc	12.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-09A	Benzo(a)anthracene	111	J
E03-SS-09A	Benzo(a)pyrene	90.8	J
E03-SS-09A	Chrysene	110	J
E03-SS-09A	Fluoranthene	260	J
E03-SS-09A	Phenanthrene	134	J
E03-SS-09A	Pyrene	234	J

Location	Parameter	Result	Qual(*)
INORGANICS (mg/kg)			
E03-SS-09B	Aluminum	186	
E03-SS-09B	Arsenic	0.63	
E03-SS-09B	Barium	16.4	
E03-SS-09B	Cadmium	0.08	
E03-SS-09B	Chromium	2.1	
E03-SS-09B	Copper	40	
E03-SS-09B	Iron	392	
E03-SS-09B	Lead	16.9	
E03-SS-09B	Manganese	4.3	
E03-SS-09B	Nickel	1.5	
E03-SS-09B	Selenium	0.79	
E03-SS-09B	Tin	12.6	
E03-SS-09B	Vanadium	1.4	
E03-SS-09B	Zinc	17.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-09B	Fluoranthene	72	J
E03-SS-09B	Pyrene	62.8	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-09B	Benzene	2	J
E03-SS-09B	Toluene	2.1	J
INORGANICS (mg/kg)			
E03-SS-09C	Aluminum	115	
E03-SS-09C	Arsenic	0.71	
E03-SS-09C	Barium	13	
E03-SS-09C	Cadmium	0.07	
E03-SS-09C	Chromium	1.8	
E03-SS-09C	Copper	4.1	
E03-SS-09C	Iron	123	
E03-SS-09C	Lead	2.9	

TABLE 2-2

CHEMICALS DETECTED IN BUILDING 102 SOIL
NAS KEY WEST
PAGE 4 OF 5

Location	Parameter	Result	Qual(*)
E03-SS-09C	Manganese	2.6	
E03-SS-09C	Nickel	0.86	
E03-SS-09C	Selenium	0.83	
E03-SS-09C	Tin	0.79	
E03-SS-09C	Vanadium	1.4	
E03-SS-09C	Zinc	8.7	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-09C	2-methylnaphthalene	63500	
E03-SS-09C	Acenaphthene	11500	
E03-SS-09C	Anthracene	3690	J
E03-SS-09C	Benzo(a)anthracene	905	J
E03-SS-09C	Chrysene	702	J
E03-SS-09C	Fluoranthene	4700	
E03-SS-09C	Fluorene	11100	
E03-SS-09C	Naphthalene	51200	
E03-SS-09C	Phenanthrene	22600	
E03-SS-09C	Pyrene	3660	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-09C	Tetrachloroethene	196	
INORGANICS (mg/kg)			
E03-SS-10-A	Aluminum	952	
E03-SS-10-A	Arsenic	2.2	
E03-SS-10-A	Barium	19.1	
E03-SS-10-A	Cadmium	0.9	
E03-SS-10-A	Chromium	4.8	
E03-SS-10-A	Cobalt	1.4	
E03-SS-10-A	Copper	32.3	
E03-SS-10-A	Iron	6600	
E03-SS-10-A	Lead	51.1	
E03-SS-10-A	Manganese	64.6	

Location	Parameter	Result	Qual(*)
E03-SS-10-A	Nickel	4.3	
E03-SS-10-A	Tin	5.6	
E03-SS-10-A	Vanadium	2.7	
E03-SS-10-A	Zinc	83.2	
INORGANICS (mg/kg)			
E03-SS-10-B	Aluminum	246	
E03-SS-10-B	Arsenic	0.75	
E03-SS-10-B	Barium	16.8	
E03-SS-10-B	Cadmium	0.15	
E03-SS-10-B	Chromium	2.4	
E03-SS-10-B	Copper	7.7	
E03-SS-10-B	Iron	390	
E03-SS-10-B	Lead	12.6	
E03-SS-10-B	Manganese	4.6	
E03-SS-10-B	Nickel	1	
E03-SS-10-B	Tin	5.8	
E03-SS-10-B	Vanadium	1.4	
E03-SS-10-B	Zinc	13.1	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-10-B	Trichloroethene	2	J
INORGANICS (mg/kg)			
E03-SS-10-C	Aluminum	125	
E03-SS-10-C	Arsenic	0.68	
E03-SS-10-C	Barium	14.8	
E03-SS-10-C	Cadmium	0.09	
E03-SS-10-C	Chromium	1.7	
E03-SS-10-C	Copper	2.4	
E03-SS-10-C	Iron	174	
E03-SS-10-C	Lead	2.2	
E03-SS-10-C	Manganese	3	

TABLE 2-2

CHEMICALS DETECTED IN BUILDING 102 SOIL
NAS KEY WEST
PAGE 5 OF 5

Location	Parameter	Result	Qual(*)
E03-SS-10-C	Nickel	1.8	
E03-SS-10-C	Tin	2.3	
E03-SS-10-C	Vanadium	0.91	
E03-SS-10-C	Zinc	7.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-10-C	2-methylnaphthalene	26000	
E03-SS-10-C	Anthracene	1960	J
E03-SS-10-C	Benzo(a)anthracene	621	J
E03-SS-10-C	Chrysene	704	J
E03-SS-10-C	Fluoranthene	2700	
E03-SS-10-C	Fluorene	6370	
E03-SS-10-C	Naphthalene	5700	
E03-SS-10-C	Phenanthrene	10900	
E03-SS-10-C	Pyrene	2620	

Shading - Indicates a concentration in excess of the selected screening value.
*Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 2-3

CHEMICALS DETECTED IN BUILDING 103 SOIL
NAS KEY WEST
Page 1 OF 5

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E09-SS-05C	Aluminum	1810	
E09-SS-05C	Arsenic	3.6	
E09-SS-05C	Barium	20	
E09-SS-05C	Chromium	10.5	
E09-SS-05C	Cobalt	5.6	
E09-SS-05C	Copper	6	
E09-SS-05C	Iron	5940	
E09-SS-05C	Lead	9.6	
E09-SS-05C	Manganese	41.2	
E09-SS-05C	Nickel	3.3	
E09-SS-05C	Selenium	0.98	
E09-SS-05C	Tin	0.82	
E09-SS-05C	Vanadium	7.6	
E09-SS-05C	Zinc	19.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-05C	Bis(2-ethylhexyl)phthalate	1300	
PCB COMPOUNDS (µg/kg)			
E09-SS-05C	Aroclor-1254	21	J
INORGANICS (mg/kg)			
E09-SS-06B	Aluminum	870	
E09-SS-06B	Arsenic	1.9	
E09-SS-06B	Barium	22.4	
E09-SS-06B	Cadmium	0.09	
E09-SS-06B	Chromium	4.1	
E09-SS-06B	Cobalt	0.46	
E09-SS-06B	Copper	22.1	
E09-SS-06B	Iron	2870	
E09-SS-06B	Lead	83	
E09-SS-06B	Manganese	33.4	
E09-SS-06B	Nickel	1.7	
E09-SS-06B	Selenium	0.98	
E09-SS-06B	Tin	2.8	
E09-SS-06B	Vanadium	4.3	
E09-SS-06B	Zinc	39.1	
INORGANICS (mg/kg)			
E09-SS-06C	Aluminum	325	
E09-SS-06C	Barium	36.9	
E09-SS-06C	Cadmium	0.71	
E09-SS-06C	Chromium	3.5	
E09-SS-06C	Cobalt	0.11	
E09-SS-06C	Copper	4.4	
E09-SS-06C	Iron	4380	
E09-SS-06C	Lead	10.7	
E09-SS-06C	Manganese	18.8	
E09-SS-06C	Nickel	2.1	
E09-SS-06C	Selenium	0.89	
E09-SS-06C	Tin	2.3	
E09-SS-06C	Vanadium	2.1	
E09-SS-06C	Zinc	20.2	
INORGANICS (mg/kg)			
E09-SS-08C	Aluminum	166	
E09-SS-08C	Barium	33.8	
E09-SS-08C	Cadmium	0.12	
E09-SS-08C	Chromium	2.4	
E09-SS-08C	Cobalt	0.14	
E09-SS-08C	Copper	1.3	
E09-SS-08C	Iron	125	
E09-SS-08C	Lead	1.2	
E09-SS-08C	Manganese	2.4	

TABLE 2-3

CHEMICALS DETECTED IN BUILDING 103 SOIL
NAS KEY WEST
Page 2 OF 5

Location	Parameter	Result	Qual. (*)
E09-SS-08C	Selenium	1.4	
E09-SS-08C	Tin	1.2	
E09-SS-08C	Vanadium	0.98	
E09-SS-08C	Zinc	15.4	
INORGANICS (mg/kg)			
E09-SS-09A	Aluminum	327	
E09-SS-09A	Arsenic	2.9	
E09-SS-09A	Barium	18.7	
E09-SS-09A	Cadmium	0.07	
E09-SS-09A	Chromium	4.8	
E09-SS-09A	Cobalt	0.42	
E09-SS-09A	Copper	22.1	
E09-SS-09A	Iron	13700	
E09-SS-09A	Lead	101	
E09-SS-09A	Manganese	61.3	
E09-SS-09A	Nickel	1.2	
E09-SS-09A	Selenium	0.98	
E09-SS-09A	Tin	7	
E09-SS-09A	Vanadium	7.6	
E09-SS-09A	Zinc	71.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-09A	Diethyl phthalate	979	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-09A	Tetrachloroethene	4.2	
INORGANICS (mg/kg)			
E09-SS-09B	Aluminum	1300	
E09-SS-09B	Arsenic	3	
E09-SS-09B	Barium	36.1	
E09-SS-09B	Cadmium	0.23	
E09-SS-09B	Chromium	7.5	

Location	Parameter	Result	Qual. (*)
E09-SS-09B	Cobalt	0.34	
E09-SS-09B	Copper	18.1	
E09-SS-09B	Iron	2010	
E09-SS-09B	Lead	109	
E09-SS-09B	Manganese	17.4	
E09-SS-09B	Nickel	2.5	
E09-SS-09B	Selenium	1.3	
E09-SS-09B	Tin	5.9	
E09-SS-09B	Vanadium	7.7	
E09-SS-09B	Zinc	84.3	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-09B	Benzene	2.4	J
INORGANICS (mg/kg)			
E09-SS-09C	Aluminum	128	
E09-SS-09C	Barium	13	
E09-SS-09C	Chromium	1.6	
E09-SS-09C	Cobalt	0.11	
E09-SS-09C	Copper	0.69	
E09-SS-09C	Iron	92.3	
E09-SS-09C	Lead	1.1	
E09-SS-09C	Manganese	2.5	
E09-SS-09C	Nickel	0.32	
E09-SS-09C	Selenium	1.2	
E09-SS-09C	Tin	1.8	
E09-SS-09C	Vanadium	0.51	
E09-SS-09C	Zinc	17.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-09C	Diethyl phthalate	1680	J
INORGANICS (mg/kg)			
E09-SS-09D	Aluminum	46.6	

TABLE 2-3

CHEMICALS DETECTED IN BUILDING 103 SOIL
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
E09-SS-09D	Barium	14.7	
E09-SS-09D	Chromium	2.1	
E09-SS-09D	Cobalt	0.09	
E09-SS-09D	Copper	0.44	
E09-SS-09D	Iron	59.9	
E09-SS-09D	Lead	0.58	
E09-SS-09D	Manganese	1.4	
E09-SS-09D	Nickel	0.22	
E09-SS-09D	Selenium	1.1	
E09-SS-09D	Vanadium	0.43	
E09-SS-09D	Zinc	10.5	
INORGANICS (mg/kg)			
E09-SS-10A	Aluminum	493	
E09-SS-10A	Barium	43.7	
E09-SS-10A	Cadmium	0.34	
E09-SS-10A	Chromium	4.3	
E09-SS-10A	Cobalt	0.24	
E09-SS-10A	Copper	18.4	
E09-SS-10A	Iron	986	
E09-SS-10A	Lead	146	
E09-SS-10A	Manganese	11.9	
E09-SS-10A	Nickel	1.6	
E09-SS-10A	Selenium	0.84	
E09-SS-10A	Tin	4.5	
E09-SS-10A	Vanadium	3.2	
E09-SS-10A	Zinc	96.8	
INORGANICS (mg/kg)			
E09-SS-10B	Aluminum	2130	
E09-SS-10B	Arsenic	3.9	
E09-SS-10B	Barium	38.6	

Location	Parameter	Result	Qual. (*)
E09-SS-10B	Cadmium	0.18	
E09-SS-10B	Chromium	11	
E09-SS-10B	Cobalt	0.33	
E09-SS-10B	Copper	21	
E09-SS-10B	Iron	2240	
E09-SS-10B	Lead	75.3	
E09-SS-10B	Manganese	24.2	
E09-SS-10B	Nickel	2.9	
E09-SS-10B	Selenium	1.7	
E09-SS-10B	Tin	6.5	
E09-SS-10B	Vanadium	10.3	
E09-SS-10B	Zinc	58.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-10B	2-methylnaphthalene	265	J
E09-SS-10B	Naphthalene	339	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-10B	Benzene	10.2	
E09-SS-10B	Ethylbenzene	6.3	
INORGANICS (mg/kg)			
E09-SS-10C	Aluminum	595	
E09-SS-10C	Arsenic	2.4	
E09-SS-10C	Barium	54.6	
E09-SS-10C	Cadmium	0.24	
E09-SS-10C	Chromium	5.4	
E09-SS-10C	Cobalt	0.22	
E09-SS-10C	Copper	5.3	
E09-SS-10C	Iron	1040	
E09-SS-10C	Lead	31.2	
E09-SS-10C	Manganese	16.2	
E09-SS-10C	Nickel	1.6	

TABLE 2-3

CHEMICALS DETECTED IN BUILDING 103 SOIL
NAS KEY WEST
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Location	Parameter	Result	Qual. (*)
E09-SS-10C	Selenium	1.4	
E09-SS-10C	Tin	4	
E09-SS-10C	Vanadium	6.4	
E09-SS-10C	Zinc	70.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-10C	2-methylnaphthalene	11900	
E09-SS-10C	Diethyl phthalate	1670	J
E09-SS-10C	Fluorene	1820	J
E09-SS-10C	Phenanthrene	3380	J
INORGANICS (mg/kg)			
E09-SS-10D	Aluminum	127	
E09-SS-10D	Barium	50	
E09-SS-10D	Chromium	2.4	
E09-SS-10D	Copper	0.62	
E09-SS-10D	Iron	59.7	
E09-SS-10D	Lead	0.84	
E09-SS-10D	Manganese	1.2	
E09-SS-10D	Nickel	0.36	
E09-SS-10D	Selenium	1.4	
E09-SS-10D	Tin	1.2	
E09-SS-10D	Vanadium	0.56	
E09-SS-10D	Zinc	14.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-10D	2-methylnaphthalene	298	J
INORGANICS (mg/kg)			
E09-SS-11B	Aluminum	2690	
E09-SS-11B	Arsenic	2	
E09-SS-11B	Barium	26.8	
E09-SS-11B	Beryllium	0.28	
E09-SS-11B	Cadmium	0.12	

Location	Parameter	Result	Qual. (*)
E09-SS-11B	Chromium	8.2	
E09-SS-11B	Cobalt	1.1	
E09-SS-11B	Copper	5.4	
E09-SS-11B	Iron	2990	
E09-SS-11B	Lead	11.4	
E09-SS-11B	Manganese	20.3	
E09-SS-11B	Nickel	2.2	
E09-SS-11B	Selenium	0.82	
E09-SS-11B	Tin	1.8	
E09-SS-11B	Vanadium	9	
E09-SS-11B	Zinc	35.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-11B	Anthracene	12600	J
E09-SS-11B	Benzo(a)anthracene	85400	
E09-SS-11B	Benzo(a)pyrene	70800	
E09-SS-11B	Benzo(b)fluoranthene	88600	
E09-SS-11B	Benzo(g,h,i)perylene	22800	
E09-SS-11B	Benzo(k)fluoranthene	34300	
E09-SS-11B	Carbazole	11100	J
E09-SS-11B	Chrysene	76600	
E09-SS-11B	Fluoranthene	108000	
E09-SS-11B	Indeno(1,2,3-cd)pyrene	29800	
E09-SS-11B	Phenanthrene	38000	
E09-SS-11B	Pyrene	90300	
INORGANICS (mg/kg)			
E09-SS-11C	Aluminum	422	
E09-SS-11C	Barium	22.7	
E09-SS-11C	Cadmium	0.25	
E09-SS-11C	Chromium	5.5	
E09-SS-11C	Cobalt	0.27	

TABLE 2-3

CHEMICALS DETECTED IN BUILDING 103 SOIL
NAS KEY WEST
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Location	Parameter	Result	Qual. (*)
E09-SS-11C	Copper	7.6	
E09-SS-11C	Iron	2060	
E09-SS-11C	Lead	30.5	
E09-SS-11C	Manganese	13.9	
E09-SS-11C	Nickel	1.6	
E09-SS-11C	Selenium	1.1	
E09-SS-11C	Tin	1.7	
E09-SS-11C	Vanadium	24.2	
E09-SS-11C	Zinc	31.5	
INORGANICS (mg/kg)			
E09-SS-11D	Aluminum	272	
E09-SS-11D	Barium	192	
E09-SS-11D	Cadmium	2	
E09-SS-11D	Chromium	3.7	
E09-SS-11D	Copper	6.9	
E09-SS-11D	Iron	411	
E09-SS-11D	Lead	9.2	
E09-SS-11D	Manganese	5.8	
E09-SS-11D	Nickel	0.88	
E09-SS-11D	Selenium	1.2	
E09-SS-11D	Tin	1.6	
E09-SS-11D	Vanadium	2.8	
E09-SS-11D	Zinc	20.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-11D	Benzo(a)anthracene	235	J
E09-SS-11D	Benzo(a)pyrene	249	J
E09-SS-11D	Benzo(b)fluoranthene	361	J
E09-SS-11D	Benzo(k)fluoranthene	127	J
E09-SS-11D	Chrysene	222	J
E09-SS-11D	Diethyl phthalate	251	J
E09-SS-11D	Fluoranthene	377	J
E09-SS-11D	Pyrene	367	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E09-SS-11D	Benzene	1.7	J

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABL[illegible]-4

CHEMICALS DETECTED IN BUILDING 104 SOIL
NAS KEY WEST
PAGE 1 OF 5

Location	Parameter	Result	Qual(*)
INORGANICS (mg/kg)			
E03-SS-11-A	Aluminum	188	
E03-SS-11-A	Barium	9.2	
E03-SS-11-A	Cadmium	0.06	
E03-SS-11-A	Chromium	2.3	
E03-SS-11-A	Cobalt	6.1	
E03-SS-11-A	Copper	2.3	
E03-SS-11-A	Iron	303	
E03-SS-11-A	Lead	5.9	
E03-SS-11-A	Manganese	5	
E03-SS-11-A	Silver	0.34	
E03-SS-11-A	Tin	0.9	
E03-SS-11-A	Vanadium	1.5	
E03-SS-11-A	Zinc	12.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-11-A	Acenaphthene	279	J
E03-SS-11-A	Anthracene	636	
E03-SS-11-A	Benzo(a)anthracene	3940	
E03-SS-11-A	Benzo(a)pyrene	2610	
E03-SS-11-A	Benzo(b)fluoranthene	4540	
E03-SS-11-A	Benzo(g,h,i)perylene	873	
E03-SS-11-A	Benzo(k)fluoranthene	2310	
E03-SS-11-A	Carbazole	278	J
E03-SS-11-A	Chrysene	3880	
E03-SS-11-A	Dibenzofuran	70.5	J
E03-SS-11-A	Fluoranthene	6810	
E03-SS-11-A	Indeno(1,2,3-cd)pyrene	789	
E03-SS-11-A	Phenanthrene	2090	
E03-SS-11-A	Pyrene	5850	

Location	Parameter	Result	Qual(*)
INORGANICS (mg/kg)			
E03-SS-11-B	Aluminum	111	
E03-SS-11-B	Arsenic	0.49	
E03-SS-11-B	Barium	14.6	
E03-SS-11-B	Chromium	1.7	
E03-SS-11-B	Copper	3.1	
E03-SS-11-B	Iron	90.4	
E03-SS-11-B	Lead	4.1	
E03-SS-11-B	Manganese	2.4	
E03-SS-11-B	Tin	1.7	
E03-SS-11-B	Vanadium	1.4	
E03-SS-11-B	Zinc	6	
INORGANICS (mg/kg)			
E03-SS-11-C	Aluminum	197	
E03-SS-11-C	Arsenic	0.46	
E03-SS-11-C	Barium	15	
E03-SS-11-C	Cadmium	0.1	
E03-SS-11-C	Chromium	2.1	
E03-SS-11-C	Copper	10.6	
E03-SS-11-C	Iron	374	
E03-SS-11-C	Lead	6.5	
E03-SS-11-C	Manganese	4.5	
E03-SS-11-C	Nickel	1.1	
E03-SS-11-C	Tin	4.1	
E03-SS-11-C	Vanadium	1.8	
E03-SS-11-C	Zinc	22.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-11-C	Acenaphthene	2130	
E03-SS-11-C	Benzo(a)anthracene	544	J
E03-SS-11-C	Fluoranthene	2880	

TABLE 2-4

CHEMICALS DETECTED IN BUILDING 104 SOIL
NAS KEY WEST
PAGE 2 OF 5

Location	Parameter	Result	Qual(*)
E03-SS-11-C	Fluorene	1450	J
E03-SS-11-C	Phenanthrene	954	J
E03-SS-11-C	Pyrene	3060	
VOLATILE ORGANIC COMPOUNDS (μg/kg)			
E03-SS-11-C	*Benzene*	*1.3*	*J*
INORGANICS (mg/kg)			
E03-SS-12-A	Aluminum	282	
E03-SS-12-A	Arsenic	0.5	
E03-SS-12-A	Barium	14.3	
E03-SS-12-A	Cadmium	4.9	
E03-SS-12-A	Chromium	2.7	
E03-SS-12-A	Cobalt	0.56	
E03-SS-12-A	Copper	5.6	
E03-SS-12-A	Iron	375	
E03-SS-12-A	Lead	17.6	
E03-SS-12-A	Manganese	5.7	
E03-SS-12-A	Tin	2.9	
E03-SS-12-A	Vanadium	1.8	
E03-SS-12-A	Zinc	17.5	
SEMIVOLATILE ORGANIC COMPOUNDS (μg/kg)			
E03-SS-12-A	Benzo(a)anthracene	67.6	J
E03-SS-12-A	Chrysene	68.2	J
E03-SS-12-A	Fluoranthene	102	J
E03-SS-12-A	Pyrene	152	J
INORGANICS (mg/kg)			
E03-SS-12-B	Aluminum	174	
E03-SS-12-B	Arsenic	0.51	
E03-SS-12-B	Barium	19.9	
E03-SS-12-B	Cadmium	2.8	
E03-SS-12-B	Chromium	1.9	

Location	Parameter	Result	Qual(*)
E03-SS-12-B	Copper	5.8	
E03-SS-12-B	Iron	317	
E03-SS-12-B	Lead	14.8	
E03-SS-12-B	Manganese	7	
E03-SS-12-B	Nickel	1.2	
E03-SS-12-B	Tin	2.6	
E03-SS-12-B	Vanadium	1.4	
E03-SS-12-B	Zinc	25	
INORGANICS (mg/kg)			
E03-SS-12-C Avg	Aluminum	136.5	
E03-SS-12-C Avg	Arsenic	0.695	
E03-SS-12-C Avg	Barium	14.8	
E03-SS-12-C Avg	Cadmium	0.045	
E03-SS-12-C Avg	Chromium	1.75	
E03-SS-12-C Avg	Copper	1.95	
E03-SS-12-C Avg	Iron	126	
E03-SS-12-C Avg	Lead	2.35	
E03-SS-12-C Avg	Manganese	3	
E03-SS-12-C Avg	Tin	0.855	
E03-SS-12-C Avg	Vanadium	1.35	
E03-SS-12-C Avg	Zinc	9.85	
SEMIVOLATILE ORGANIC COMPOUNDS (μg/kg)			
E03-SS-12-C Avg	Acenaphthene	10390	
E03-SS-12-C Avg	Anthracene	4935	
E03-SS-12-C Avg	Benzo(a)anthracene	2645	
E03-SS-12-C Avg	Benzo(a)pyrene	1342	
E03-SS-12-C Avg	Benzo(b)fluoranthene	1229.5	J[2]
E03-SS-12-C Avg	Benzo(k)fluoranthene	1057	J[2]
E03-SS-12-C Avg	Chrysene	2528.5	
E03-SS-12-C Avg	Fluoranthene	13690	

TABLE 2-4

CHEMICALS DETECTED IN BUILDING 104 SOIL
NAS KEY WEST
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Location	Parameter	Result	Qual(*)
E03-SS-12-C. Avg	Fluorene	10905	
E03-SS-12-C Avg	Phenanthrene	2954.5	
E03-SS-12-C Avg	Pyrene	9260	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-12-C Avg	Chloroform	168	J
E03-SS-12-C Avg	Tetrachloroethene	197	
INORGANICS (mg/kg)			
E03-SS-13A	Aluminum	188	
E03-SS-13A	Barium	12.5	
E03-SS-13A	Cadmium	509	
E03-SS-13A	Chromium	4.6	
E03-SS-13A	Cobalt	3	
E03-SS-13A	Copper	232	
E03-SS-13A	Iron	1030	
E03-SS-13A	Lead	42	
E03-SS-13A	Manganese	12.7	
E03-SS-13A	Mercury	0.08	
E03-SS-13A	Nickel	12.9	
E03-SS-13A	Selenium	0.86	
E03-SS-13A	Silver	0.29	
E03-SS-13A	Tin	2.3	
E03-SS-13A	Vanadium	1.1	
E03-SS-13A	Zinc	572	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-13A	Benzo(a)anthracene	66.9	J
E03-SS-13A	Chrysene	87.3	J
E03-SS-13A	Fluoranthene	73.4	J
E03-SS-13A	Pyrene	82.4	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-13A	Benzene	1.3	J

Location	Parameter	Result	Qual(*)
INORGANICS (mg/kg)			
E03-SS-13B	Aluminum	144	
E03-SS-13B	Arsenic	0.42	
E03-SS-13B	Barium	13.7	
E03-SS-13B	Cadmium	59.6	
E03-SS-13B	Chromium	42	
E03-SS-13B	Cobalt	2.8	
E03-SS-13B	Copper	24.7	
E03-SS-13B	Iron	489	
E03-SS-13B	Lead	285	
E03-SS-13B	Manganese	5.2	
E03-SS-13B	Nickel	4.4	
E03-SS-13B	Selenium	0.86	
E03-SS-13B	Silver	1.3	
E03-SS-13B	Tin	2.6	
E03-SS-13B	Vanadium	1.2	
E03-SS-13B	Zinc	73.5	
INORGANICS (mg/kg)			
E03-SS-13C	Aluminum	97	
E03-SS-13C	Antimony	8.8	
E03-SS-13C	Barium	11.5	
E03-SS-13C	Cadmium	9.7	
E03-SS-13C	Chromium	47.3	
E03-SS-13C	Cobalt	0.15	
E03-SS-13C	Copper	31.4	
E03-SS-13C	Iron	300	
E03-SS-13C	Lead	726	
E03-SS-13C	Manganese	2.9	
E03-SS-13C	Nickel	1.9	
E03-SS-13C	Selenium	0.86	

TABLE 2-4

CHEMICALS DETECTED IN BUILDING 104 SOIL
NAS KEY WEST
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Location	Parameter	Result	Qual(*)
E03-SS-13C	Silver	8.4	
E03-SS-13C	Tin	2.8	
E03-SS-13C	Vanadium	0.62	
E03-SS-13C	Zinc	43.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-13C	2-methylnaphthalene	12600	
E03-SS-13C	Acenaphthene	13100	
E03-SS-13C	Anthracene	4240	
E03-SS-13C	Benzo(a)anthracene	1920	J
E03-SS-13C	Benzo(a)pyrene	620	J
E03-SS-13C	Benzo(b)fluoranthene	487	J
E03-SS-13C	Benzo(k)fluoranthene	660	J
E03-SS-13C	Carbazole	850	J
E03-SS-13C	Chrysene	1920	J
E03-SS-13C	Dibenzofuran	8260	
E03-SS-13C	Fluoranthene	10200	
E03-SS-13C	Fluorene	11700	
E03-SS-13C	Naphthalene	38800	
E03-SS-13C	Phenanthrene	33000	
E03-SS-13C	Pyrene	9170	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-13C	Ethylbenzene	488	J
E03-SS-13C	Tetrachloroethene	455	J
E03-SS-13C	Trichloroethene	317	J
INORGANICS (mg/kg)			
E03-SS-14-A	Aluminum	419	
E03-SS-14-A	Arsenic	0.89	
E03-SS-14-A	Barium	15.3	
E03-SS-14-A	Cadmium	0.95	
E03-SS-14-A	Chromium	4	

Location	Parameter	Result	Qual(*)
E03-SS-14-A	Cobalt	4.2	
E03-SS-14-A	Copper	13.2	
E03-SS-14-A	Iron	578	
E03-SS-14-A	Lead	232	
E03-SS-14-A	Manganese	6.7	
E03-SS-14-A	Mercury	0.05	
E03-SS-14-A	Nickel	1.8	
E03-SS-14-A	Silver	0.22	
E03-SS-14-A	Tin	2.5	
E03-SS-14-A	Vanadium	3.6	
E03-SS-14-A	Zinc	48.7	
INORGANICS (mg/kg)			
E03-SS-14B	Aluminum	885	
E03-SS-14B	Antimony	14.1	
E03-SS-14B	Arsenic	1.6	
E03-SS-14B	Barium	18.6	
E03-SS-14B	Cadmium	57	
E03-SS-14B	Chromium	218	
E03-SS-14B	Copper	109	
E03-SS-14B	Iron	1690	
E03-SS-14B	Lead	69.9	
E03-SS-14B	Manganese	22.8	
E03-SS-14B	Nickel	40.8	
E03-SS-14B	Silver	8.1	
E03-SS-14B	Tin	7.8	
E03-SS-14B	Vanadium	3.7	
E03-SS-14B	Zinc	261	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-14B	Acenaphthene	32.7	
E03-SS-14B	Benzo(a)anthracene	35.6	

TABLE 2-4

CHEMICALS DETECTED IN BUILDING 104 SOIL
NAS KEY WEST
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Location	Parameter	Result	Qual(*)
E03-SS-14B	Benzo(a)pyrene	47.4	
E03-SS-14B	Benzo(b)fluoranthene	58.8	
E03-SS-14B	Benzo(g,h,i)perylene	40.8	
E03-SS-14B	Benzo(k)fluoranthene	30	J
E03-SS-14B	Chrysene	45.7	
E03-SS-14B	Fluoranthene	42.8	
E03-SS-14B	Indeno(1,2,3-cd)pyrene	30.2	
E03-SS-14B	Naphthalene	159	
E03-SS-14B	Pyrene	50.2	
INORGANICS (mg/kg)			
E03-SS-14-C	Aluminum	1000	
E03-SS-14-C	Arsenic	2.8	
E03-SS-14-C	Barium	31.2	
E03-SS-14-C	Cadmium	0.32	
E03-SS-14-C	Chromium	7.8	
E03-SS-14-C	Copper	18.6	
E03-SS-14-C	Iron	1700	
E03-SS-14-C	Lead	80.4	
E03-SS-14-C	Manganese	15.6	
E03-SS-14-C	Nickel	2.4	
E03-SS-14-C	Tin	5.4	
E03-SS-14-C	Vanadium	11.4	
E03-SS-14-C	Zinc	68.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E03-SS-14-C	Benzo(a)anthracene	96	J
E03-SS-14-C	Benzo(a)pyrene	116	J
E03-SS-14-C	Benzo(b)fluoranthene	114	J
E03-SS-14-C	Benzo(k)fluoranthene	77.6	J
E03-SS-14-C	Chrysene	118	J
E03-SS-14-C	Fluoranthene	118	J

Location	Parameter	Result	Qual(*)
E03-SS-14-C	Pyrene	196	J
E03-SS-14-C	Tetrachloroethene	516	J

Note: For 3-13C Hg is 0.08 without a qualifier.
Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
J^2- The associated value is an average of two samples, one of which is an estimated quantity.

TABLE 2-5

BUILDINGS 102, 103, AND 104 PARAMETER DETECTIONS/EXCEEDANCES
NAS KEY WEST
SOIL

Parameter	Samples	Detects	Exceed
INORGANICS			
Aluminum	39	39	0
Antimony	39	2	0
Arsenic	39	28	6
Barium	39	39	0
Beryllium	39	1	1
Cadmium	39	34	3
Chromium	39	39	0
Cobalt	39	23	0
Copper	39	39	0
Iron	39	39	0
Lead	39	39	1
Manganese	39	39	0
Mercury	39	3	0
Nickel	39	33	0
Selenium	39	24	0
Silver	39	6	0
Tin	39	38	0
Vanadium	39	39	0
Zinc	39	39	0
VOLATILE ORGANIC COMPOUNDS			
Benzene	39	7	0
Chloroform	39	1	0
Ethylbenzene	39	2	0
Tetrachloroethene	39	5	0
Toluene	39	2	0
Trichloroethene	39	1	0
SEMIVOLATILE ORGANIC COMPOUNDS			
2-methylnaphthalene	39	6	0
Acenaphthalene	39	8	0
Anthracene	39	8	0

Parameter	Samples	Detects	Exceed
Acenaphthylene	39	1	0
Benzo(a)anthracene	39	15	4
Benzo(a)pyrene	39	10	8
Benzo(b)fluoranthene	39	9	2
Benzo(g,h,i)perylene	39	4	0
Benzo(k)fluoranthene	39	9	1
Bis(2-ethylhexyl)phthalate	39	1	0
Carbazole	39	3	0
Chrysene	39	15	0
Dibenzofuran	39	2	0
Diethyl pthalate	39	4	0
Fluoranthene	39	16	0
Fluorene	39	8	0
Indeno(1,2,3-cd)pyrene	39	4	1
Naphthalene	39	7	0
Phenanthrene	39	11	0
Pyrene	39	16	0
Trans-1,2-dichloroethene	39	1	0
PESTICIDES/PCBs			
Aroclor-1254	39	1	0

TABLE 2-6

CHEMICALS DETECTED IN BUILDINGS 102, 103, AND 104 GROUNDWATER
NAS KEY WEST
PAGE 1 OF 5

Location	Parameter	Result	Qual. (*)
INORGANICS (µg/l)			
E07-GS-14	Aluminum	394	
E07-GS-14	Arsenic	3.4	
E07-GS-14	Barium	40.3	
E07-GS-14	Chromium	2.3	
E07-GS-14	Cobalt	0.36	
E07-GS-14	Iron	544	
E07-GS-14	Manganese	7.8	
E07-GS-14	Selenium	1.6	
E07-GS-14	Silver	2.9	
E07-GS-14	Tin	13.4	
E07-GS-14	Vanadium	4	
E07-GS-14	Zinc	98.7	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)			
E07-GS-14	Acenaphthene	37.2	
E07-GS-14	Fluorene	18.3	
VOLATILE ORGANIC COUMPOUNDS (µg/l)			
E07-GS-14	Benzene	1.4	J
INORGANICS (µg/l)			
E07-GS-15	Antimony	3.5	
E07-GS-15	Arsenic	3.6	
E07-GS-15	Barium	29.3	
E07-GS-15	Cadmium	18.3	
E07-GS-15	Chromium	3.2	
E07-GS-15	Cobalt	0.9	
E07-GS-15	Copper	2.6	
E07-GS-15	Iron	409	
E07-GS-15	Lead	4.5	
E07-GS-15	Manganese	6.9	
E07-GS-15	Silver	2.5	
E07-GS-15	Tin	9.9	
E07-GS-15	Vanadium	2.6	
E07-GS-15	Zinc	247	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)			
E07-GS-15	Acenaphthene	7.3	J
E07-GS-15	Fluorene	9	J
INORGANICS (µg/l)			
E07-GS-17	Aluminum	1850	
E07-GS-17	Antimony	5	
E07-GS-17	Arsenic	5	
E07-GS-17	Barium	668	
E07-GS-17	Chromium	3.4	
E07-GS-17	Copper	5.1	
E07-GS-17	Iron	598	
E07-GS-17	Lead	6.2	
E07-GS-17	Manganese	4.3	
E07-GS-17	Silver	2	
E07-GS-17	Vanadium	15.2	
E07-GS-17	Zinc	164	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)			
E07-GS-17	2-methylnaphthalene	9.1	J
E07-GS-17	Acenaphthene	10.2	
E07-GS-17	Fluorene	9	J
VOLATILE ORGANIC COUMPOUNDS (µg/l)			
E07-GS-17	Benzene	0.93	J
E07-GS-17	cis-1,2-dichloroethene	3.1	
INORGANICS (µg/l)			
E07-GS-18	Antimony	6.05	
E07-GS-18	Arsenic	2.075	
E07-GS-18	Barium	42.7	

TABLE 2-6

CHEMICALS DETECTED IN BUILDINGS 102, 103, AND 104 GROUNDWATER
NAS KEY WEST
PAGE 2 OF 5

Location	Parameter	Result	Qual. (*)
E07-GS-18	Beryllium	0.51	
E07-GS-18	Chromium	2.35	
E07-GS-18	Cobalt	0.93	
E07-GS-18	Iron	238.5	
E07-GS-18	Lead	6.85	
E07-GS-18	Manganese	8.7	
E07-GS-18	Nickel	1.2	
E07-GS-18	Selenium	1.125	
E07-GS-18	Tin	15.05	
E07-GS-18	Vanadium	6	
E07-GS-18	Zinc	248.5	
INORGANICS (µg/l)			
E07-GS-19	Barium	302	
E07-GS-19	Cadmium	5	
E07-GS-19	Chromium	10.6	
E07-GS-19	Copper	12	
E07-GS-19	Iron	1510	
E07-GS-19	Lead	20.7	
E07-GS-19	Manganese	23.2	
E07-GS-19	Tin	76.6	
E07-GS-19	Vanadium	9.2	
E07-GS-19	Zinc	1100	
INORGANICS (µg/l)			
E07-GS-20	Barium	24.2	
E07-GS-20	Chromium	1.6	
E07-GS-20	Iron	510	
E07-GS-20	Manganese	3.6	
E07-GS-20	Silver	2.7	
E07-GS-20	Tin	9.6	
E07-GS-20	Vanadium	2.3	

Location	Parameter	Result	Qual. (*)
E07-GS-20	Zinc	127	
INORGANICS (µg/l)			
E07-GS-21	Aluminum	2910	
E07-GS-21	Antimony	3.7	
E07-GS-21	Barium	954	
E07-GS-21	Chromium	6.1	
E07-GS-21	Copper	10.3	
E07-GS-21	Iron	524	
E07-GS-21	Lead	5.9	
E07-GS-21	Manganese	5.6	
E07-GS-21	Tin	9.4	
E07-GS-21	Vanadium	5.3	
E07-GS-21	Zinc	203	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)			
E07-GS-21	2-methylnaphthalene	130	
E07-GS-21	Naphthalene	120	
VOLATILE ORGANIC COMPOUNDS (µg/l)			
E07-GS-21	Benzene	2.9	
E07-GS-21	Ethylbenzene	5.5	
E07-GS-21	Toluene	1.5	J
E07-GS-21	Xylenes, total	13	
INORGANICS (µg/L)			
E07-GS-22	Barium	488	
E07-GS-22	Copper	1.6	
E07-GS-22	Iron	423	
E07-GS-22	Manganese	3.8	
E07-GS-22	Nickel	4.8	
E07-GS-22	Zinc	87.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-22	2-methylnaphthalene	82.6	

TABLE 2-6

CHEMICALS DETECTED IN BUILDINGS 102, 103, AND 104 GROUNDWATER
NAS KEY WEST
PAGE 3 OF 5

Location	Parameter	Result	Qual. (*)
E07-GS-22	Acenaphthene	34.1	
E07-GS-22	Fluorene	14.3	J
E07-GS-22	Naphthalene	219	
VOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-22	Benzene	4.4	
E07-GS-22	Cis-1,2-dichloroethene	2	
INORGANICS (µg/L)			
E07-GS-23	Iron	536	
E07-GS-23	Lead	3.6	
E07-GS-23	Zinc	42.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-23	2-methylnaphthalene	61.8	
E07-GS-23	Acenaphthene	9.3	J
E07-GS-23	Fluorene	9.5	J
E07-GS-23	Naphthalene	21.3	
E07-GS-23	Phenanthrene	11.2	
VOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-23	Benzene	2.6	
E07-GS-23	Cis-1,2-dichloroethene	5	
E07-GS-23	Trans-1,2-dichloroethene	3.5	
INORGANICS (µg/L)			
E07-GS-24	Barium	162	
E07-GS-24	Iron	395	
E07-GS-24	Manganese	6	
E07-GS-24	Zinc	40	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-24	2-methylnaphthalene	301	
E07-GS-24	Naphthalene	898	
VOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-24	Benzene	2.7	
E07-GS-24	Cis-1,2-dichloroethene	1.4	J
E07-GS-24	Ethylbenzene	8.3	
E07-GS-24	Xylenes, total	3.9	J
INORGANICS (µg/L)			
E07-GS-25	Arsenic	3.1	
E07-GS-25	Barium	24.1	
E07-GS-25	Iron	413	
E07-GS-25	Lead	2.8	
E07-GS-25	Manganese	19.3	
E07-GS-25	Nickel	1.9	
E07-GS-25	Tin	31	
E07-GS-25	Zinc	34	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-25	2-methylnaphthalene	128	
E07-GS-25	Acenaphthene	13.4	
E07-GS-25	Fluorene	14.1	
E07-GS-25	Naphthalene	62	
E07-GS-25	Phenanthrene	11.5	
INORGANICS (µg/L)			
E07-GS-26	Barium	32.5	
E07-GS-26	Cadmium	0.74	
E07-GS-26	Chromium	6.4	
E07-GS-26	Cobalt	4.6	
E07-GS-26	Iron	482	
E07-GS-26	Manganese	5.8	
E07-GS-26	Nickel	1.8	
E07-GS-26	Zinc	124	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-26	Acenaphthene	15.2	
E07-GS-26	Fluorene	11.1	

TABLE 2-6

CHEMICALS DETECTED IN BUILDINGS 102, 103, AND 104 GROUNDWATER
NAS KEY WEST
PAGE 4 OF 5

Location	Parameter	Result	Qual. (*)
INORGANICS (µg/L)			
E07-GS-27	Aluminum	104	
E07-GS-27	Antimony	7.1	
E07-GS-27	Barium	23.15	
E07-GS-27	Cadmium	0.4	
E07-GS-27	Chromium	2.09	
E07-GS-27	Cobalt	2.225	
E07-GS-27	Iron	664	
E07-GS-27	Lead	2.8	
E07-GS-27	Manganese	4.05	
E07-GS-27	Nickel	2.35	
E07-GS-27	Selenium	2.35	
E07-GS-27	Tin	31.2	
E07-GS-27	Vanadium	1.15	
E07-GS-27	Zinc	63.65	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-27	Acenaphthene	48.4	
E07-GS-27	Fluoranthene	5.95	J
E07-GS-27	Fluorene	37.8	
INORGANICS (µg/L)			
E07-GS-28	Aluminum	224	
E07-GS-28	Barium	25.9	
E07-GS-28	Cadmium	1.5	
E07-GS-28	Chromium	3.4	
E07-GS-28	Cobalt	1	
E07-GS-28	Copper	5.4	
E07-GS-28	Iron	400	
E07-GS-28	Lead	4.6	
E07-GS-28	Manganese	4.4	
E07-GS-28	Tin	10.4	
E07-GS-28	Zinc	98.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-28	Acenaphthene	18.3	
E07-GS-28	Fluoranthene	25.3	
E07-GS-28	Pyrene	12.4	
INORGANICS (µg/L)			
E07-GS-29	Chromium	11.6	
E07-GS-29	Iron	458	
E07-GS-29	Lead	9.1	
E07-GS-29	Manganese	10.1	
E07-GS-29	Selenium	2.6	
E07-GS-29	Vanadium	2.1	
E07-GS-29	Zinc	43.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-29	2-methylnaphthalene	161	
E07-GS-29	Acenaphthene	254	
E07-GS-29	Carbazole	103	
E07-GS-29	Dibenzofuran	175	
E07-GS-29	Fluorene	193	
E07-GS-29	Naphthalene	1200	
E07-GS-29	Phenanthrene	189	
VOLATILE ORGANIC COMPOUNDS (µg/L)			
E07-GS-29	Ethylbenzene	214	
E07-GS-29	Tetrachloroethene	81.9	
E07-GS-29	Trichloroethene	175	
E07-GS-29	Xylenes, total	139	
INORGANICS (µg/l)			
E07-MW-17	Barium	17.7	
E07-MW-17	Chromium	1.4	
E07-MW-17	Iron	223	

TABLE 2-6

CHEMICALS DETECTED IN BUILDINGS 102, 103, AND 104 GROUNDWATER
NAS KEY WEST
PAGE 5 OF 5

Location	Parameter	Result	Qual. (*)
E07-MW-17	Manganese	3.2	
E07-MW-17	Silver	3.3	
E07-MW-17	Tin	15.5	
E07-MW-17	Vanadium	1.2	
E07-MW-17	Zinc	100	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/l)			
E07-MW-17	Fluorene	6	J

Shading - Indicates a concentration in excess of the selected screening value.

* Qualifier (Qual.) Codes:

J - The associated value is an estimated quantity.

TABLE 2-7

BUILDINGS 102, 103, AND 104 GROUNDWATER
NAS KEY WEST

Parameter	Samples	Detects	Exceed
INORGANICS			
Aluminum	16	5	0
Antimony	16	5	2
Arsenic	16	5	0
Barium	16	14	0
Beryllium	16	1	0
Cadmium	16	5	2
Chromium	16	12	0
Cobalt	16	6	0
Copper	16	6	0
Iron	16	16	0
Lead	16	10	1
Manganese	16	15	0
Nickel	16	5	0
Selenium	16	4	0
Silver	16	5	0
Tin	16	10	0
Vanadium	16	10	0
Zinc	16	16	0
VOLATILE ORGANIC COMPOUNDS			
Benzene	16	6	5
Cis-1,2-dichloroethene	16	4	0
Ethylbenzene	16	2	0
Tetrachloroethene	16	1	1
Toluene	16	1	0
Trichloroethene	16	1	1
Xylenes, total	16	3	0
SEMIVOLATILE ORGANIC COMPOUNDS			
2-methylnaphthalene	16	7	0
Acenaphthalene	16	10	0
Carbazole	16	1	1
Dibenzofuran	16	1	1
Fluoranthene	16	2	0
Fluorene	16	10	0
Naphthalene	16	6	0
Phenanthrene	16	3	3
Pyrene	16	1	0

TABLE 2-8

CHEMICALS DETECTED ON SURFACES IN BUILDINGS 102, 103, AND 104
PAGE 1 OF 5

Sample	Parameter	Result	Qual
INORGANICS (µg)			
102-SWP-01	Aluminum	263	
102-SWP-01	Antimony	135	
102-SWP-01	Barium	60.6	
102-SWP-01	Cadmium	5.2	
102-SWP-01	Calcium	6690	
102-SWP-01	Chromium	48.6	
102-SWP-01	Cobalt	9	
102-SWP-01	Copper	79	
102-SWP-01	Iron	4030	
102-SWP-01	Lead	3650	
102-SWP-01	Magnesium	347	
102-SWP-01	Manganese	27.6	
102-SWP-01	Mercury	0.04	
102-SWP-01	Nickel	47.5	
102-SWP-01	Potassium	1120	
102-SWP-01	Selenium	0.12	
102-SWP-01	Silver	1.3	
102-SWP-01	Sodium	822	
102-SWP-01	Tin	7.2	
102-SWP-01	Zinc	2130	
102-SWP-02	Aluminum	252	
102-SWP-02	Antimony	4.4	
102-SWP-02	Barium	11.3	
102-SWP-02	Cadmium	2.1	
102-SWP-02	Calcium	10600	
102-SWP-02	Chromium	7.7	
102-SWP-02	Cobalt	1.9	
102-SWP-02	Copper	48.6	
102-SWP-02	Iron	468	
102-SWP-02	Lead	98.9	
102-SWP-02	Magnesium	247	
102-SWP-02	Manganese	8	
102-SWP-02	Mercury	0.02	
102-SWP-02	Nickel	4.4	
102-SWP-02	Potassium	105	
102-SWP-02	Selenium	0.14	
102-SWP-02	Sodium	283	
102-SWP-02	Tin	9	
102-SWP-02	Vanadium	1.3	
102-SWP-02	Zinc	285	
SEMIVOLATILE ORGANIC COMPOUNDS (µg)			
102-SWP-02	Bis(2-ethylhexyl)phthalate	50500	
102-SWP-02	Dimethyl phthalate	36400	J
INORGANICS (µg)			
102-SWP-03	Aluminum	143	
102-SWP-03	Antimony	12	
102-SWP-03	Barium	109	
102-SWP-03	Cadmium	12.1	
102-SWP-03	Calcium	6520	
102-SWP-03	Chromium	15	
102-SWP-03	Cobalt	9.5	
102-SWP-03	Copper	42.5	
102-SWP-03	Iron	1130	
102-SWP-03	Lead	530	
102-SWP-03	Magnesium	212	
102-SWP-03	Manganese	8.9	
102-SWP-03	Mercury	0.26	
102-SWP-03	Nickel	2.6	
102-SWP-03	Potassium	222	
102-SWP-03	Selenium	0.27	
102-SWP-03	Sodium	1320	
102-SWP-03	Tin	3.2	
102-SWP-03	Vanadium	4	

TABLE 2-8

CHEMICALS DETECTED ON SURFACES IN BUILDINGS 102, 103, AND 104
PAGE 2 OF 5

Sample	Parameter	Result	Qual
102-SWP-03	Zinc	4050	
SEMIVOLATILE ORGANIC COMPOUNDS (µg)			
102-SWP-03	Butylbenzyl phthalate	52400	
102-SWP-03	Dimethyl phthalate	27900	J
INORGANICS (µg)			
102-SWP-04	Aluminum	1170	
102-SWP-04	Antimony	7.9	
102-SWP-04	Arsenic	2.3	
102-SWP-04	Barium	135	
102-SWP-04	Cadmium	8.9	
102-SWP-04	Calcium	48900	
102-SWP-04	Chromium	17.3	
102-SWP-04	Cobalt	2.9	
102-SWP-04	Copper	31.9	
102-SWP-04	Iron	3040	
102-SWP-04	Lead	172	
102-SWP-04	Magnesium	1250	
102-SWP-04	Manganese	60.9	
102-SWP-04	Mercury	0.02	
102-SWP-04	Nickel	4.6	
102-SWP-04	Potassium	313	
102-SWP-04	Selenium	0.28	
102-SWP-04	Sodium	4370	
102-SWP-04	Tin	6.6	
102-SWP-04	Vanadium	6.6	
102-SWP-04	Zinc	1310	
102-SWP-05	Aluminum	850	
102-SWP-05	Antimony	49.6	
102-SWP-05	Arsenic	12	
102-SWP-05	Barium	286	
102-SWP-05	Cadmium	13.6	
102-SWP-05	Calcium	31300	

Sample	Parameter	Result	Qual
102-SWP-05	Chromium	27.4	
102-SWP-05	Cobalt	3.7	
102-SWP-05	Copper	51.5	
102-SWP-05	Iron	13700	
102-SWP-05	Lead	1050	
102-SWP-05	Magnesium	880	
102-SWP-05	Manganese	92.9	
102-SWP-05	Mercury	0.01	
102-SWP-05	Nickel	9.4	
102-SWP-05	Potassium	226	
102-SWP-05	Selenium	0.12	
102-SWP-05	Silver	0.92	
102-SWP-05	Sodium	2380	
102-SWP-05	Tin	12.8	
102-SWP-05	Vanadium	9	
102-SWP-05	Zinc	1260	
103-SWP-01	Aluminum	478	
103-SWP-01	Antimony	3.8	
103-SWP-01	Arsenic	2.1	
103-SWP-01	Barium	26	
103-SWP-01	Cadmium	1.5	
103-SWP-01	Calcium	7500	
103-SWP-01	Chromium	20.1	
103-SWP-01	Cobalt	1.1	
103-SWP-01	Copper	86.4	
103-SWP-01	Iron	11500	
103-SWP-01	Lead	93.3	
103-SWP-01	Magnesium	263	
103-SWP-01	Manganese	91.5	
103-SWP-01	Mercury	1.8	
103-SWP-01	Nickel	11.8	
103-SWP-01	Potassium	181	

TABLE 2-8

CHEMICALS DETECTED ON SURFACES IN BUILDINGS 102, 103, AND 104
PAGE 3 OF 5

Sample	Parameter	Result	Qual
103-SWP-01	Sodium	324	
103-SWP-01	Tin	1.4	
103-SWP-01	Vanadium	6.7	
103-SWP-01	Zinc	83.1	
PCBs (µg)			
103-SWP-01	Aroclor-1254	24	
SEMIVOLATILE ORGANIC COMPOUNDS (µg)			
103-SWP-01	Bis(2-ethylhexyl)phthalate	225000	
INORGANICS (µg)			
103-SWP-02	Aluminum	138	
103-SWP-02	Antimony	69.8	
103-SWP-02	Barium	97.7	
103-SWP-02	Cadmium	22	
103-SWP-02	Calcium	7380	
103-SWP-02	Chromium	17.7	
103-SWP-02	Cobalt	3.1	
103-SWP-02	Copper	42.8	
103-SWP-02	Iron	3990	
103-SWP-02	Lead	1040	
103-SWP-02	Magnesium	290	
103-SWP-02	Manganese	25.7	
103-SWP-02	Mercury	0.01	
103-SWP-02	Nickel	4.6	
103-SWP-02	Potassium	266	
103-SWP-02	Selenium	0.15	
103-SWP-02	Silver	1.7	
103-SWP-02	Sodium	2220	
103-SWP-02	Tin	5.8	
103-SWP-02	Vanadium	7.4	
103-SWP-02	Zinc	2350	
PCBs (µg)			
103-SWP-02	Aroclor-1254	121	

Sample	Parameter	Result	Qual
INORGANICS (µg)			
103-SWP-03	Aluminum	450	
103-SWP-03	Antimony	12.8	
103-SWP-03	Barium	31	
103-SWP-03	Cadmium	4.4	
103-SWP-03	Calcium	15000	
103-SWP-03	Chromium	10.8	
103-SWP-03	Cobalt	3.8	
103-SWP-03	Copper	113	
103-SWP-03	Iron	5620	
103-SWP-03	Lead	144	
103-SWP-03	Magnesium	445	
103-SWP-03	Manganese	39.3	
103-SWP-03	Mercury	0.07	
103-SWP-03	Nickel	7	
103-SWP-03	Potassium	578	
103-SWP-03	Selenium	0.12	
103-SWP-03	Sodium	1030	
103-SWP-03	Tin	10.2	
103-SWP-03	Vanadium	21.9	
103-SWP-03	Zinc	706	
PCBs (µg)			
103-SWP-03	Aroclor-1254	30.8	
INORGANICS (µg)			
103-SWP-04	Aluminum	588	
103-SWP-04	Antimony	65	
103-SWP-04	Arsenic	9	
103-SWP-04	Barium	335	
103-SWP-04	Cadmium	18.9	
103-SWP-04	Calcium	15900	
103-SWP-04	Chromium	66.5	
103-SWP-04	Cobalt	12.8	

TABLE 2-8

CHEMICALS DETECTED ON SURFACES IN BUILDINGS 102, 103, AND 104
PAGE 4 OF 5

Sample	Parameter	Result	Qual
103-SWP-04	Copper	428	
103-SWP-04	Iron	80000	
103-SWP-04	Lead	729	
103-SWP-04	Magnesium	669	
103-SWP-04	Manganese	280	
103-SWP-04	Mercury	0.01	
103-SWP-04	Nickel	29.4	
103-SWP-04	Potassium	1140	
103-SWP-04	Selenium	4.1	
103-SWP-04	Sodium	2620	
103-SWP-04	Tin	11.2	
103-SWP-04	Vanadium	28.9	
103-SWP-04	Zinc	3100	
PCBs (µg)			
103-SWP-04	Aroclor-1254	429	
SEMIVOLATILE ORGANIC COMPOUNDS (µg)			
103-SWP-04	Fluoranthene	28800	J
INORGANICS (µg)			
104-SWP-01	Aluminum	548	
104-SWP-01	Antimony	14.6	
104-SWP-01	Arsenic	3.8	
104-SWP-01	Barium	207	
104-SWP-01	Cadmium	12.4	
104-SWP-01	Calcium	23400	
104-SWP-01	Chromium	38.4	
104-SWP-01	Cobalt	2.3	
104-SWP-01	Copper	338	
104-SWP-01	Iron	11700	
104-SWP-01	Lead	1080	
104-SWP-01	Magnesium	718	
104-SWP-01	Manganese	79.4	
104-SWP-01	Mercury	0.01	

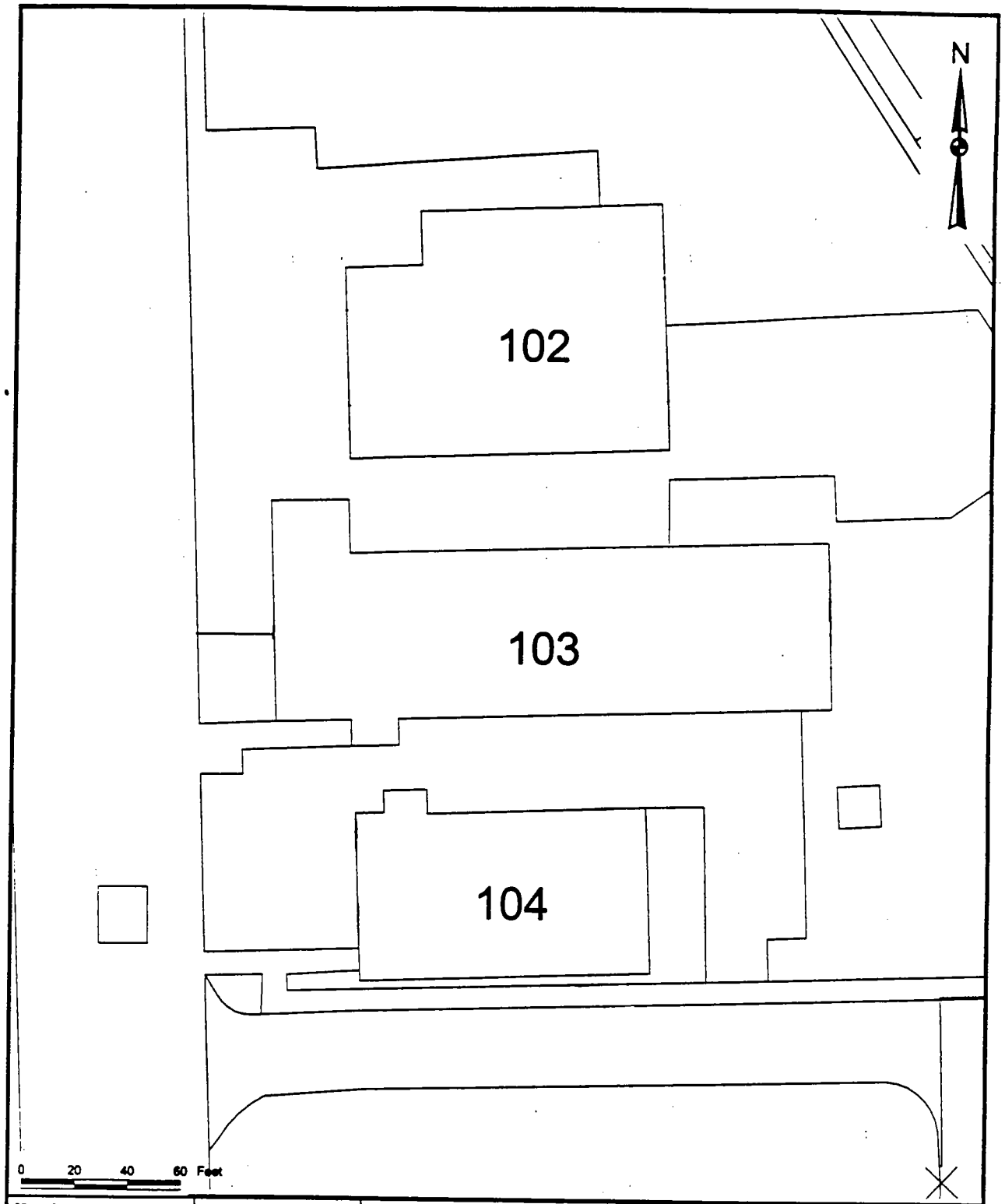
Sample	Parameter	Result	Qual
104-SWP-01	Nickel	32.5	
104-SWP-01	Potassium	741	
104-SWP-01	Selenium	0.28	
104-SWP-01	Silver	1.5	
104-SWP-01	Sodium	2950	
104-SWP-01	Tin	18.3	
104-SWP-01	Vanadium	37.1	
104-SWP-01	Zinc	1840	
SEMIVOLATILE ORGANIC COMPOUNDS (µg)			
104-SWP-01	Anthracene	31500	J
104-SWP-01	Benzo(a)anthracene	100000	
104-SWP-01	Benzo(a)pyrene	84000	
104-SWP-01	Benzo(b)fluoranthene	126000	
104-SWP-01	Benzo(g,h,i)perylene	48000	J
104-SWP-01	Benzo(k)fluoranthene	44200	J
104-SWP-01	Bis(2-ethylhexyl)phthalate	45500	J
104-SWP-01	Carbazole	39000	
104-SWP-01	Chrysene	90300	
104-SWP-01	Fluoranthene	240000	
104-SWP-01	Indeno(1,2,3-cd)pyrene	54700	
104-SWP-01	Phenanthrene	169000	
104-SWP-01	Pyrene	162000	
INORGANICS (µg)			
104-SWP-02	Aluminum	736	
104-SWP-02	Antimony	8.3	
104-SWP-02	Arsenic	3.6	
104-SWP-02	Barium	144	
104-SWP-02	Cadmium	3.5	
104-SWP-02	Calcium	42300	
104-SWP-02	Chromium	28.8	
104-SWP-02	Cobalt	3.9	
104-SWP-02	Copper	161	

TABLE 2-8

CHEMICALS DETECTED ON SURFACES IN BUILDINGS 102, 103, AND 104
PAGE 5 OF 5

Sample	Parameter	Result	Qual
104-SWP-02	Lead	1760	
104-SWP-02	Magnesium	890	
104-SWP-02	Manganese	44.7	
104-SWP-02	Nickel	15.4	
104-SWP-02	Potassium	367	
104-SWP-02	Selenium	0.61	
104-SWP-02	Silver	1.6	
104-SWP-02	Sodium	2180	
104-SWP-02	Tin	12.4	
104-SWP-02	Vanadium	51.1	
104-SWP-02	Zinc	1680	
104-SWP-03	Aluminum	134	
104-SWP-03	Antimony	11.6	
104-SWP-03	Arsenic	2.4	
104-SWP-03	Barium	40.7	
104-SWP-03	Cadmium	2.9	
104-SWP-03	Calcium	5300	
104-SWP-03	Chromium	7.1	
104-SWP-03	Cobalt	0.45	

Sample	Parameter	Result	Qual
104-SWP-03	Copper	25.3	
104-SWP-03	Iron	3420	
104-SWP-03	Lead	1920	
104-SWP-03	Magnesium	138	
104-SWP-03	Manganese	13.8	
104-SWP-03	Mercury	1.6	
104-SWP-03	Nickel	3.1	
104-SWP-03	Potassium	179	
104-SWP-03	Sodium	1030	
104-SWP-03	Tin	3	
104-SWP-03	Vanadium	24.3	
104-SWP-03	Zinc	681	
SEMIVOLATILE ORGANIC COMPOUNDS (µg)			
104-SWP-03	Benzo(a)anthracene	24800	J
104-SWP-03	Benzo(a)pyrene	28600	J
104-SWP-03	Benzo(b)fluoranthene	87600	
104-SWP-03	Chrysene	38500	J
104-SWP-03	Fluoranthene	57200	
104-SWP-03	Pyrene	44600	J



DRAWN BY TMH	DATE 05-AUG-99	SUPPLEMENTAL SITE REPORT BRAC PARCELS AT TRUMAN ANNEX FIGURE 2-1 BRAC PARCEL E - BUILDINGS 102,103, AND 104 NAVY SOUTHERN DIVISION NAS KEY WEST, FLORIDA	CONTRACT NUMBER 7593
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COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO — REV 0

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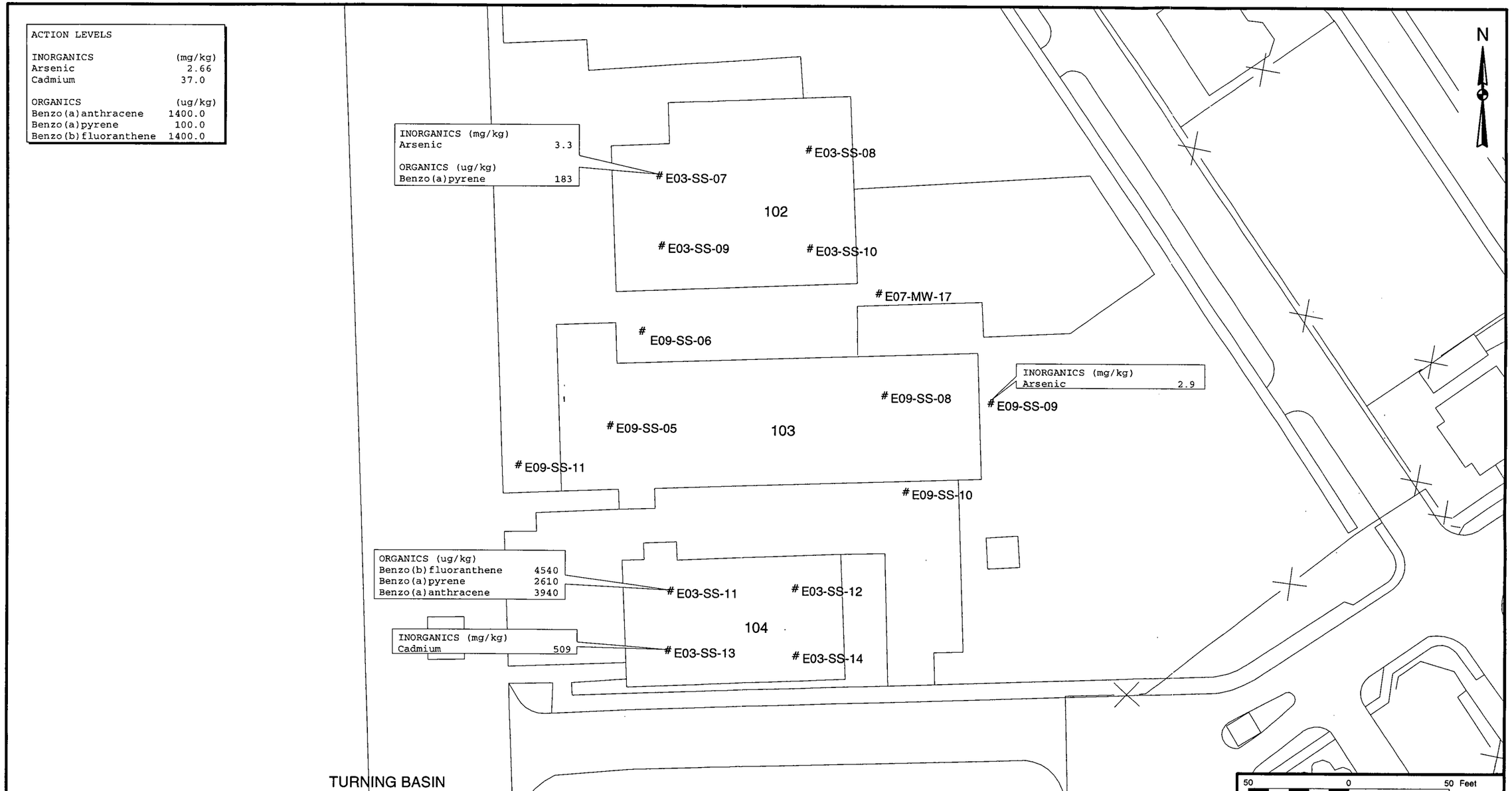
P:\GIS\NAS_KEY_WEST\7563_SSI_FIG.APR 14-DEC-98 DNP E-3 AND E-9 SS A LAYOUT



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SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 2-2. LEVEL A SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL E - BUILDINGS 102, 103, AND 104
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

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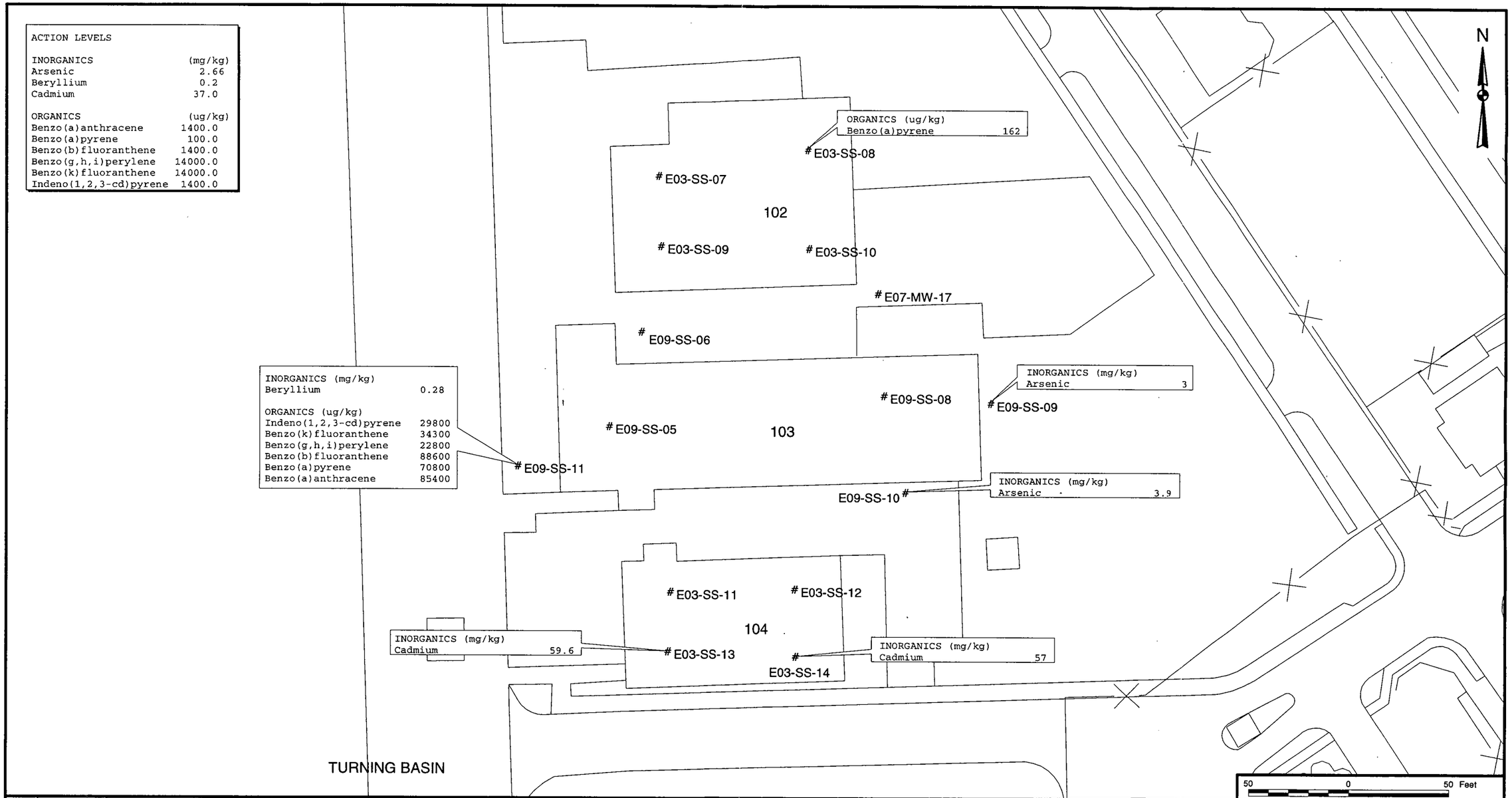

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CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 2-3. LEVEL B SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL E - BUILDINGS 102, 103, AND 104
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.	
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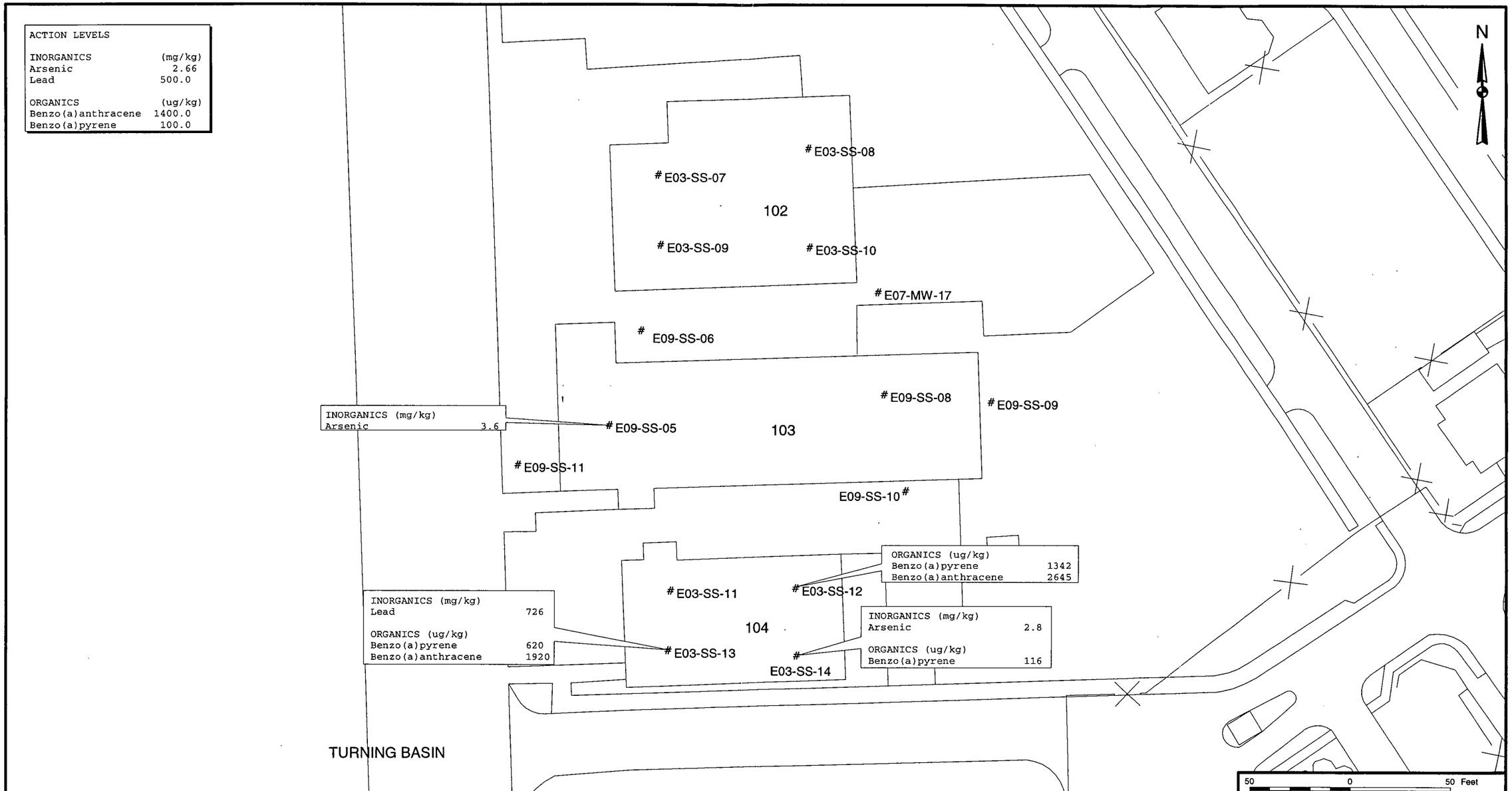
P:\GIS\NAS_KEY_WEST\7563_SSI_FIG.APR 14-DEC-98 DNP E-3 AND E-9 SS C LAYOUT



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SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 2-4. LEVEL C SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL E - BUILDINGS 102, 103, AND 104
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.	
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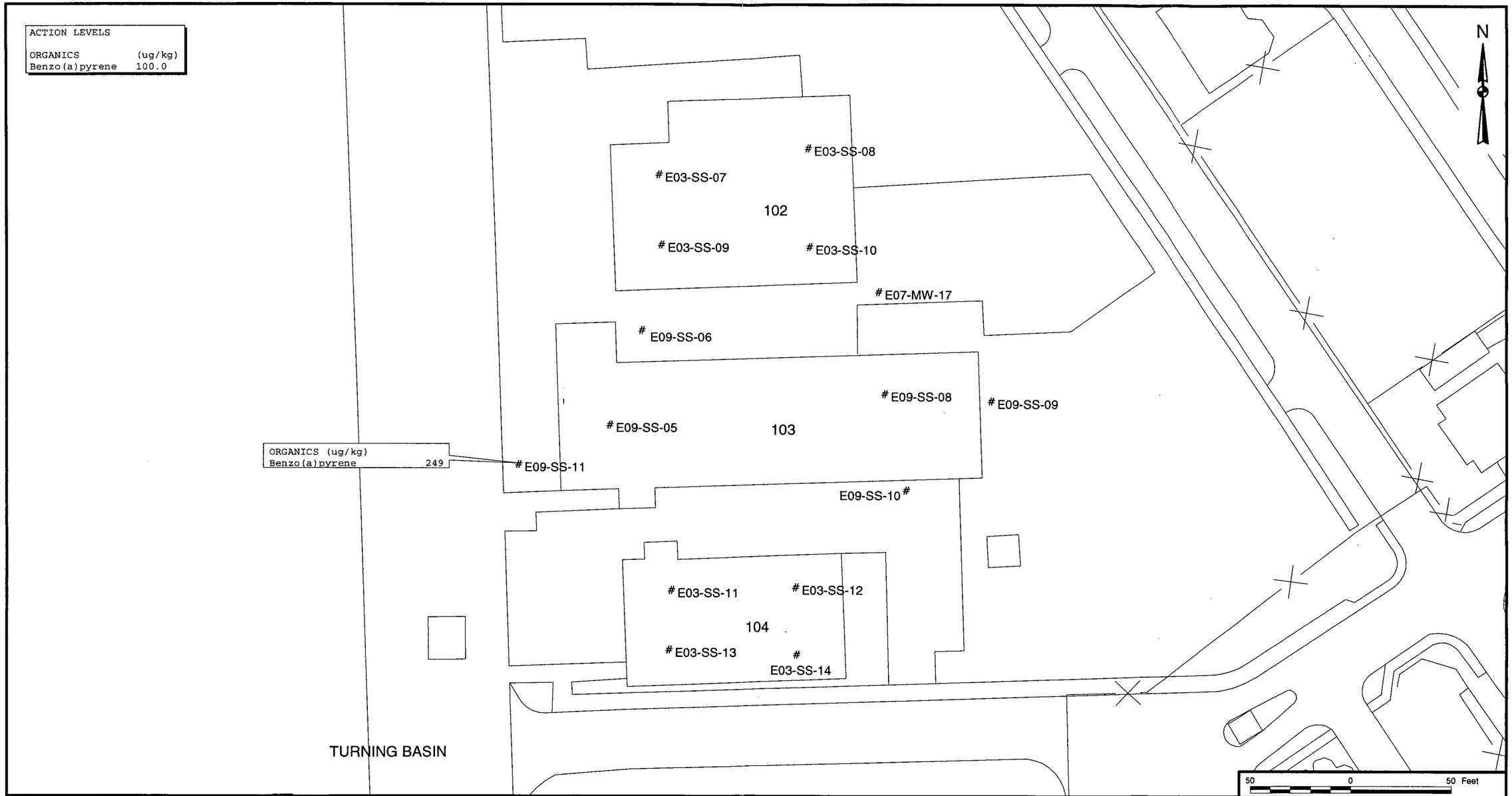
P:\GIS\NAS_KEY_WEST\7563_SSI_FIG.APR 14-DEC-98 DNP E-9 SS D LAYOUT



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SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 2-5. LEVEL D SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL E - BUILDING 103
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

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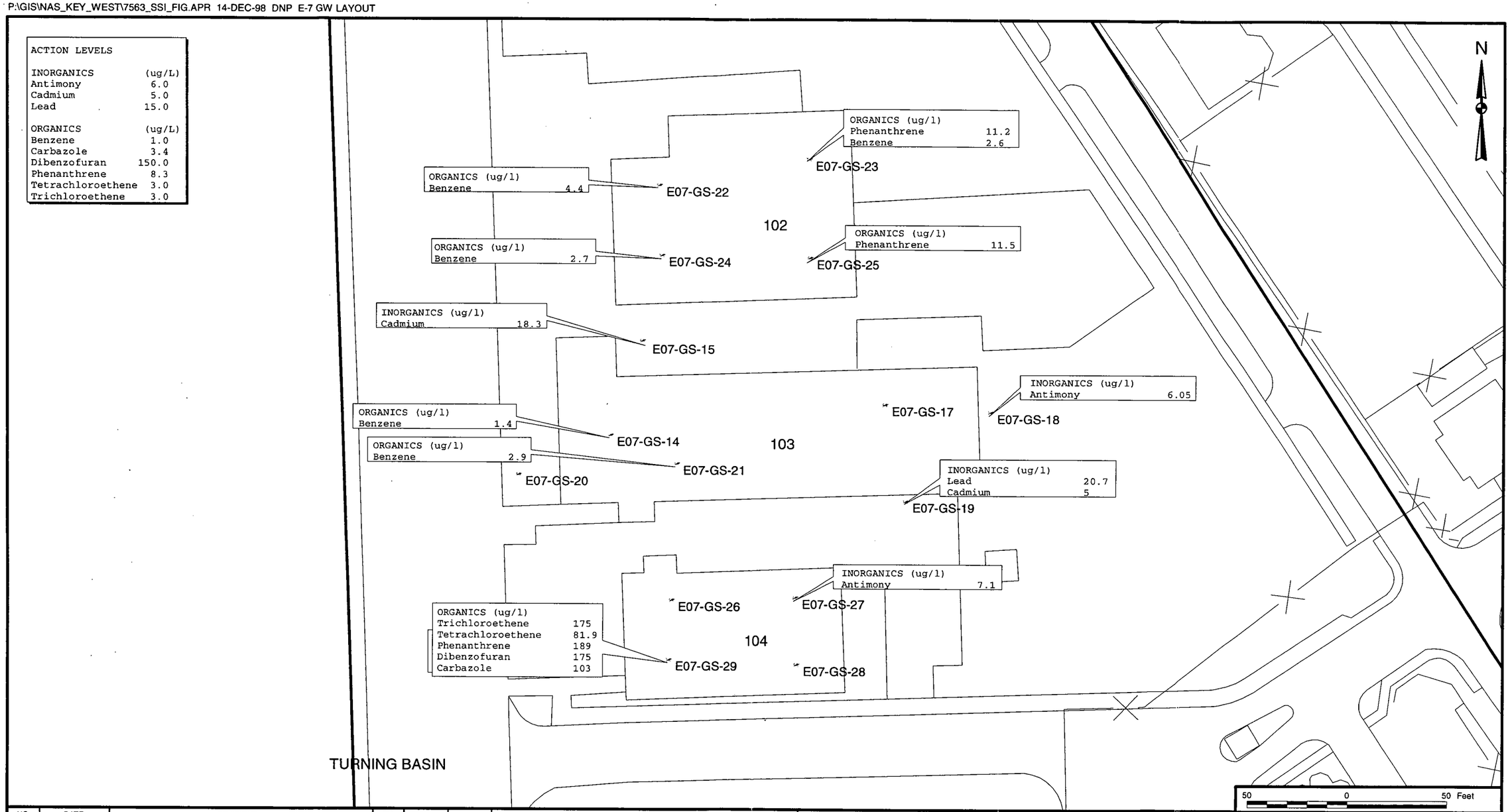
P:\GIS\NAS_KEY_WEST\7563_SSI_FIG.APR 14-DEC-98 DNP E-7 GW LAYOUT



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COST/SCHED-AREA
SCALE AS NOTED

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 2-6. GROUNDWATER SAMPLE
LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL E - BUILDINGS 102, 103, AND 104
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.
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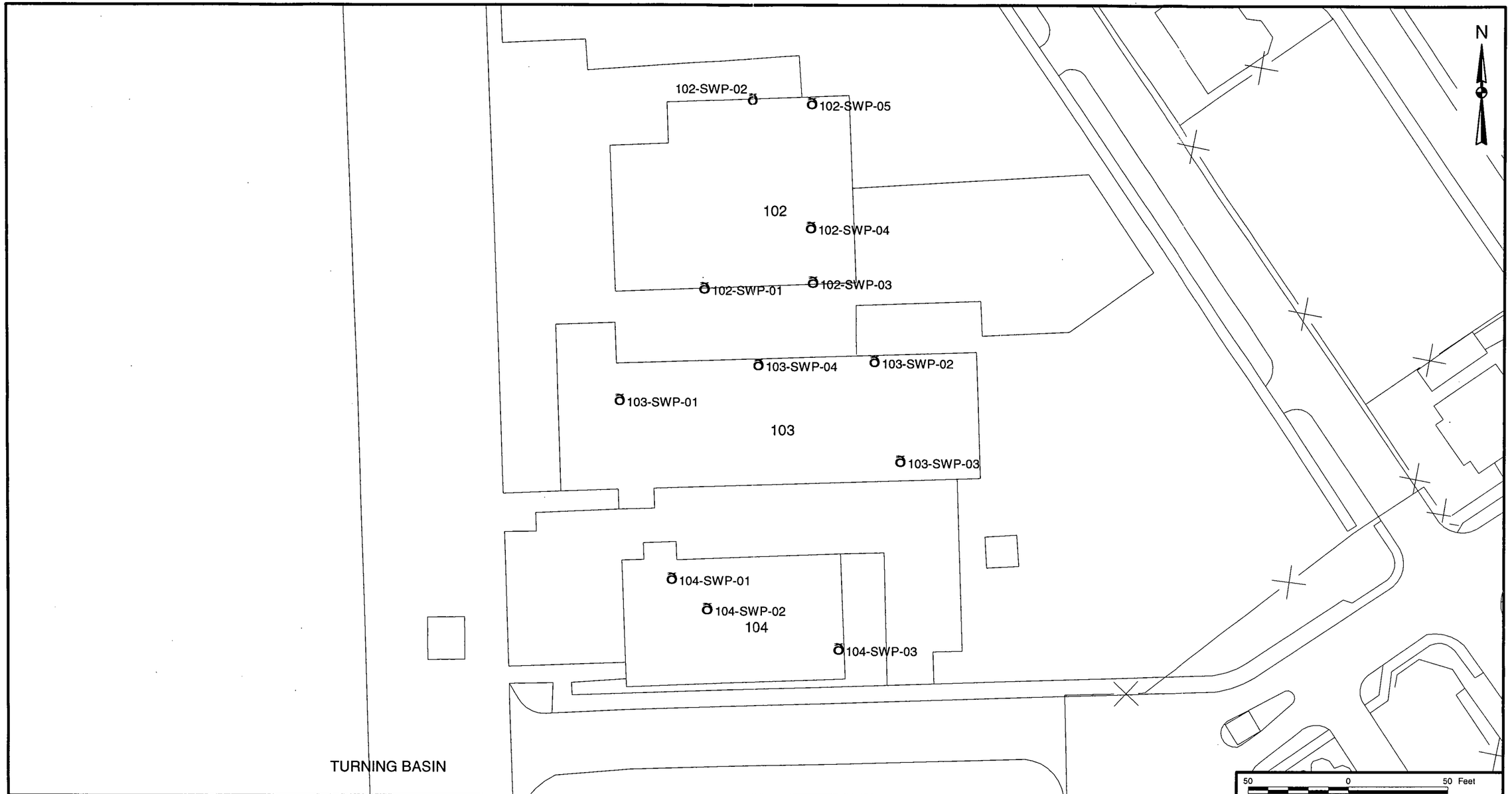
P:\GIS\NAS_KEY_WEST\7563_SSI_FIG.APR 14-DEC-98 DNP PARCEL E SWIPE SAMPLES LAYOUT



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

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COST/SCHED-AREA	
SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 2-7. SWIPE SAMPLE LOCATIONS
BRAC PARCEL E - BUILDINGS 102, 103, AND 104
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.	
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3.0 TRUMAN ANNEX IRA DELINEATION SAMPLING (PARCELS C AND E)

3.1 DRMO (PARCEL C) DESCRIPTION

Parcel C consists of the DRMO Waste Storage Area that includes Buildings 795, 284, and 261 and two large, fenced storage areas (Figure 3-1). The DRMO received excess government materials. In the recent past, Building 261 was used to store hazardous materials and Building 795 was used to store inert materials. The two large, fenced storage areas primarily stored metal debris, as well as, motors, vehicles, boats, refugee debris, and fuel trucks. Currently, metal debris including some machinery with motors occupies one of the storage areas. A review of maps from the 1940s and 1950s also indicated the presence of oil racks within the other storage area.

3.2 DRMO INVESTIGATION HISTORY

This section describes SI and SSI investigations for the Truman Annex DRMO Waste Storage Area. Prior to the SI, no soil analytical data existed.

The SI DQO Process evaluated five subzones for Parcel C. This process identified three subzones (1, 3, and 4) that required sampling and analysis under the BRAC SI and eliminated subzones 2 and 5 from further evaluation. Fuels, oils, metals, and solvents were considered to be potential soil contaminants at Parcel C during the DQO Process utilized to prepare the BRAC SI Workplan.

Soil samples analyzed during the SI field investigations at subzones 1, 3, and 4 indicated lead was present in all these areas at levels above the selected action level. Antimony was also detected above its action level in soil subzones 3 and 4 (DRMO). The maximum detections of antimony and lead in these areas indicate potential human health risks. In addition, benzo(a)pyrene detections in subzones 3 and 4 and Aroclor-1260 detections in subzone 1 were at concentrations indicative of potential carcinogenic human health risks. Therefore, due to the SI findings, further action was recommended to address soil contamination at Parcel C and the potential risks posed by these contaminants. The SI report recommended that an IRA be conducted at subzones 1, 3, and 4 to remove potentially contaminated soils. Table 3-1 presents the parameter groups and media of interest along with the number of samples collected at DRMO Waste Storage Area.

3.3 PARCEL C, DRMO [FORMER OIL CONTAINER (PRE-1942) AND SCRAP METAL AND REFUGEE ITEM STORAGE AREAS]

The subsections below describe DRMO Waste Storage Area, present the contaminants detected, compare the detected concentrations with selected soil screening values, and provide conclusions on the IRA delineation sampling results for the surface and sub-surface soil.

3.3.1 Delineation Sampling

The SI confirmed that DRMO surface soil contained antimony and lead metal contaminants and benzo(a)pyrene, an SVOC contaminant, in excess of action levels. As a result, delineation sampling was performed to determine the extent of the surface and sub-surface soil contamination to support the IRA. The methodology used to determine the delineation sampling design is described in Section 1.9.

3.3.2 Delineation Sampling Results

Surface and sub-surface soil samples in the DRMO Waste Storage Area were analyzed for VOCs, SVOCs, and inorganics to delineate contamination. The analytical methods are those found in Chapter 3 of the SSI Workplan.

The results of these analyses were compared with action levels selected from a variety of sources including background levels as discussed in the SI Report Section 1.8.1.2 and ARARs and SALs from various state and Federal agencies and research institutions. The selection of action levels is discussed in Section 1.8.1.4.1 of this report. Chemicals detected in the surface and sub-surface soil samples are listed in Tables 3-2 through 3-32. Figures 3-2 through 3-5 show the locations of occurrences of analytes that exceeded action levels and indicate the location of surface and sub-surface soil contamination.

Several organic and inorganic compounds were detected in soils at DRMO. Four inorganics (i.e., antimony, arsenic, lead, and iron) were found at levels that exceeded composite screening values, while aluminum, barium, cadmium, chromium, cobalt, copper, manganese, mercury, nickel, selenium, silver, tin, vanadium, and zinc were consistently detected below the selected action levels. Several organics, benzo (a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno (1,2,3-cd)pyrene, were detected at levels that exceed their selected composite action levels, while 2-methynaphthalene, acenaphthene, acenaphthylene, anthracene benzo(g,h,i)perylene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, carbazole, chrysene, di-n-butyl phthalate, dibenzofuran, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene were detected in one or more samples at concentrations below their selected action levels. No VOCs were detected in concentrations that exceed their selected composite action levels; however, benzene, chloroform, pentachlorophenol,

trichloroethene, and methylenechloride were each detected at levels below the selected composite action levels.

All of the inorganic compounds detected at concentrations in excess of their action levels were also found in additional samples at levels below the action levels. Antimony was detected in 8 of 90 samples with 2 detections at concentrations that exceed its composite action level. Arsenic was detected in 82 of 90 samples with 32 of those detections exceeding the selected composite action level. Iron was detected in 88 samples; however, only 1 sample yielded a result that exceeded the action level. Lead was detected in 88 samples with 14 samples at concentrations that exceed the composite action level. Table 3-33 shows the number of detections for each inorganic and organic parameter found in DRMO at concentrations above and below the selected action levels.

All of the organic compounds that were detected at levels in excess of their action levels were also found in additional samples at levels below the action levels. Dibenzo(a,h)anthracene was detected in 15 of 90 samples with 9 results exceeding the composite action level. Benzo(a)pyrene was detected in 48 of 90 samples with 35 results from samples exceeding its action level. Benzo(b)fluoranthene exceeded its action level in 4 samples out of the 47 where it was detected. Indeno(1,2,3-cd)pyrene was detected in 41 of 90 samples with 2 results exceeding its composite action level. Benzo(a)anthracene was detected in 42 samples with 2 exceedances reported. Table 3-33 shows the number of detections for each inorganic and organic parameter found in DRMO soils and the number of those detections that exceed selected action levels.

3.3.3 Conclusions and Recommendations

Antimony, lead, and benzo(a)pyrene are known to exceed action levels at DRMO based on SSI sampling results. The maximum concentrations of compounds found to exceed their action levels were used in the estimated risk process as described in Section 1.8.1.4.2. Calculations and estimates can be found in Appendix C. Lead concentrations detected indicate a significant noncarcinogenic health risk at DRMO based on the residential scenario. The maximum results for arsenic, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene are indicative of a potential carcinogenic health risk. In addition, results for dibenzo(a,h)anthracene are also indicative of a potential noncarcinogenic risk. It is recommended that an IRA be performed at DRMO as shown on Figure 6 of the *Draft Remedial Workplan for BRAC Parcel Fast Track Soil Removals at NAS Key West, Florida*, Bechtel Environmental, Inc. (Bechtel 1998).

3.4 PARCEL E DESCRIPTION

Parcel E (Figure 3-6) includes the area known as the Inner Mole Pier. The area has served as a naval docking and support facility for over a century. Most records of the area date to the World War II period. In the late 1980s, the Inner Mole Pier waterfront was refurbished along with the Outer Mole Pier.

Former Building 136 (Shipfitters and prior to 1951 the Plate and Mold Shop) was demolished and the debris was buried in and around the buildings footprint. According to base personnel, the debris in the area was later removed for disposal and is known to have failed Toxicity Characteristic Leaching Procedure (TCLP) testing for lead. This area is currently level graded limestone.

3.5 PARCEL INVESTIGATION HISTORY

The SI confirmed that surface soil at Former Building 136 contained the inorganic contaminant arsenic and SVOC contaminants benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene in excess of action levels. As a result, delineation sampling was performed on the entire site to determine the extent of the contamination to support the IRA. The methodology used to determine the delineation sampling design is described in Section 1.8.

3.6 PARCEL E, FORMER BUILDING 136

The subsections below describe Former Building 136, present the contaminants detected, compare the detected concentrations with selected soil screening values, and provide conclusions on the IRA delineation sampling results for surface and sub-surface soil.

3.6.1 Site Description

Former Building 136 (Shipfitters and prior to 1951 the Plate and Mold Shop) was demolished and the debris was scheduled to be disposed of at an off-site facility. According to base personnel, the debris in the area was removed for disposal, but it was determined to be hazardous waste due to results obtained from Toxicity Characteristic Leaching Procedure (TCLP) testing for lead. The debris was reportedly returned to the location of the former building and buried. Currently the site of the Former Building 136 is level grass covered graded limestone.

3.6.1.1 SI Thallium Results Versus SSI Finding for Thallium

During the BRAC SI, thallium was reported in 23 of 24 or 96 percent of soil samples collected at Former Building 136. During SSI delineation sampling at this same site there were no detections of thallium in

108 samples. It was determined that the SI results for thallium were inaccurate due to a systematic laboratory equipment error. No further action is recommended based on thallium results.

3.6.2 Delineation Sampling Results

Surface and sub-surface soil samples at Former Building 136 were analyzed for VOCs, SVOCs, and inorganics to delineate contamination. The analytical methods are those found in Section 3 of the SSI Workplan.

The results of these analyses were compared with action levels selected from a variety of sources including background levels as discussed in the SI Report Section 1.8.1.2 and ARARs and SALs from various state and Federal agencies and research institutions. The selection of action levels is discussed in Section 1.8.1.4.1. Chemicals that were detected in the surface and sub-surface soil samples are listed in Tables 3-34 through 3-39. Figures 3-5 through 3-7 show the locations of occurrences of analytes that exceeded action levels and indicated the location of surface and sub-surface soil contamination.

Several inorganic and organic compounds were detected in soils at Former Building 136. Two inorganics, arsenic and iron were found at concentrations that exceeded composite screening values. Arsenic and iron were detected in 18 of 18 samples, with arsenic exceeding its action level in 13 of those 18 and iron exceeding its action level in 1 sample. Aluminum, antimony, barium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, selenium, silver, tin, vanadium, and zinc were consistently detected below the selected action levels.

Several organics benzo(a)anthracene, benzo (a)pyrene, benzo(b)fluoranthene, and indeno (1,2,3-cd)pyrene were detected at concentrations that exceed their selected composite action levels. Benzo(a)pyrene was detected in 7 of 18 samples, with all results exceeding the composite action level. Benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were each detected in 7 of 18 samples, with one result from each exceeding its composite action level. Anthracene, benzo(g,h,i)pyrene, benzo(k)fluoranthene, chrysene, fluoranthene, phenanthrene, and pyrene were detected in one or more samples at concentrations below the selected action levels. No VOCs were detected in concentrations that exceed their selected composite action levels, however benzene and toluene were each detected at levels below the selected composite action levels.

Table 3-40 shows the number of detections for each inorganic and organic parameter found in soils at Former Building 136 and the number of those detections that exceed the selected action levels.

3.6.3 Conclusions and Recommendations

Arsenic, iron, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene are known to exceed action levels in surface soil at Former Building 136 based on the SSI sampling results. The maximum concentration detected of compounds that exceeded their action levels during delineation sampling were used in the estimated risk process as described in Section 1.8.1.4.2. Calculations, estimates and the process used to estimate potential risks can be found in Appendix C. Arsenic concentrations detected during delineation sampling are indicative of potential carcinogenic health risks. It is recommended that an IRA be performed at Former Building 136 as shown on Figure 8 of the *Draft Remedial Workplan for BRAC Parcel Fast Track Soil Removals at NAS Key West, Florida*, Bechtel Environmental, Inc. (Bechtel 1998).

3.7 TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Several samples from the DRMO Waste Storage Area produced concentrations of lead which required TCLP analysis prior to an IRA to identify disposal requirements. All samples with lead detections greater than 1,000 mg/kg were analyzed by TCLP to characterize disposal requirements. DRMO soil are not considered toxic based on TCLP results. The results for TCLP analysis are given in Table 3-41.

TABLE 3-1

PARAMETER GROUPS AND MEDIA OF INTEREST AT TRUMAN ANNEX DRMO WASTE STORAGE AREA (PARCEL C) NAS KEY WEST

Building/Area	Medium	Number of Locations	Number of Sample	Parameter Group		
				VOCs	SVOCs	Inorganics
Former Oil Container (Pre-1942) and Scrap Metal and Refugee Item Storage Areas	SO	70	45	X	X	X
Former Scrap Metal Storage Area (Former DRMO)	SO	69	45	X	X	X
Former Building 136	SO	28	18	X	X	X

SO = Surface and sub-surface soil

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TABLE 3-2

CHEMICALS DETECTED IN BLOCK C1
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-1A	Aluminum	526	
C4-SS-1A	Arsenic	0.84	
C4-SS-1A	Barium	124	
C4-SS-1A	Cadmium	0.18	
C4-SS-1A	Chromium	3.3	
C4-SS-1A	Cobalt	0.23	
C4-SS-1A	Copper	3.5	
C4-SS-1A	Iron	540	
C4-SS-1A	Lead	57.4	
C4-SS-1A	Manganese	12.9	
C4-SS-1A	Nickel	1.6	
C4-SS-1A	Vanadium	1.9	
C4-SS-1A	Zinc	135	
INORGANICS (mg/kg)			
C4-SS-1B	Aluminum	1300	
C4-SS-1B	Arsenic	1.2	
C4-SS-1B	Barium	26.4	
C4-SS-1B	Cadmium	0.13	
C4-SS-1B	Chromium	2.9	
C4-SS-1B	Cobalt	0.39	
C4-SS-1B	Copper	5.1	
C4-SS-1B	Iron	978	
C4-SS-1B	Lead	26.2	
C4-SS-1B	Manganese	75.8	
C4-SS-1B	Nickel	0.82	
C4-SS-1B	Selenium	1	
C4-SS-1B	Tin	0.8	
C4-SS-1B	Vanadium	2.3	
C4-SS-1B	Zinc	43.5	

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-1B	Chrysene	47.8	J
C4-SS-1B	Fluoranthene	68.8	J
C4-SS-1B	Pyrene	68.5	J
VOLATILE ORGANIC COUMPOUNDS (µg/kg)			
C4-SS-1-5BV	Benzene	1.8	J
INORGANICS (mg/kg)			
C4-SS-1C	Aluminum	975	
C4-SS-1C	Arsenic	3.4	
C4-SS-1C	Barium	39.6	
C4-SS-1C	Cadmium	0.25	
C4-SS-1C	Chromium	4.4	
C4-SS-1C	Cobalt	0.94	
C4-SS-1C	Copper	10	
C4-SS-1C	Iron	16000	
C4-SS-1C	Lead	68.8	
C4-SS-1C	Manganese	145	
C4-SS-1C	Nickel	2.3	
C4-SS-1C	Selenium	0.93	
C4-SS-1C	Tin	1.2	
C4-SS-1C	Vanadium	2.9	
C4-SS-1C	Zinc	60.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-1C	Fluoranthene	56.5	J
C4-SS-1C	Pyrene	102	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-3

CHEMICALS DETECTED IN BLOCK C2
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-2A	Aluminum	186.5	
C4-SS-2A	Arsenic	0.71	
C4-SS-2A	Barium	12.15	
C4-SS-2A	Cadmium	0.11	
C4-SS-2A	Chromium	2.8	
C4-SS-2A	Cobalt	0.15	
C4-SS-2A	Copper	2.55	
C4-SS-2A	Iron	643	
C4-SS-2A	Lead	17.6	
C4-SS-2A	Manganese	6.2	
C4-SS-2A	Nickel	1.3	
C4-SS-2A	Selenium	0.87	
C4-SS-2A	Vanadium	1.35	
C4-SS-2A	Zinc	15.85	
INORGANICS (mg/kg)			
C4-SS-2B	Aluminum	274.5	
C4-SS-2B	Arsenic	1.31	
C4-SS-2B	Barium	16.25	
C4-SS-2B	Cadmium	0.185	
C4-SS-2B	Chromium	3.35	
C4-SS-2B	Cobalt	0.09	
C4-SS-2B	Copper	3.6	
C4-SS-2B	Iron	433.5	
C4-SS-2B	Lead	17.4	
C4-SS-2B	Manganese	5.5	
C4-SS-2B	Nickel	1.6	
C4-SS-2B	Selenium	0.86	
C4-SS-2B	Tin	1.95	
C4-SS-2B	Vanadium	2.25	
C4-SS-2B	Zinc	26.3	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-2C	Aluminum	305.5	
C4-SS-2C	Arsenic	1.15	
C4-SS-2C	Barium	20.35	
C4-SS-2C	Cadmium	0.245	
C4-SS-2C	Chromium	2.9	
C4-SS-2C	Copper	6.1	
C4-SS-2C	Iron	876.5	
C4-SS-2C	Lead	58.7	
C4-SS-2C	Manganese	25.7	
C4-SS-2C	Nickel	1.1	
C4-SS-2C	Selenium	0.67	
C4-SS-2C	Tin	5	
C4-SS-2C	Vanadium	1.8	
C4-SS-2C	Zinc	60.65	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-2C Avg	Acenaphthylene	140.6	J
C4-SS-2C Avg	Benzo(a)anthracene	74.05	J
C4-SS-2C Avg	Benzo(a)pyrene	130.5	J
C4-SS-2C Avg	Benzo(b)fluoranthene	115.5	J
C4-SS-2C Avg	Benzo(g,h,i)perylene	190.5	J
C4-SS-2C Avg	Benzo(k)fluoranthene	128	J
C4-SS-2C Avg	Chrysene	157.5	J
C4-SS-2C Avg	Fluoranthene	293	J
C4-SS-2C Avg	Indeno(1,2,3-cd)pyrene	167.6	J
C4-SS-2C Avg	Phenanthrene	226.5	J
C4-SS-2C Avg	Pyrene	345.5	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity

TABLE 3-4

CHEMICALS DETECTED IN BLOCK C3
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-3A	Aluminum	118	
C4-SS-3A	Arsenic	0.47	
C4-SS-3A	Barium	10.4	
C4-SS-3A	Cadmium	1	
C4-SS-3A	Copper	9.1	
C4-SS-3A	Iron	280	
C4-SS-3A	Lead	12.5	
C4-SS-3A	Manganese	5.2	
C4-SS-3A	Tin	2.6	
C4-SS-3A	Vanadium	0.63	
C4-SS-3A	Zinc	14.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-3A	Acenaphthylene	22.6	J
C4-SS-3A	Benzo(a)anthracene	50	
C4-SS-3A	Benzo(a)pyrene	75.3	
C4-SS-3A	Benzo(b)fluoranthene	67.8	
C4-SS-3A	Benzo(g,h,i)perylene	73.9	
C4-SS-3A	Benzo(k)fluoranthene	68.2	
C4-SS-3A	Bis(2-ethylhexyl)phthalate	28.8	J
C4-SS-3A	Chrysene	62.2	
C4-SS-3A	Fluoranthene	64.4	
C4-SS-3A	Indeno(1,2,3-cd)pyrene	51.8	
C4-SS-3A	Phenanthrene	18.2	
C4-SS-3A	Pyrene	78.1	
INORGANICS (mg/kg)			
C4-SS-3B	Aluminum	404	
C4-SS-3B	Arsenic	1.8	
C4-SS-3B	Barium	22	
C4-SS-3B	Cadmium	0.24	
C4-SS-3B	Chromium	4	
C4-SS-3B	Copper	9.6	
C4-SS-3B	Iron	972	
C4-SS-3B	Lead	47.6	
C4-SS-3B	Manganese	28.3	
C4-SS-3B	Mercury	0.1	
C4-SS-3B	Tin	3.6	
C4-SS-3B	Vanadium	3.6	
C4-SS-3B	Zinc	42.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-3B	Benzo(a)anthracene	43.1	
C4-SS-3B	Benzo(a)pyrene	90.1	
C4-SS-3B	Benzo(b)fluoranthene	96.8	
C4-SS-3B	Benzo(g,h,i)perylene	29	
C4-SS-3B	Benzo(k)fluoranthene	81.6	
C4-SS-3B	Chrysene	54.9	
C4-SS-3B	Fluoranthene	48.2	
C4-SS-3B	Indeno(1,2,3-cd)pyrene	29.3	
C4-SS-3B	Pyrene	86.4	
INORGANICS (mg/kg)			
C4-SS-3C	Aluminum	591	
C4-SS-3C	Arsenic	2.6	
C4-SS-3C	Barium	32	
C4-SS-3C	Cadmium	0.26	
C4-SS-3C	Chromium	9.2	
C4-SS-3C	Copper	14.8	
C4-SS-3C	Iron	1340	
C4-SS-3C	Lead	284	
C4-SS-3C	Manganese	13.4	
C4-SS-3C	Mercury	0.08	

TABLE 3-4

CHEMICALS DETECTED IN BLOCK C3
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-3C	Nickel	1.9	
C4-SS-3C	Tin	4.1	
C4-SS-3C	Vanadium	5.4	
C4-SS-3C	Zinc	41.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-3C	Benzo(a)anthracene	41.3	
C4-SS-3C	Benzo(a)pyrene	136	
C4-SS-3C	Benzo(b)fluoranthene	180	
C4-SS-3C	Benzo(g,h,i)perylene	108	
C4-SS-3C	Benzo(k)fluoranthene	88.1	
C4-SS-3C	Chrysene	80.4	
C4-SS-3C	Dibenzo(a,h)anthracene	49.3	
C4-SS-3C	Fluoranthene	60.1	
C4-SS-3C	Indeno(1,2,3-cd)pyrene	83.7	
C4-SS-3C	Pyrene	123	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-5

CHEMICALS DETECTED IN BLOCK C4
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-4A	Aluminum	931	
C4-SS-4A	Arsenic	2.1	
C4-SS-4A	Barium	42.6	
C4-SS-4A	Cadmium	0.86	
C4-SS-4A	Chromium	13.7	
C4-SS-4A	Cobalt	0.69	
C4-SS-4A	Copper	107	
C4-SS-4A	Iron	3600	
C4-SS-4A	Lead	118	
C4-SS-4A	Manganese	37	
C4-SS-4A	Mercury	0.07	
C4-SS-4A	Nickel	3	
C4-SS-4A	Tin	13.6	
C4-SS-4A	Vanadium	3.6	
C4-SS-4A	Zinc	113	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-4A	Acenaphthene	63.1	
C4-SS-4A	Acenaphthylene	21.4	J
C4-SS-4A	Anthracene	104	
C4-SS-4A	Benzo(a)anthracene	494	
C4-SS-4A	Benzo(a)pyrene	502	
C4-SS-4A	Benzo(b)fluoranthene	604	
C4-SS-4A	Benzo(g,h,i)perylene	303	
C4-SS-4A	Benzo(k)fluoranthene	349	
C4-SS-4A	Bis(2-ethylhexyl)phthalate	21.4	J
C4-SS-4A	Carbazole	86.2	J
C4-SS-4A	Chrysene	561	
C4-SS-4A	Dibenzo(a,h)anthracene	139	
C4-SS-4A	Dibenzofuran	20	J

Location	Parameter	Result	Qual. (*)
C4-SS-4A	Fluoranthene	942	
C4-SS-4A	Fluorene	46.1	
C4-SS-4A	Indeno(1,2,3-cd)pyrene	275	
C4-SS-4A	Pentachlorophenol	519	
C4-SS-4A	Phenanthrene	506	
C4-SS-4A	Pyrene	843	
INORGANICS (mg/kg)			
C4-SS-4B	Aluminum	253	
C4-SS-4B	Arsenic	0.93	
C4-SS-4B	Barium	15.7	
C4-SS-4B	Cadmium	0.45	
C4-SS-4B	Chromium	2.9	
C4-SS-4B	Copper	4.5	
C4-SS-4B	Iron	369	
C4-SS-4B	Lead	17.3	
C4-SS-4B	Manganese	5.6	
C4-SS-4B	Tin	1.6	
C4-SS-4B	Vanadium	1.5	
C4-SS-4B	Zinc	17	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-4B	Fluoranthene	82.4	J
C4-SS-4B	Phenanthrene	48.7	J
C4-SS-4B	Pyrene	108	J
INORGANICS (mg/kg)			
C4-SS-4C	Aluminum	454	
C4-SS-4C	Arsenic	1.4	
C4-SS-4C	Barium	30.1	
C4-SS-4C	Cadmium	0.25	
C4-SS-4C	Chromium	6.2	
C4-SS-4C	Copper	17.3	

TABLE 3-5

CHEMICALS DETECTED IN BLOCK C4
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-4C	Iron	1770	
C4-SS-4C	Lead	95.9	
C4-SS-4C	Manganese	14.9	
C4-SS-4C	Mercury	0.07	
C4-SS-4C	Nickel	1.1	
C4-SS-4C	Tin	6.6	
C4-SS-4C	Vanadium	2.4	
C4-SS-4C	Zinc	84.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-4C	Acenaphthene	88.6	J
C4-SS-4C	Anthracene	147	J
C4-SS-4C	Benzo(a)anthracene	412	J
C4-SS-4C	Benzo(a)pyrene	368	J
C4-SS-4C	Benzo(b)fluoranthene	397	J
C4-SS-4C	Benzo(g,h,i)perylene	375	J
C4-SS-4C	Benzo(k)fluoranthene	244	J
C4-SS-4C	Carbazole	91.7	J
C4-SS-4C	Chrysene	462	
C4-SS-4C	Dibenzo(a,h)anthracene	130	J
C4-SS-4C	Fluoranthene	955	
C4-SS-4C	Fluorene	68.3	J
C4-SS-4C	Indeno(1,2,3-cd)pyrene	279	J
C4-SS-4C	Phenanthrene	579	
C4-SS-4C	Pyrene	998	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-6

CHEMICALS DETECTED IN BLOCK C5
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-5A	Aluminum	320	
C4-SS-5A	Arsenic	1.4	
C4-SS-5A	Barium	19	
C4-SS-5A	Cadmium	0.48	
C4-SS-5A	Chromium	4.4	
C4-SS-5A	Copper	8.4	
C4-SS-5A	Iron	680	
C4-SS-5A	Lead	37.5	
C4-SS-5A	Manganese	14.9	
C4-SS-5A	Tin	2.8	
C4-SS-5A	Vanadium	2.4	
C4-SS-5A	Zinc	30.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-5A	Benzo(a)anthracene	25.6	
C4-SS-5A	Benzo(a)pyrene	30.6	J
C4-SS-5A	Chrysene	25.3	J
C4-SS-5A	Fluoranthene	28.4	
C4-SS-5A	Pyrene	29.3	
INORGANICS (mg/kg)			
C4-SS-5B	Aluminum	464	
C4-SS-5B	Arsenic	1	
C4-SS-5B	Barium	18.1	
C4-SS-5B	Cadmium	0.24	
C4-SS-5B	Chromium	4.2	
C4-SS-5B	Copper	8.3	
C4-SS-5B	Iron	668	
C4-SS-5B	Lead	73.8	
C4-SS-5B	Manganese	9.1	
C4-SS-5B	Nickel	1.1	
C4-SS-5B	Tin	4.7	
C4-SS-5B	Vanadium	2.6	
C4-SS-5B	Zinc	31.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-5B	Benzo(a)anthracene	30.6	
C4-SS-5B	Benzo(a)pyrene	42.4	
C4-SS-5B	Benzo(b)fluoranthene	44.8	
C4-SS-5B	Benzo(g,h,i)perylene	25.2	
C4-SS-5B	Benzo(k)fluoranthene	36	
C4-SS-5B	Chrysene	33.4	
C4-SS-5B	Fluoranthene	36.2	
C4-SS-5B	Indeno(1,2,3-cd)pyrene	22.6	
C4-SS-5B	Pyrene	37.1	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-5-5BV	Chloroform	4.4	
C4-SS-5-5BV	Methylene chloride	15.7	
C4-SS-5-5BV	Trichloroethene	2.9	
INORGANICS (mg/kg)			
C4-SS-5C	Aluminum	206	
C4-SS-5C	Arsenic	0.96	
C4-SS-5C	Barium	19	
C4-SS-5C	Cadmium	0.14	
C4-SS-5C	Chromium	6	
C4-SS-5C	Copper	10.4	
C4-SS-5C	Iron	542	
C4-SS-5C	Lead	443	
C4-SS-5C	Manganese	5.6	
C4-SS-5C	Tin	1.6	
C4-SS-5C	Vanadium	1.7	
C4-SS-5C	Zinc	24.5	

TABLE 3-6

CHEMICALS DETECTED IN BLOCK C5
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-5C	Benzo(a)anthracene	29.3	
C4-SS-5C	Benzo(a)pyrene	28	
C4-SS-5C	Benzo(b)fluoranthene	41	
C4-SS-5C	Benzo(g,h,i)perylene	30.1	
C4-SS-5C	Benzo(k)fluoranthene	30.3	
C4-SS-5C	Chrysene	35.6	
C4-SS-5C	Fluoranthene	47.6	
C4-SS-5C	Indeno(1,2,3-cd)pyrene	19.7	
C4-SS-5C	Phenanthrene	28.3	
C4-SS-5C	Pyrene	39	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-7

CHEMICALS DETECTED IN BLOCK C6
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-6A	Aluminum	242	
C4-SS-6A	Arsenic	0.87	
C4-SS-6A	Barium	17.2	
C4-SS-6A	Cadmium	0.17	
C4-SS-6A	Chromium	3.8	
C4-SS-6A	Copper	5	
C4-SS-6A	Iron	534	
C4-SS-6A	Lead	28.9	
C4-SS-6A	Manganese	6.9	
C4-SS-6A	Mercury	0.06	
C4-SS-6A	Nickel	1	
C4-SS-6A	Tin	2.3	
C4-SS-6A	Vanadium	1.8	
C4-SS-6A	Zinc	16.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-6A	Acenaphthylene	45.6	
C4-SS-6A	Benzo(a)anthracene	33.4	
C4-SS-6A	Benzo(a)pyrene	362	
C4-SS-6A	Benzo(b)fluoranthene	401	
C4-SS-6A	Benzo(g,h,i)perylene	217	
C4-SS-6A	Benzo(k)fluoranthene	185	
C4-SS-6A	Chrysene	144	
C4-SS-6A	Dibenzo(a,h)anthracene	121	
C4-SS-6A	Fluoranthene	24.5	
C4-SS-6A	Indeno(1,2,3-cd)pyrene	212	
C4-SS-6A	Pyrene	40.6	
INORGANICS (mg/kg)			
C4-SS-6B	Aluminum	551	
C4-SS-6B	Arsenic	1.5	
C4-SS-6B	Barium	22.9	
C4-SS-6B	Cadmium	0.64	
C4-SS-6B	Chromium	4.1	
C4-SS-6B	Copper	8.7	
C4-SS-6B	Iron	1160	
C4-SS-6B	Lead	45.7	
C4-SS-6B	Manganese	18.1	
C4-SS-6B	Nickel	1.2	
C4-SS-6B	Tin	3.2	
C4-SS-6B	Vanadium	2.2	
C4-SS-6B	Zinc	40.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-6B	Acenaphthylene	80.2	
C4-SS-6B	Anthracene	22.9	
C4-SS-6B	Benzo(a)anthracene	364	
C4-SS-6B	Benzo(a)pyrene	430	
C4-SS-6B	Benzo(b)fluoranthene	349	
C4-SS-6B	Benzo(g,h,i)perylene	216	
C4-SS-6B	Benzo(k)fluoranthene	351	
C4-SS-6B	Chrysene	365	
C4-SS-6B	Dibenzo(a,h)anthracene	107	
C4-SS-6B	Fluoranthene	284	
C4-SS-6B	Indeno(1,2,3-cd)pyrene	198	
C4-SS-6B	Phenanthrene	32.6	
C4-SS-6B	Pyrene	352	
INORGANICS (mg/kg)			
C4-SS-6C	Aluminum	406	
C4-SS-6C	Arsenic	1.3	
C4-SS-6C	Barium	27.6	
C4-SS-6C	Cadmium	0.36	

TABLE 3-7

CHEMICALS DETECTED IN BLOCK C6
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-6C	Chromium	7.4	
C4-SS-6C	Copper	13	
C4-SS-6C	Iron	1200	
C4-SS-6C	Lead	343	
C4-SS-6C	Manganese	10.4	
C4-SS-6C	Nickel	1.2	
C4-SS-6C	Tin	20.9	
C4-SS-6C	Vanadium	2.4	
C4-SS-6C	Zinc	80.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-6C	Benzo(a)anthracene	45.1	
C4-SS-6C	Benzo(a)pyrene	55.6	
C4-SS-6C	Benzo(b)fluoranthene	90.3	
C4-SS-6C	Benzo(g,h,i)perylene	28.6	
C4-SS-6C	Benzo(k)fluoranthene	62.3	
C4-SS-6C	Chrysene	58.8	
C4-SS-6C	Fluoranthene	67.1	
C4-SS-6C	Indeno(1,2,3-cd)pyrene	21.8	
C4-SS-6C	Phenanthrene	23.9	
C4-SS-6C	Pyrene	57.2	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-8

CHEMICALS DETECTED IN BLOCK C7
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-7A	Aluminum	1290	
C4-SS-7A	Arsenic	1.1	
C4-SS-7A	Barium	34	
C4-SS-7A	Cadmium	0.35	
C4-SS-7A	Chromium	17.3	
C4-SS-7A	Cobalt	1.6	
C4-SS-7A	Copper	14.6	
C4-SS-7A	Iron	1640	
C4-SS-7A	Lead	42.4	
C4-SS-7A	Manganese	105	
C4-SS-7A	Nickel	27.7	
C4-SS-7A	Tin	6.1	
C4-SS-7A	Vanadium	3.1	
C4-SS-7A	Zinc	44.2	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-7A	Acenaphthylene	64.4	J
C4-SS-7A	Anthracene	49.9	J
C4-SS-7A	Benzo(a)anthracene	163	J
C4-SS-7A	Benzo(a)pyrene	175	J
C4-SS-7A	Benzo(b)fluoranthene	137	J
C4-SS-7A	Benzo(g,h,i)perylene	210	J
C4-SS-7A	Benzo(k)fluoranthene	150	J
C4-SS-7A	Chrysene	200	J
C4-SS-7A	Fluoranthene	277	J
C4-SS-7A	Indeno(1,2,3-cd)pyrene	135	J
C4-SS-7A	Phenanthrene	144	J
C4-SS-7A	Pyrene	363	
INORGANICS (mg/kg)			
C4-SS-7B	Aluminum	249	
C4-SS-7B	Arsenic	0.85	
C4-SS-7B	Barium	15.1	
C4-SS-7B	Cadmium	0.16	
C4-SS-7B	Chromium	3.4	
C4-SS-7B	Copper	5.7	
C4-SS-7B	Iron	507	
C4-SS-7B	Lead	17.6	
C4-SS-7B	Manganese	7.4	
C4-SS-7B	Mercury	0.05	
C4-SS-7B	Nickel	0.94	
C4-SS-7B	Tin	4.1	
C4-SS-7B	Vanadium	1.6	
C4-SS-7B	Zinc	22.2	
INORGANICS (mg/kg)			
C4-SS-7C	Aluminum	778	
C4-SS-7C	Arsenic	2.2	
C4-SS-7C	Barium	133	
C4-SS-7C	Cadmium	0.29	
C4-SS-7C	Chromium	7.4	
C4-SS-7C	Copper	25.9	
C4-SS-7C	Iron	2100	
C4-SS-7C	Lead	168	
C4-SS-7C	Manganese	21.4	
C4-SS-7C	Mercury	0.11	
C4-SS-7C	Nickel	1.7	
C4-SS-7C	Tin	6.3	
C4-SS-7C	Vanadium	4	
C4-SS-7C	Zinc	166	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-7C	Benzo(a)pyrene	87.6	J

TABLE 3-8

CHEMICALS DETECTED IN BLOCK C7
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-7C	Benzo(b)fluoranthene	92.7	J
C4-SS-7C	Benzo(k)fluoranthene	66.2	J
C4-SS-7C	Fluoranthene	58.6	J
C4-SS-7C	Pyrene	149	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABL[illegible]-9

CHEMICALS DETECTED IN BLOCK C8
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-8A	Aluminum	287	
C4-SS-8A	Arsenic	0.78	
C4-SS-8A	Barium	16.6	
C4-SS-8A	Chromium	2.8	
C4-SS-8A	Copper	4.7	
C4-SS-8A	Iron	234	
C4-SS-8A	Lead	223	
C4-SS-8A	Manganese	4.1	
C4-SS-8A	Tin	1.4	
C4-SS-8A	Vanadium	1.6	
C4-SS-8A	Zinc	9.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-8A	Benzo(b)fluoranthene	17.8	J
C4-SS-8A	Benzo(k)fluoranthene	17.4	J
INORGANICS (mg/kg)			
C4-SS-8B	Aluminum	206	
C4-SS-8B	Antimony	1.5	
C4-SS-8B	Arsenic	0.59	
C4-SS-8B	Barium	15.6	
C4-SS-8B	Cadmium	0.06	
C4-SS-8B	Chromium	3.2	
C4-SS-8B	Copper	2.5	
C4-SS-8B	Iron	199	
C4-SS-8B	Lead	331	
C4-SS-8B	Manganese	4.8	
C4-SS-8B	Tin	1.3	
C4-SS-8B	Vanadium	1.7	
C4-SS-8B	Zinc	7.5	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-8C	Aluminum	656	
C4-SS-8C	Antimony	0.62	
C4-SS-8C	Arsenic	2.6	
C4-SS-8C	Barium	32.8	
C4-SS-8C	Cadmium	0.19	
C4-SS-8C	Chromium	5.8	
C4-SS-8C	Copper	15.6	
C4-SS-8C	Iron	1390	
C4-SS-8C	Lead	626	
C4-SS-8C	Manganese	12.2	
C4-SS-8C	Mercury	0.08	
C4-SS-8C	Nickel	2.1	
C4-SS-8C	Tin	5.1	
C4-SS-8C	Vanadium	5	
C4-SS-8C	Zinc	51.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-8C	Benzo(a)anthracene	44.9	
C4-SS-8C	Benzo(a)pyrene	176	
C4-SS-8C	Benzo(b)fluoranthene	194	
C4-SS-8C	Benzo(g,h,i)perylene	47.4	
C4-SS-8C	Benzo(k)fluoranthene	186	
C4-SS-8C	Chrysene	100	
C4-SS-8C	Dibenzo(a,h)anthracene	31	
C4-SS-8C	Fluoranthene	40.5	
C4-SS-8C	Indeno(1,2,3-cd)pyrene	51.9	
C4-SS-8C	Pyrene	96	

Shading – Indicates a concentration in excess of the composite screening value.

* Qualifier (Qual.) Codes:

J - The associated value is an estimated quantity.

TABLE 3-10

CHEMICALS DETECTED IN BLOCK C9
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-9A Avg	Aluminum	317.5	
C4-SS-9A Avg	Arsenic	1.135	
C4-SS-9A Avg	Barium	19.6	
C4-SS-9A Avg	Cadmium	0.265	
C4-SS-9A Avg	Chromium	4.2	
C4-SS-9A Avg	Cobalt	0.34	
C4-SS-9A Avg	Copper	13.3	
C4-SS-9A Avg	Iron	3345	
C4-SS-9A Avg	Lead	189	
C4-SS-9A Avg	Manganese	11.35	
C4-SS-9A Avg	Nickel	2.485	
C4-SS-9A Avg	Tin	5.45	
C4-SS-9A Avg	Vanadium	2	
C4-SS-9A Avg	Zinc	29.4	
SEMIVOLATILE ORGANIC COMPOUNDS (μg/kg)			
C4-SS-9A Avg	Acenaphthylene	29.5	
C4-SS-9A Avg	Anthracene	40.2	
C4-SS-9A Avg	Benzo(a)anthracene	120.7	
C4-SS-9A Avg	Benzo(a)pyrene	158	
C4-SS-9A Avg	Benzo(b)fluoranthene	248	
C4-SS-9A Avg	Benzo(g,h,i)perylene	60.55	
C4-SS-9A Avg	Benzo(k)fluoranthene	113.8	
C4-SS-9A Avg	Carbazole	75.3	J
C4-SS-9A Avg	Chrysene	144.85	
C4-SS-9A Avg	Dibenzo(a,h)anthracene	30.25	
C4-SS-9A Avg	Fluoranthene	234	
C4-SS-9A Avg	Indeno(1,2,3-cd)pyrene	57.6	
C4-SS-9A Avg	Phenanthrene	105.7	
C4-SS-9A Avg	Pyrene	166.2	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-9B Avg	Aluminum	251.5	
C4-SS-9B Avg	Arsenic	1.065	
C4-SS-9B Avg	Barium	16.3	
C4-SS-9B Avg	Cadmium	0.485	
C4-SS-9B Avg	Chromium	3.8	
C4-SS-9B Avg	Copper	8.25	
C4-SS-9B Avg	Iron	954.5	
C4-SS-9B Avg	Lead	54.05	
C4-SS-9B Avg	Manganese	11.4	
C4-SS-9B Avg	Tin	2.05	
C4-SS-9B Avg	Vanadium	2.75	
C4-SS-9B Avg	Zinc	37.9	
SEMIVOLATILE ORGANIC COMPOUNDS (μg/kg)			
C4-SS-9B Avg	2-methylnaphthalene	832.5	
C4-SS-9B Avg	Acenaphthene	1353.1	J^2
C4-SS-9B Avg	Acenaphthylene	393.5	
C4-SS-9B Avg	Anthracene	1212.35	J^2
C4-SS-9B Avg	Benzo(a)anthracene	1920	J^2
C4-SS-9B Avg	Benzo(a)pyrene	1578.5	J^2
C4-SS-9B Avg	Benzo(b)fluoranthene	2916.5	J^2
C4-SS-9B Avg	Benzo(g,h,i)perylene	294.65	J^2
C4-SS-9B Avg	Benzo(k)fluoranthene	834.5	J^2
C4-SS-9B Avg	Carbazole	453.5	
C4-SS-9B Avg	Chrysene	3100.5	J^2
C4-SS-9B Avg	Dibenzo(a,h)anthracene	280.5	
C4-SS-9B Avg	Dibenzofuran	972.5	
C4-SS-9B Avg	Fluoranthene	5699.5	J^2
C4-SS-9B Avg	Fluorene	1433.5	J^2
C4-SS-9B Avg	Indeno(1,2,3-cd)pyrene	333.9	J^2

TABLE 3-10

CHEMICALS DETECTED IN BLOCK C9
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-9B Avg	Naphthalene	1017.5	
C4-SS-9B Avg	Phenanthrene	6975.5	J^2
C4-SS-9B Avg	Pyrene	4436	J^2
INORGANICS (mg/kg)			
C4-SS-9C Avg	Aluminum	912.5	J
C4-SS-9C Avg	Arsenic	3.3	
C4-SS-9C Avg	Barium	40.3	
C4-SS-9C Avg	Cadmium	0.95	
C4-SS-9C Avg	Chromium	9.05	
C4-SS-9C Avg	Cobalt	0.4625	
C4-SS-9C Avg	Copper	32.65	
C4-SS-9C Avg	Iron	2795	
C4-SS-9C Avg	Lead	139.45	
C4-SS-9C Avg	Manganese	21.25	
C4-SS-9C Avg	Mercury	0.0625	
C4-SS-9C Avg	Nickel	3.35	
C4-SS-9C Avg	Tin	8.2	
C4-SS-9C Avg	Vanadium	6.75	
C4-SS-9C Avg	Zinc	112.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-9C Avg	Benzo(a)anthracene	22.8	
C4-SS-9C Avg	Benzo(a)pyrene	84.65	
C4-SS-9C Avg	Benzo(b)fluoranthene	99.65	
C4-SS-9C Avg	Benzo(g,h,i)perylene	18.45	
C4-SS-9C Avg	Benzo(k)fluoranthene	82.85	
C4-SS-9C Avg	Chrysene	46.5	
C4-SS-9C Avg	Fluoranthene	18.8	J
C4-SS-9C Avg	Indeno(1,2,3-cd)pyrene	17.95	
C4-SS-9C Avg	Pyrene	57.15	

Shading – Indicates a concentration in excess of the composite screening value.

* Qualifier (Qual.) Codes:

J - The associated value is an estimated quantity.

J^2 – The associated value is an average with one data point being an estimated quantity.

TABLE 3-11

CHEMICALS DETECTED IN BLOCK C10
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-10A	Aluminum	219	
C4-SS-10A	Arsenic	0.66	
C4-SS-10A	Barium	14.8	
C4-SS-10A	Cadmium	0.14	
C4-SS-10A	Chromium	2.4	
C4-SS-10A	Copper	3.8	
C4-SS-10A	Iron	228	
C4-SS-10A	Lead	11.1	
C4-SS-10A	Manganese	5.8	
C4-SS-10A	Nickel	0.88	
C4-SS-10A	Selenium	1.2	
C4-SS-10A	Tin	2.5	
C4-SS-10A	Vanadium	1.6	
C4-SS-10A	Zinc	29	
INORGANICS (mg/kg)			
C4-SS-10B	Aluminum	130	
C4-SS-10B	Arsenic	0.87	
C4-SS-10B	Barium	18.2	
C4-SS-10B	Cadmium	0.13	
C4-SS-10B	Chromium	2.6	
C4-SS-10B	Copper	3.3	
C4-SS-10B	Iron	253	
C4-SS-10B	Lead	5.6	
C4-SS-10B	Manganese	3.8	
C4-SS-10B	Nickel	0.8	
C4-SS-10B	Selenium	0.88	
C4-SS-10B	Tin	1	
C4-SS-10B	Vanadium	1.2	
C4-SS-10B	Zinc	16.7	

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-10B	Bis(2-ethylhexyl)phthalate	258	J
INORGANICS (mg/kg)			
C4-SS-10C	Aluminum	184	
C4-SS-10C	Arsenic	1.6	
C4-SS-10C	Barium	20.4	
C4-SS-10C	Cadmium	0.14	
C4-SS-10C	Chromium	3.6	
C4-SS-10C	Copper	4.1	
C4-SS-10C	Iron	605	
C4-SS-10C	Lead	19	
C4-SS-10C	Manganese	8.5	
C4-SS-10C	Mercury	0.07	
C4-SS-10C	Nickel	1.4	
C4-SS-10C	Selenium	1.4	
C4-SS-10C	Tin	4.8	
C4-SS-10C	Vanadium	2.1	
C4-SS-10C	Zinc	28.7	

Shading – Indicates a concentration in excess of the composite screening value.

* Qualifier (Qual.) Codes:

J - The associated value is an estimated quantity.

TABLE 3-12

CHEMICALS DETECTED IN BLOCK C11
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-11A	Aluminum	127	
C4-SS-11A	Barium	11	
C4-SS-11A	Cadmium	0.06	
C4-SS-11A	Chromium	2.4	
C4-SS-11A	Copper	4.4	
C4-SS-11A	Iron	326	
C4-SS-11A	Lead	32.4	
C4-SS-11A	Manganese	4.7	
C4-SS-11A	Nickel	0.49	
C4-SS-11A	Selenium	0.69	
C4-SS-11A	Tin	4.6	
C4-SS-11A	Vanadium	1.4	
C4-SS-11A	Zinc	20.4	
INORGANICS (mg/kg)			
C4-SS-11B	Aluminum	218	
C4-SS-11B	Barium	11.9	
C4-SS-11B	Chromium	2.9	
C4-SS-11B	Copper	2.7	
C4-SS-11B	Iron	206	
C4-SS-11B	Lead	5.3	
C4-SS-11B	Manganese	4.9	
C4-SS-11B	Nickel	0.65	
C4-SS-11B	Selenium	0.72	
C4-SS-11B	Tin	2.5	
C4-SS-11B	Vanadium	1.9	
C4-SS-11B	Zinc	14.4	
INORGANICS (mg/kg)			
C4-SS-11C	Aluminum	370	
C4-SS-11C	Arsenic	1.3	
C4-SS-11C	Barium	19.8	
C4-SS-11C	Cadmium	0.09	
C4-SS-11C	Chromium	4	
C4-SS-11C	Copper	10.4	
C4-SS-11C	Iron	820	
C4-SS-11C	Lead	31.3	
C4-SS-11C	Manganese	7.7	
C4-SS-11C	Nickel	1.3	
C4-SS-11C	Selenium	0.84	
C4-SS-11C	Tin	5.9	
C4-SS-11C	Vanadium	2.9	
C4-SS-11C	Zinc	42.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-11C	Benzo(a)anthracene	65.1	J
C4-SS-11C	Benzo(a)pyrene	330	J
C4-SS-11C	Benzo(b)fluoranthene	329	J
C4-SS-11C	Benzo(g,h,i)perylene	209	J
C4-SS-11C	Benzo(k)fluoranthene	256	J
C4-SS-11C	Chrysene	151	J
C4-SS-11C	Dibenzo(a,h)anthracene	84.3	J
C4-SS-11C	Fluoranthene	65.2	J
C4-SS-11C	Indeno(1,2,3-cd)pyrene	187	J
C4-SS-11C	Pyrene	125	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-13

CHEMICALS DETECTED IN BLOCK C12
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-12A	Aluminum	118	
C4-SS-12A	Arsenic	0.56	
C4-SS-12A	Barium	12.2	
C4-SS-12A	Chromium	2.5	
C4-SS-12A	Copper	3.1	
C4-SS-12A	Iron	200	
C4-SS-12A	Lead	11.8	
C4-SS-12A	Manganese	3.9	
C4-SS-12A	Nickel	0.36	
C4-SS-12A	Selenium	0.58	
C4-SS-12A	Tin	3	
C4-SS-12A	Vanadium	1.8	
C4-SS-12A	Zinc	16	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-12A	Benzo(a)anthracene	38.7	J
C4-SS-12A	Benzo(a)pyrene	76.1	J
C4-SS-12A	Benzo(b)fluoranthene	87.8	J
C4-SS-12A	Benzo(g,h,i)perylene	64.3	J
C4-SS-12A	Benzo(k)fluoranthene	57	J
C4-SS-12A	Chrysene	53.3	J
C4-SS-12A	Fluoranthene	79.4	J
C4-SS-12A	Indeno(1,2,3-cd)pyrene	45	J
C4-SS-12A	Phenanthrene	41.8	J
C4-SS-12A	Pyrene	70.4	J
INORGANICS (mg/kg)			
C4-SS-12B	Aluminum	572	
C4-SS-12B	Arsenic	1.1	
C4-SS-12B	Barium	19.3	
C4-SS-12B	Chromium	4.3	
C4-SS-12B	Cobalt	0.12	
C4-SS-12B	Copper	9.1	
C4-SS-12B	Iron	822	
C4-SS-12B	Lead	26.1	
C4-SS-12B	Manganese	8.7	
C4-SS-12B	Nickel	1.1	
C4-SS-12B	Selenium	0.83	
C4-SS-12B	Tin	4.9	
C4-SS-12B	Vanadium	3.6	
C4-SS-12B	Zinc	36.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-12B	Benzo(a)anthracene	136	J
C4-SS-12B	Benzo(a)pyrene	537	
C4-SS-12B	Benzo(b)fluoranthene	618	
C4-SS-12B	Benzo(g,h,i)perylene	385	J
C4-SS-12B	Benzo(k)fluoranthene	430	J
C4-SS-12B	Chrysene	268	J
C4-SS-12B	Dibenzo(a,h)anthracene	146	J
C4-SS-12B	Fluoranthene	155	J
C4-SS-12B	Indeno(1,2,3-cd)pyrene	323	J
C4-SS-12B	Pyrene	394	J
INORGANICS (mg/kg)			
C4-SS-12C	Aluminum	1330	
C4-SS-12C	Arsenic	1.6	
C4-SS-12C	Barium	23.3	
C4-SS-12C	Cadmium	0.14	
C4-SS-12C	Chromium	5.3	
C4-SS-12C	Cobalt	0.37	
C4-SS-12C	Copper	8.1	
C4-SS-12C	Iron	1870	

TABLE 3-13

CHEMICALS DETECTED IN BLOCK C12
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-12C	Lead	32.3	
C4-SS-12C	Manganese	114	
C4-SS-12C	Nickel	1.6	
C4-SS-12C	Selenium	0.88	
C4-SS-12C	Tin	7.1	
C4-SS-12C	Vanadium	4.7	
C4-SS-12C	Zinc	53.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-12C	Benzo(a)anthracene	95	J
C4-SS-12C	Benzo(a)pyrene	317	J
C4-SS-12C	Benzo(b)fluoranthene	358	J
C4-SS-12C	Benzo(g,h,i)perylene	244	J
C4-SS-12C	Benzo(k)fluoranthene	250	J
C4-SS-12C	Chrysene	191	J
C4-SS-12C	Dibenzo(a,h)anthracene	93.9	J
C4-SS-12C	Fluoranthene	114	J
C4-SS-12C	Indeno(1,2,3-cd)pyrene	216	J
C4-SS-12C	Pyrene	291	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-14

CHEMICALS DETECTED IN BLOCK C13
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-13A	Aluminum	215	
C4-SS-13A	Arsenic	0.45	
C4-SS-13A	Barium	16.4	
C4-SS-13A	Cadmium	0.42	
C4-SS-13A	Chromium	2.8	
C4-SS-13A	Cobalt	0.1	
C4-SS-13A	Copper	43.6	
C4-SS-13A	Iron	291	
C4-SS-13A	Lead	26.5	
C4-SS-13A	Manganese	7.6	
C4-SS-13A	Nickel	1.1	
C4-SS-13A	Selenium	0.92	
C4-SS-13A	Zinc	80.2	
INORGANICS (mg/kg)			
C4-SS-13B	Aluminum	445	
C4-SS-13B	Arsenic	1.1	
C4-SS-13B	Barium	17.8	
C4-SS-13B	Cadmium	0.14	
C4-SS-13B	Chromium	3	
C4-SS-13B	Cobalt	0.2	
C4-SS-13B	Copper	5.9	
C4-SS-13B	Iron	898	
C4-SS-13B	Lead	60.2	
C4-SS-13B	Manganese	45.5	
C4-SS-13B	Nickel	0.5	
C4-SS-13B	Selenium	0.69	
C4-SS-13B	Tin	4.4	
C4-SS-13B	Vanadium	2	
C4-SS-13B	Zinc	21.4	

Location	Parameter	Result	Qual. (*)
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-13-5BV	Methylene chloride	23.4	
INORGANICS (mg/kg)			
C4-SS-13C	Aluminum	177	
C4-SS-13C	Arsenic	2.2	
C4-SS-13C	Barium	36.9	
C4-SS-13C	Cadmium	0.43	
C4-SS-13C	Chromium	4.4	
C4-SS-13C	Cobalt	0.17	
C4-SS-13C	Copper	14.5	
C4-SS-13C	Iron	842	
C4-SS-13C	Lead	160	
C4-SS-13C	Manganese	13.4	
C4-SS-13C	Nickel	1.2	
C4-SS-13C	Selenium	1.2	
C4-SS-13C	Tin	4.8	
C4-SS-13C	Vanadium	3.9	
C4-SS-13C	Zinc	121	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-13C	Benzo(a)pyrene	37.9	J
C4-SS-13C	Chrysene	32.6	J
C4-SS-13C	Fluoranthene	38.9	J
C4-SS-13C	Pyrene	32.3	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-15

CHEMICALS DETECTED IN BLOCK C14
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-14A	Aluminum	102	
C4-SS-14A	Arsenic	0.5	
C4-SS-14A	Barium	15.5	
C4-SS-14A	Cadmium	0.79	
C4-SS-14A	Chromium	4.4	
C4-SS-14A	Cobalt	0.11	
C4-SS-14A	Copper	8.6	
C4-SS-14A	Iron	375	
C4-SS-14A	Lead	21.7	
C4-SS-14A	Manganese	6.6	
C4-SS-14A	Nickel	0.93	
C4-SS-14A	Selenium	0.71	
C4-SS-14A	Tin	0.99	
C4-SS-14A	Vanadium	2	
C4-SS-14A	Zinc	55.2	
INORGANICS (mg/kg)			
C4-SS-14B	Aluminum	76	
C4-SS-14B	Barium	11.2	
C4-SS-14B	Cadmium	0.07	
C4-SS-14B	Chromium	1.9	
C4-SS-14B	Copper	1.4	
C4-SS-14B	Iron	119	
C4-SS-14B	Lead	6.6	
C4-SS-14B	Manganese	3.2	
C4-SS-14B	Nickel	0.39	
C4-SS-14B	Selenium	0.74	
C4-SS-14B	Tin	1	
C4-SS-14B	Vanadium	1.5	
C4-SS-14B	Zinc	10.5	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-14C	Aluminum	509	
C4-SS-14C	Arsenic	1.9	
C4-SS-14C	Barium	22.4	
C4-SS-14C	Cadmium	0.07	
C4-SS-14C	Chromium	4.5	
C4-SS-14C	Cobalt	0.12	
C4-SS-14C	Copper	6.7	
C4-SS-14C	Iron	1010	
C4-SS-14C	Lead	32.4	
C4-SS-14C	Manganese	11.2	
C4-SS-14C	Nickel	1.1	
C4-SS-14C	Selenium	1	
C4-SS-14C	Tin	2.9	
C4-SS-14C	Vanadium	3.5	
C4-SS-14C	Zinc	27.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-14C	Benzo(a)anthracene	37.8	J
C4-SS-14C	Benzo(a)pyrene	186	J
C4-SS-14C	Benzo(b)fluoranthene	209	J
C4-SS-14C	Benzo(g,h,i)perylene	103	J
C4-SS-14C	Benzo(k)fluoranthene	131	J
C4-SS-14C	Chrysene	97.1	J
C4-SS-14C	Fluoranthene	67.7	J
C4-SS-14C	Indeno(1,2,3-cd)pyrene	90.3	J
C4-SS-14C	Pyrene	95.9	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-16

CHEMICALS DETECTED IN BLOCK C15
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-SS-15A Avg	Aluminum	138.5	
C4-SS-15A Avg	Arsenic	0.71	
C4-SS-15A Avg	Barium	13.75	
C4-SS-15A Avg	Cadmium	0.31	
C4-SS-15A Avg	Chromium	4.25	
C4-SS-15A Avg	Cobalt	0.145	
C4-SS-15A Avg	Copper	8.2	
C4-SS-15A Avg	Iron	1136	
C4-SS-15A Avg	Lead	22.15	
C4-SS-15A Avg	Manganese	11.05	
C4-SS-15A Avg	Nickel	1.19	
C4-SS-15A Avg	Selenium	0.77	
C4-SS-15A Avg	Tin	5.6	
C4-SS-15A Avg	Vanadium	2.6	
C4-SS-15A Avg	Zinc	92.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-15A Avg	Benzo(a)anthracene	31.9	J
C4-SS-15A Avg	Benzo(a)pyrene	69.75	J
C4-SS-15A Avg	Benzo(b)fluoranthene	84.95	J
C4-SS-15A Avg	Benzo(g,h,i)perylene	112.35	J
C4-SS-15A Avg	Benzo(k)fluoranthene	67.1	J
C4-SS-15A Avg	Chrysene	47.2	J
C4-SS-15A Avg	Fluoranthene	40.35	J
C4-SS-15A Avg	Indeno(1,2,3-cd)pyrene	108.45	J
C4-SS-15A Avg	Pyrene	37.95	J
INORGANICS (mg/kg)			
C4-SS-15B Avg	Aluminum	169.5	
C4-SS-15B Avg	Arsenic	0.505	
C4-SS-15B Avg	Barium	14.1	
C4-SS-15B Avg	Cadmium	0.155	
C4-SS-15B Avg	Chromium	3.15	
C4-SS-15B Avg	Copper	7.2	
C4-SS-15B Avg	Iron	467	
C4-SS-15B Avg	Lead	19.1	
C4-SS-15B Avg	Manganese	7.5	
C4-SS-15B Avg	Nickel	0.51	
C4-SS-15B Avg	Selenium	0.71	
C4-SS-15B Avg	Tin	3	
C4-SS-15B Avg	Vanadium	1.85	
C4-SS-15B Avg	Zinc	35.85	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-15B Avg	Benzo(a)anthracene	60.2	J
C4-SS-15B Avg	Benzo(a)pyrene	90.95	J
C4-SS-15B Avg	Benzo(b)fluoranthene	110.85	J
C4-SS-15B Avg	Benzo(g,h,i)perylene	69.35	J
C4-SS-15B Avg	Benzo(k)fluoranthene	93.95	J
C4-SS-15B Avg	Chrysene	90.15	J
C4-SS-15B Avg	Fluoranthene	108.95	J
C4-SS-15B Avg	Indeno(1,2,3-cd)pyrene	51.7	J
C4-SS-15B Avg	Phenanthrene	133.3	J
C4-SS-15B Avg	Pyrene	86.1	J
INORGANICS (mg/kg)			
C4-SS-15C Avg	Aluminum	712.5	
C4-SS-15C Avg	Arsenic	1.75	
C4-SS-15C Avg	Barium	29.7	
C4-SS-15C Avg	Cadmium	0.245	
C4-SS-15C Avg	Chromium	5.4	
C4-SS-15C Avg	Cobalt	0.175	
C4-SS-15C Avg	Copper	13.85	

TABLE 3-16

CHEMICALS DETECTED IN BLOCK C15
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C4-SS-15C Avg	Iron	1845	
C4-SS-15C Avg	Lead	75.15	
C4-SS-15C Avg	Manganese	44.75	
C4-SS-15C Avg	Nickel	1.75	
C4-SS-15C Avg	Selenium	0.83	
C4-SS-15C Avg	Tin	6.8	
C4-SS-15C Avg	Vanadium	4.5	
C4-SS-15C Avg	Zinc	66.2	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-SS-15C Avg	Acenaphthylene	154.9	J
C4-SS-15C Avg	Anthracene	144.05	J
C4-SS-15C Avg	Benzo(a)anthracene	129	J
C4-SS-15C Avg	Benzo(a)pyrene	406	J
C4-SS-15C Avg	Benzo(b)fluoranthene	498	J^2
C4-SS-15C Avg	Benzo(g,h,i)perylene	206	J
C4-SS-15C Avg	Benzo(k)fluoranthene	280.5	J
C4-SS-15C Avg	Chrysene	210.5	J
C4-SS-15C Avg	Fluoranthene	176.5	J
C4-SS-15C Avg	Indeno(1,2,3-cd)pyrene	186	J
C4-SS-15C Avg	Phenanthrene	136.05	J
C4-SS-15C Avg	Pyrene	284.5	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
J^2- The associated value is an average with one data point being an estimated quantity.

TABLE 3-17

CHEMICALS DETECTED IN BLOCK C16
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-16A	Aluminum	232	
C3-SS-16A	Arsenic	0.66	
C3-SS-16A	Barium	14.2	
C3-SS-16A	Cadmium	0.21	
C3-SS-16A	Chromium	2.6	
C3-SS-16A	Cobalt	0.18	
C3-SS-16A	Copper	12.1	
C3-SS-16A	Iron	849	
C3-SS-16A	Lead	33	
C3-SS-16A	Manganese	7.6	
C3-SS-16A	Nickel	4.2	
C3-SS-16A	Selenium	0.8	
C3-SS-16A	Tin	2.5	
C3-SS-16A	Vanadium	1.7	
C3-SS-16A	Zinc	55.1	
INORGANICS (mg/kg)			
C3-SS-16B	Aluminum	128	
C3-SS-16B	Barium	12.2	
C3-SS-16B	Cadmium	0.09	
C3-SS-16B	Chromium	2.6	
C3-SS-16B	Copper	2.8	
C3-SS-16B	Iron	221	
C3-SS-16B	Lead	10.7	
C3-SS-16B	Manganese	3.4	
C3-SS-16B	Selenium	0.83	
C3-SS-16B	Vanadium	1.7	
C3-SS-16B	Zinc	19.2	
INORGANICS (mg/kg)			
C3-SS-16C	Aluminum	244	
C3-SS-16C	Arsenic	0.72	
C3-SS-16C	Barium	17.6	
C3-SS-16C	Cadmium	0.12	
C3-SS-16C	Chromium	3.2	
C3-SS-16C	Cobalt	0.15	
C3-SS-16C	Copper	17.5	
C3-SS-16C	Iron	527	
C3-SS-16C	Lead	40.4	
C3-SS-16C	Manganese	8.7	
C3-SS-16C	Nickel	0.58	
C3-SS-16C	Selenium	1.1	
C3-SS-16C	Tin	1.9	
C3-SS-16C	Vanadium	2.3	
C3-SS-16C	Zinc	24.5	

Shading – Indicates a concentration in excess of the composite screening value.

* Qualifier (Qual.) Codes:

J - The associated value is an estimated quantity.

TABLE 3-18

CHEMICALS DETECTED IN BLOCK C17
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-17A	Aluminum	221	
C3-SS-17A	Arsenic	0.64	
C3-SS-17A	Barium	14.2	
C3-SS-17A	Cadmium	0.31	
C3-SS-17A	Chromium	4.7	
C3-SS-17A	Cobalt	0.21	
C3-SS-17A	Copper	69.6	
C3-SS-17A	Iron	320	
C3-SS-17A	Lead	50.4	
C3-SS-17A	Manganese	5	
C3-SS-17A	Nickel	0.8	
C3-SS-17A	Selenium	0.84	
C3-SS-17A	Tin	7.5	
C3-SS-17A	Vanadium	1.8	
C3-SS-17A	Zinc	34.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-17A	Benzo(a)pyrene	35.3	J
C3-SS-17A	Benzo(b)fluoranthene	40.6	J
C3-SS-17A	Benzo(g,h,i)perylene	50	J
C3-SS-17A	Benzo(k)fluoranthene	31.3	J
C3-SS-17A	Chrysene	41	J
INORGANICS (mg/kg)			
C3-SS-17B	Aluminum	153	
C3-SS-17B	Arsenic	0.83	
C3-SS-17B	Barium	15.6	
C3-SS-17B	Cadmium	0.12	
C3-SS-17B	Chromium	2.7	
C3-SS-17B	Cobalt	0.11	
C3-SS-17B	Copper	6.7	
C3-SS-17B	Iron	188	
C3-SS-17B	Lead	16.2	
C3-SS-17B	Manganese	4.2	
C3-SS-17B	Nickel	0.66	
C3-SS-17B	Selenium	0.77	
C3-SS-17B	Tin	2.4	
C3-SS-17B	Vanadium	2.8	
C3-SS-17B	Zinc	22.1	
INORGANICS (mg/kg)			
C3-SS-17C	Aluminum	197	
C3-SS-17C	Arsenic	1.1	
C3-SS-17C	Barium	19.6	
C3-SS-17C	Cadmium	0.22	
C3-SS-17C	Chromium	4	
C3-SS-17C	Cobalt	0.22	
C3-SS-17C	Copper	3.7	
C3-SS-17C	Iron	451	
C3-SS-17C	Lead	12.2	
C3-SS-17C	Manganese	8.6	
C3-SS-17C	Nickel	0.91	
C3-SS-17C	Selenium	1.1	
C3-SS-17C	Tin	1.7	
C3-SS-17C	Vanadium	2	
C3-SS-17C	Zinc	15.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-17C	Fluoranthene	57.7	J
C3-SS-17C	Phenanthrene	55.5	J
C3-SS-17C	Pyrene	85.9	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-19

CHEMICALS DETECTED IN BLOCK C18
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-18A	Aluminum	165	
C3-SS-18A	Barium	13.8	
C3-SS-18A	Chromium	1.8	
C3-SS-18A	Cobalt	0.08	
C3-SS-18A	Copper	3.7	
C3-SS-18A	Iron	239	
C3-SS-18A	Lead	14.3	
C3-SS-18A	Manganese	3.2	
C3-SS-18A	Nickel	0.33	
C3-SS-18A	Selenium	0.78	
C3-SS-18A	Tin	0.95	
C3-SS-18A	Vanadium	1.5	
C3-SS-18A	Zinc	9.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-18A	Benzo(a)pyrene	32.3	J
C3-SS-18A	Benzo(b)fluoranthene	38	J
C3-SS-18A	Benzo(g,h,i)perylene	35.4	J
C3-SS-18A	Benzo(k)fluoranthene	39	J
C3-SS-18A	Bis(2-ethylhexyl)phthalate	35.6	J
C3-SS-18A	Indeno(1,2,3-cd)pyrene	23.3	J
INORGANICS (mg/kg)			
C3-SS-18B	Aluminum	84.4	
C3-SS-18B	Barium	15.6	
C3-SS-18B	Chromium	2.2	
C3-SS-18B	Copper	3.7	
C3-SS-18B	Iron	307	
C3-SS-18B	Lead	21.5	
C3-SS-18B	Manganese	4.5	
C3-SS-18B	Nickel	0.38	
C3-SS-18B	Selenium	0.84	
C3-SS-18B	Tin	1	
C3-SS-18B	Vanadium	1.4	
C3-SS-18B	Zinc	17.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-18B	Acenaphthylene	847	
C3-SS-18B	Benzo(a)anthracene	455	
C3-SS-18B	Benzo(a)pyrene	3200	
C3-SS-18B	Benzo(b)fluoranthene	5478	
C3-SS-18B	Benzo(g,h,i)perylene	2180	
C3-SS-18B	Benzo(k)fluoranthene	1782	
C3-SS-18B	Carbazole	203	J
C3-SS-18B	Chrysene	1030	
C3-SS-18B	Dibenzo(a,h)anthracene	1050	
C3-SS-18B	Fluoranthene	314	J
C3-SS-18B	Fluorene	77.5	J
C3-SS-18B	Indeno(1,2,3-cd)pyrene	2120	
C3-SS-18B	Phenanthrene	451	
C3-SS-18B	Pyrene	440	
INORGANICS (mg/kg)			
C3-SS-18C	Aluminum	107	
C3-SS-18C	Arsenic	1.8	
C3-SS-18C	Barium	26.2	
C3-SS-18C	Chromium	2.8	
C3-SS-18C	Copper	7.5	
C3-SS-18C	Iron	526	
C3-SS-18C	Lead	37.8	
C3-SS-18C	Manganese	8.4	
C3-SS-18C	Nickel	0.51	
C3-SS-18C	Selenium	0.82	

TABLE 3-19

CHEMICALS DETECTED IN BLOCK C18
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-18C	Tin	2.4	
C3-SS-18C	Vanadium	2.6	
C3-SS-18C	Zinc	30.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-18C	Acenaphthylene	23.5	J
C3-SS-18C	Benzo(a)anthracene	33.6	J
C3-SS-18C	Benzo(a)pyrene	100	J
C3-SS-18C	Benzo(b)fluoranthene	115	J
C3-SS-18C	Benzo(g,h,i)perylene	85.2	J
C3-SS-18C	Benzo(k)fluoranthene	80.8	J
C3-SS-18C	Chrysene	59.9	J
C3-SS-18C	Fluoranthene	29.4	J
C3-SS-18C	Indeno(1,2,3-cd)pyrene	69.7	J
C3-SS-18C	Pyrene	42.9	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-20

CHEMICALS DETECTED IN BLOCK C19
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-19A	Aluminum	212	
C3-SS-19A	Arsenic	0.63	
C3-SS-19A	Barium	12.1	
C3-SS-19A	Cadmium	0.16	
C3-SS-19A	Chromium	2.8	
C3-SS-19A	Cobalt	0.16	
C3-SS-19A	Copper	6.6	
C3-SS-19A	Iron	722	
C3-SS-19A	Lead	168	
C3-SS-19A	Manganese	6.4	
C3-SS-19A	Nickel	1.2	
C3-SS-19A	Selenium	0.97	
C3-SS-19A	Tin	1.3	
C3-SS-19A	Vanadium	1.3	
C3-SS-19A	Zinc	21.4	
INORGANICS (mg/kg)			
C3-SS-19B	Aluminum	108	
C3-SS-19B	Arsenic	0.63	
C3-SS-19B	Barium	13.4	
C3-SS-19B	Cadmium	0.31	
C3-SS-19B	Chromium	2.3	
C3-SS-19B	Cobalt	0.11	
C3-SS-19B	Copper	5.5	
C3-SS-19B	Iron	384	
C3-SS-19B	Lead	55.6	
C3-SS-19B	Manganese	4.9	
C3-SS-19B	Nickel	0.56	
C3-SS-19B	Selenium	0.85	
C3-SS-19B	Tin	0.8	
C3-SS-19B	Vanadium	1.3	

Location	Parameter	Result	Qual. (*)
C3-SS-19B	Zinc	19.2	
INORGANICS (mg/kg)			
C3-SS-19C	Aluminum	545	
C3-SS-19C	Arsenic	1.1	
C3-SS-19C	Barium	26.1	
C3-SS-19C	Cadmium	0.49	
C3-SS-19C	Chromium	3.9	
C3-SS-19C	Copper	17	
C3-SS-19C	Iron	947	
C3-SS-19C	Lead	80	
C3-SS-19C	Manganese	15.4	
C3-SS-19C	Zinc	53.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-19C	Fluoranthene	67.9	J
C3-SS-19C	Pyrene	85.7	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

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CHEMICALS DETECTED IN BLOCK C20
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-20A	Aluminum	128	
C3-SS-20A	Arsenic	0.67	
C3-SS-20A	Barium	14.3	
C3-SS-20A	Cadmium	0.35	
C3-SS-20A	Chromium	4.8	
C3-SS-20A	Cobalt	0.21	
C3-SS-20A	Copper	17.4	
C3-SS-20A	Iron	765	
C3-SS-20A	Lead	189	
C3-SS-20A	Manganese	7.6	
C3-SS-20A	Nickel	1	
C3-SS-20A	Selenium	0.81	
C3-SS-20A	Tin	2.4	
C3-SS-20A	Vanadium	1.6	
C3-SS-20A	Zinc	38.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-20A	Benzo(a)anthracene	36.1	J
C3-SS-20A	Benzo(a)pyrene	53.9	J
C3-SS-20A	Benzo(b)fluoranthene	72.1	J
C3-SS-20A	Benzo(g,h,i)perylene	98.1	J
C3-SS-20A	Benzo(k)fluoranthene	42.3	J
C3-SS-20A	Chrysene	51.4	J
C3-SS-20A	Fluoranthene	46.5	J
C3-SS-20A	Indeno(1,2,3-cd)pyrene	50.4	J
C3-SS-20A	Pyrene	64.5	J
INORGANICS (mg/kg)			
C3-SS-20B	Aluminum	129	
C3-SS-20B	Arsenic	0.63	
C3-SS-20B	Barium	13.6	
C3-SS-20B	Cadmium	0.06	
C3-SS-20B	Chromium	2.4	
C3-SS-20B	Cobalt	0.12	
C3-SS-20B	Copper	1.4	
C3-SS-20B	Iron	114	
C3-SS-20B	Lead	7.1	
C3-SS-20B	Manganese	3.3	
C3-SS-20B	Nickel	0.51	
C3-SS-20B	Selenium	0.95	
C3-SS-20B	Tin	0.97	
C3-SS-20B	Vanadium	1.7	
C3-SS-20B	Zinc	8.4	
INORGANICS (mg/kg)			
C3-SS-20C	Aluminum	167	
C3-SS-20C	Arsenic	1.4	
C3-SS-20C	Barium	15.8	
C3-SS-20C	Cadmium	0.13	
C3-SS-20C	Chromium	3.3	
C3-SS-20C	Cobalt	0.11	
C3-SS-20C	Copper	2.4	
C3-SS-20C	Iron	416	
C3-SS-20C	Lead	15.4	
C3-SS-20C	Manganese	8.9	
C3-SS-20C	Nickel	0.29	
C3-SS-20C	Selenium	1	
C3-SS-20C	Tin	2.4	
C3-SS-20C	Vanadium	1.5	
C3-SS-20C	Zinc	81.7	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-20C	Fluoranthene	34.4	J

TABLE 3-21

CHEMICALS DETECTED IN BLOCK C20
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-20C	Pyrene	38.2	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-22

CHEMICALS DETECTED IN BLOCK C21
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-21A	Aluminum	136	
C3-SS-21A	Arsenic	0.7	
C3-SS-21A	Barium	18.7	
C3-SS-21A	Cadmium	0.14	
C3-SS-21A	Chromium	3.1	
C3-SS-21A	Cobalt	0.1	
C3-SS-21A	Copper	7.9	
C3-SS-21A	Iron	334	
C3-SS-21A	Lead	286	
C3-SS-21A	Manganese	5.1	
C3-SS-21A	Nickel	0.72	
C3-SS-21A	Selenium	1.1	
C3-SS-21A	Tin	2.8	
C3-SS-21A	Vanadium	1.9	
C3-SS-21A	Zinc	19	
INORGANICS (mg/kg)			
C3-SS-21B	Aluminum	135	
C3-SS-21B	Arsenic	1.2	
C3-SS-21B	Barium	17.8	
C3-SS-21B	Cadmium	0.09	
C3-SS-21B	Chromium	3.1	
C3-SS-21B	Copper	3.2	
C3-SS-21B	Iron	326	
C3-SS-21B	Lead	17.5	
C3-SS-21B	Manganese	7.5	
C3-SS-21B	Nickel	0.4	
C3-SS-21B	Selenium	1.1	
C3-SS-21B	Tin	4.3	
C3-SS-21B	Vanadium	1.5	
C3-SS-21B	Zinc	16.2	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-21C	Aluminum	293	
C3-SS-21C	Arsenic	1.6	
C3-SS-21C	Barium	17.8	
C3-SS-21C	Cadmium	0.13	
C3-SS-21C	Chromium	3.4	
C3-SS-21C	Copper	10.3	
C3-SS-21C	Iron	1030	
C3-SS-21C	Lead	67	
C3-SS-21C	Manganese	17.2	
C3-SS-21C	Nickel	0.67	
C3-SS-21C	Selenium	1	
C3-SS-21C	Tin	4.6	
C3-SS-21C	Vanadium	2.6	
C3-SS-21C	Zinc	30.5	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-23

CHEMICALS DETECTED IN BLOCK C22
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-22A	Aluminum	185	
C3-SS-22A	Arsenic	1.8	
C3-SS-22A	Barium	26.9	
C3-SS-22A	Cadmium	0.67	
C3-SS-22A	Chromium	11.2	
C3-SS-22A	Cobalt	1.1	
C3-SS-22A	Copper	267	
C3-SS-22A	Iron	9100	
C3-SS-22A	Lead	326	
C3-SS-22A	Manganese	54.9	
C3-SS-22A	Nickel	8.6	
C3-SS-22A	Selenium	0.64	
C3-SS-22A	Tin	11.3	
C3-SS-22A	Vanadium	1.9	
C3-SS-22A	Zinc	120	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-22A	Anthracene	22.4	J
C3-SS-22A	Benzo(a)anthracene	99.9	J
C3-SS-22A	Benzo(a)pyrene	79.9	J
C3-SS-22A	Benzo(b)fluoranthene	79.7	J
C3-SS-22A	Benzo(g,h,i)perylene	83.2	J
C3-SS-22A	Benzo(k)fluoranthene	72.7	J
C3-SS-22A	Chrysene	127	J
C3-SS-22A	Fluoranthene	135	J
C3-SS-22A	Indeno(1,2,3-cd)pyrene	48	J
C3-SS-22A	Phenanthrene	86.7	J
C3-SS-22A	Pyrene	236	J
INORGANICS (mg/kg)			
C3-SS-22B	Aluminum	298	
C3-SS-22B	Arsenic	1.7	
C3-SS-22B	Barium	20.1	
C3-SS-22B	Cadmium	0.53	
C3-SS-22B	Chromium	6.5	
C3-SS-22B	Cobalt	0.61	
C3-SS-22B	Copper	39.6	
C3-SS-22B	Iron	3880	
C3-SS-22B	Lead	101	
C3-SS-22B	Manganese	31.6	
C3-SS-22B	Nickel	4.7	
C3-SS-22B	Selenium	0.91	
C3-SS-22B	Vanadium	3.3	
C3-SS-22B	Zinc	114	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-22B	Acenaphthene	127	J
C3-SS-22B	Acenaphthylene	151	J
C3-SS-22B	Anthracene	381	
C3-SS-22B	Benzo(a)anthracene	1690	
C3-SS-22B	Benzo(a)pyrene	1160	
C3-SS-22B	Benzo(b)fluoranthene	2170	
C3-SS-22B	Benzo(g,h,i)perylene	671	
C3-SS-22B	Benzo(k)fluoranthene	1140	
C3-SS-22B	Carbazole	479	
C3-SS-22B	Chrysene	3120	
C3-SS-22B	Dibenzofuran	42	J
C3-SS-22B	Fluoranthene	7820	
C3-SS-22B	Fluorene	112	J
C3-SS-22B	Indeno(1,2,3-cd)pyrene	575	
C3-SS-22B	Naphthalene	27.1	J
C3-SS-22B	Phenanthrene	3600	

TABLE 3-23

CHEMICALS DETECTED IN BLOCK C22
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-22B	Pyrene	8480	
INORGANICS (mg/kg)			
C3-SS-22C	Aluminum	268	
C3-SS-22C	Arsenic	1.2	
C3-SS-22C	Barium	25.5	
C3-SS-22C	Cadmium	0.56	
C3-SS-22C	Chromium	6.2	
C3-SS-22C	Cobalt	0.37	
C3-SS-22C	Copper	35	
C3-SS-22C	Iron	3020	
C3-SS-22C	Lead	76	
C3-SS-22C	Manganese	24.1	
C3-SS-22C	Nickel	3.9	
C3-SS-22C	Selenium	1.2	
C3-SS-22C	Tin	4	
C3-SS-22C	Vanadium	2.3	
C3-SS-22C	Zinc	76	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-22C	Di-n-butyl phthalate	41.4	J
C3-SS-22C	Fluoranthene	41.9	J
C3-SS-22C	Pyrene	43.5	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-24

CHEMICALS DETECTED IN BLOCK C23
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-23A	Aluminum	117	
C3-SS-23A	Arsenic	1.9	
C3-SS-23A	Barium	17.7	
C3-SS-23A	Cadmium	0.57	
C3-SS-23A	Chromium	5.3	
C3-SS-23A	Cobalt	0.57	
C3-SS-23A	Copper	17.4	
C3-SS-23A	Iron	6950	
C3-SS-23A	Lead	118	
C3-SS-23A	Manganese	31.1	
C3-SS-23A	Nickel	3	
C3-SS-23A	Selenium	0.46	
C3-SS-23A	Tin	6.4	
C3-SS-23A	Vanadium	0.87	
C3-SS-23A	Zinc	39.9	
INORGANICS (mg/kg)			
C3-SS-23B	Aluminum	136	
C3-SS-23B	Arsenic	0.6	
C3-SS-23B	Barium	14.9	
C3-SS-23B	Cadmium	0.26	
C3-SS-23B	Chromium	2.3	
C3-SS-23B	Cobalt	0.18	
C3-SS-23B	Copper	8	
C3-SS-23B	Iron	1670	
C3-SS-23B	Lead	38.6	
C3-SS-23B	Manganese	10.6	
C3-SS-23B	Nickel	0.7	
C3-SS-23B	Selenium	0.84	
C3-SS-23B	Tin	1.9	
C3-SS-23B	Vanadium	1.1	
C3-SS-23B	Zinc	29.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-23B	Benzo(a)pyrene	65.6	J
C3-SS-23B	Benzo(b)fluoranthene	83.2	J
C3-SS-23B	Benzo(g,h,i)perylene	72.2	J
C3-SS-23B	Benzo(k)fluoranthene	51.3	J
C3-SS-23B	Chrysene	43.4	J
C3-SS-23B	Indeno(1,2,3-cd)pyrene	49.6	J
INORGANICS (mg/kg)			
C3-SS-23C	Aluminum	247	
C3-SS-23C	Arsenic	3.3	
C3-SS-23C	Barium	31.3	
C3-SS-23C	Cadmium	0.43	
C3-SS-23C	Chromium	3.8	
C3-SS-23C	Cobalt	0.51	
C3-SS-23C	Copper	23.3	
C3-SS-23C	Iron	1390	
C3-SS-23C	Lead	78.8	
C3-SS-23C	Manganese	11.4	
C3-SS-23C	Nickel	1	
C3-SS-23C	Selenium	2.6	
C3-SS-23C	Tin	5.9	
C3-SS-23C	Vanadium	2.4	
C3-SS-23C	Zinc	44.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-23C	Fluoranthene	60.4	J
C3-SS-23C	Pyrene	59.6	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-25

CHEMICALS DETECTED IN BLOCK C24
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-24A	Aluminum	432	
C3-SS-24A	Barium	14.7	
C3-SS-24A	Cadmium	0.75	
C3-SS-24A	Chromium	4.5	
C3-SS-24A	Cobalt	0.25	
C3-SS-24A	Copper	15.8	
C3-SS-24A	Iron	962	
C3-SS-24A	Lead	115	
C3-SS-24A	Manganese	10.9	
C3-SS-24A	Nickel	1.1	
C3-SS-24A	Selenium	0.87	
C3-SS-24A	Tin	2.7	
C3-SS-24A	Vanadium	1.8	
C3-SS-24A	Zinc	59.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-24A	Benzo(a)anthracene	199	J
C3-SS-24A	Benzo(a)pyrene	167	J
C3-SS-24A	Benzo(b)fluoranthene	211	J
C3-SS-24A	Benzo(k)fluoranthene	179	J
C3-SS-24A	Chrysene	211	J
C3-SS-24A	Fluoranthene	381	
C3-SS-24A	Phenanthrene	179	J
C3-SS-24A	Pyrene	330	J
INORGANICS (mg/kg)			
C3-SS-24B	Aluminum	260	
C3-SS-24B	Arsenic	1	
C3-SS-24B	Barium	28.3	
C3-SS-24B	Cadmium	0.3	
C3-SS-24B	Chromium	2.9	
C3-SS-24B	Cobalt	0.14	
C3-SS-24B	Copper	13.1	
C3-SS-24B	Iron	574	
C3-SS-24B	Lead	81.5	
C3-SS-24B	Manganese	7	
C3-SS-24B	Nickel	1	
C3-SS-24B	Selenium	1	
C3-SS-24B	Silver	5.4	
C3-SS-24B	Tin	2.4	
C3-SS-24B	Vanadium	1.8	
C3-SS-24B	Zinc	101	
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-24-1BV	Benzene	1.4	J
INORGANICS (mg/kg)			
C3-SS-24C	Aluminum	1060	
C3-SS-24C	Arsenic	2	
C3-SS-24C	Barium	26.2	
C3-SS-24C	Cadmium	0.16	
C3-SS-24C	Chromium	5.2	
C3-SS-24C	Cobalt	0.3	
C3-SS-24C	Copper	11.3	
C3-SS-24C	Iron	1410	
C3-SS-24C	Lead	50.6	
C3-SS-24C	Manganese	18.2	
C3-SS-24C	Nickel	1.5	
C3-SS-24C	Selenium	1	
C3-SS-24C	Tin	5.3	
C3-SS-24C	Vanadium	4.2	
C3-SS-24C	Zinc	31.4	

TABLE 3-25

CHEMICALS DETECTED IN BLOCK C24
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-24C	Benzo(a)pyrene	159	J
C3-SS-24C	Benzo(b)fluoranthene	176	J
C3-SS-24C	Benzo(k)fluoranthene	123	J
C3-SS-24C	Chrysene	98.4	J
C3-SS-24C	Fluoranthene	223	J
C3-SS-24C	Pyrene	264	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

CHEMICALS DETECTED BLOCK C25
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-25A	Aluminum	254	
C3-SS-25A	Arsenic	0.74	
C3-SS-25A	Barium	66.4	
C3-SS-25A	Cadmium	0.95	
C3-SS-25A	Chromium	5.5	
C3-SS-25A	Cobalt	0.19	
C3-SS-25A	Copper	256	
C3-SS-25A	Iron	1940	
C3-SS-25A	Lead	345	
C3-SS-25A	Manganese	14.3	
C3-SS-25A	Nickel	1.7	
C3-SS-25A	Selenium	1	
C3-SS-25A	Tin	4.8	
C3-SS-25A	Vanadium	1.6	
C3-SS-25A	Zinc	233	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-25A	Acenaphthene	43.6	J
C3-SS-25A	Anthracene	243	J
C3-SS-25A	Benzo(a)anthracene	1870	
C3-SS-25A	Benzo(a)pyrene	1220	
C3-SS-25A	Benzo(b)fluoranthene	1480	
C3-SS-25A	Benzo(g,h,i)perylene	896	
C3-SS-25A	Benzo(k)fluoranthene	882	
C3-SS-25A	Carbazole	251	J
C3-SS-25A	Chrysene	2010	
C3-SS-25A	Dibenzo(a,h)anthracene	387	
C3-SS-25A	Fluoranthene	2530	
C3-SS-25A	Fluorene	33	J
C3-SS-25A	Indeno(1,2,3-cd)pyrene	702	
C3-SS-25A	Phenanthrene	729	
C3-SS-25A	Pyrene	3570	
INORGANICS (mg/kg)			
C3-SS-25B	Aluminum	182	
C3-SS-25B	Arsenic	0.72	
C3-SS-25B	Barium	22.3	
C3-SS-25B	Cadmium	0.11	
C3-SS-25B	Chromium	6.5	
C3-SS-25B	Cobalt	0.09	
C3-SS-25B	Copper	25.3	
C3-SS-25B	Iron	512	
C3-SS-25B	Lead	102	
C3-SS-25B	Manganese	6.4	
C3-SS-25B	Nickel	0.68	
C3-SS-25B	Selenium	1.2	
C3-SS-25B	Tin	2.6	
C3-SS-25B	Vanadium	1.4	
C3-SS-25B	Zinc	45.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-25B	Anthracene	77.6	J
C3-SS-25B	Benzo(a)anthracene	574	
C3-SS-25B	Benzo(a)pyrene	361	J
C3-SS-25B	Benzo(b)fluoranthene	414	
C3-SS-25B	Benzo(g,h,i)perylene	175	J
C3-SS-25B	Benzo(k)fluoranthene	255	J
C3-SS-25B	Carbazole	75.4	J
C3-SS-25B	Chrysene	608	
C3-SS-25B	Dibenzo(a,h)anthracene	79.4	J
C3-SS-25B	Fluoranthene	855	
C3-SS-25B	Indeno(1,2,3-cd)pyrene	156	J

TABLE 3-26

CHEMICALS DETECTED BLOCK C25
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-25B	Phenanthrene	232	J
C3-SS-25B	Pyrene	1090	
INORGANICS (mg/kg)			
C3-SS-25C	Aluminum	386	
C3-SS-25C	Arsenic	1.3	
C3-SS-25C	Barium	43.7	
C3-SS-25C	Cadmium	0.33	
C3-SS-25C	Chromium	7.2	
C3-SS-25C	Cobalt	0.15	
C3-SS-25C	Copper	44.8	
C3-SS-25C	Iron	1180	
C3-SS-25C	Lead	143	
C3-SS-25C	Manganese	19.1	
C3-SS-25C	Nickel	1.1	
C3-SS-25C	Selenium	1.2	
C3-SS-25C	Tin	6	
C3-SS-25C	Vanadium	3.3	
C3-SS-25C	Zinc	131	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-25C	Anthracene	30.9	J
C3-SS-25C	Benzo(a)anthracene	251	J
C3-SS-25C	Benzo(a)pyrene	178	J
C3-SS-25C	Benzo(b)fluoranthene	185	J
C3-SS-25C	Benzo(g,h,i)perylene	143	J
C3-SS-25C	Benzo(k)fluoranthene	154	J
C3-SS-25C	Chrysene	295	J
C3-SS-25C	Fluoranthene	456	
C3-SS-25C	Indeno(1,2,3-cd)pyrene	108	J
C3-SS-25C	Phenanthrene	100	J
C3-SS-25C	Pyrene	563	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-27

CHEMICALS DETECTED IN BLOCK C26
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-26A	Aluminum	413	
C3-SS-26A	Antimony	15.3	
C3-SS-26A	Arsenic	1.8	
C3-SS-26A	Barium	55.7	
C3-SS-26A	Cadmium	1.8	
C3-SS-26A	Chromium	13.5	
C3-SS-26A	Cobalt	0.64	
C3-SS-26A	Copper	167	
C3-SS-26A	Iron	6010	
C3-SS-26A	Lead	757	
C3-SS-26A	Manganese	43.7	
C3-SS-26A	Nickel	4.6	
C3-SS-26A	Selenium	0.71	
C3-SS-26A	Tin	28.7	
C3-SS-26A	Vanadium	2.4	
C3-SS-26A	Zinc	382	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-26A	Anthracene	33.3	J
C3-SS-26A	Benzo(a)anthracene	78.9	J
C3-SS-26A	Benzo(a)pyrene	57.1	J
C3-SS-26A	Benzo(b)fluoranthene	68.5	J
C3-SS-26A	Benzo(g,h,i)perylene	55.9	J
C3-SS-26A	Benzo(k)fluoranthene	35	J
C3-SS-26A	Chrysene	69.1	J
C3-SS-26A	Di-n-butyl phthalate	135	J
C3-SS-26A	Fluoranthene	159	J
C3-SS-26A	Phenanthrene	161	J
C3-SS-26A	Pyrene	203	J

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-26B	Aluminum	189	
C3-SS-26B	Arsenic	0.96	
C3-SS-26B	Barium	17.4	
C3-SS-26B	Cadmium	0.22	
C3-SS-26B	Chromium	4.7	
C3-SS-26B	Cobalt	0.09	
C3-SS-26B	Copper	13.9	
C3-SS-26B	Iron	487	
C3-SS-26B	Lead	38.6	
C3-SS-26B	Manganese	6.6	
C3-SS-26B	Nickel	0.85	
C3-SS-26B	Selenium	1	
C3-SS-26B	Tin	13.6	
C3-SS-26B	Vanadium	1.7	
C3-SS-26B	Zinc	32.4	
INORGANICS (mg/kg)			
C3-SS-26C	Aluminum	1380	
C3-SS-26C	Arsenic	2.4	
C3-SS-26C	Barium	30.7	
C3-SS-26C	Cadmium	0.23	
C3-SS-26C	Chromium	5.1	
C3-SS-26C	Cobalt	0.88	
C3-SS-26C	Copper	19.9	
C3-SS-26C	Iron	2210	
C3-SS-26C	Lead	35.4	
C3-SS-26C	Manganese	26.5	
C3-SS-26C	Nickel	2.2	
C3-SS-26C	Selenium	1.2	
C3-SS-26C	Tin	6.2	

TABLE 3-27

CHEMICALS DETECTED IN BLOCK C26
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-26C	Vanadium	3	
C3-SS-26C	Zinc	122	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-26C	Acenaphthylene	25.4	J
C3-SS-26C	Anthracene	66	J
C3-SS-26C	Benzo(a)anthracene	203	J
C3-SS-26C	Benzo(a)pyrene	198	J
C3-SS-26C	Benzo(b)fluoranthene	147	J
C3-SS-26C	Benzo(g,h,i)perylene	180	J
C3-SS-26C	Benzo(k)fluoranthene	152	J
C3-SS-26C	Chrysene	198	J
C3-SS-26C	Fluoranthene	354	J
C3-SS-26C	Indeno(1,2,3-cd)pyrene	120	J
C3-SS-26C	Phenanthrene	162	J
C3-SS-26C	Pyrene	433	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-28

CHEMICALS DETECTED IN BLOCK C27
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-27A	Aluminum	225	
C3-SS-27A	Arsenic	1.3	
C3-SS-27A	Barium	49.1	
C3-SS-27A	Cadmium	1.6	
C3-SS-27A	Chromium	9	
C3-SS-27A	Cobalt	0.62	
C3-SS-27A	Copper	105	
C3-SS-27A	Iron	5440	
C3-SS-27A	Lead	376	
C3-SS-27A	Manganese	38.1	
C3-SS-27A	Nickel	3.8	
C3-SS-27A	Selenium	0.42	
C3-SS-27A	Tin	3.7	
C3-SS-27A	Vanadium	1.1	
C3-SS-27A	Zinc	741	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-27A	Anthracene	13.1	J
C3-SS-27A	Benzo(a)anthracene	98.4	J
C3-SS-27A	Benzo(a)pyrene	115	J
C3-SS-27A	Benzo(b)fluoranthene	120	J
C3-SS-27A	Benzo(g,h,i)perylene	122	J
C3-SS-27A	Benzo(k)fluoranthene	100	J
C3-SS-27A	Chrysene	112	J
C3-SS-27A	Dibenzo(a,h)anthracene	46.3	J
C3-SS-27A	Fluoranthene	145	J
C3-SS-27A	Indeno(1,2,3-cd)pyrene	93	J
C3-SS-27A	Phenanthrene	30.9	J
C3-SS-27A	Pyrene	134	J

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-27B	Aluminum	666	
C3-SS-27B	Arsenic	3.2	
C3-SS-27B	Barium	118	
C3-SS-27B	Cadmium	1.4	
C3-SS-27B	Chromium	10.1	
C3-SS-27B	Cobalt	0.52	
C3-SS-27B	Copper	418	
C3-SS-27B	Iron	11900	
C3-SS-27B	Lead	495	
C3-SS-27B	Manganese	49.8	
C3-SS-27B	Nickel	2.3	
C3-SS-27B	Tin	17.2	
C3-SS-27B	Vanadium	1.6	
C3-SS-27B	Zinc	540	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-27B	Benzo(a)anthracene	54.4	J
C3-SS-27B	Benzo(a)pyrene	50	J
C3-SS-27B	Benzo(b)fluoranthene	57.6	J
C3-SS-27B	Benzo(g,h,i)perylene	38.6	J
C3-SS-27B	Benzo(k)fluoranthene	38.2	J
C3-SS-27B	Chrysene	62.4	J
C3-SS-27B	Fluoranthene	93	J
C3-SS-27B	Indeno(1,2,3-cd)pyrene	33.6	J
C3-SS-27B	Phenanthrene	41.4	J
C3-SS-27B	Pyrene	79.8	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-27-2BV	Benzene	1.175	J
INORGANICS (mg/kg)			
C3-SS-27C	Aluminum	196	

TABLE 3-28

CHEMICALS DETECTED IN BLOCK C27
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-27C	Arsenic	1.2	
C3-SS-27C	Barium	24.8	
C3-SS-27C	Cadmium	1.5	
C3-SS-27C	Chromium	4.5	
C3-SS-27C	Cobalt	0.36	
C3-SS-27C	Copper	28.8	
C3-SS-27C	Iron	4220	
C3-SS-27C	Lead	122	
C3-SS-27C	Manganese	23.2	
C3-SS-27C	Nickel	1.4	
C3-SS-27C	Selenium	0.73	
C3-SS-27C	Tin	1.8	
C3-SS-27C	Vanadium	0.83	
C3-SS-27C	Zinc	79.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-27C	Benzo(a)anthracene	65	J
C3-SS-27C	Benzo(a)pyrene	57.2	J
C3-SS-27C	Benzo(b)fluoranthene	61.9	J
C3-SS-27C	Benzo(g,h,i)perylene	44.6	J
C3-SS-27C	Benzo(k)fluoranthene	43.6	J
C3-SS-27C	Chrysene	67.8	J
C3-SS-27C	Fluoranthene	112	J
C3-SS-27C	Indeno(1,2,3-cd)pyrene	36.8	J
C3-SS-27C	Phenanthrene	40.2	J
C3-SS-27C	Pyrene	116	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-29

CHEMICALS DETECTED IN BLOCK C28
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-28A	Aluminum	145	
C3-SS-28A	Antimony	11.5	
C3-SS-28A	Arsenic	0.9	
C3-SS-28A	Barium	38.7	
C3-SS-28A	Cadmium	1.3	
C3-SS-28A	Chromium	4.6	
C3-SS-28A	Cobalt	0.14	
C3-SS-28A	Copper	126	
C3-SS-28A	Iron	577	
C3-SS-28A	Lead	668	
C3-SS-28A	Manganese	7.4	
C3-SS-28A	Mercury	0.06	
C3-SS-28A	Nickel	1.5	
C3-SS-28A	Selenium	1.1	
C3-SS-28A	Tin	47.5	
C3-SS-28A	Vanadium	1.5	
C3-SS-28A	Zinc	129	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-28A	Benzo(a)anthracene	43.8	J
C3-SS-28A	Benzo(a)pyrene	47.9	J
C3-SS-28A	Benzo(b)fluoranthene	48.3	J
C3-SS-28A	Benzo(g,h,i)perylene	65.9	J
C3-SS-28A	Benzo(k)fluoranthene	52.9	J
C3-SS-28A	Chrysene	59.7	J
C3-SS-28A	Fluoranthene	65.8	J
C3-SS-28A	Indeno(1,2,3-cd)pyrene	38.5	J
C3-SS-28A	Phenanthrene	43.5	J
C3-SS-28A	Pyrene	79.9	J

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-28B	Aluminum	161	
C3-SS-28B	Antimony	11.4	
C3-SS-28B	Arsenic	1.3	
C3-SS-28B	Barium	21.1	
C3-SS-28B	Cadmium	0.32	
C3-SS-28B	Chromium	3.2	
C3-SS-28B	Cobalt	0.16	
C3-SS-28B	Copper	50.9	
C3-SS-28B	Iron	518	
C3-SS-28B	Lead	529	
C3-SS-28B	Manganese	9.1	
C3-SS-28B	Mercury	0.06	
C3-SS-28B	Nickel	1	
C3-SS-28B	Selenium	1.2	
C3-SS-28B	Silver	0.27	
C3-SS-28B	Tin	3.3	
C3-SS-28B	Vanadium	1.7	
C3-SS-28B	Zinc	54.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-28B	Benzo(a)pyrene	48.2	J
C3-SS-28B	Benzo(b)fluoranthene	51.9	J
C3-SS-28B	Benzo(g,h,i)perylene	70.9	J
C3-SS-28B	Benzo(k)fluoranthene	38.1	J
C3-SS-28B	Indeno(1,2,3-cd)pyrene	40.9	J
INORGANICS (mg/kg)			
C3-SS-28C	Aluminum	332	
C3-SS-28C	Antimony	13.4	
C3-SS-28C	Arsenic	1.6	
C3-SS-28C	Barium	24.3	

TABLE 3-29

CHEMICALS DETECTED IN BLOCK C28
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-28C	Cadmium	0.23	
C3-SS-28C	Chromium	5.2	
C3-SS-28C	Cobalt	0.22	
C3-SS-28C	Copper	64.3	
C3-SS-28C	Iron	965	
C3-SS-28C	Lead	690	
C3-SS-28C	Manganese	16.1	
C3-SS-28C	Mercury	0.11	
C3-SS-28C	Nickel	1.2	
C3-SS-28C	Selenium	1.2	
C3-SS-28C	Tin	6.6	
C3-SS-28C	Vanadium	3	
C3-SS-28C	Zinc	73.1	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-30

CHEMICALS DETECTED IN BLOCK C29
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-29A	Aluminum	510	
C3-SS-29A	Antimony	19.6	
C3-SS-29A	Arsenic	2.7	
C3-SS-29A	Barium	47.6	
C3-SS-29A	Cadmium	2.3	
C3-SS-29A	Chromium	18.8	
C3-SS-29A	Cobalt	0.56	
C3-SS-29A	Copper	294	
C3-SS-29A	Iron	5150	
C3-SS-29A	Lead	2080	
C3-SS-29A	Manganese	43.5	
C3-SS-29A	Nickel	2.7	
C3-SS-29A	Selenium	0.65	
C3-SS-29A	Tin	5.3	
C3-SS-29A	Vanadium	4.6	
C3-SS-29A	Zinc	315	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-29A	Benzo(a)anthracene	93.9	J
C3-SS-29A	Benzo(a)pyrene	151	J
C3-SS-29A	Benzo(b)fluoranthene	172	J
C3-SS-29A	Benzo(k)fluoranthene	151	J
C3-SS-29A	Chrysene	116	J
C3-SS-29A	Fluoranthene	128	J
C3-SS-29A	Pyrene	142	J
INORGANICS (mg/kg)			
C3-SS-29B	Aluminum	4480	
C3-SS-29B	Arsenic	8.7	
C3-SS-29B	Barium	65.8	
C3-SS-29B	Cadmium	0.22	
C3-SS-29B	Chromium	8.3	
C3-SS-29B	Cobalt	0.63	
C3-SS-29B	Copper	9.2	
C3-SS-29B	Iron	2520	
C3-SS-29B	Lead	8.1	
C3-SS-29B	Manganese	78.8	
C3-SS-29B	Nickel	2.1	
C3-SS-29B	Selenium	0.84	
C3-SS-29B	Vanadium	6.8	
C3-SS-29B	Zinc	60.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-29B	Benzo(a)anthracene	25.9	J
C3-SS-29B	Benzo(a)pyrene	38.5	J
C3-SS-29B	Benzo(b)fluoranthene	47.5	J
C3-SS-29B	Benzo(g,h,i)perylene	45.3	J
C3-SS-29B	Benzo(k)fluoranthene	28.3	J
C3-SS-29B	Chrysene	29.9	J
C3-SS-29B	Fluoranthene	28.5	J
C3-SS-29B	Indeno(1,2,3-cd)pyrene	31.6	J
C3-SS-29B	Pyrene	29.8	J
VOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-29-1BV	Benzene	2.2	J
C3-SS-29-1BV	Methylene chloride	22.2	
INORGANICS (mg/kg)			
C3-SS-29C	Aluminum	93.3	
C3-SS-29C	Arsenic	0.75	
C3-SS-29C	Barium	17.9	
C3-SS-29C	Cadmium	0.26	
C3-SS-29C	Chromium	2.9	
C3-SS-29C	Copper	7.7	

TABLE 3-30

CHEMICALS DETECTED IN BLOCK C29
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C3-SS-29C	Iron	210	
C3-SS-29C	Lead	93.3	
C3-SS-29C	Manganese	8.2	
C3-SS-29C	Nickel	0.26	
C3-SS-29C	Selenium	0.7	
C3-SS-29C	Tin	0.87	
C3-SS-29C	Vanadium	0.79	
C3-SS-29C	Zinc	33	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-31

CHEMICALS DETECTED IN BLOCK C30
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-SS-30A	Aluminum	110	
C3-SS-30A	Arsenic	0.45	
C3-SS-30A	Barium	13.8	
C3-SS-30A	Cadmium	0.09	
C3-SS-30A	Chromium	2.6	
C3-SS-30A	Copper	5.4	
C3-SS-30A	Iron	346	
C3-SS-30A	Lead	56.6	
C3-SS-30A	Manganese	5.4	
C3-SS-30A	Nickel	0.48	
C3-SS-30A	Selenium	0.8	
C3-SS-30A	Tin	3.3	
C3-SS-30A	Vanadium	1.2	
C3-SS-30A	Zinc	21.2	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-30A	Fluoranthene	29.8	J
C3-SS-30A	Pyrene	42.1	J
INORGANICS (mg/kg)			
C3-SS-30B	Aluminum	283	
C3-SS-30B	Arsenic	1.1	
C3-SS-30B	Barium	20.4	
C3-SS-30B	Cadmium	0.11	
C3-SS-30B	Chromium	3.6	
C3-SS-30B	Cobalt	0.14	
C3-SS-30B	Copper	7.9	
C3-SS-30B	Iron	756	
C3-SS-30B	Lead	81.6	
C3-SS-30B	Manganese	12.1	
C3-SS-30B	Nickel	1.9	
C3-SS-30B	Selenium	0.89	
C3-SS-30B	Tin	3.4	
C3-SS-30B	Vanadium	1.8	
C3-SS-30B	Zinc	36.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-30B	Benzo(a)anthracene	40.6	J
C3-SS-30B	Benzo(a)pyrene	59.4	J
C3-SS-30B	Benzo(g,h,i)perylene	83.3	J
C3-SS-30B	Chrysene	57.6	J
C3-SS-30B	Fluoranthene	49	J
C3-SS-30B	Indeno(1,2,3-cd)pyrene	48.2	J
C3-SS-30B	Pyrene	80.7	J
INORGANICS (mg/kg)			
C3-SS-30C	Aluminum	341	
C3-SS-30C	Arsenic	1.1	
C3-SS-30C	Barium	23.9	
C3-SS-30C	Cadmium	0.19	
C3-SS-30C	Chromium	3.4	
C3-SS-30C	Cobalt	0.13	
C3-SS-30C	Copper	9.7	
C3-SS-30C	Iron	1100	
C3-SS-30C	Lead	77.8	
C3-SS-30C	Manganese	24.4	
C3-SS-30C	Mercury	0.09	
C3-SS-30C	Nickel	1.2	
C3-SS-30C	Selenium	0.81	
C3-SS-30C	Tin	5.4	
C3-SS-30C	Vanadium	3	
C3-SS-30C	Zinc	44.5	

TABLE 3-31

CHEMICALS DETECTED IN BLOCK C30
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-SS-30C	Benzo(b)fluoranthene	134	J
C3-SS-30C	Benzo(k)fluoranthene	99.3	J
C3-SS-30C	Fluoranthene	116	J
C3-SS-30C	Pyrene	133	J

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 32

LEAD DETECTED IN DRMO BY PALINTEST ANALYSIS
NAS KEY WEST

Sample	Parameter	Result	Units	Qual.	Screening Value
Palintest Results - Discrete Sample Exceedances					
C23-3	Lead	1035.4	mg/kg		500
C24-4	Lead	904.3	mg/kg		500
C25-2	Lead	607.1	mg/kg		500
C26-1	Lead	2108.0	mg/kg		500
C26-4	Lead	778.8	mg/kg		500
C28-1	Lead	1047.4	mg/kg		500
C4-2	Lead	877.2	mg/kg		500
C8-3	Lead	520.8	mg/kg		500
Palintest Results - Composite Sample Exceedances					
C23-C	Lead	1242.9	mg/kg		223.6
C30-B	Lead	243.1	mg/kg		223.6
C27-B	Lead	451.5	mg/kg		223.6
C28-C	Lead	2813.5	mg/kg		223.6
C28-A	Lead	259.5	mg/kg		223.6
C22-C	Lead	327.3	mg/kg		223.6

TABLE 3-33

DRMO
NAS KEY WEST
SURFACE SOIL

Parameter	Samples	Detects	Exceed
INORGANICS			
Aluminum	90	89	0
Antimony	90	8	2
Arsenic	90	82	32
Barium	90	89	0
Cadmium	90	82	0
Chromium	90	87	0
Cobalt	90	54	0
Copper	90	84	0
Iron	90	88	1
Lead	90	88	14
Manganese	90	88	0
Mercury	90	14	0
Nickel	90	77	0
Selenium	90	64	0
Silver	90	1	0
Tin	90	82	0
Vanadium	90	87	0
Zinc	90	88	0
VOLATILE ORGANIC COMPOUNDS			
Benzene	90	4	0
Chloroform	90	1	0
Pentachlorophenol	90	1	0
Methylenechloride	90	3	0
Trichloroethene	90	1	0
SEMIVOLATILE ORGANIC COMPOUNDS			
2-methylnaphthalene	90	1	0
Acenaphthalene	90	6	0
Anthracene	90	14	0
Acenaphthylene	90	11	0
Benzo(a)anthracene	90	42	2

Parameter	Samples	Detects	Exceed
Benzo(a)pyrene	90	48	35
Benzo(b)fluoranthene	90	47	2
Benzo(g,h,i)perylene	90	43	0
Benzo(k)fluoranthene	90	47	0
Bis(2-ethylhexyl)phthalate	90	4	0
Carbazole	90	9	0
Chrysene	90	47	0
Di-n-butylphthalate	90	2	0
Dibenzo(a,h)anthracene	90	15	9
Dibenzofuran	90	3	0
Fluoranthene	90	55	0
Fluorene	90	6	0
Indeno(1,2,3-cd)pyrene	90	41	2
Naphthalene	90	2	0
Phenanthrene	90	27	0
Pyrene	90	55	0

TABLE 3-34

CHEMICALS DETECTED IN BLOCK E1
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-1A	Aluminum	1730	
E2-SS-1A	Antimony	1.6	
E2-SS-1A	Arsenic	3.8	
E2-SS-1A	Barium	67.4	
E2-SS-1A	Cadmium	0.65	
E2-SS-1A	Chromium	18.8	
E2-SS-1A	Cobalt	1.6	
E2-SS-1A	Copper	62.7	
E2-SS-1A	Iron	15000	
E2-SS-1A	Lead	126	
E2-SS-1A	Manganese	106	
E2-SS-1A	Mercury	0.05	
E2-SS-1A	Nickel	14.4	
E2-SS-1A	Selenium	0.34	
E2-SS-1A	Silver	0.29	
E2-SS-1A	Tin	6.6	
E2-SS-1A	Vanadium	5.2	
E2-SS-1A	Zinc	209	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-1A	Benzo(a)anthracene	894	
E2-SS-1A	Benzo(a)pyrene	765	
E2-SS-1A	Benzo(b)fluoranthene	726	
E2-SS-1A	Benzo(g,h,i)perylene	940	
E2-SS-1A	Benzo(k)fluoranthene	449	
E2-SS-1A	Chrysene	909	
E2-SS-1A	Fluoranthene	1820	
E2-SS-1A	Indeno(1,2,3-cd)pyrene	760	
E2-SS-1A	Phenanthrene	816	
E2-SS-1A	Pyrene	1300	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-1B	Aluminum	1470	
E2-SS-1B	Arsenic	2.7	
E2-SS-1B	Barium	38.4	
E2-SS-1B	Cadmium	0.33	
E2-SS-1B	Chromium	7.2	
E2-SS-1B	Cobalt	0.87	
E2-SS-1B	Copper	13.1	
E2-SS-1B	Iron	3700	
E2-SS-1B	Lead	69.4	
E2-SS-1B	Manganese	39.4	
E2-SS-1B	Nickel	3.4	
E2-SS-1B	Selenium	0.68	
E2-SS-1B	Tin	5.4	
E2-SS-1B	Vanadium	4	
E2-SS-1B	Zinc	113	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-1B	Benzo(a)anthracene	279	J
E2-SS-1B	Benzo(a)pyrene	228	J
E2-SS-1B	Benzo(b)fluoranthene	207	J
E2-SS-1B	Benzo(g,h,i)perylene	275	J
E2-SS-1B	Benzo(k)fluoranthene	203	J
E2-SS-1B	Chrysene	282	J
E2-SS-1B	Fluoranthene	638	
E2-SS-1B	Indeno(1,2,3-cd)pyrene	221	J
E2-SS-1B	Phenanthrene	391	
E2-SS-1B	Pyrene	477	
VOLATILE ORGANIC COMPOUNDS (mg/kg)			
E2-SS-1BV	Benzene	3.4	
E2-SS-1BV	Toluene	3	

TABLE 3-34

CHEMICALS DETECTED IN BLOCK E1
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-1C	Aluminum	550	
E2-SS-1C	Arsenic	7.9	
E2-SS-1C	Barium	20.6	
E2-SS-1C	Cadmium	1	
E2-SS-1C	Chromium	5.7	
E2-SS-1C	Cobalt	0.36	
E2-SS-1C	Copper	16.5	
E2-SS-1C	Iron	1450	
E2-SS-1C	Lead	16.4	
E2-SS-1C	Manganese	24	
E2-SS-1C	Nickel	2.5	
E2-SS-1C	Selenium	1.4	
E2-SS-1C	Vanadium	2.4	
E2-SS-1C	Zinc	70.9	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-35

CHEMICALS DETECTED IN BLOCK E2
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-2A	Aluminum	3540	
E2-SS-2A	Arsenic	1.3	
E2-SS-2A	Barium	65.4	
E2-SS-2A	Cadmium	0.2	
E2-SS-2A	Chromium	6.1	
E2-SS-2A	Cobalt	1.1	
E2-SS-2A	Copper	9.7	
E2-SS-2A	Iron	3310	
E2-SS-2A	Lead	27.9	
E2-SS-2A	Manganese	94.7	
E2-SS-2A	Nickel	3.7	
E2-SS-2A	Selenium	0.48	
E2-SS-2A	Vanadium	7.7	
E2-SS-2A	Zinc	55.2	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-2A	Benzo(a)anthracene	555	
E2-SS-2A	Benzo(a)pyrene	541	
E2-SS-2A	Benzo(b)fluoranthene	611	
E2-SS-2A	Benzo(g,h,i)perylene	717	
E2-SS-2A	Benzo(k)fluoranthene	394	
E2-SS-2A	Chrysene	585	
E2-SS-2A	Fluoranthene	1240	
E2-SS-2A	Indeno(1,2,3-cd)pyrene	564	
E2-SS-2A	Phenanthrene	684	
E2-SS-2A	Pyrene	931	
INORGANICS (mg/kg)			
E2-SS-2B	Aluminum	934	
E2-SS-2B	Arsenic	2.2	
E2-SS-2B	Barium	48	
E2-SS-2B	Cadmium	0.17	
E2-SS-2B	Chromium	4.4	
E2-SS-2B	Cobalt	0.38	
E2-SS-2B	Copper	8.7	
E2-SS-2B	Iron	1280	
E2-SS-2B	Lead	19.6	
E2-SS-2B	Manganese	26.4	
E2-SS-2B	Nickel	1.9	
E2-SS-2B	Selenium	0.87	
E2-SS-2B	Tin	2	
E2-SS-2B	Vanadium	2.9	
E2-SS-2B	Zinc	39.4	
INORGANICS (mg/kg)			
E2-SS-2C	Aluminum	498	
E2-SS-2C	Arsenic	16.2	
E2-SS-2C	Barium	31	
E2-SS-2C	Cadmium	1	
E2-SS-2C	Chromium	4.7	
E2-SS-2C	Cobalt	0.36	
E2-SS-2C	Copper	16.3	
E2-SS-2C	Iron	981	
E2-SS-2C	Lead	13.4	
E2-SS-2C	Manganese	25.8	
E2-SS-2C	Nickel	2.1	
E2-SS-2C	Selenium	1.9	
E2-SS-2C	Zinc	74.7	

Shading – Indicates a concentration in excess of the composite screening value.
Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-36

CHEMICALS DETECTED IN BLOCK E3
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-3A	Aluminum	494	
E2-SS-3A	Arsenic	1.6	
E2-SS-3A	Barium	22.4	
E2-SS-3A	Cadmium	0.24	
E2-SS-3A	Chromium	5.4	
E2-SS-3A	Cobalt	0.27	
E2-SS-3A	Copper	14.3	
E2-SS-3A	Iron	1160	
E2-SS-3A	Lead	19.4	
E2-SS-3A	Manganese	13.7	
E2-SS-3A	Nickel	2.4	
E2-SS-3A	Selenium	1.1	
E2-SS-3A	Zinc	36.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-3A	Fluoranthene	260	J
E2-SS-3A	Pyrene	219	J
INORGANICS (mg/kg)			
E2-SS-3B	Aluminum	337	
E2-SS-3B	Arsenic	1.3	
E2-SS-3B	Barium	34.6	
E2-SS-3B	Cadmium	0.2	
E2-SS-3B	Chromium	3.2	
E2-SS-3B	Cobalt	0.1	
E2-SS-3B	Copper	6.1	
E2-SS-3B	Iron	621	
E2-SS-3B	Lead	15.5	
E2-SS-3B	Manganese	13.8	
E2-SS-3B	Nickel	1.3	
E2-SS-3B	Selenium	0.95	
E2-SS-3B	Tin	1	
E2-SS-3B	Vanadium	1.9	
E2-SS-3B	Zinc	24.8	
VOLATILE ORGANIC COMPOUNDS (mg/kg)			
E2-SS-3BV	Benzene	2.1	J
E2-SS-3BV	Toluene	17.8	
INORGANICS (mg/kg)			
E2-SS-3C	Aluminum	166	
E2-SS-3C	Arsenic	3.8	
E2-SS-3C	Barium	15.2	
E2-SS-3C	Cadmium	0.14	
E2-SS-3C	Chromium	1.8	
E2-SS-3C	Cobalt	0.1	
E2-SS-3C	Copper	2.3	
E2-SS-3C	Iron	194	
E2-SS-3C	Lead	1.3	
E2-SS-3C	Manganese	3.3	
E2-SS-3C	Nickel	0.9	
E2-SS-3C	Selenium	1	
E2-SS-3C	Tin	1.2	
E2-SS-3C	Vanadium	0.61	
E2-SS-3C	Zinc	11.7	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-37

CHEMICALS DETECTED BLOCK E4
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-4A	Aluminum	1460	
E2-SS-4A	Arsenic	3.1	
E2-SS-4A	Barium	35.9	
E2-SS-4A	Cadmium	0.18	
E2-SS-4A	Chromium	9.2	
E2-SS-4A	Cobalt	0.8	
E2-SS-4A	Copper	36.5	
E2-SS-4A	Iron	6830	
E2-SS-4A	Lead	41.6	
E2-SS-4A	Manganese	109	
E2-SS-4A	Mercury	0.06	
E2-SS-4A	Nickel	6.6	
E2-SS-4A	Selenium	0.55	
E2-SS-4A	Tin	3.3	
E2-SS-4A	Vanadium	9.8	
E2-SS-4A	Zinc	88.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-4A	Benzo(a)anthracene	241	J
E2-SS-4A	Benzo(a)pyrene	284	J
E2-SS-4A	Benzo(b)fluoranthene	294	J
E2-SS-4A	Benzo(g,h,i)perylene	295	J
E2-SS-4A	Benzo(k)fluoranthene	210	J
E2-SS-4A	Chrysene	277	J
E2-SS-4A	Fluoranthene	272	J
E2-SS-4A	Indeno(1,2,3-cd)pyrene	236	J
E2-SS-4A	Pyrene	282	J
INORGANICS (mg/kg)			
E2-SS-4B	Aluminum	1010	
E2-SS-4B	Arsenic	2.5	
E2-SS-4B	Barium	26.3	
E2-SS-4B	Cadmium	0.19	
E2-SS-4B	Chromium	7.7	
E2-SS-4B	Cobalt	0.26	
E2-SS-4B	Copper	15.7	
E2-SS-4B	Iron	1700	
E2-SS-4B	Lead	79.7	
E2-SS-4B	Manganese	15.9	
E2-SS-4B	Nickel	2.8	
E2-SS-4B	Selenium	1.1	
E2-SS-4B	Zinc	68.8	
VOLATILE ORGANIC COMPOUNDS (mg/kg)			
E2-SS-4BV	Benzene	2.4	J
E2-SS-4BV	Toluene	2.9	J
INORGANICS (mg/kg)			
E2-SS-4C	Aluminum	984	
E2-SS-4C	Arsenic	2.2	
E2-SS-4C	Barium	28.1	
E2-SS-4C	Cadmium	0.19	
E2-SS-4C	Chromium	7	
E2-SS-4C	Cobalt	0.21	
E2-SS-4C	Copper	12.1	
E2-SS-4C	Iron	1490	
E2-SS-4C	Lead	58.7	
E2-SS-4C	Manganese	17.2	
E2-SS-4C	Nickel	2.6	
E2-SS-4C	Selenium	1.1	
E2-SS-4C	Tin	8.2	
E2-SS-4C	Zinc	44.7	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-38

CHEMICALS DETECTED IN BLOCK E5
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-5A	Aluminum	1290	
E2-SS-5A	Arsenic	2.6	
E2-SS-5A	Barium	62	
E2-SS-5A	Cadmium	0.69	
E2-SS-5A	Chromium	18.6	
E2-SS-5A	Cobalt	1	
E2-SS-5A	Copper	47.9	
E2-SS-5A	Iron	6930	
E2-SS-5A	Lead	79.4	
E2-SS-5A	Manganese	71.7	
E2-SS-5A	Mercury	0.07	
E2-SS-5A	Nickel	5.8	
E2-SS-5A	Selenium	0.47	
E2-SS-5A	Tin	2.9	
E2-SS-5A	Vanadium	4.3	
E2-SS-5A	Zinc	228	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-5A	Benzo(a)anthracene	616	
E2-SS-5A	Benzo(a)pyrene	564	
E2-SS-5A	Benzo(b)fluoranthene	559	
E2-SS-5A	Benzo(g,h,i)perylene	720	
E2-SS-5A	Benzo(k)fluoranthene	443	
E2-SS-5A	Chrysene	646	
E2-SS-5A	Fluoranthene	1220	
E2-SS-5A	Indeno(1,2,3-cd)pyrene	544	
E2-SS-5A	Phenanthrene	508	
E2-SS-5A	Pyrene	922	
INORGANICS (mg/kg)			
E2-SS-5B	Aluminum	1030	
E2-SS-5B	Arsenic	1.1	
E2-SS-5B	Barium	36.7	
E2-SS-5B	Cadmium	0.15	
E2-SS-5B	Chromium	3.8	
E2-SS-5B	Cobalt	0.44	
E2-SS-5B	Copper	5.7	
E2-SS-5B	Iron	1270	
E2-SS-5B	Lead	23.9	
E2-SS-5B	Manganese	40.2	
E2-SS-5B	Mercury	0.05	
E2-SS-5B	Nickel	1.8	
E2-SS-5B	Selenium	0.72	
E2-SS-5B	Tin	6.4	
E2-SS-5B	Vanadium	3.1	
E2-SS-5B	Zinc	54.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-5B	Fluoranthene	251	J
E2-SS-5B	Pyrene	210	J
VOLATILE ORGANIC COMPOUNDS (mg/kg)			
E2-SS-5BV	Benzene	1.5	J
E2-SS-5BV	Toluene	2.2	
INORGANICS (mg/kg)			
E2-SS-5C	Aluminum	131	
E2-SS-5C	Arsenic	1.1	
E2-SS-5C	Barium	16.4	
E2-SS-5C	Chromium	1.9	
E2-SS-5C	Copper	2.1	
E2-SS-5C	Iron	258	
E2-SS-5C	Lead	4.5	
E2-SS-5C	Manganese	4.4	

TABLE 3-38

CHEMICALS DETECTED IN BLOCK E5
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
E2-SS-5C	Nickel	0.99	
E2-SS-5C	Selenium	0.7	
E2-SS-5C	Zinc	13	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-39

CHEMICALS DETECTED IN BLOCK E6
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-SS-6A	Aluminum	1030	
E2-SS-6A	Arsenic	2.6	
E2-SS-6A	Barium	33.4	
E2-SS-6A	Cadmium	0.56	
E2-SS-6A	Chromium	10.2	
E2-SS-6A	Cobalt	1	
E2-SS-6A	Copper	24.4	
E2-SS-6A	Iron	9830	
E2-SS-6A	Lead	101	
E2-SS-6A	Manganese	49	
E2-SS-6A	Nickel	4.9	
E2-SS-6A	Selenium	0.66	
E2-SS-6A	Tin	4.6	
E2-SS-6A	Vanadium	6	
E2-SS-6A	Zinc	128	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-6A	Benzo(a)anthracene	305	J
E2-SS-6A	Benzo(a)pyrene	309	J
E2-SS-6A	Benzo(b)fluoranthene	315	J
E2-SS-6A	Benzo(g,h,i)perylene	384	
E2-SS-6A	Benzo(k)fluoranthene	225	J
E2-SS-6A	Chrysene	340	J
E2-SS-6A	Fluoranthene	727	
E2-SS-6A	Indeno(1,2,3-cd)pyrene	342	J
E2-SS-6A	Phenanthrene	379	
E2-SS-6A	Pyrene	532	
INORGANICS (mg/kg)			
E2-SS-6B	Aluminum	492	
E2-SS-6B	Arsenic	1.1	
E2-SS-6B	Barium	29.6	
E2-SS-6B	Chromium	6.6	
E2-SS-6B	Copper	8.8	
E2-SS-6B	Iron	1320	
E2-SS-6B	Lead	44	
E2-SS-6B	Manganese	16.9	
E2-SS-6B	Zinc	59.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-SS-6B	Anthracene	321	J
E2-SS-6B	Benzo(a)anthracene	602	
E2-SS-6B	Benzo(a)pyrene	457	
E2-SS-6B	Benzo(b)fluoranthene	445	
E2-SS-6B	Benzo(g,h,i)perylene	454	
E2-SS-6B	Benzo(k)fluoranthene	356	J
E2-SS-6B	Chrysene	582	
E2-SS-6B	Fluoranthene	1580	
E2-SS-6B	Indeno(1,2,3-cd)pyrene	409	
E2-SS-6B	Phenanthrene	1190	
E2-SS-6B	Pyrene	1110	
VOLATILE ORGANIC COMPOUNDS (mg/kg)			
E2-SS-6BV	Benzene	1.4	J
INORGANICS (mg/kg)			
E2-SS-6C	Aluminum	237	
E2-SS-6C	Arsenic	0.77	
E2-SS-6C	Barium	17.9	
E2-SS-6C	Cadmium	0.18	
E2-SS-6C	Chromium	2.6	
E2-SS-6C	Cobalt	0.12	
E2-SS-6C	Copper	5.5	
E2-SS-6C	Iron	547	

TABLE 3-39

CHEMICALS DETECTED IN BLOCK E6
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
E2-SS-6C	Lead	8.6	
E2-SS-6C	Manganese	6.1	
E2-SS-6C	Nickel	1.6	
E2-SS-6C	Selenium	0.84	
E2-SS-6C	Zinc	25.7	

Shading – Indicates a concentration in excess of the composite screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 3-40

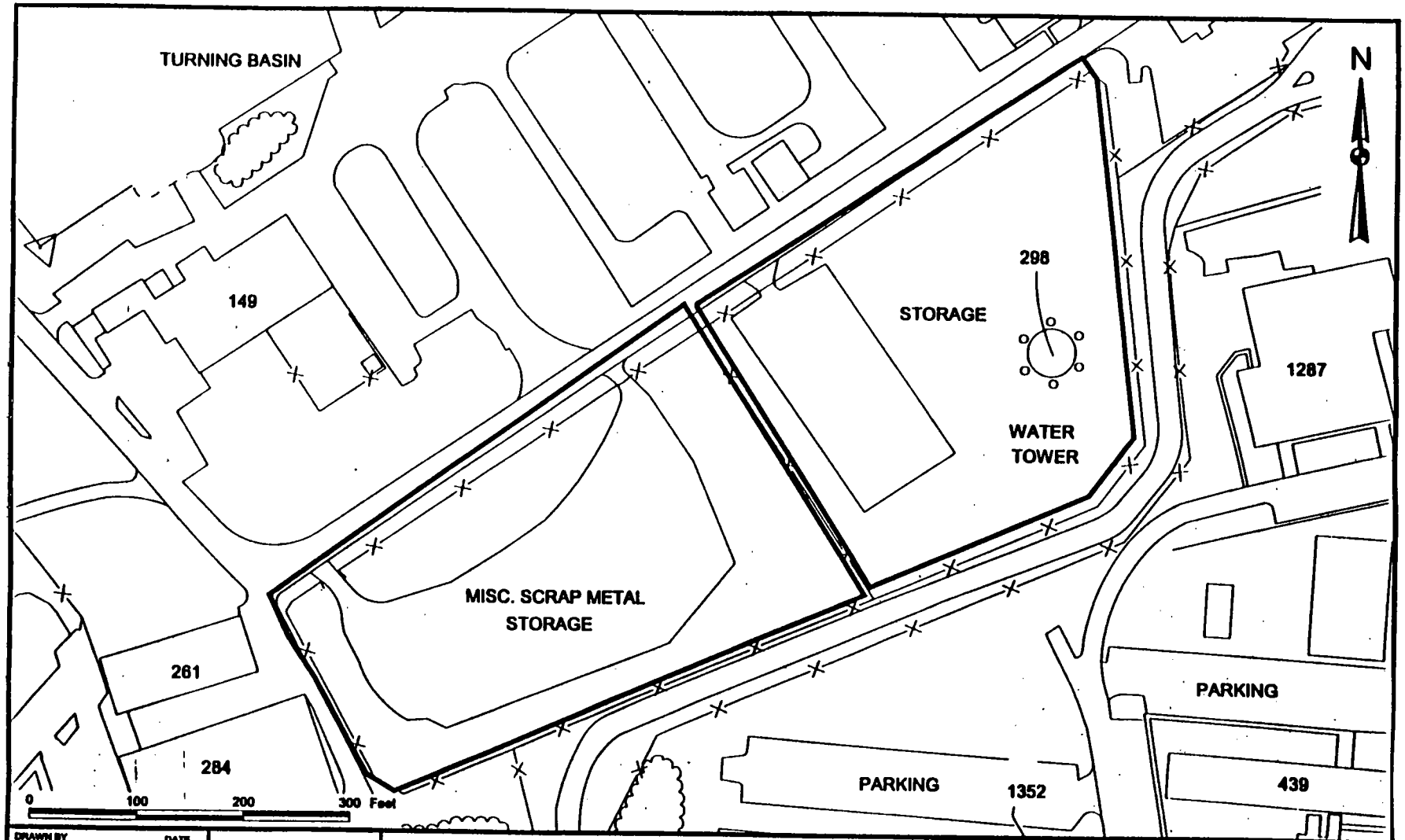
FORMER BUILDING 136
NAS KEY WEST
SURFACE SOIL

Parameter	Samples	Detects	Exceed
INORGANICS			
Aluminum	19	18	0
Antimony	18	1	0
Arsenic	18	18	15
Barium	18	18	0
Cadmium	18	16	0
Chromium	18	18	0
Cobalt	18	16	0
Copper	18	18	0
Iron	18	18	1
Lead	18	18	1
Manganese	18	18	0
Mercury	18	4	0
Nickel	18	17	0
Selenium	18	17	0
Silver	18	1	0
Tin	18	10	0
Vanadium	18	11	0
Zinc	18	18	0
VOLATILE ORGANIC COMPOUNDS			
Benzene	18	5	0
Toluene	18	4	0
SEMIVOLATILE ORGANIC COMPOUNDS			
Anthracene	18	1	0
Benzo(a)anthracene	18	7	1
Benzo(a)pyrene	18	7	7
Benzo(b)fluoranthene	18	7	1
Benzo(g,h,i)perylene	18	7	0
Benzo(k)fluoranthene	18	7	0
Chrysene	18	7	0
Fluoranthene	18	9	0
Indeno(1,2,3-cd)pyrene	18	8	1
Phenanthrene	18	6	0
Pyrene	18	9	0

TABLE 3-41

TCLP SAMPLE RESULTS
NAS KEY WEST

Sample	TCLP (Pb)	Units
C17	<0.5	mg/L
C24	<0.5	mg/L
C4	<0.5	mg/L
C23-C	<0.5	mg/L
C28-A	0.68	mg/L
C28-C	2.8	mg/L
C26-A	3.1	mg/L
C29-A	<0.5	mg/L



DRAWN BY TMH	DATE 08-AUG-98	SUPPLEMENTAL SITE INSPECTION REPORT FIGURE 3-1 BRAC PARCEL C-DRMO WASTE STORAGE AREA NAVY SOUTHERN DIVISION NAS KEY WEST, FLORIDA	CONTRACT NUMBER 7593
CHECKED BY —	DATE —		APPROVED BY — DATE —
COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO — REV 0

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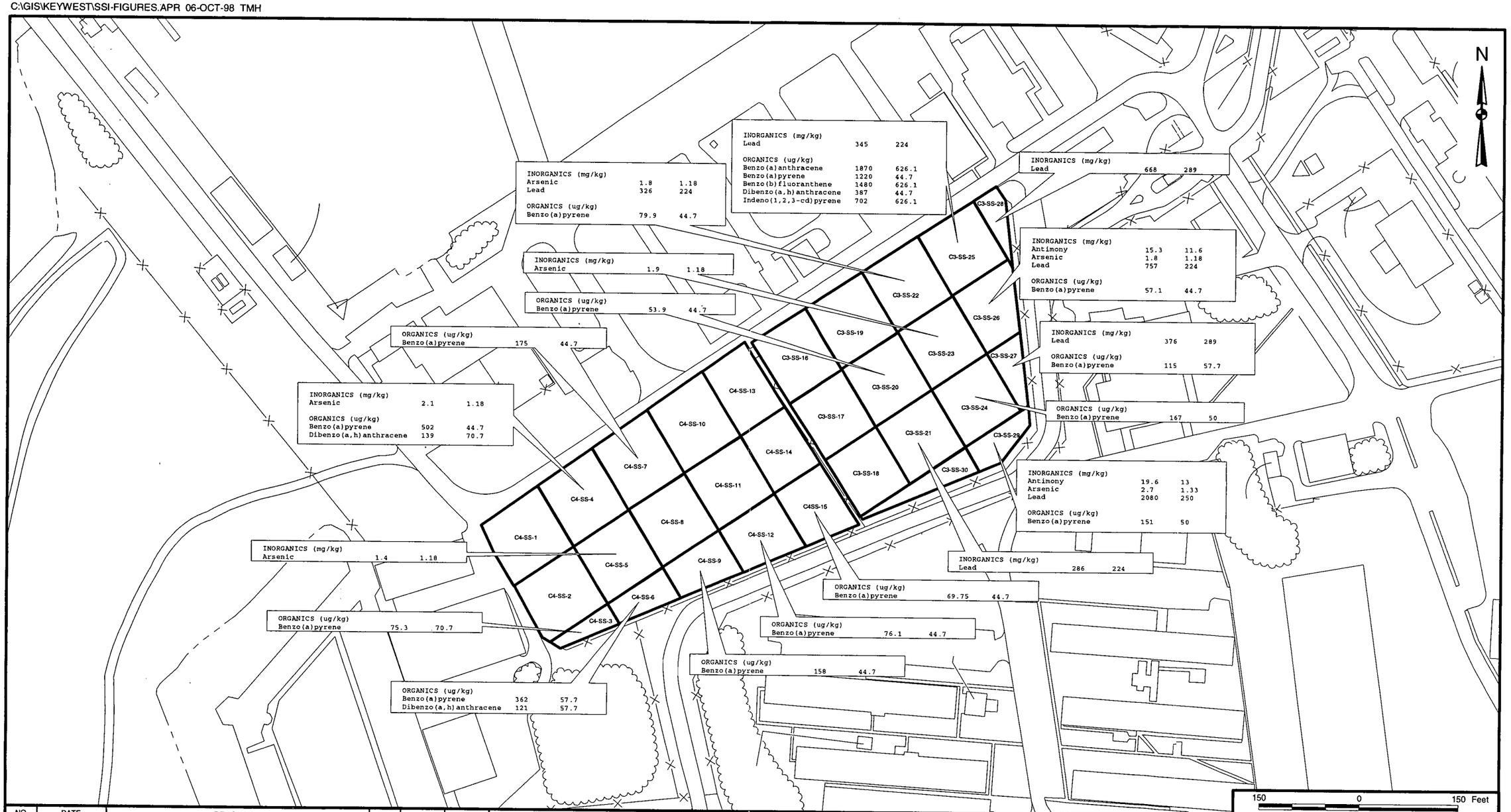

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY TMH	DATE 06-OCT-98
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE APPROXIMATE SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 3-2. LEVEL A SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL C-DRMO WASTE STORAGE AREA
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

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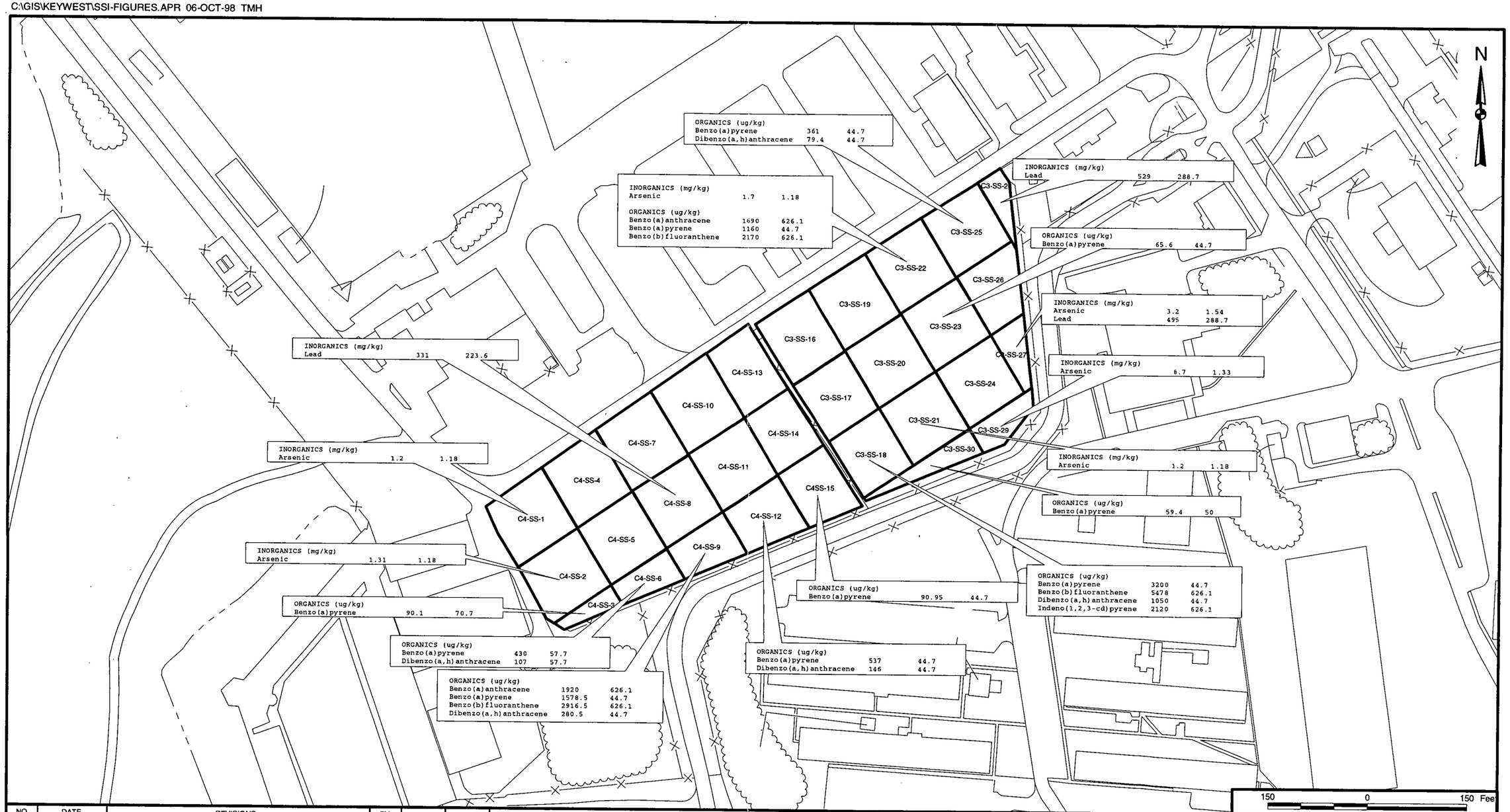

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY TMH	DATE 06-OCT-98
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COST/SCHED-AREA	
SCALE APPROXIMATE SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION Report
FIGURE 3-3. LEVEL B SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL C-DRMO WASTE STORAGE AREA
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
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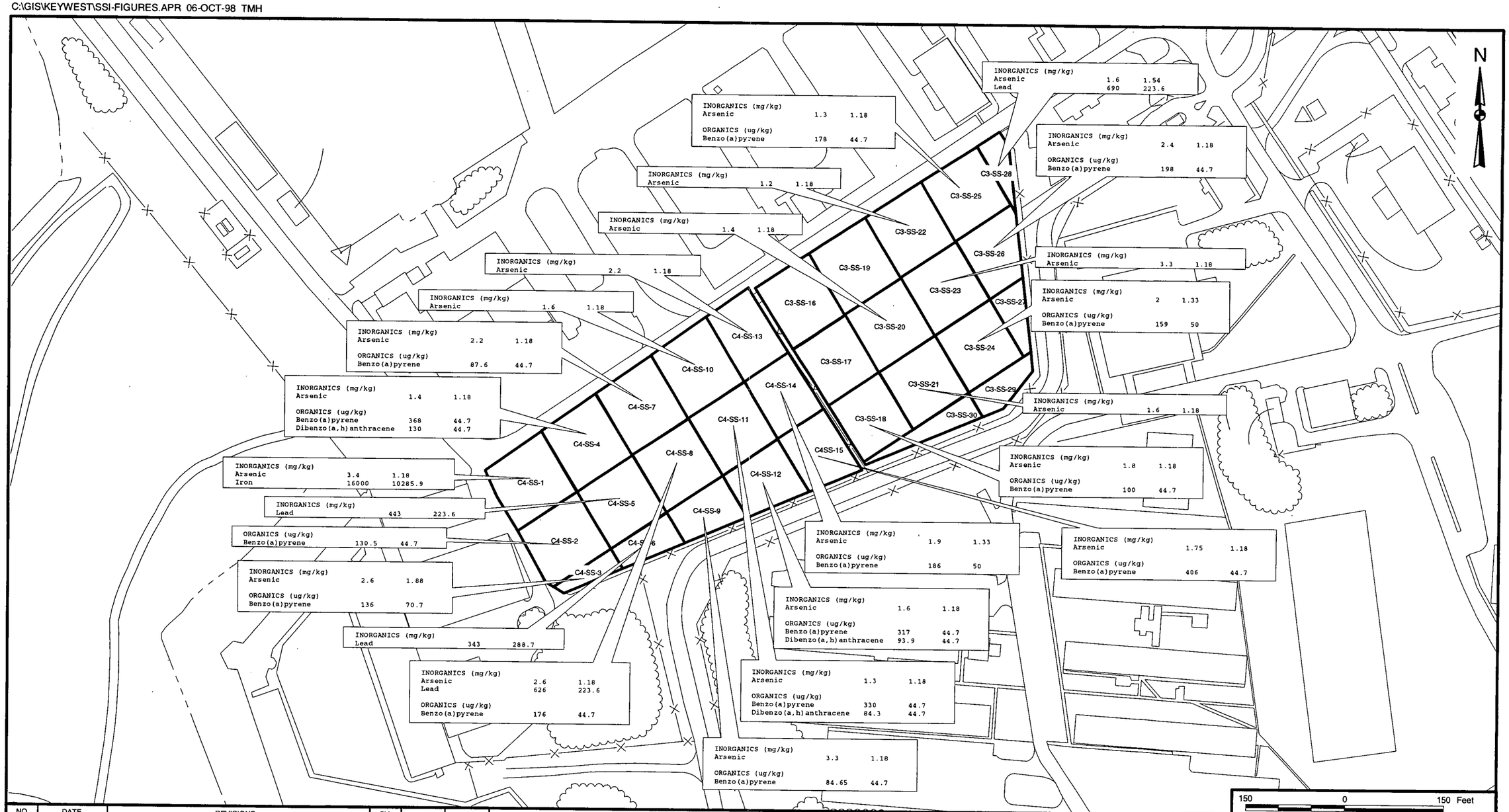

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY TMH	DATE 06-OCT-98
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE APPROXIMATE SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 3-4. LEVEL C SURFACE SOIL SAMPLE LOCATIONS AND CHEMICAL EXCEEDANCES
BRAC PARCEL C-DRMO WASTE STORAGE AREA
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
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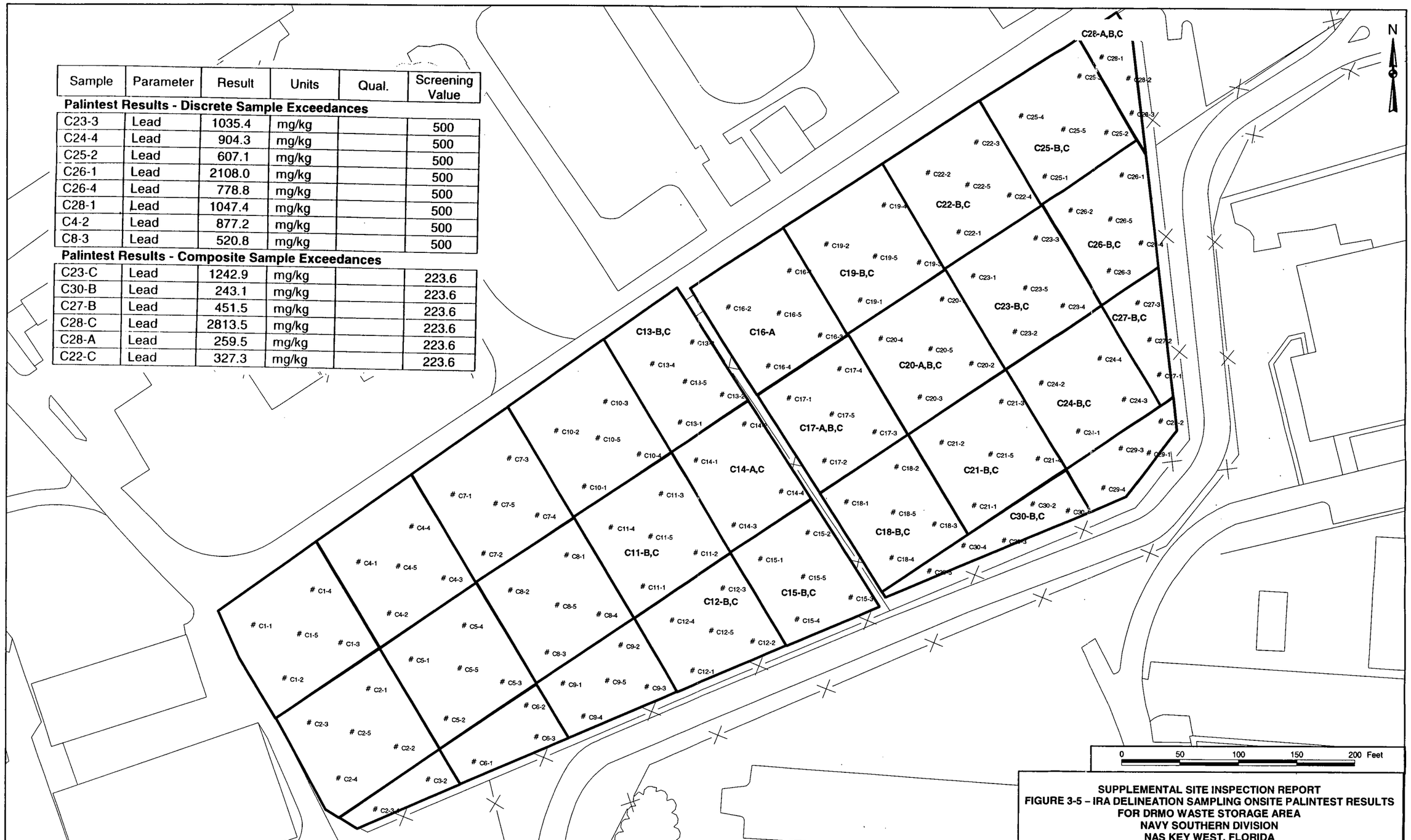
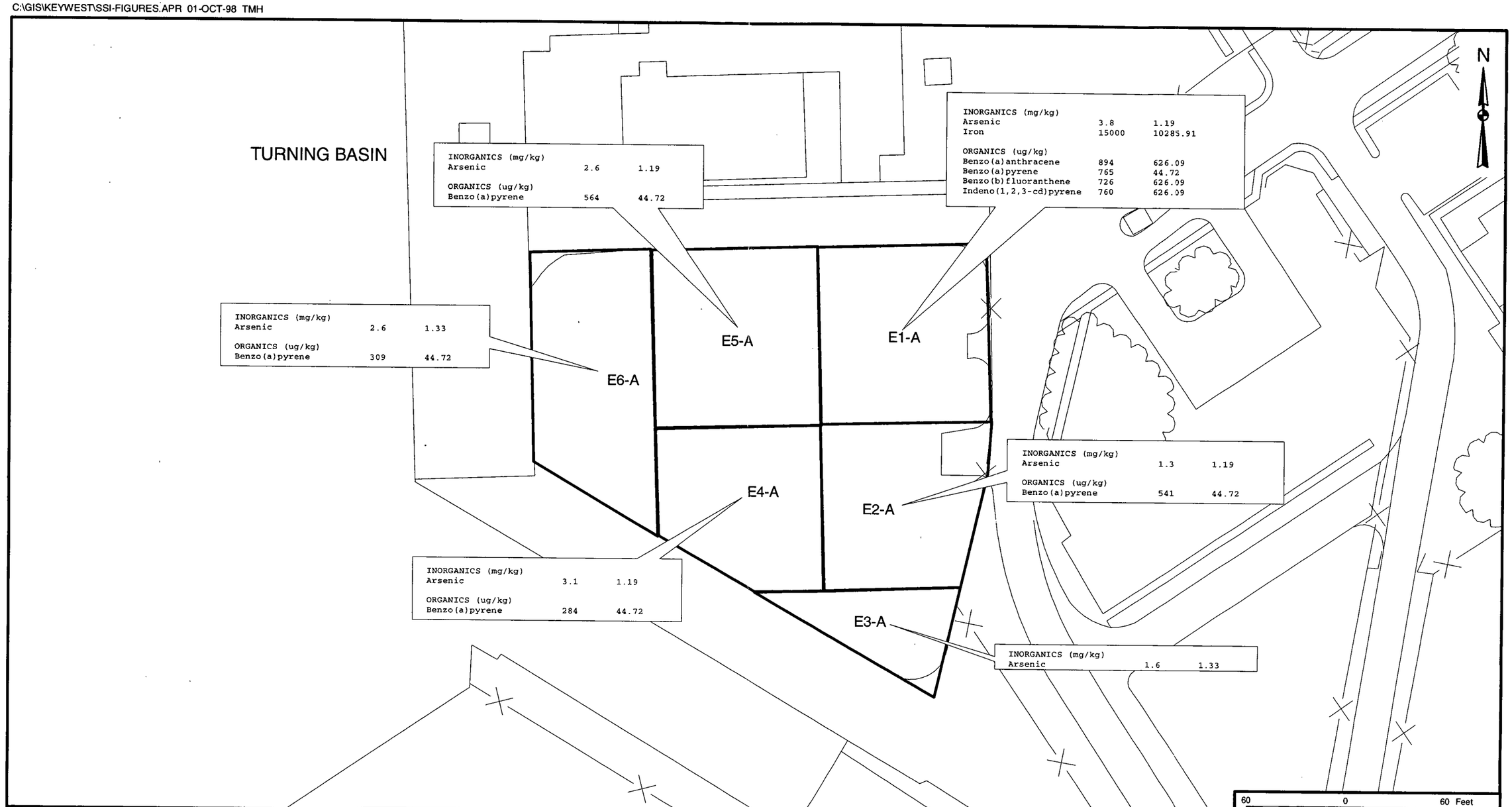
Sample	Parameter	Result	Units	Qual.	Screening Value
Palintest Results - Discrete Sample Exceedances					
C23-3	Lead	1035.4	mg/kg		500
C24-4	Lead	904.3	mg/kg		500
C25-2	Lead	607.1	mg/kg		500
C26-1	Lead	2108.0	mg/kg		500
C26-4	Lead	778.8	mg/kg		500
C28-1	Lead	1047.4	mg/kg		500
C4-2	Lead	877.2	mg/kg		500
C8-3	Lead	520.8	mg/kg		500
Palintest Results - Composite Sample Exceedances					
C23-C	Lead	1242.9	mg/kg		223.6
C30-B	Lead	243.1	mg/kg		223.6
C27-B	Lead	451.5	mg/kg		223.6
C28-C	Lead	2813.5	mg/kg		223.6
C28-A	Lead	259.5	mg/kg		223.6
C22-C	Lead	327.3	mg/kg		223.6



SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 3-5 – IRA DELINEATION SAMPLING ONSITE PALINTEST RESULTS
FOR DRMO WASTE STORAGE AREA
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

C:\GIS\KEYWEST\SSI-FIGURES.APR 01-OCT-98 TMH



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY TMH	DATE 06-OCT-98
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COST/SCHED-AREA	
SCALE APPROXIMATE SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 3-6. LEVEL A CHEMICAL EXCEEDANCES DELINEATION SAMPLE GRIDS AT PARCEL E
FORMER BUILDING 136
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
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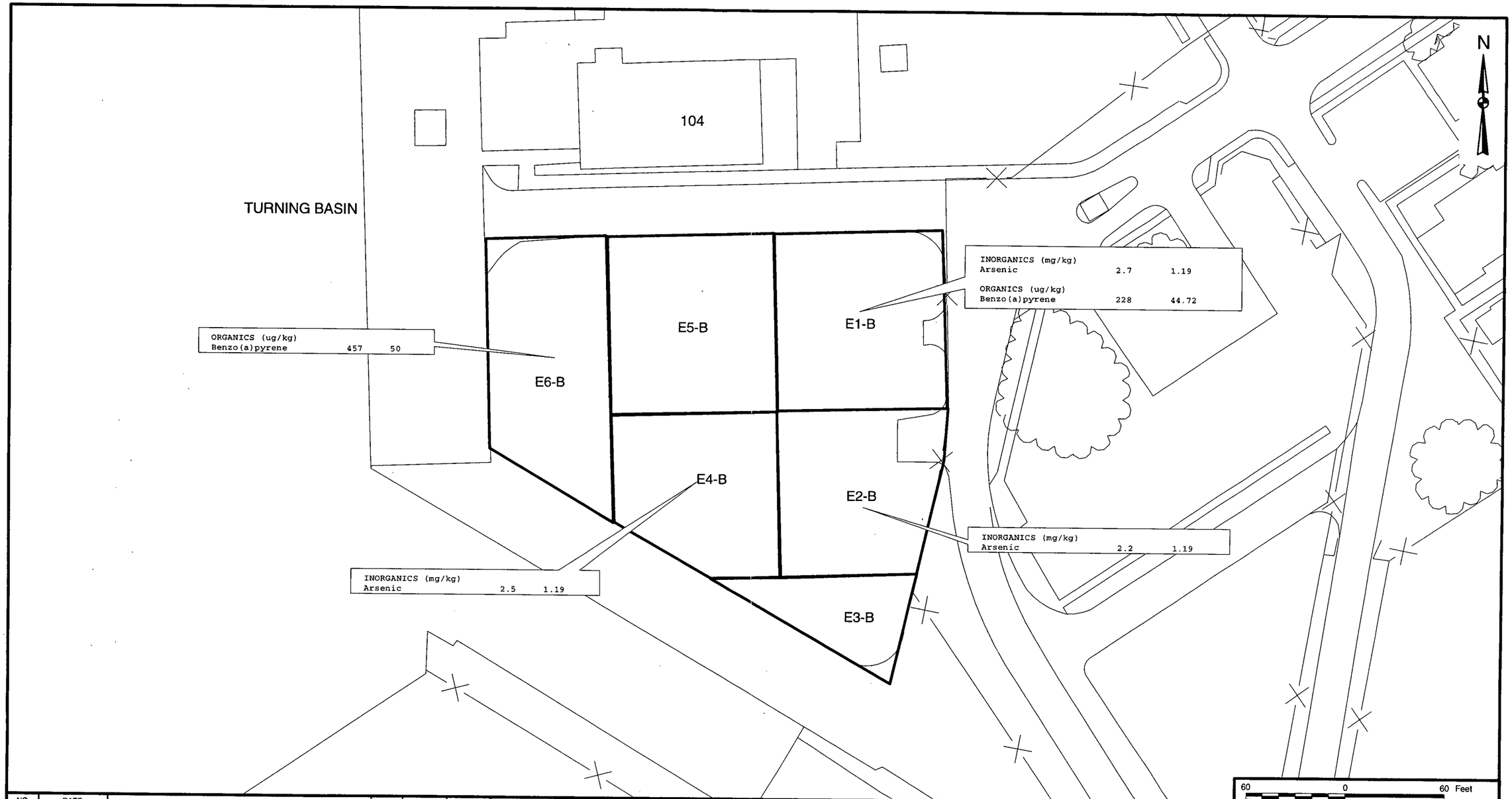
DRAWING NO.	REV. 0

C:\GIS\KEYWEST\SSI-FIGURES.APR 01-OCT-98 TMH



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY TMH	DATE 06-OCT-98
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE APPROXIMATE SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 3-7. LEVEL B CHEMICAL EXCEEDANCES DELINEATION SAMPLE GRIDS AT PARCEL E FORMER BUILDING 136
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
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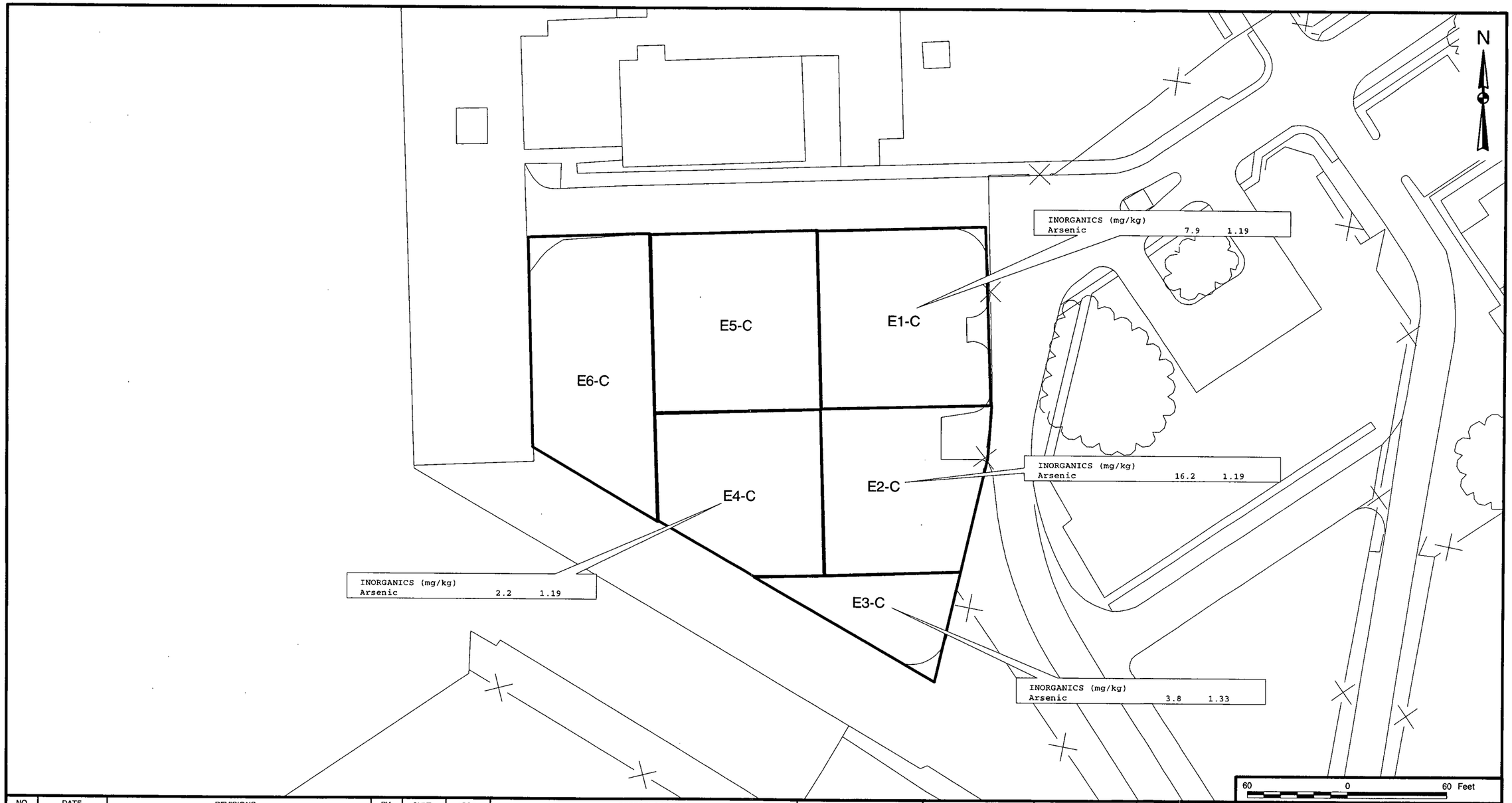
DRAWING NO.	REV. 0

C:\GIS\KEYWEST\SSI-FIGURES.APR 01-OCT-98 TMH



NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY TMH	DATE 06-OCT-98
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE APPROXIMATE SCALE AS NOTED	

SUPPLEMENTAL SITE INSPECTION REPORT
FIGURE 3-8. LEVEL C CHEMICAL EXCEEDANCES DELINEATION SAMPLE GRIDS AT PARCEL E
FORMER BUILDING 136
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

4.0 CONFIRMATION SAMPLING

4.1 BACKGROUND

During 1997 and 1998, SI sampling and analysis of soils, sediments, surface water, and groundwater was conducted at NAS Key West. The BRAC SI Report for that effort (TtNUS, 1998b) recommended IRAs excavation at twelve locations. For some of the locations, additional sampling was necessary either to completely characterize the site (SSI sampling) or to delineate areas to be excavated (delineation sampling). The SSI Workplan (TtNUS, 1998) describes the proposed additional sampling activities. Section 2 of this document describes SSI sampling results, and Section 3 describes delineation sampling results. The Project Completion Report for BRAC Parcels Fast Track Soil Removals (BEI, 1999) provides results of the IRA excavation activities.

Confirmation sampling was performed following excavation activities to ensure that remaining soils were acceptable. Section 4 describes the confirmation sampling performed at the following 12 areas:

- Hamaca Hawk Missile Site (Parcel A)
  - Sewage Lift Station (Parcel A, Subzone 4)
  - Area Around Sample SD-08 (Parcel A, Subzone 9)
  - Area Around Sample SD-05 (Parcel A, Subzone 9)
  - Area Around MW-03 for TPH
- Truman Annex DRMO Waste Storage Area (Parcel C)
  - Between Buildings 261 and 284 (Parcel C, Subzone 1)
- DRMO
  - Water Tower Storage Area (Parcel C, Subzone 3)
  - Former Scrap Metal Storage Area (Former DRMO) (Parcel C, Subzone 4)
- Seminole Battery (Parcel D)
  - Building 261 Hazardous Waste Storage (Parcel D, Subzone 1)
- Truman Annex Buildings 102, 103, and 104 (Parcel E)
  - Former Location of Building 136 (Parcel E, Subzone 2)
  - Area Around Buildings 102 and 104 (Parcel E, Subzone 3)
  - Area Around Building 103 (Parcel E, Subzone 9)

- Truman Annex Building 223 (Parcel F)
  - Former Lube Area (Parcel F, Subzone 1)
  - Building 223 former Hazardous Waste Storage Area (Parcel F, Subzone 3)

The SI report provides a description of these areas and previous site investigations. Section 1.10 summarizes confirmation sampling methodology described by the SSI Workplan (TtNUS 1998) details. Section 4 provides a brief description of each site's investigation history, confirmation sampling results, and conclusions and recommendations. The section compares analytical results to action levels selected earlier in the investigation. Section 1.8.1.4.1 describes selection of the action levels. Section 4 also provides, for each site, tables that show concentrations of all analytes detected in confirmation samples and figures that show the site and the location of excavation perimeter samples and any action level exceedances at the perimeter. Appendix B includes documentation of field work (surface soil sample log sheets) and exceptions taken to the workplan (field task modification request forms).

As described in Section 1.10.2, the Palintest® Scanning Analyzer was used at Hawk Missile and DRMO sites for in-field analysis for lead. Palintest® analytical results for those sites are reported separately from offsite laboratory analytical results.

4.2 SEWAGE LIFT STATION

This subsection describes confirmation sampling at the Hamaca Hawk Missile Site Sewage Lift Station. Solvents, metals, and oils were considered to be potential contaminants.

4.2.1 Site Investigation History

The SI Report identified one inorganic (arsenic) as being in excess of the applicable action level in three of four soil samples. An IRA was performed in the form of a soil excavation (25-feet by 35-feet by 2-feet deep). The excavation was expanded after the initial confirmation sample results were evaluated. Due to the presence of bedrock and the lack of soil to analyze, additional confirmation samples could not be obtained.

4.2.2 Confirmation Sampling Results

The Sewage Lift Station excavation abuts the site fence to the north. Soil at the fence thinned to a bedrock outcropping. A permanent groundwater monitoring well, A11-MW-04, is adjacent to the excavated area. Five soil samples were taken in the excavation sidewalls and analyzed for inorganics. Figure 4-1 shows the locations where samples were taken, and Table 4-1 identifies analytes detected in

the samples. Several inorganic compounds were detected during confirmation sampling each were below the soil action levels except arsenic.

Arsenic was detected at concentrations that exceeded its 2.66 mg/kg action level at 2 sampling locations with concentrations of 9 and 35.9 mg/kg (compared to pre-excavation SI concentrations of 5.7, 6, and 28.8 mg/kg). Additional excavation was performed beyond these sampling points to the south and east but, due to the presence of bedrock, no soil was available for analysis from the east sidewall. The southern sidewall of the over excavation stopped at a foundation of an abandoned Above-Ground Storage Tank (AST), and confirmation sample A4-CONF-08 was collected. Arsenic was detected in sample A4-CONF-08 at a concentration of 21.4 mg/kg. This excavation stops at the foundations to the south. Therefore, no further excavating was performed. Due to the lack of available soil for final confirmation and the proximity of building foundations there are too few data points to determine a statistical confidence level.

In addition to IRA confirmation sampling activities, TtNUS collected three confirmation samples from a small excavation site west of Building I-6536 (Figure 4-3). This excavation was to remove petroleum-contaminated soils around monitoring well MW-03. Samples A4-CONF-05, 06, and 07 were collected and analyzed for total petroleum hydrocarbons (TPH) by the FL-PRO method. No analyte exceedances were found in these samples. No further excavation is required.

4.2.3 Conclusions and Recommendations

The IRA at the Sewage Lift Station removed 2 feet of arsenic contaminated soil to the concrete foundations to the south (former AST and former VA Building), bedrock to the east and below the action level for arsenic to the west. Clean fill was placed in the excavation to reduce the possibility of exposure to potentially contaminated soil below 2 feet. Since the foundations provide an engineering control on the south side of the excavation and the bedrock impedes further excavation to the east, land-use controls are recommended for this site.

4.3 AREA AROUND SAMPLE LOCATION SD-08

This subsection describes confirmation sampling at the Hamaca Hawk Missile Site area around sample location SD-08. Petroleum products, solvents, electrical batteries, lead, and possibly pesticides were considered to be potential contaminants.

4.3.1 Site Investigation History

The SI sample results for sample SD-08 indicated levels of three inorganics (aluminum, lead, and vanadium) and a pesticide (4,4'-DDE) in excess of their applicable action levels. An IRA was performed in the form of a soil excavation (25 feet by 25 feet by 2 feet deep).

4.3.2 Confirmation Sampling Results

This location is a seasonal wet area and was saturated at the time of SI sampling but was dry at the time of excavation and confirmation sampling. Four soil samples were taken in the excavation sidewalls and analyzed for inorganics and pesticides. Figure 4-2 shows the locations where samples were taken, and Table 4-2 identifies analytes detected in the samples.

Several inorganic compounds were detected in soils around sample location SD-08. No pesticides were detected, and no analytes were found to exceed their applicable action levels. Aluminum showed a reduction in concentration from 3,680 mg/kg in sediment before excavation to values ranging from 147 to 1,090 mg/kg in soils after excavation. These detects are below the soil action level and the more conservative sediment action level of 2,664 mg/kg. Lead concentrations were reduced from 816 mg/kg before excavation to values ranging from 1.8 to 5.1 mg/kg. Vanadium showed a reduction in concentration from 14.4 mg/kg before excavation to values ranging from 1.5 to 3.4 mg/kg following excavation. The SI pesticide of concern, 4,4'-DDE, showed a reduction in concentration from 7.5 µg/kg before excavation to a value below the detection limit. Each inorganic detected was below their respective soil and sediment action levels. Table 4-3 presents the lead results from Palintest® field analysis.

4.3.3 Conclusions and Recommendations

The IRA at the area around sample location SD-08 removed 2 feet of the contaminated soil. The required 95% confidence level set by the NAS Key West Partnering Team, that all COCs in exposed soils above 2 feet be below their respective action levels, was achieved for the site (Appendix H). Clean fill was placed in the excavation to reduce the possibility of exposure to potentially contaminated soil below 2 feet. No further action is recommended.

4.4 AREA AROUND SAMPLE LOCATION SD-05

This subsection describes confirmation sampling at the Hamaca Hawk Missile Site area around sample location SD-05. Petroleum products, solvents, electrical batteries, lead, and possibly pesticides were considered to be potential contaminants.

4.4.1 Site Investigation History

The SI sample results for sample SD-05 indicated levels of an inorganic (lead) and the pesticide (4,4'-DDE) in excess of their applicable action levels. An IRA was performed in the form of a sediment excavation approximately 60-feet by 60-feet by 1-foot deep excavation (Figure 4-3).

4.4.2 Confirmation Sampling Results

After the sediment excavation was complete, the sidewalls consisted of bedrock or mangrove root mass. Because there was no sediment to sample, no confirmation sampling was performed at this location.

4.4.3 Conclusions and Recommendations

The IRA at the area around sample location SD-05 removed all of the available sediment. As a result, no confirmation samples were taken or confidence level was calculated. No clean fill was needed in the excavation. No further action is recommended.

4.5 AREA BETWEEN BUILDINGS 261 AND 284

This subsection describes confirmation sampling at the Truman Annex DRMO Waste Storage Area between Buildings 261 and 284. Solvents, fuels, and pesticides were considered to be potential contaminants.

4.5.1 Site Investigation History

The SI sampling results indicated levels of an inorganic, lead at one location, an SVOC [benzo(a)pyrene] at two locations, and the PCB aroclor-1260 at one location in excess of their applicable action levels. An IRA was performed in the form of a soil excavation (40-feet by 140-feet by 2-feet deep).

4.5.2 Confirmation Sampling Results

Eight soil samples were taken in the excavation sidewalls and analyzed for inorganics and pesticides. Figure 4-4 shows the locations where samples were taken, and Table 4-4 identifies analytes detected in the samples.

No analytes were found to exceed their applicable action levels. The SI inorganic analyte of concern, lead, showed a reduction in concentration from 978 mg/kg before excavation to values ranging from 2.3 to 167 mg/kg after excavation (action level = 500 mg/kg). The SI PCB of concern, aroclor-1260, showed a reduction in concentration from 2,700 µg/kg before excavation to values ranging from 28.4 to 46 µg/kg after excavation (action level = 900 µg/kg). A confidence level was not calculated for this because the excavation was capped on all sides by either buildings or roads.

4.5.3 Conclusions and Recommendations

The IRA at the Area between Buildings 261 and 284 removed 2 feet of contaminated soil from between the buildings. As a result, confidence level calculations were not required. Clean fill was placed in the excavation to reduce the possibility of exposure to potentially contaminated soil below 2 feet. No further action is recommended.

4.6 TRUMAN ANNEX DRMO

The SI reported results for two contiguous areas at Truman Annex DRMO Former Oil Container (Pre-1942) and Scrap Metal and Refuge Item Storage Areas, and the Former Scrap Metal Storage Area. For the confirmation sampling these areas where redesignated DRMO East and DRMO West, respectively. This subsection describes DRMO confirmation sampling. Fuels, oil, and metals were considered to be potential contaminants.

4.6.1 Site Investigation History

SI sampling results at the Truman Annex DRMO indicated levels of two inorganics (antimony and lead) and one SVOC [benzo(a)pyrene] in excess of their applicable action levels. As described in Section 3.3, the IRA delineation sampling for the DRMO identified four inorganics (lead, antimony, arsenic, and iron) and five SVOCs [benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene] at concentrations that exceeded applicable action levels. An IRA was

performed by excavating contaminated soils as described in the Draft Fast Track Soil Removal Completion Report (BEI, 1999).

4.6.2 Confirmation Sampling Results

Confirmation sampling at the DRMO took place in two steps. Confirmation samples were collected and analyzed following the completion of the planned excavation as defined in the BEI workplan and used to determine whether additional excavation (over-excavation) was needed to remove additional contaminated soils from the perimeter of the planned excavation. The final confirmation samples were collected and analyzed from the over-excavated locations.

During excavation activities, several large piles of unearthed concrete debris were staged within the excavation area. TtNUS collected surface swipe samples to assist with characterization for disposal. Sample results are presented in Appendix C.

4.6.2.1 Planned Excavation

Bechtel Environmental Inc. (BEI) performed excavation activities at the DRMO East in accordance with the Fast Track Soil Removal Workplan (BEI, 1998). TtNUS collected 60 samples at 50-foot intervals from the sidewalls of the excavations for analysis for inorganics and SVOCs. These samples were collected to identify any areas that might require over-excavation to remove contaminated soils adjacent to the originally scoped excavation area. In addition, TtNUS analyzed each sample in the field utilizing the Palintest® Scanning Analyzer for lead to facilitate decision-making in the field concerning necessary over-excavations.

Several confirmation samples contained elevated levels of COCs at the perimeter of the excavation area. Tables 4-5 and 4-6 present the confirmation sample results from the contracted laboratory for these samples, and Tables 4-7 and 4-8 present the Palintest® Scanning Analyzer results for lead analysis. Figures 4-5 and 4-6 identify planned-excavation sample locations on the west and east sides of the DRMO site, respectively, as well as locations of analytes that exceed action levels.

Based on analysis of the data generated from the confirmation samples, the following areas were identified for over-excavation:

- Sampling Locations C4-CONF-01, 02, 03, 04, 09, 13, 25, and 28 – Several locations on the west and north sides of Parcel C contained COCs in excess of the action levels, including the

inorganics arsenic and lead as well as the SVOCs benzo(a)pyrene and benzo(b)fluoranthene (Figure 4-5). These locations were identified for over-excavation.

- Sampling Locations C3-CONF-06, 07, 08, 09, 10, and 11 - An area approximately 300 feet by 16 feet extending from the fence along the eastern boundary to the state park road was identified for over-excavation to remove soils contaminated with several COCs including the inorganics antimony, arsenic, iron, lead, and manganese as well as the SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene (Figure 4-6).

  TtNUS collected 6 samples from this area requiring over-excavation for TCLP analysis to characterize soils for disposal. Figure 4-7 presents TCLP sample locations and results that indicate soils considered hazardous waste.

- Sampling Location C3-CONF-13 - An area on the southeastern corner between the fence around the site and the state park road was identified for over-excavation to remove soils containing elevated levels of arsenic and lead (Figure 4-6). Figure 4-7 shows the location of the TCLP sample that was taken in this area.

- Sampling Location C3-CONF-19 - One PCB (Aroclor-1260), the inorganic lead, and one SVOC (benzene pyrene) were detected at levels in excess of their action levels in the area beneath and north of the Water Tower (Figure 4-6). Over-excavation was required for a 50-foot by 50-foot area north-northwest of the Water Tower to remove PCB-contaminated soil.

4.6.2.2 Over-Excavation

BEI performed over-excavations as identified from confirmation sample results, and TtNUS collected additional confirmation samples as required. Figure 4-8 identifies the locations of confirmation samples from the over-excavation sidewalls as well as locations of samples with analytes that exceed action levels at the west portion of DRMO West. The area on the north-west side of the DRMO at the locations of sample C4-CONF-01, 02, and 03 were over-excavated to the point where underground utilities were encountered. Five small over-excavations (5 feet by 5 feet) were performed at the locations of C4-CONF-04, 09, 13, 25, and 28 to remove localized contamination "hot-spots." Table 4-9 presents sample results from confirmation samples collected from over-excavation sidewalls, and Table 4-11 presents' lead results from over-excavation sidewalls analyzed by the Palintest® Scanning Analyzer. Even though arsenic and benzo(a)pyrene were detected in excess of their respective action levels at locations in the sidewalls of the over-excavation, further excavation could not be completed due to the proximity of underground utilities and the state park road.

Figure 4-9 identifies the locations of confirmation samples from the overexcavation sidewalls as well as locations of samples with analytes that exceed action levels in the eastern portion of DRMO East. The areas east and south of the Water Tower Storage Area were over-excavated to existing caps (the state park road and a parking area north of the state park road). Table 4-10 presents confirmation sample results for the samples collected from over-excavation sidewalls, and Table 4-12 presents the lead results from the sidewall sample analyzed by the Palintest®. Confirmation samples indicate that three inorganics (antimony, arsenic, and lead) and two SVOCs (benzo(a)pyrene and dibenzo(a,h)anthracene) are present in soils around the perimeter of the excavation at levels in excess of their respective action levels. Due to the proximity of the state park road on the east and south sides of the excavation and underground electrical and telephone utilities along the north side, further excavation was not performed.

4.6.3 Conclusions and Recommendations

The IRA at Truman Annex DRMO removed 2 feet and in places 4 feet of contaminated soil but locations of soil with certain inorganics and SVOCs above the action-level remain. However, the location of asphalt/road surfaces provide engineering control to limit exposure to soils beneath them. Further, the required 95% confidence level set by the NAS Key West Partnering Team (that all exposed soils above 2 feet be below their respective action levels) was achieved for the sites (Appendix H). Clean fill was placed in the excavation to reduce the possibility of exposure to the potentially contaminated soil below the depth of excavation. Land-use controls are recommended.

4.7 SEMINOLE BATTERY BUILDING 261 HAZARDOUS WASTE STORAGE

This subsection describes confirmation sampling at the Truman Annex Seminole Battery Building 261. Used oils, cleaning agents, solvents, fuel, and metals were considered to be potential contaminants.

4.7.1 Site Investigation History

The SI sampling results indicated one inorganic (arsenic) at its applicable action level and two SVOCs [benzo(a)pyrene and benzo(b)fluoranthene], at one location, in excess of their applicable action levels. An IRA was performed in the form of a soil excavation (25-feet square by 2-feet deep).

4.7.2 Confirmation Sampling Results

Four soil confirmation samples were taken in the excavation sidewalls and analyzed for inorganics and SVOCs. Figure 4-10 and Table 4-13 identify the locations and analytes that exceeded action levels. Several inorganics and SVOCs were detected in Seminole Battery Building 261 soils. One SVOC,

benzo(a)pyrene, was detected at concentrations that exceeded its 100 µg/kg action level at two locations. Both detections, 238 µg/kg and 454 µg/kg for locations D1-CONF-02 and D1-CONF-03, respectively, are less than the 505 µg/kg concentration detected during the SI. Two other analytes of concern following the SI were arsenic and benzo(b)fluoranthene. Both were detected during confirmation sampling but at concentrations that are less than their applicable action levels.

Sample locations D1-CONF-02 and D1-CONF-03 are closest to the concrete battery (Figure 4-10). The concrete battery occupies the area beyond D1-CONF-02. A narrow wall of the battery separates D1-CONF-03 from a small open area that was investigated during the SI, the Seminole Battery Former Grease Racks (Parcel D, Subzone 2). SI sampling did not identify any analytes in excess of their action levels in this area. A confidence level was not calculated for this site due to the fact that all sides of the excavation are surrounded by roads or buildings (no exposed soils).

4.7.3 Conclusions and Recommendations

The IRA at the Seminole Battery Building 261 removed 2 feet of contaminated soil. Concentrations of benzo(a)pyrene, remain in excess of the applicable action level at two of the sidewall sample locations on the battery foundation. Clean fill was placed in the excavation to reduce the possibility of exposure to benzo(a)pyrene in the soil below 2 feet. Since the battery foundations and road surfaces provide engineering controls on all sides of the excavation that have elevated levels of benzo(a)pyrene , land-use controls are recommended.

4.8 FORMER LOCATION OF BUILDING 136

This subsection describes confirmation sampling at the former location of Building 136 (Parcel E Subzone 2). Metals and SVOCs were considered to be potential contaminants.

4.8.1 Site Investigation History

SI sampling at the former location of Building 136 indicated one inorganic (arsenic) and three SVOCs [benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene] in excess of their applicable action levels. As described in Section 3.6.2, the IRA delineation sampling for the site identified two inorganics (arsenic and iron) and four SVOCs [(benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene)] at concentrations that exceeded applicable action levels. An IRA was performed by excavating contaminated soils as described in the Draft Fast Track Soil Removal Completion Report (BEI, 1999).

4.8.2 Confirmation Sampling Results

Excavation sampling at the former location of Building 136 took place in two steps. Confirmation samples were collected and analyzed following completion of the planned excavation as defined in the BEI Workplan (BEI, 1998). The samples were used to determine the need for additional excavation (over-excavation). The final confirmation samples were collected and analyzed from over-excavated locations.

4.8.2.1 Planned Excavation

BEI performed excavation activities at the former location of Building 136 in accordance with the Fast Track Soil Removal Workplan (BEI, 1998). TtNUS collected 16 samples at 50-foot intervals from the sidewalls of the excavation for analysis for inorganics and SVOCs. Table 4-14 presents the confirmation sample results from the contracted laboratory. Figure 4-11 identifies the sample locations as well as the location of analytes that exceed action levels. These samples were collected to identify any areas that might require over-excavation to remove contaminated soils adjacent to the originally scoped excavation area. In addition, samples E2-CONF-19, 20, and 21 were collected around two sumps that were discovered beneath grass cover in the northeast corner of the excavation area. These samples were analyzed for PCBs to identify if any unknown hazards or disposal concerns existed in this area.

The results from seven confirmation samples (E2-CONF-02, 03, 07, 11, 12, 14, and 16) contained elevated levels of COCs contained in soils at the perimeter of the excavation area including the inorganics arsenic and manganese and the SVOCs benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

Based on an evaluation of the data generated from the confirmation samples, only two confirmation sample locations (E2-CONF-11 and 12) required over-excavation. The remaining sample locations with

COCs at levels in excess of their respective action levels are in areas where the excavation was completed to an existing structure (road, concrete pad, or underground utility etc.)

4.8.2.2 Over-Excavations

BEI performed over-excavations as identified from confirmation sample results, and TtNUS collected additional confirmation samples as required. Figure 4-12 identifies the locations of the confirmation samples from the over-excavation sidewall as well as locations of analytes that exceed action levels. Table 4-15 present's sample results from the confirmation samples collected from over-excavation sidewalls. BEI over-excavated an area (25 feet by 10 feet) at the location of E2-CONF-11. TtNUS collected confirmation sample E2-CONF-23 which contained arsenic, benzo(a)pryene, and dibenzo(a,h)anthracene at levels in excess of their respective action levels. Based on this data, additional over-excavation was performed in the area south of the original excavation to the concrete road, thus removing all uncapped soils from the former location of Building 136. Due to an underground concrete duct-bank running parallel with the concrete drive, only one additional confirmation sample was collected from the over-excavation area. Because all sides of the excavation have engineering controls (roads or concrete drives), a confidence was not calculated for this site.

4.8.3 Conclusions and Recommendations

The IRA at the Truman Annex Former Location of Building 136 removed 2 feet of contaminated soils out to the asphalt and concrete roads surrounding the site. Clean fill was placed in the excavation to reduce any receptors expose to elevated levels of benzo(a)pyrene and dibenzo(a,h)anthracene in soil. Since the roads provide an engineering control, land-use controls are recommended.

4.9 AREA AROUND BUILDINGS 102 AND 104

This subsection describes confirmation sampling at the Truman Annex Area around Buildings 102 and 104. Acids, solvents, and fuel were considered to be potential contaminants.

4.9.1 Site Investigation History

The SI sampling results indicated two organics [benzo(a)pyrene at three locations and indeno(1,2,3-cd)pyrene at one location] in excess of their applicable action levels. An IRA was performed in the form of two soil excavations, each approximately 50-feet by 50-feet by 2-feet deep.

4.9.2 Confirmation Sampling Results

Figure 4-13 shows the locations where confirmation samples were taken at the perimeter of the Building 102 and Building 104 excavation and identifies action level exceedances. Table 4-16 identifies all analytes detected in the confirmation samples.

The first excavation is located on the east end of Building 102 (Figure 4-13). Four excavation sidewall samples were taken and analyzed for inorganics and SVOCs. Several inorganics and SVOCs were found in the soil. Benzo(a)pyrene exceeded its 100 µg/kg action level at two locations, one of which is at the building foundation, with concentrations of 112 and 164 µg/kg. These concentrations are less than the benzo(a)pyrene concentration of 517 µg/kg observed during the SI.

The second excavation is located on the west end of Building 104 (Figure 4-13). The excavation is bounded (and constrained) by the building foundation, the concrete casement on the waterfront (turning basin), and a concrete roadway. Four excavation sidewall samples were taken and analyzed for inorganics and SVOCs. Several inorganics and SVOCs were found in the soil. Benzo(a)pyrene exceeded its 100 µg/kg action level at two locations with concentrations of 150 and 225 µg/kg. These concentrations are less than the SI benzo(a)pyrene concentration of 1,650 µg/kg.

4.9.3 Conclusions and Recommendations

The IRA at the Truman Annex Area around Buildings 102 and 104 removed 2 feet of contaminated soil at each of the building but locations of soil with elevated levels of benzo(a)pyrene remain. However the location of the foundations of the buildings, the concrete casement and the asphalt provide a degree of engineering controls. Further, the required 95% confidence level set by the NAS Key West Partnering Team, that all exposed soils above 2 feet be below their respective action levels, was achieved for the sites (Appendix H). Clean fill was placed in the excavation to bring the ground level back to grade. No further action is recommended for the areas that underwent excavation.

4.10 AREA AROUND BUILDING 103 (PARCEL E, SUBZONE 9)

This subsection describes confirmation sampling at Subzone 9 of Parcel E, the Truman Annex Former Area around Building 103. Fuel, oils, and PCBs were considered to be potential contaminants.

4.10.1 Site Investigation History

The SI sampling results indicated five SVOCs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and indeno(1,2,3-cd)pyrene, all at one location] and one PCB (aroclor-1254, at two locations) in excess of their applicable action levels. An IRA was performed in the form of two soil excavations, as described below.

4.10.2 Confirmation Sampling Results

Figure 4-14 shows the locations where confirmation samples were taken at the perimeter of the two Building 103 excavations. Table 4-17 identifies all analytes detected in the confirmation samples.

In addition, TtNUS collected samples E9-CONF-08, 09, 10, and 11 from the floor of a sump area discovered in the 6-foot excavation. The samples were analyzed for SVOCs and PCBs to identify any unknown hazards or disposal requirements. Table 4-18 presents the data from these samples.

Excavation 1 is located on the west-side of Building 103. The excavation is located on both sides of a concrete drive between Building 103 and the Inner-Mole Pier around the concrete ductwork on one side (3 feet deep) and a transformer on the other. Several inorganic and organic compounds were detected in the four sidewall confirmation samples taken at this location. One sample, located at the building foundation, had exceedances of five SVOC action levels [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene]. Benzo(a)anthracene decreased in concentration from 40,100 µg/kg before excavation to 2,180 µg/kg after excavation (action level = 1,400 µg/kg). Benzo(a)pyrene decreased in concentration from 31,800 µg/kg before excavation to 1,960 µg/kg after excavation (action level = 100 µg/kg). Benzo(b)fluoranthene decreased in concentration from 48,900 µg/kg before excavation to 1,600 µg/kg after excavation (action level = 1,400 µg/kg). Dibenzo(a,h)anthracene had not been detected in pre-excavation sampling but was detected in confirmation sampling in a concentration of 364 µg/kg (action level = 100 µg/kg). Indeno(1,2,3-cd)pyrene decreased in concentration from 15,600 µg/kg before excavation to 1,750 µg/kg after excavation (action level = 1,400 µg/kg). Two final analytes of concern in the SI sampling, aroclor-1254 and benzo(k)fluoranthene, were not detected in confirmation sampling.

Excavation 2 is located between Buildings 103 and 104 and extends along Building 103 to the eastern end. The excavation is approximately 120 feet by 30 feet, to a depth of 2 feet but a portion extends to a depth of 6 feet. Several inorganic and organic compounds were detected in the seven sidewall confirmation samples taken at this location. One sample, located at the Building 104 foundation, had exceedances of three SVOC action levels. Benzo(a)pyrene, at 1,540 µg/kg, exceeded its action level of 100 µg/kg. Benzo(b)fluoranthene, at 2,600 µg/kg, exceeded its action level of 1,400 µg/kg. Dibenzo(a,h)anthracene, at 246 µg/kg, exceeded its action level of 100 µg/kg.

4.10.3 Conclusions and Recommendations

The IRA at the Truman Annex Area around Buildings 103 removed 1 to 6 feet of contaminated soil at two areas but locations of soil with elevated levels of SVOCs remain. However the location of the foundations of the buildings, the concrete casement and the asphalt provide a degree of engineering controls. Clean fill was placed in the excavation to reduce any receptors exposure to the soil with elevated levels of SVOCs. Land-use controls are recommended.

4.11 FORMER LUBE AREA

This subsection describes confirmation sampling at the Truman Annex Former Lube Area. Fuel, used oils, solvents, and metals were considered to be potential contaminants.

4.11.1 Site Investigation History

The SI sampling results indicated one inorganic (arsenic) at one location in excess of its applicable action level. An IRA was performed by excavating a 25-foot by 25-foot by 2-foot-deep area at the site.

4.11.2 Confirmation Sampling Results

Figure 4-15 shows the locations where confirmation samples were taken at the perimeter of the excavation and identifies any action level exceedances. Table 4-19 identifies all analytes detected in the confirmation samples.

Four soil samples were taken in the excavation sidewalls and analyzed for inorganics. Several inorganic compounds were detected in Former Lube Area soils. No analytes were found to exceed their applicable

action levels. The SI analyte of concern, arsenic, showed a reduction in concentration from 5.2 mg/kg before excavation to values ranging from 0.63 to 1.9 mg/kg after excavation (action level = 2.66 mg/kg).

4.11.3 Conclusions and Recommendations

The IRA at Former Lube Area removed 2 feet of the contaminated soil. The required 95% confidence level set by the NAS Key West Partnering Team, that all COCs in exposed soils above 2 feet be below their respective action levels, was achieved for the site (Appendix H). Clean fill was placed in the excavation to return the site ground level to grade. No further action is recommended.

4.12 BUILDING 223 FORMER HAZARDOUS WASTE STORAGE AREA

This subsection describes confirmation sampling at the Truman Annex Building 223 former Hazardous Waste Storage Area. Metals, fuels, and solvents were considered to be potential contaminants.

4.12.1 Site Investigation History

The SI sampling results indicated one inorganic (arsenic) at one location in excess of its applicable action level. An IRA was performed by excavating an initial 25-foot by 25-foot by 2-foot deep excavation, with additional excavation as described below.

4.12.2 Confirmation Sampling Results

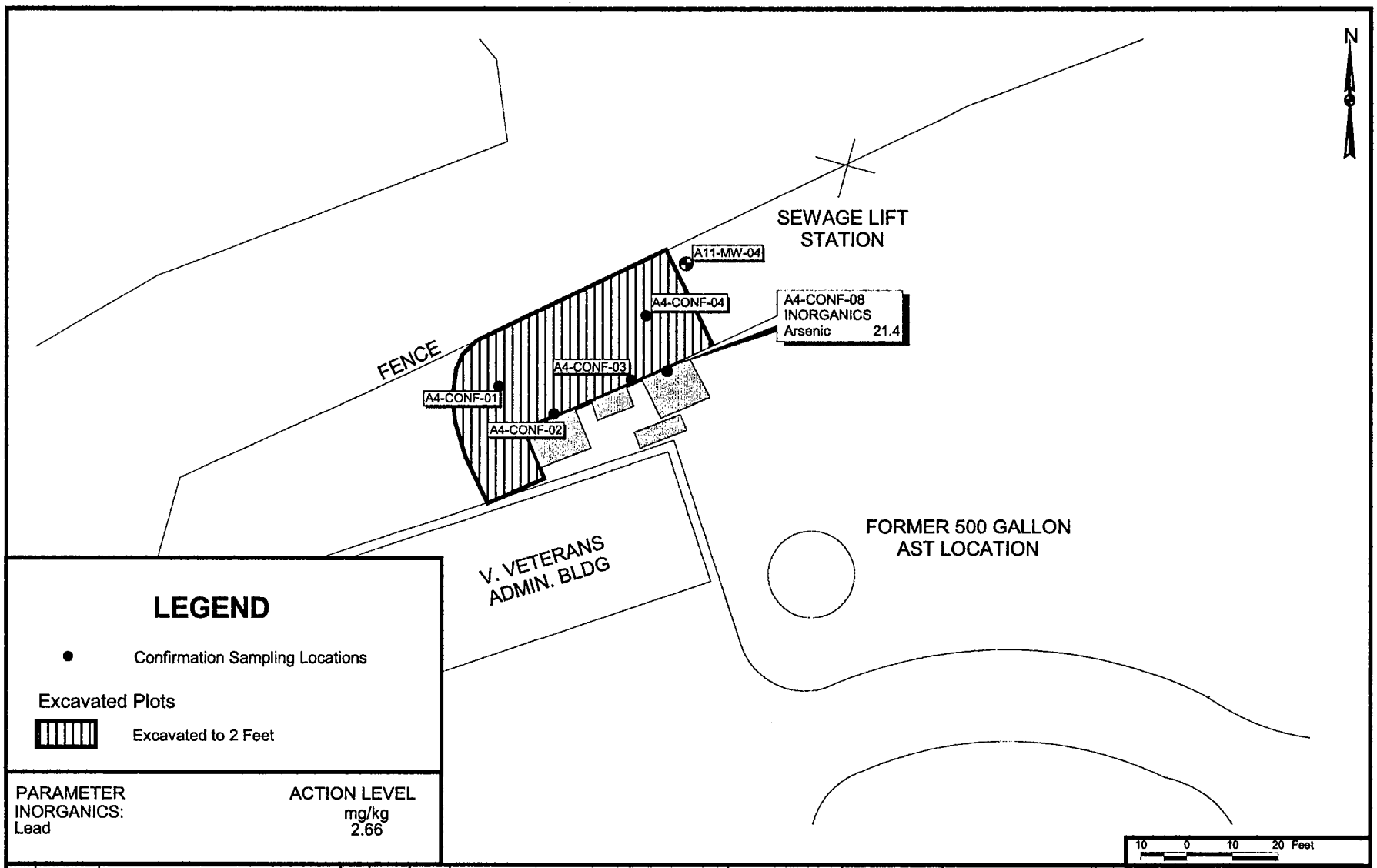
Four soil samples (F3-CONF-01 through 04) were initially taken in the excavation sidewalls and analyzed for inorganics. As a result of confirmation data, an additional excavation was performed including and beyond sample location F3-CONF-03 (26.5 mg/kg). Three additional sidewall samples were collected from the additional excavation. Figure 4-16 shows the locations where samples were taken, and Table 4-20 identifies analytes detected in the samples.

Several inorganic compounds were detected in Former Hazardous Waste Storage Area soils. Results from the first sampling showed one inorganic, arsenic, that exceeded its 2.66-mg/kg action level at one location. The arsenic concentration at sample location F3-CONF-03 was 26.5 mg/kg. As shown on Figure 4-16, an additional area was excavated to remove the soils at the location of F3-CONF-03 and samples taken. Arsenic exceeded its action level at two of the three additional sampling locations. Location F3-CONF-06, with an arsenic concentration of 3.1 mg/kg, is adjacent to a fence and capped by a base road. Location F3-CONF-07, with an arsenic concentration of 4.7 mg/kg, is adjacent to and

capped by a concrete pad. Both these residual concentrations are less than that found during the SI sampling, 16.8 mg/kg, and the road and concrete pad prevented further excavation.

4.12.3 Conclusions and Recommendations

The IRA at the Truman Annex Former Lube Area removed 2 feet of contaminated soil but locations of soil with elevated level of arsenic remain. The location of the concrete sidewalk and asphalt do provide a degree of engineering controls and clean fill was placed in the excavation to reduce any receptors exposure to the elevated levels of arsenic in soil. Land-use controls are recommended.



LEGEND

● Confirmation Sampling Locations

Excavated Plots

Excavated to 2 Feet

PARAMETER	ACTION LEVEL
INORGANICS:	mg/kg
Lead	2.66

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

FIGURE 4-1
IRA CONFIRMATION
BRAC PARCEL A, SEWAGE LIFT STATION
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
APPROVED BY	DATE
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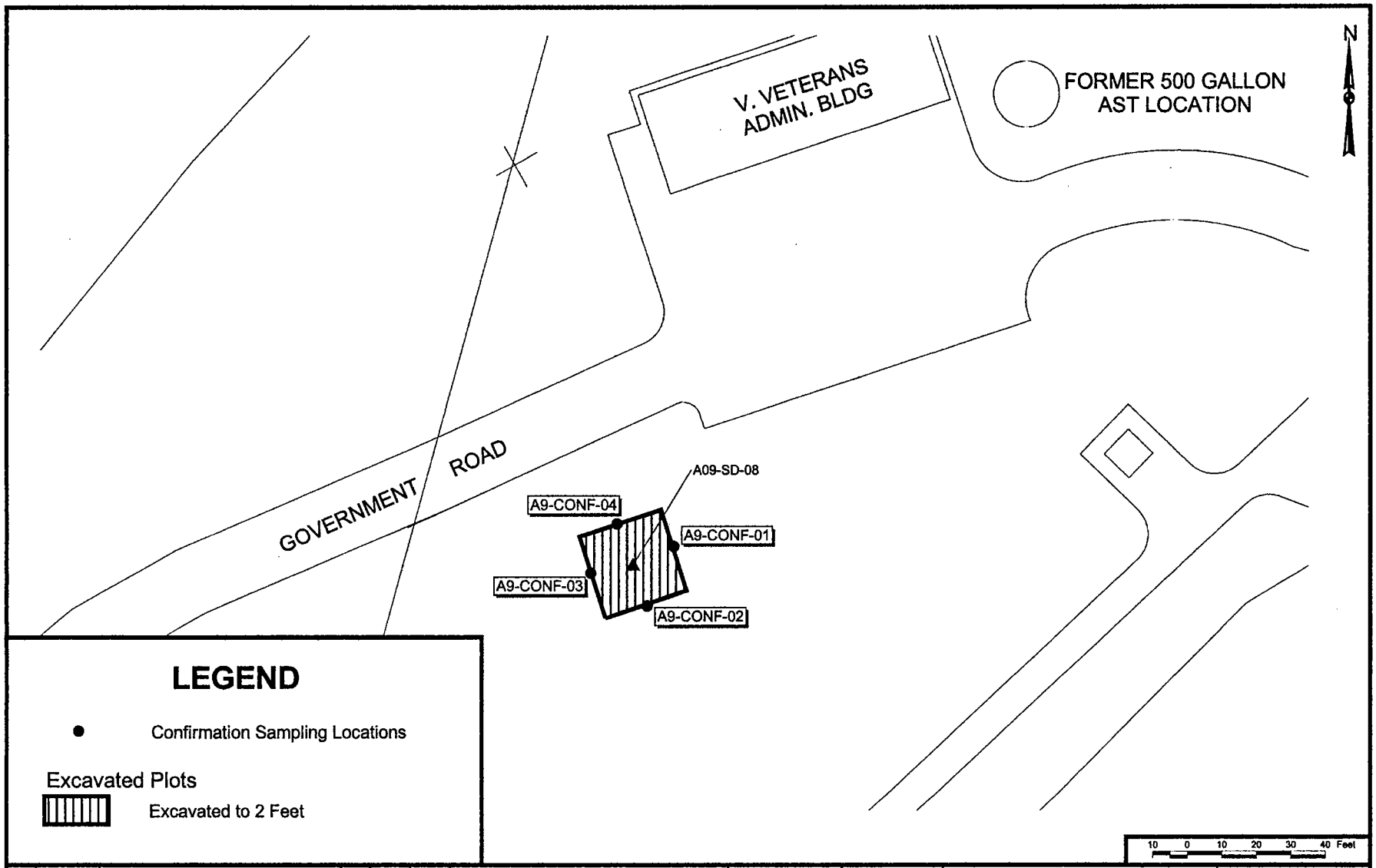

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

FIGURE 4-2
IRA CONFIRMATION
BRAC PARCEL A, AREA AROUND SD-08
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

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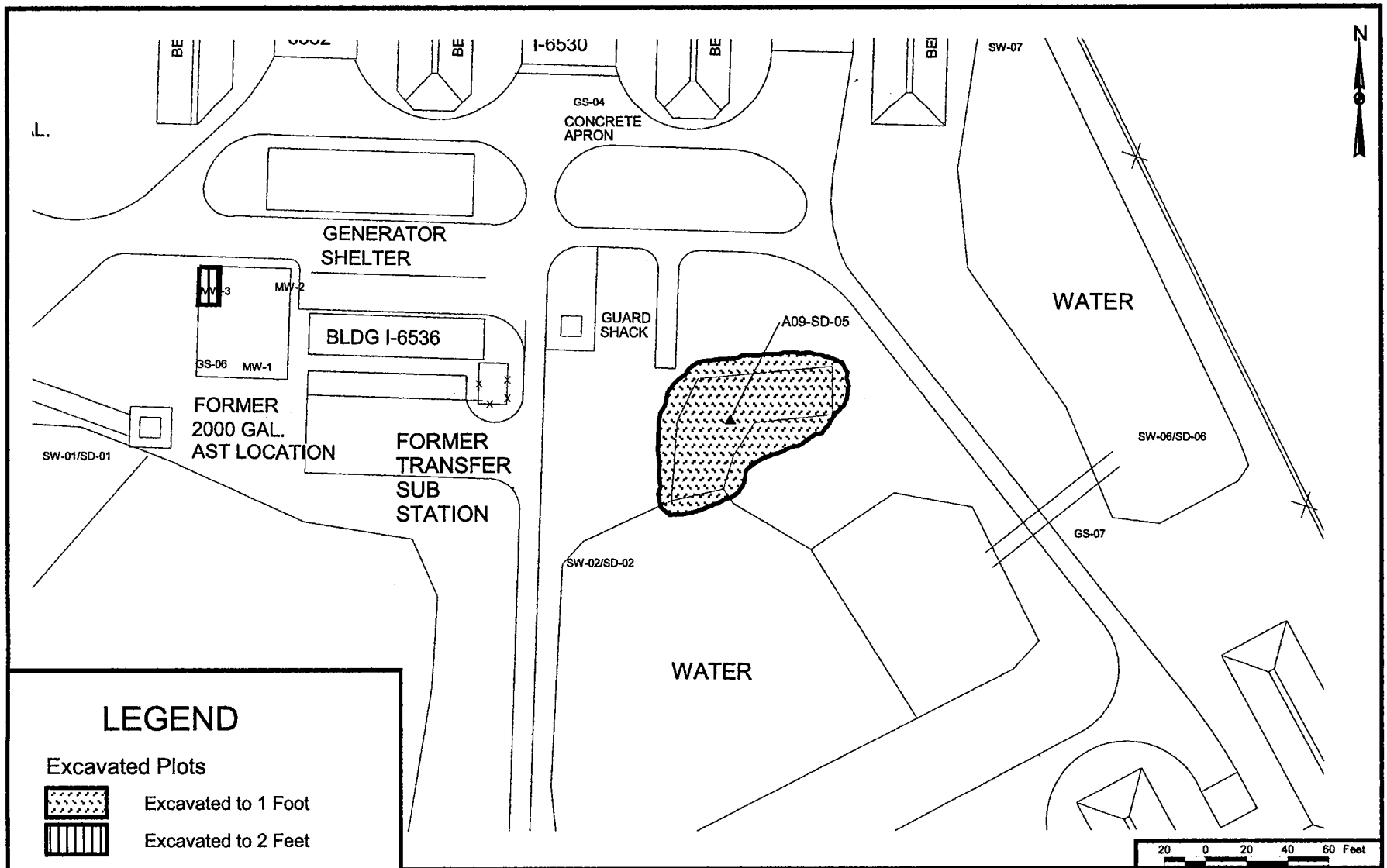

LEGEND

Excavated Plots

- Excavated to 1 Foot
- Excavated to 2 Feet

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99	FIGURE 4-3 IRA CONFIRMATION BRAC PARCEL A, AREA AROUND SD-05 NAVY SOUTHERN DIVISION NAS KEY WEST, FLORIDA	CONTRACT NO. 7593
CHECKED BY	DATE		APPROVED BY / DATE
COST/SCHED-AREA			APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. / REV. 0

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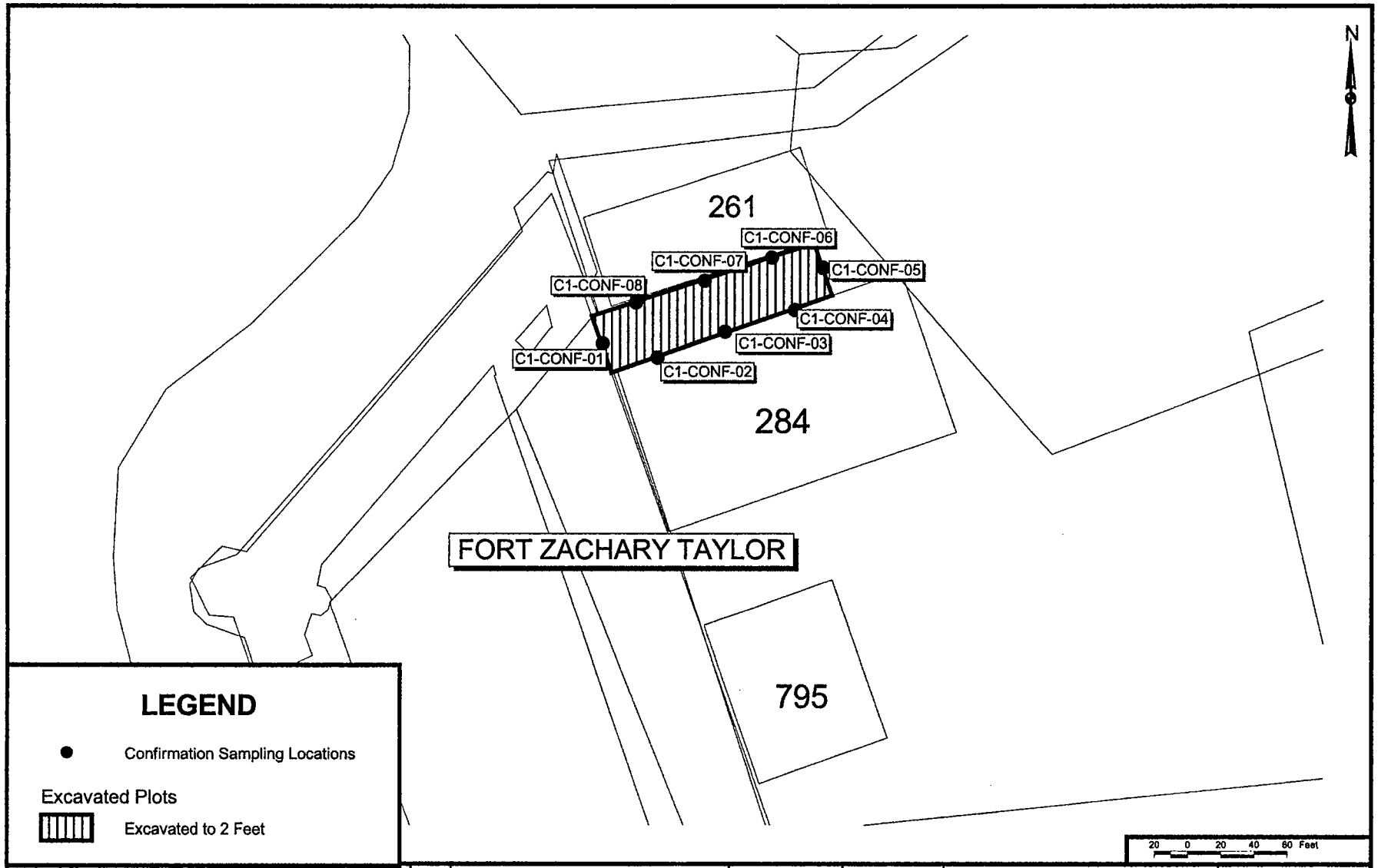

LEGEND

● Confirmation Sampling Locations

Excavated Plots

Excavated to 2 Feet

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

FIGURE 4-4
IRA CONFIRMATION
BRAC PARCEL C, BUILDING 261
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

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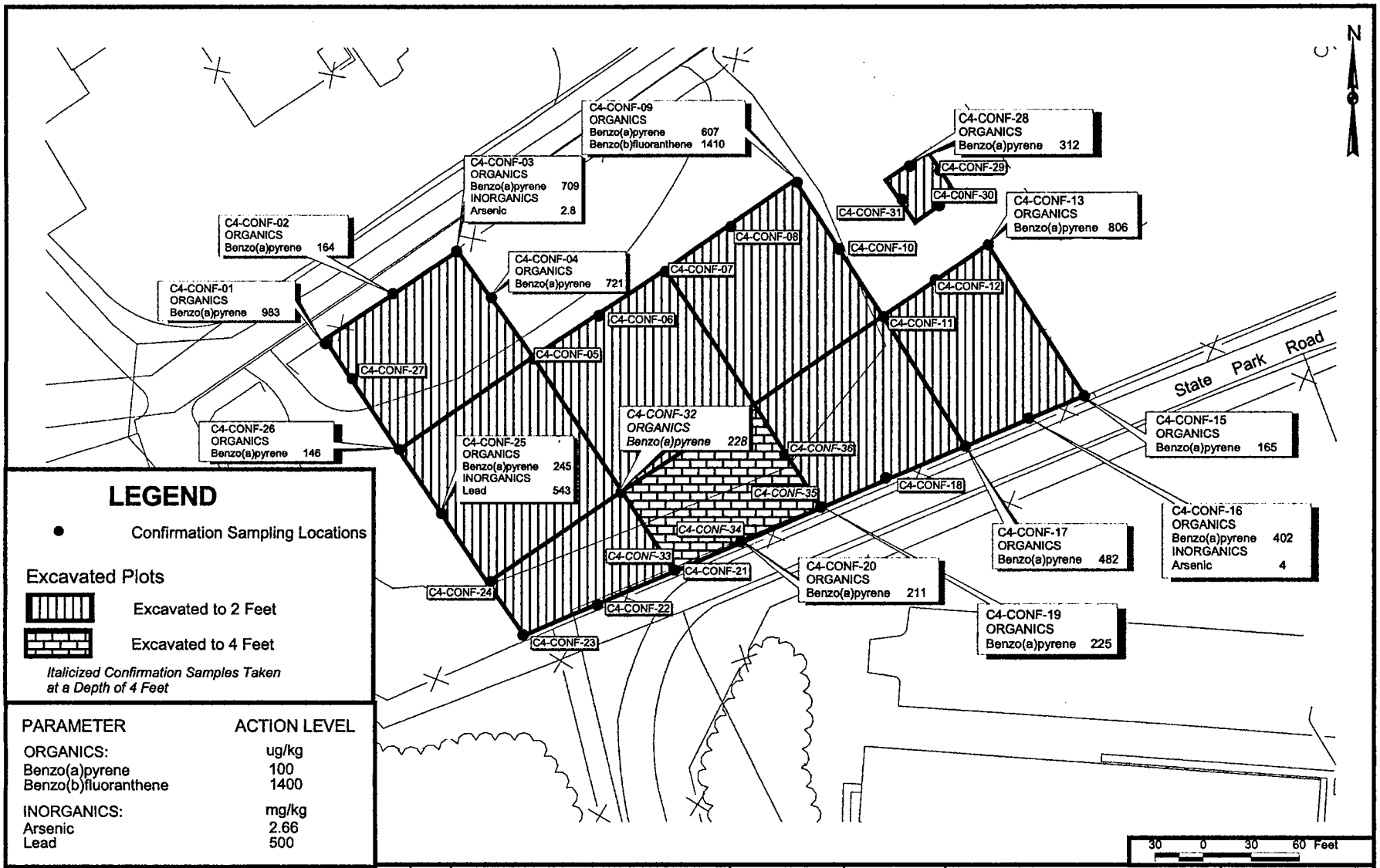

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)pyrene	100
Benzo(b)fluoranthene	1400
INORGANICS:	mg/kg
Arsenic	2.66
Lead	500

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-5
IRA CONFIRMATION,
PLANNED EXCAVATION
BRAC PARCEL C, DRMO WEST
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593
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DRAWING NO.
REV. 0

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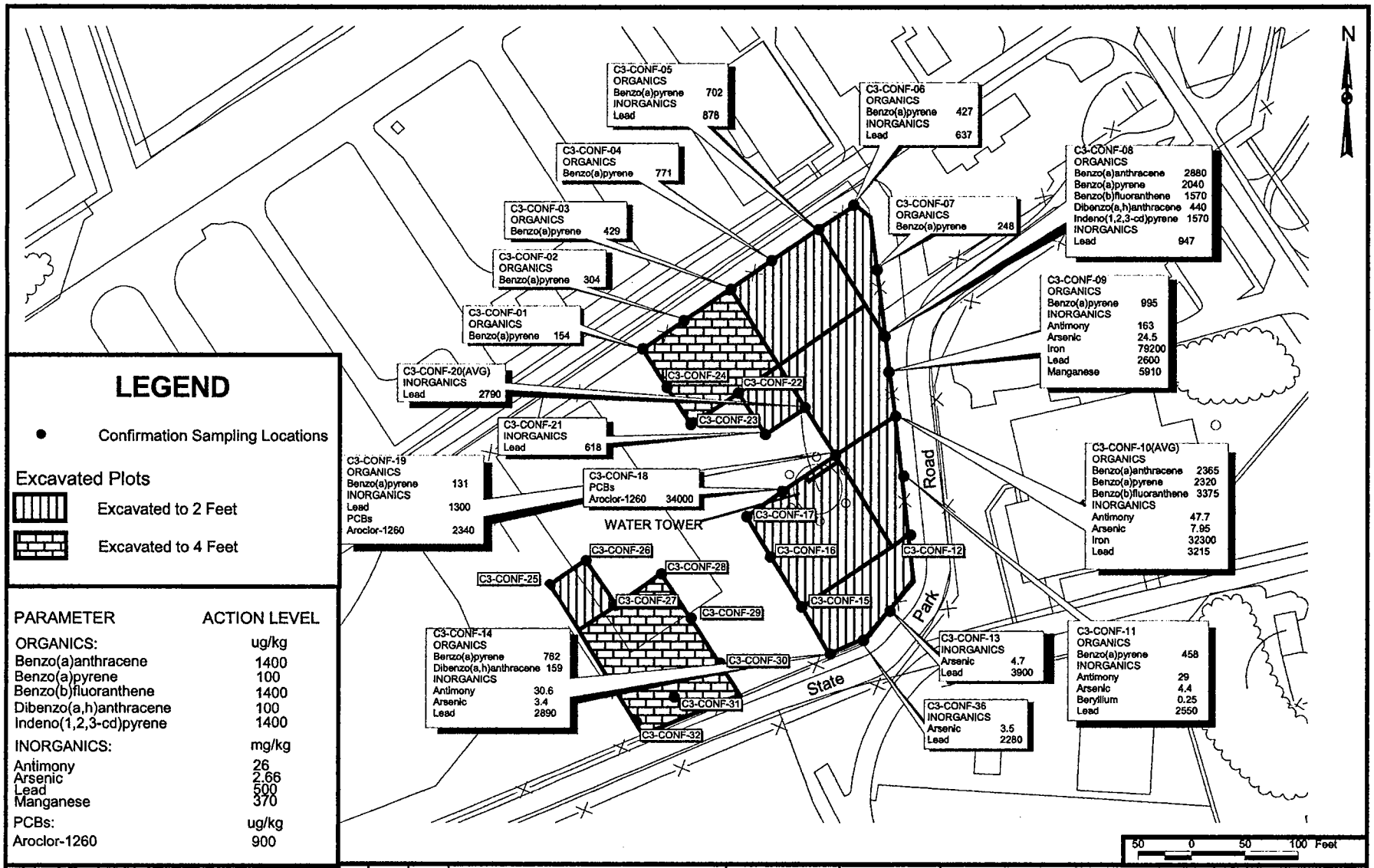

LEGEND

- Confirmation Sampling Locations

Excavated Plots

- Excavated to 2 Feet
- Excavated to 4 Feet

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)anthracene	1400
Benzo(a)pyrene	100
Benzo(b)fluoranthene	1400
Dibenzo(a,h)anthracene	100
Indeno(1,2,3-cd)pyrene	1400
INORGANICS:	mg/kg
Antimony	26
Arsenic	2.66
Lead	500
Manganese	370
PCBs:	ug/kg
Aroclor-1260	900

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-6
IRA CONFIRMATION
PLANNED EXCAVATION
BRAC PARCEL C, DRMO EAST
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO.
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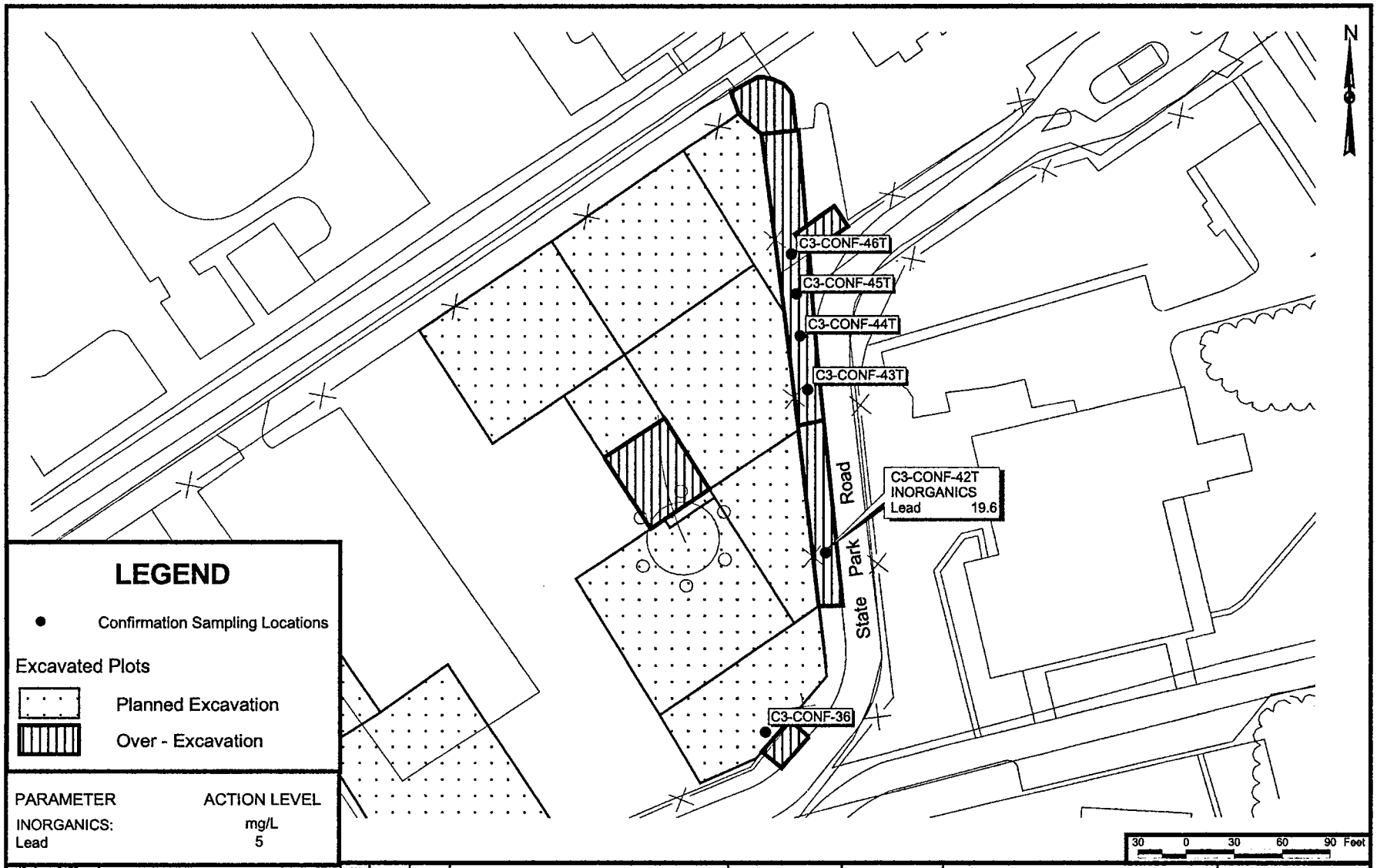

LEGEND

● Confirmation Sampling Locations

Excavated Plots

Planned Excavation

Over - Excavation

PARAMETER	ACTION LEVEL
INORGANICS:	mg/L
Lead	5

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

FIGURE 4-7
TCLP LOCATIONS
BRAC PARCEL C, DRMO
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

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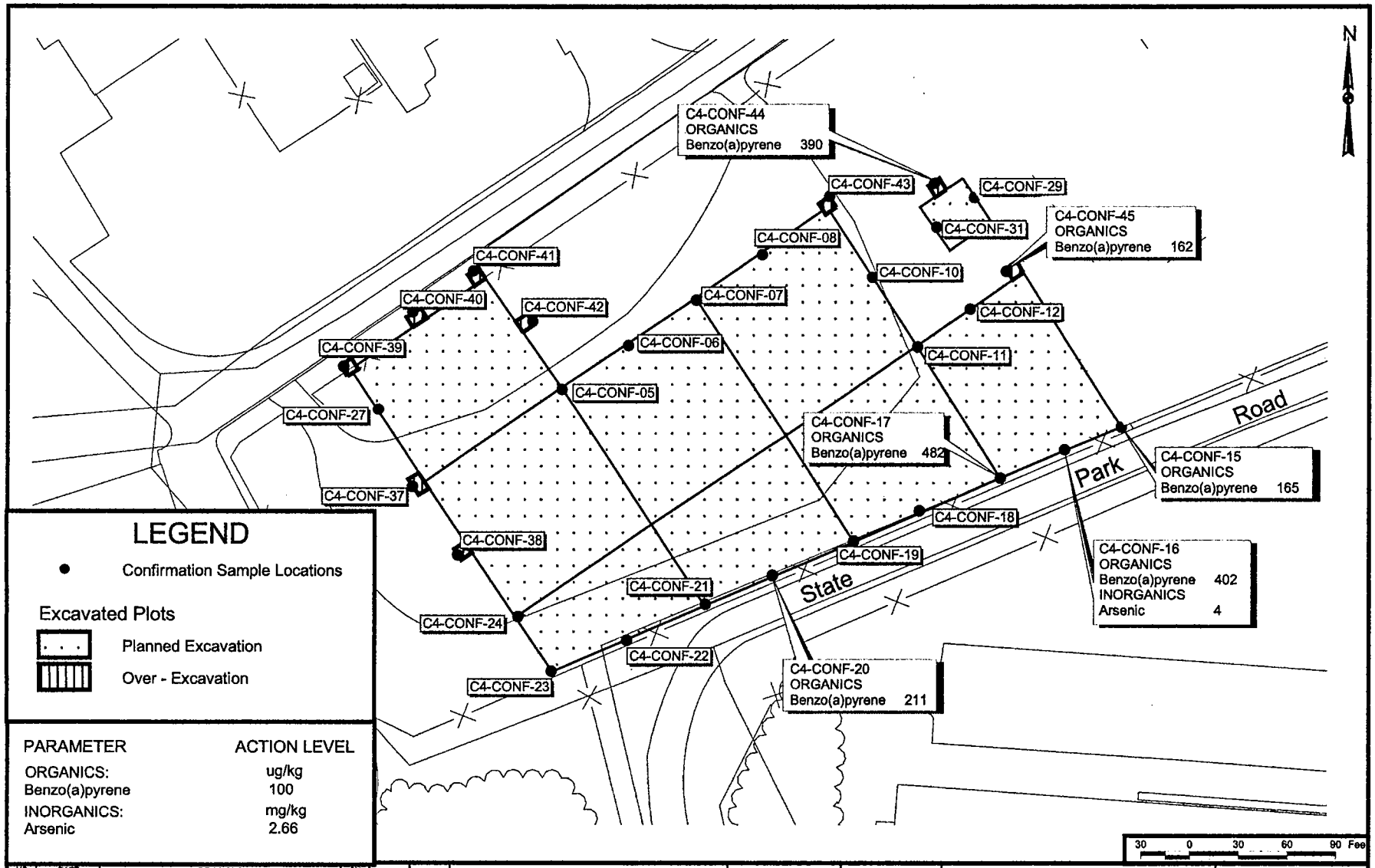

LEGEND

● Confirmation Sample Locations

Excavated Plots

Planned Excavation

Over - Excavation

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)pyrene	100
INORGANICS:	mg/kg
Arsenic	2.66

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-8
IRA CONFIRMATION,
OVEREXCAVATION
BRAC PARCEL C, DRMO WEST
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593
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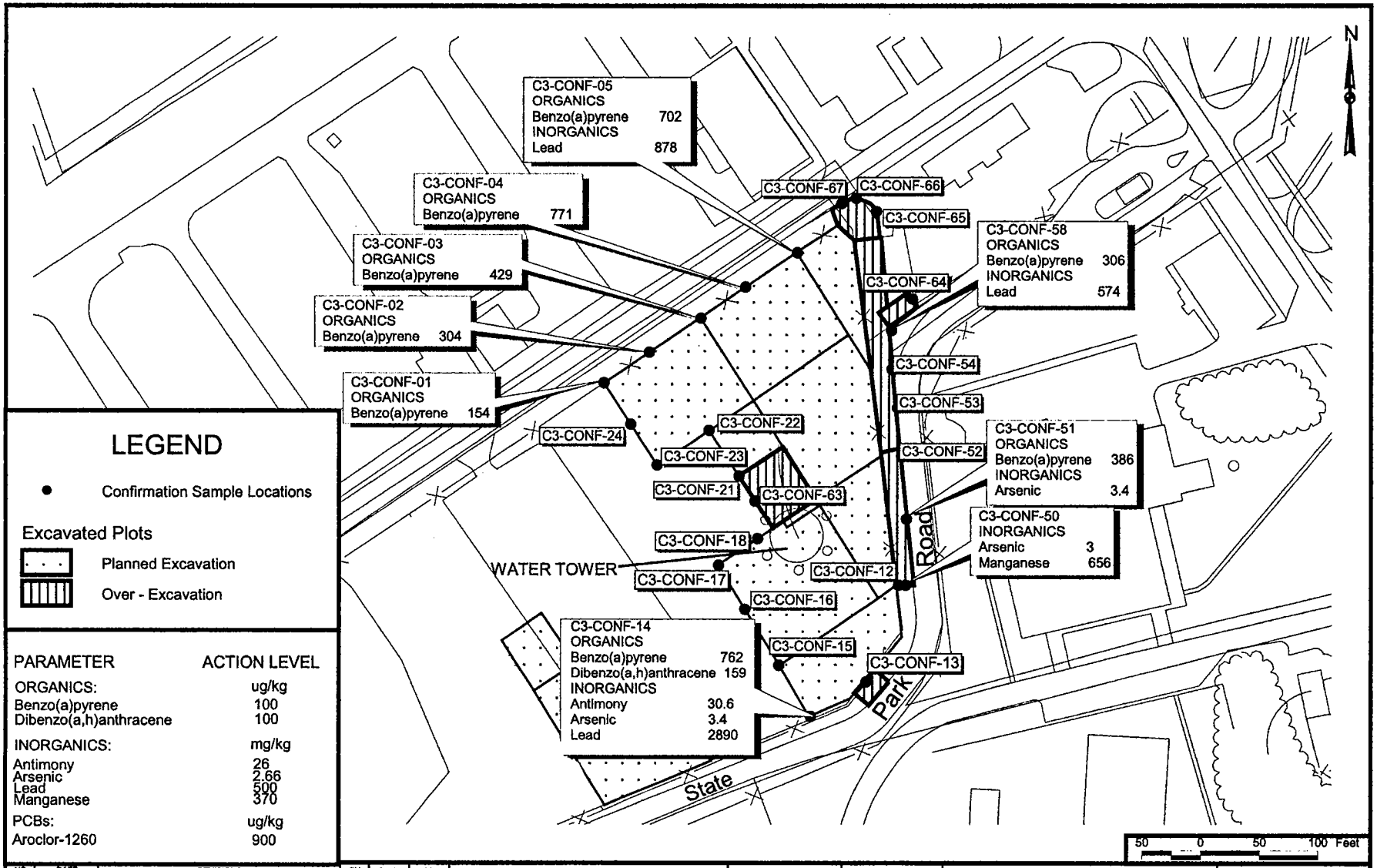

LEGEND

● Confirmation Sample Locations

Excavated Plots

Planned Excavation

Over - Excavation

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)pyrene	100
Dibenzo(a,h)anthracene	100
INORGANICS:	mg/kg
Antimony	26
Arsenic	2.66
Lead	500
Manganese	370
PCBs:	ug/kg
Aroclor-1260	900

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-9
IRA CONFIRMATION
OVEREXCAVATION
BRAC PARCEL C, DRMO EAST
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO.
REV. 0

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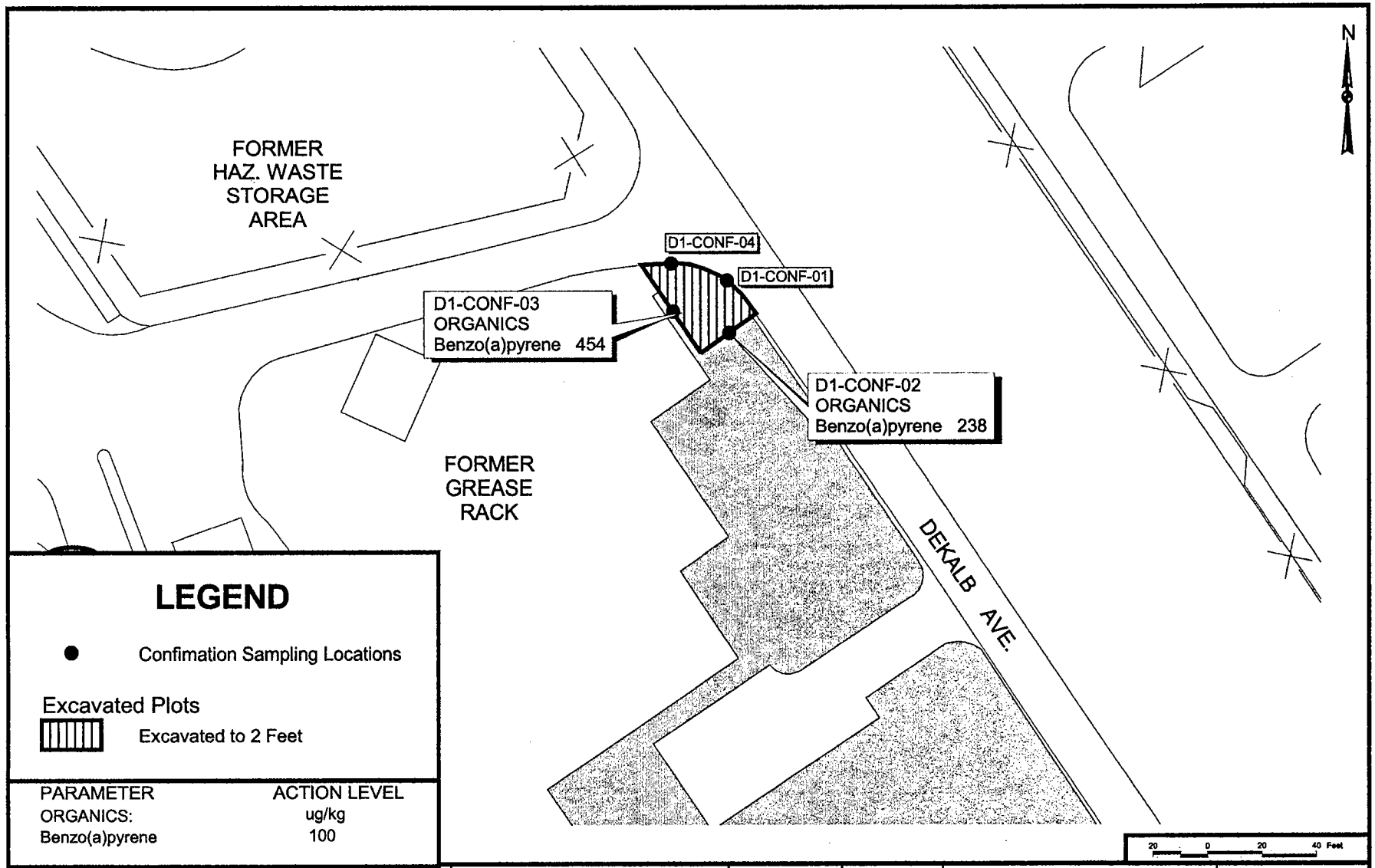

LEGEND

● Confimation Sampling Locations

Excavated Plots

Excavated to 2 Feet

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)pyrene	100

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY	DATE
JAS	9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE	AS NOTED

FIGURE 4-10
IRA CONFIRMATION
BRAC PARCEL D, SEMINOLE BATTERY
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.	
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APPROVED BY	DATE
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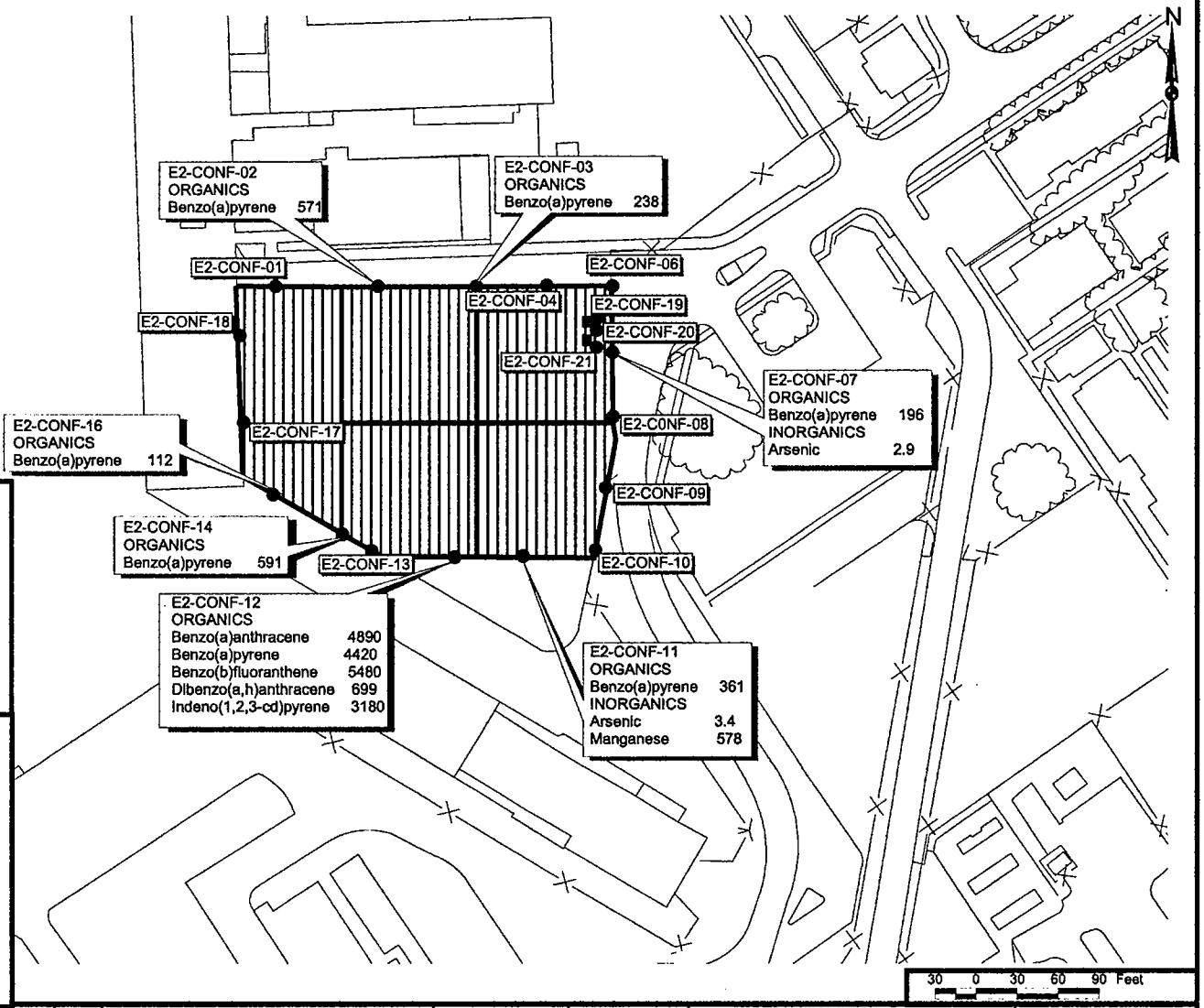

LEGEND

● Confirmation Sampling Locations

Excavated Plots

Excavated to 2 Feet

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)anthracene	1400
Benzo(a)pyrene	100
Benzo(b)fluoranthene	1400
Dibenzo(a,h)anthracene	100
Indeno(1,2,3-cd)pyrene	1400
INORGANICS:	mg/kg
Arsenic	2.66
Manganese	370

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 8-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-11
IRA CONFIRMATION,
PLANNED EXCAVATION
BRAC PARCEL E
FORMER LOCATION OF BUILDING 136
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO.
REV. 0

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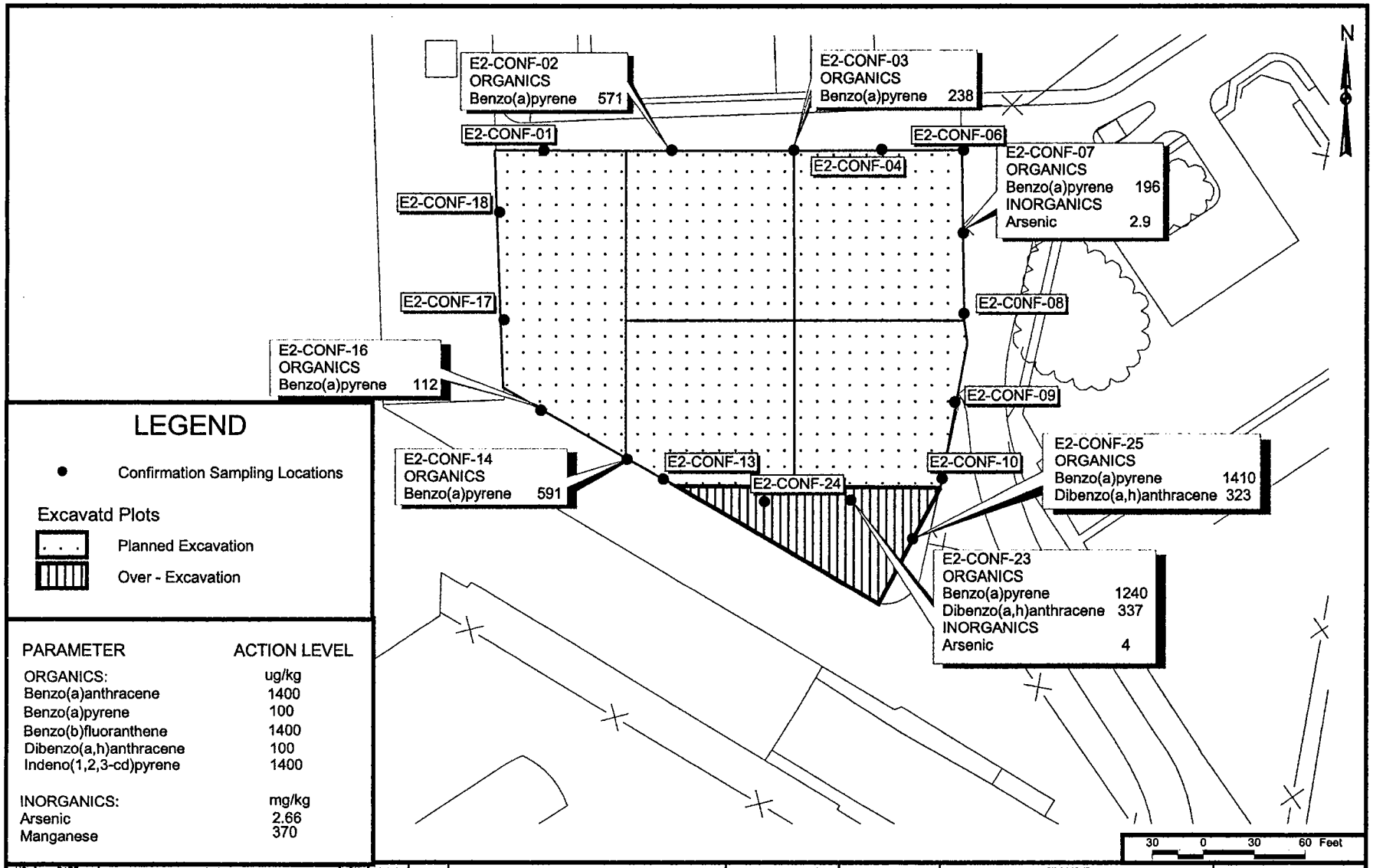

LEGEND

● Confirmation Sampling Locations

Excavatd Plots

Planned Excavation

Over - Excavation

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)anthracene	1400
Benzo(a)pyrene	100
Benzo(b)fluoranthene	1400
Dibenzo(a,h)anthracene	100
Indeno(1,2,3-cd)pyrene	1400
INORGANICS:	mg/kg
Arsenic	2.66
Manganese	370

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-12
IRA CONFIRMATION,
OVEREXCAVATION
BRAC PARCEL E
FORMER LOCATION OF BUILDING 136
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7693
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO.
REV. 0

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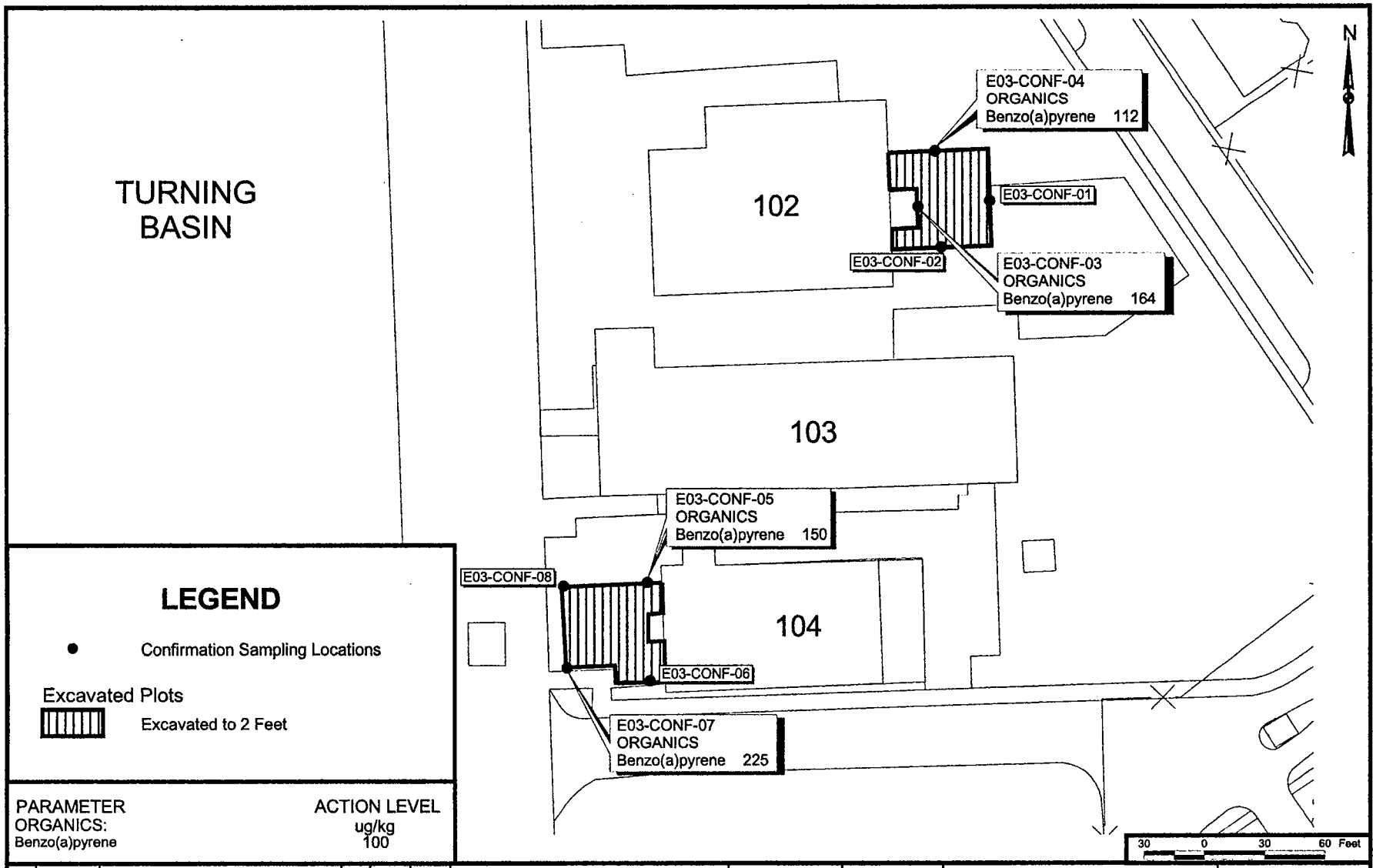

LEGEND

● Confirmation Sampling Locations

Excavated Plots

Excavated to 2 Feet

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)pyrene	100

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

FIGURE 4-13
IRA CONFIRMATION
BUILDINGS 102 & 104
PARCEL E - SUBZONE 3
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO. 7593	
APPROVED BY	DATE
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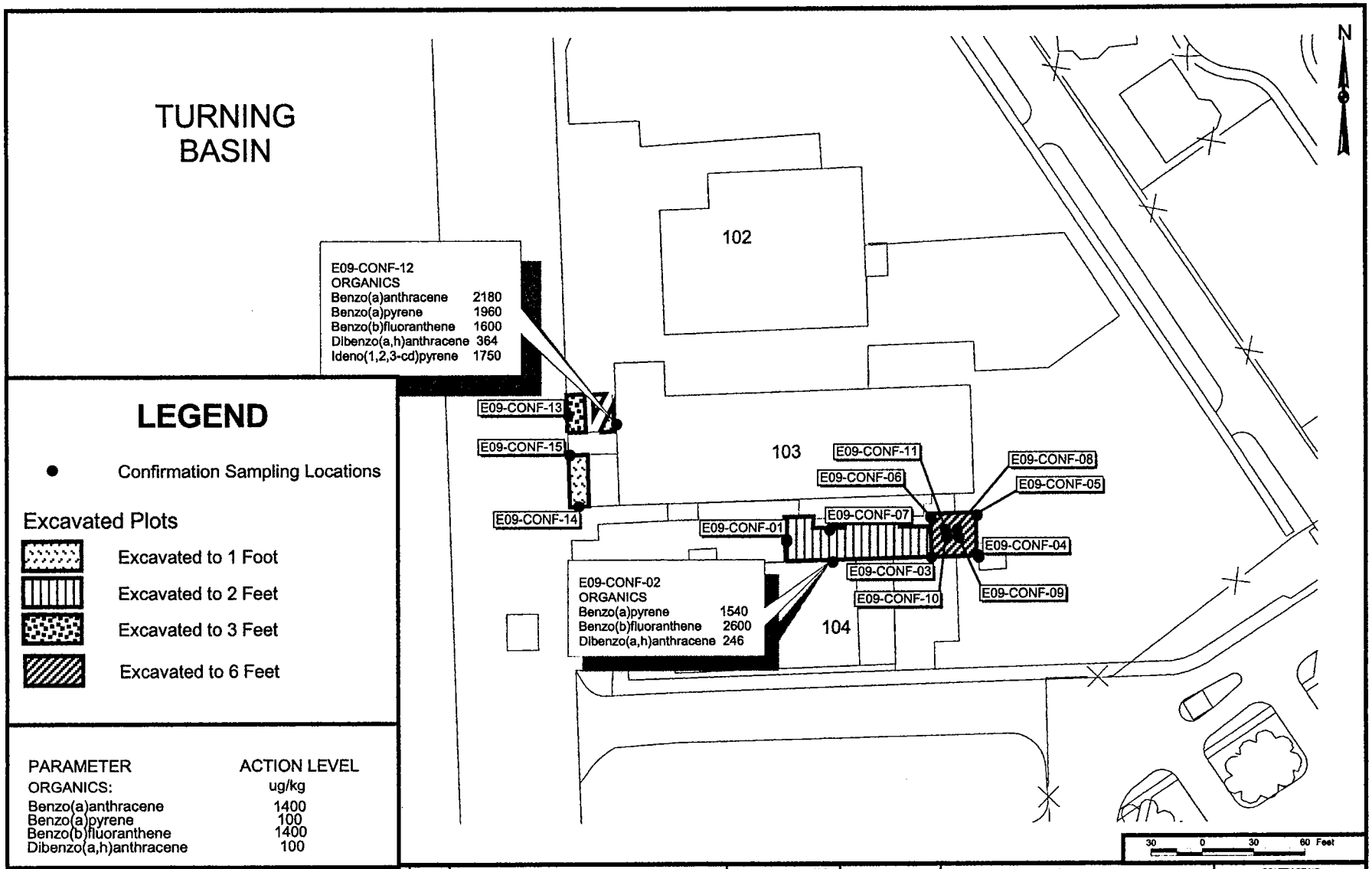
DRAWING NO.	REV. 0

D:\KW_BRAC_SSI_REV2.APR: E3 LAYOUT 9-23-99 JAS



LEGEND

● Confirmation Sampling Locations

Excavated Plots

- Excavated to 1 Foot
- Excavated to 2 Feet
- Excavated to 3 Feet
- Excavated to 6 Feet

PARAMETER	ACTION LEVEL
ORGANICS:	ug/kg
Benzo(a)anthracene	1400
Benzo(a)pyrene	100
Benzo(b)fluoranthene	1400
Dibenzo(a,h)anthracene	100

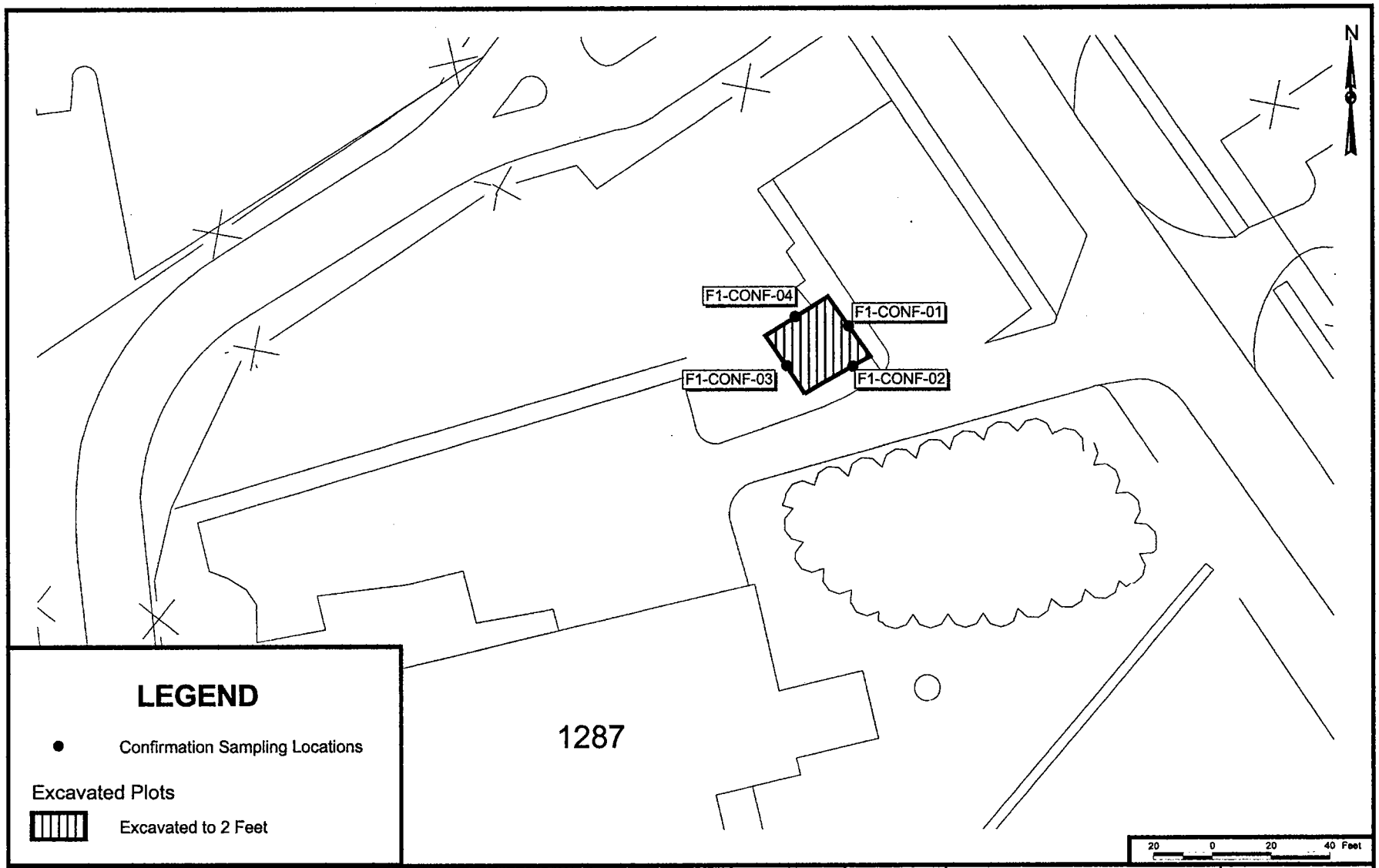
NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-14
IRA CONFIRMATION
BUILDING 103
BRAC PARCEL E, SUB-ZONE 9
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO. REV. 0

D:\KW_BRAC_SSI_REV2.APR: E9 LAYOUT 9-23-99 JAS



LEGEND

● Confirmation Sampling Locations

Excavated Plots

Excavated to 2 Feet

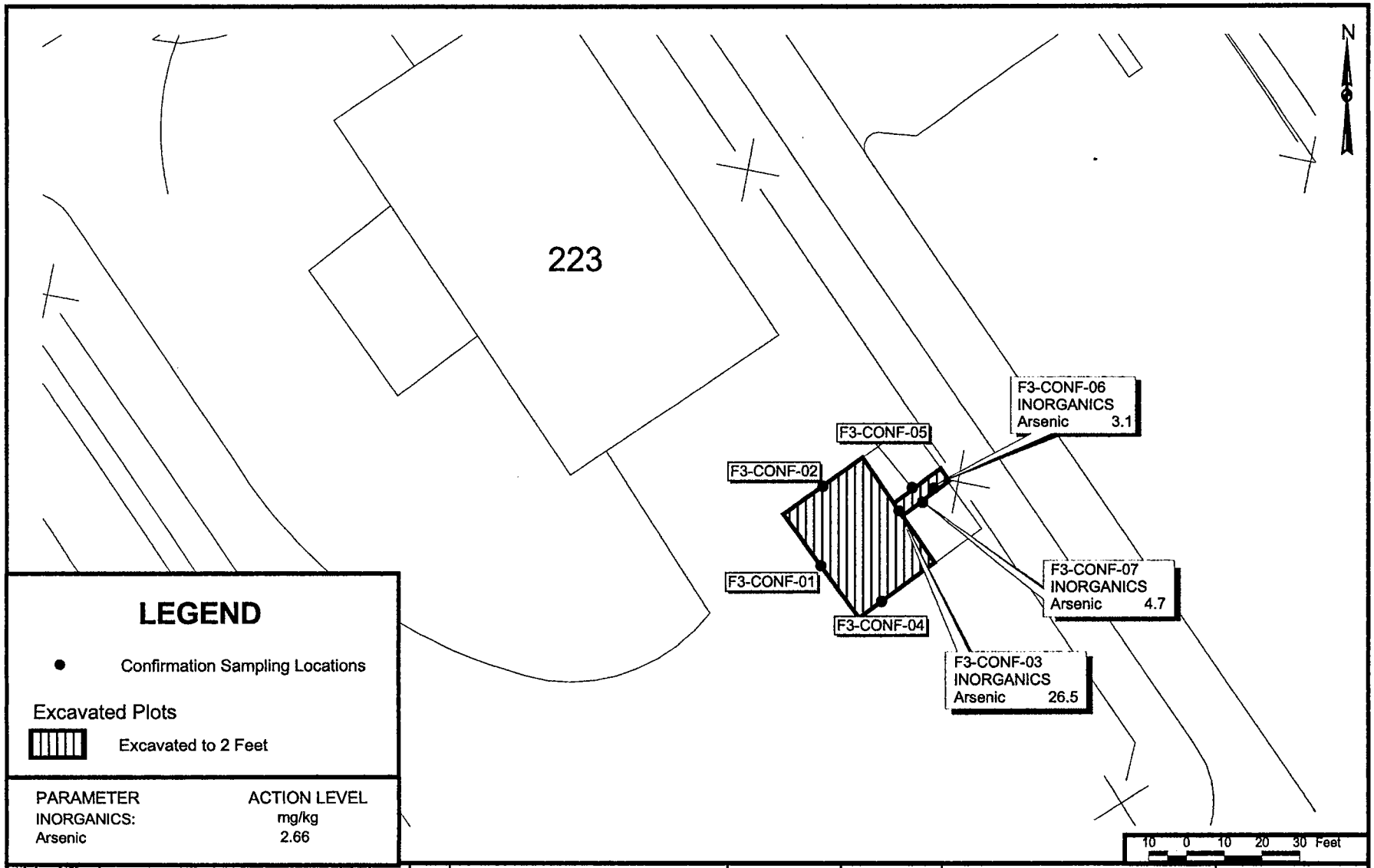
NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS	DATE 9-23-99
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

FIGURE 4-15
IRA CONFIRMATION
BRAC PARCEL F, FORMER LUBE AREA
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO.	REV. 0

D:\KW-BRAC_SSI_REV2.APR: F1 LAYOUT 9-23-99 JAS



LEGEND

● Confirmation Sampling Locations

Excavated Plots

Excavated to 2 Feet

PARAMETER	ACTION LEVEL
INORGANICS:	mg/kg
Arsenic	2.66

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY JAS DATE 9-23-99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

FIGURE 4-16
IRA CONFIRMATION
BRAC PARCEL F
HAZARDOUS WASTE STORAGE AREA
NAVY SOUTHERN DIVISION
NAS KEY WEST, FLORIDA

CONTRACT NO.
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO. REV. 0

D:\KW_BRAC-SSI_REV2.APR: F3 LAYOUT 9-23-99 JAS

TABLE 4-1

CHEMICALS DETECTED IN HAWK MISSILE SITE SEWAGE LIFT STATION
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
A4-CONF-01	Aluminum	1010	
A4-CONF-01	Arsenic	2.1	
A4-CONF-01	Barium	17	
A4-CONF-01	Chromium	5.3	
A4-CONF-01	Copper	6.2	
A4-CONF-01	Iron	717	
A4-CONF-01	Lead	13.2	
A4-CONF-01	Manganese	9.4	
A4-CONF-01	Nickel	1.5	
A4-CONF-01	Selenium	1.2	
A4-CONF-01	Silver	0.1	
A4-CONF-01	Vanadium	3.4	
A4-CONF-01	Zinc	67.7	
INORGANICS (mg/kg)			
A4-CONF-02	Aluminum	431	
A4-CONF-02	Arsenic	2.4	
A4-CONF-02	Barium	13.4	
A4-CONF-02	Chromium	3.8	
A4-CONF-02	Cobalt	0.41	
A4-CONF-02	Copper	2.9	
A4-CONF-02	Iron	486	
A4-CONF-02	Lead	89.8	
A4-CONF-02	Manganese	7.6	
A4-CONF-02	Selenium	0.96	
A4-CONF-02	Vanadium	2	
A4-CONF-02	Zinc	7.2	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
A4-CONF-03	Aluminum	585	
A4-CONF-03	Arsenic	35.9	
A4-CONF-03	Barium	22	
A4-CONF-03	Chromium	3.7	
A4-CONF-03	Copper	1.9	
A4-CONF-03	Iron	559	
A4-CONF-03	Lead	4.7	
A4-CONF-03	Manganese	7.2	
A4-CONF-03	Selenium	0.85	
A4-CONF-03	Vanadium	1.8	
A4-CONF-03	Zinc	12.9	
INORGANICS (mg/kg)			
A4-CONF-04	Aluminum	2690	
A4-CONF-04	Arsenic	9	
A4-CONF-04	Barium	21.1	
A4-CONF-04	Chromium	7.1	
A4-CONF-04	Copper	5.2	
A4-CONF-04	Iron	2180	
A4-CONF-04	Lead	22	
A4-CONF-04	Manganese	22	
A4-CONF-04	Nickel	2.5	
A4-CONF-04	Selenium	1.3	
A4-CONF-04	Vanadium	5.3	
A4-CONF-04	Zinc	56.3	
INORGANICS (mg/kg)			
A4-CONF-08	Aluminum	427	
A4-CONF-08	Arsenic	21.4	

TABLE 4-1

CHEMICALS DETECTED IN HAWK MISSILE SITE SEWAGE LIFT STATION
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
A4-CONF-08	Barium	14	
A4-CONF-08	Copper	2	
A4-CONF-08	Iron	311	
A4-CONF-08	Lead	8.8	
A4-CONF-08	Manganese	5.8	
A4-CONF-08	Selenium	0.71	
A4-CONF-08	Vanadium	2	
A4-CONF-08	Zinc	7.4	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 4-2

CHEMICALS DETECTED IN HAWK MISSILE SITE AREA AT SD-08
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
A9-CONF-01	Aluminum	313	
A9-CONF-01	Arsenic	0.64	
A9-CONF-01	Barium	13.7	
A9-CONF-01	Chromium	6.4	
A9-CONF-01	Copper	1.9	
A9-CONF-01	Iron	205	
A9-CONF-01	Lead	1.8	
A9-CONF-01	Manganese	4.8	
A9-CONF-01	Nickel	1.7	
A9-CONF-01	Selenium	0.96	
A9-CONF-01	Vanadium	1.9	
A9-CONF-01	Zinc	6.5	
INORGANICS (mg/kg)			
A9-CONF-02	Aluminum	147	
A9-CONF-02	Arsenic	0.52	
A9-CONF-02	Barium	18	
A9-CONF-02	Chromium	15.8	
A9-CONF-02	Copper	1.8	
A9-CONF-02	Iron	217	
A9-CONF-02	Manganese	3.3	
A9-CONF-02	Nickel	4	
A9-CONF-02	Selenium	0.96	
A9-CONF-02	Vanadium	1.5	
A9-CONF-02	Zinc	2.9	
INORGANICS (mg/kg)			
A9-CONF-03	Aluminum	1090	
A9-CONF-03	Arsenic	1.3	
A9-CONF-03	Barium	18.6	
A9-CONF-03	Chromium	36.6	
A9-CONF-03	Copper	4.2	
A9-CONF-03	Iron	667	
A9-CONF-03	Lead	5.1	
A9-CONF-03	Manganese	10.3	
A9-CONF-03	Nickel	9.4	
A9-CONF-03	Selenium	1.2	
A9-CONF-03	Vanadium	3.4	
A9-CONF-03	Zinc	8.1	
INORGANICS (mg/kg)			
A9-CONF-04	Aluminum	568	
A9-CONF-04	Arsenic	0.9	
A9-CONF-04	Barium	13.1	
A9-CONF-04	Chromium	4	
A9-CONF-04	Copper	1.4	
A9-CONF-04	Iron	276	
A9-CONF-04	Lead	3	
A9-CONF-04	Manganese	3.9	
A9-CONF-04	Selenium	0.99	
A9-CONF-04	Vanadium	2	
A9-CONF-04	Zinc	4.3	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 4-3

PALINTEST RESULTS FOR HAWK MISSILE SITE AREA AT SD-08
NAS KEY WEST

Sample ID	Lead Result (mg/kg)
A9-CONF-01	19.3
A9-CONF-02	19.5
A9-CONF-03	19.5
A9-CONF-04	20.1

TABLE 4-4

CHEMICALS DETECTED IN SUBZONE C1
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C1-CONF-01	Aluminum	442	
C1-CONF-01	Barium	27.2	
C1-CONF-01	Cobalt	0.72	
C1-CONF-01	Copper	17	
C1-CONF-01	Iron	3880	
C1-CONF-01	Lead	58.8	
C1-CONF-01	Manganese	30.1	
C1-CONF-01	Mercury	0.06	
C1-CONF-01	Selenium	0.6	
C1-CONF-01	Vanadium	1.9	
C1-CONF-01	Zinc	76	
INORGANICS (mg/kg)			
C1-CONF-02	Aluminum	675	
C1-CONF-02	Barium	32	
C1-CONF-02	Copper	22.4	
C1-CONF-02	Iron	1020	
C1-CONF-02	Lead	75.6	
C1-CONF-02	Manganese	27.2	
C1-CONF-02	Mercury	0.26	
C1-CONF-02	Selenium	0.83	
C1-CONF-02	Vanadium	2.2	
C1-CONF-02	Zinc	115	
INORGANICS (mg/kg)			
C1-CONF-03	Aluminum	116	
C1-CONF-03	Barium	18.8	
C1-CONF-03	Copper	8.1	
C1-CONF-03	Iron	817	
C1-CONF-03	Lead	22.2	
C1-CONF-03	Manganese	5.9	
C1-CONF-03	Selenium	0.72	
C1-CONF-03	Vanadium	1.4	
C1-CONF-03	Zinc	14.5	
INORGANICS (mg/kg)			
C1-CONF-04	Aluminum	1290	
C1-CONF-04	Barium	40.1	
C1-CONF-04	Copper	3.8	
C1-CONF-04	Iron	1460	
C1-CONF-04	Lead	26.4	
C1-CONF-04	Manganese	148	
C1-CONF-04	Vanadium	2.8	
C1-CONF-04	Zinc	21.6	
INORGANICS (mg/kg)			
C1-CONF-05	Aluminum	119	
C1-CONF-05	Barium	18.9	
C1-CONF-05	Copper	2	
C1-CONF-05	Iron	212	
C1-CONF-05	Lead	2.3	
C1-CONF-05	Manganese	8.1	
C1-CONF-05	Tin	5.1	
C1-CONF-05	Zinc	5.3	
INORGANICS (mg/kg)			
C1-CONF-06-A	Aluminum	909	
C1-CONF-06-A	Barium	20.9	
C1-CONF-06-A	Cadmium	0.37	
C1-CONF-06-A	Chromium	5.2	

TABLE 4-4

CHEMICALS DETECTED IN SUBZONE C1
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
C1-CONF-06-A	Cobalt	0.44	
C1-CONF-06-A	Copper	8.4	
C1-CONF-06-A	Iron	1103	
C1-CONF-06-A	Lead	37.8	
C1-CONF-06-A	Manganese	49.5	
C1-CONF-06-A	Nickel	1.5	
C1-CONF-06-A	Vanadium	6.3	
C1-CONF-06-A	Zinc	31	
PCBs (µg/kg)			
C1-CONF-06-A	Aroclor-1260	28.4	J
INORGANICS (mg/kg)			
C1-CONF-07	Aluminum	548	
C1-CONF-07	Barium	23	
C1-CONF-07	Copper	9.8	
C1-CONF-07	Iron	1020	
C1-CONF-07	Lead	167	
C1-CONF-07	Manganese	31.7	
C1-CONF-07	Mercury	0.57	
C1-CONF-07	Selenium	0.86	
C1-CONF-07	Vanadium	4.6	
C1-CONF-07	Zinc	54.6	
PCBs (µg/kg)			
C1-CONF-07	Aroclor-1260	46	
INORGANICS (mg/kg)			
C1-CONF-08	Aluminum	950	
C1-CONF-08	Barium	33.1	
C1-CONF-08	Copper	4.7	
C1-CONF-08	Iron	1080	
C1-CONF-08	Lead	108	
C1-CONF-08	Manganese	50.4	
C1-CONF-08	Mercury	0.09	
C1-CONF-08	Selenium	0.6	
C1-CONF-08	Vanadium	2.4	
C1-CONF-08	Zinc	51.3	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
B – Indicates analyte found in associated method blank.

TABLE 4-5

CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
NAS KEY WEST
Page 1 OF 11

Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-01	Aluminum	656	
C4-CONF-01	Arsenic	1.7	
C4-CONF-01	Barium	53.8	
C4-CONF-01	Beryllium	0.13	
C4-CONF-01	Cadmium	0.68	
C4-CONF-01	Chromium	8.5	
C4-CONF-01	Cobalt	4	
C4-CONF-01	Copper	37.1	
C4-CONF-01	Iron	3370	
C4-CONF-01	Lead	168	
C4-CONF-01	Manganese	27.3	
C4-CONF-01	Nickel	3	
C4-CONF-01	Selenium	0.89	
C4-CONF-01	Silver	0.12	
C4-CONF-01	Tin	4.8	
C4-CONF-01	Vanadium	5.3	
C4-CONF-01	Zinc	308	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-01	Anthracene	260	J
C4-CONF-01	Benzo(a)anthracene	916	
C4-CONF-01	Benzo(a)pyrene	983	
C4-CONF-01	Benzo(b)fluoranthene	1350	
C4-CONF-01	Benzo(g,h,i)perylene	246	J
C4-CONF-01	Benzo(k)fluoranthene	1180	
C4-CONF-01	Chrysene	1020	
C4-CONF-01	Fluoranthene	1890	
C4-CONF-01	Indeno(1,2,3-cd)pyrene	293	J
C4-CONF-01	Phenanthrene	1120	
C4-CONF-01	Pyrene	1550	
INORGANICS (mg/kg)			
C4-CONF-02	Aluminum	470	
C4-CONF-02	Arsenic	1.2	
C4-CONF-02	Barium	26.7	
C4-CONF-02	Beryllium	0.14	
C4-CONF-02	Cadmium	0.36	
C4-CONF-02	Chromium	7.4	
C4-CONF-02	Cobalt	0.36	
C4-CONF-02	Copper	21.8	
C4-CONF-02	Iron	1260	
C4-CONF-02	Lead	69.8	
C4-CONF-02	Manganese	14	
C4-CONF-02	Mercury	0.06	
C4-CONF-02	Nickel	3.9	
C4-CONF-02	Selenium	0.75	
C4-CONF-02	Silver	0.11	
C4-CONF-02	Tin	4.6	
C4-CONF-02	Vanadium	3.2	
C4-CONF-02	Zinc	153	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-02	Benzo(a)anthracene	120	J
C4-CONF-02	Benzo(a)pyrene	164	J
C4-CONF-02	Benzo(b)fluoranthene	224	J
C4-CONF-02	Benzo(k)fluoranthene	211	J

TABLE 4-5

CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
NAS KEY WEST
Page 2 OF 11

Sample	Parameter	Result	Qual. (*)
C4-CONF-02	Chrysene	165	J
C4-CONF-02	Fluoranthene	169	J
C4-CONF-02	Pyrene	201	J
INORGANICS (mg/kg)			
C4-CONF-03	Aluminum	584	
C4-CONF-03	Arsenic	2.8	
C4-CONF-03	Barium	35.7	
C4-CONF-03	Beryllium	0.14	
C4-CONF-03	Cadmium	0.73	
C4-CONF-03	Chromium	12.5	
C4-CONF-03	Cobalt	1	
C4-CONF-03	Copper	51.7	
C4-CONF-03	Iron	10200	
C4-CONF-03	Lead	163	
C4-CONF-03	Manganese	60.3	
C4-CONF-03	Mercury	0.05	
C4-CONF-03	Nickel	4.9	
C4-CONF-03	Silver	0.12	
C4-CONF-03	Tin	6.7	
C4-CONF-03	Vanadium	5	
C4-CONF-03	Zinc	211	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-03	Acenaphthylene	109	J
C4-CONF-03	Anthracene	144	J
C4-CONF-03	Benzo(a)anthracene	585	
C4-CONF-03	Benzo(a)pyrene	709	
C4-CONF-03	Benzo(b)fluoranthene	894	

Sample	Parameter	Result	Qual. (*)
C4-CONF-03	Benzo(g,h,i)perylene	205	J
C4-CONF-03	Benzo(k)fluoranthene	794	
C4-CONF-03	Chrysene	690	
C4-CONF-03	Fluoranthene	1120	
C4-CONF-03	Indeno(1,2,3-cd)pyrene	229	J
C4-CONF-03	Phenanthrene	746	
C4-CONF-03	Pyrene	1090	
INORGANICS (mg/kg)			
C4-CONF-04	Aluminum	603	
C4-CONF-04	Arsenic	1.2	
C4-CONF-04	Barium	26.4	
C4-CONF-04	Beryllium	0.13	
C4-CONF-04	Cadmium	0.24	
C4-CONF-04	Chromium	21.8	
C4-CONF-04	Cobalt	0.23	
C4-CONF-04	Copper	129	
C4-CONF-04	Iron	1030	
C4-CONF-04	Lead	56.8	
C4-CONF-04	Manganese	13.5	
C4-CONF-04	Mercury	0.08	
C4-CONF-04	Nickel	1.4	
C4-CONF-04	Selenium	0.83	
C4-CONF-04	Tin	3.8	
C4-CONF-04	Vanadium	2.4	
C4-CONF-04	Zinc	65.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-04	Anthracene	123	J

TABLE 4-5

CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
NAS KEY WEST
Page 3 OF 11

Sample	Parameter	Result	Qual. (*)
C4-CONF-04	Benzo(a)anthracene	623	
C4-CONF-04	Benzo(a)pyrene	721	
C4-CONF-04	Benzo(b)fluoranthene	889	
C4-CONF-04	Benzo(g,h,i)perylene	192	J
C4-CONF-04	Benzo(k)fluoranthene	721	
C4-CONF-04	Chrysene	632	
C4-CONF-04	Fluoranthene	1170	
C4-CONF-04	Indeno(1,2,3-cd)pyrene	233	J
C4-CONF-04	Phenanthrene	504	
C4-CONF-04	Pyrene	1140	
INORGANICS (mg/kg)			
C4-CONF-05	Aluminum	692	
C4-CONF-05	Arsenic	1.7	
C4-CONF-05	Barium	30.4	
C4-CONF-05	Beryllium	0.05	
C4-CONF-05	Cadmium	0.48	
C4-CONF-05	Chromium	7.6	
C4-CONF-05	Cobalt	0.51	
C4-CONF-05	Copper	53.5	
C4-CONF-05	Iron	1580	
C4-CONF-05	Lead	260	
C4-CONF-05	Manganese	19.7	
C4-CONF-05	Mercury	0.09	
C4-CONF-05	Nickel	2.4	
C4-CONF-05	Selenium	0.98	
C4-CONF-05	Silver	0.51	
C4-CONF-05	Tin	5.7	

Sample	Parameter	Result	Qual. (*)
C4-CONF-05	Vanadium	3.8	
C4-CONF-05	Zinc	168	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-05	Pentachlorophenol	838	J
INORGANICS (mg/kg)			
C4-CONF-06-AVG	Aluminum	544.5	
C4-CONF-06-AVG	Barium	27.65	
C4-CONF-06-AVG	Chromium	6.3	
C4-CONF-06-AVG	Cobalt	0.41	
C4-CONF-06-AVG	Copper	26.45	
C4-CONF-06-AVG	Iron	2180	
C4-CONF-06-AVG	Lead	83.85	
C4-CONF-06-AVG	Manganese	17.75	
C4-CONF-06-AVG	Nickel	2.2	
C4-CONF-06-AVG	Tin	5	
C4-CONF-06-AVG	Vanadium	3.15	
C4-CONF-06-AVG	Zinc	62.7	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-06-AVG	Chrysene	338	J
C4-CONF-06-AVG	Fluoranthene	700	
C4-CONF-06-AVG	Phenanthrene	479	J
C4-CONF-06-AVG	Pyrene	509.5	J
INORGANICS (mg/g)			
C4-CONF-07	Aluminum	111	
C4-CONF-07	Barium	12.7	
C4-CONF-07	Chromium	2.3	
C4-CONF-07	Copper	1.5	

TABLE 4-5

CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
NAS KEY WEST
Page 4 OF 11

Sample	Parameter	Result	Qual. (*)
C4-CONF-07	Iron	141	
C4-CONF-07	Lead	7.9	
C4-CONF-07	Manganese	2.3	
C4-CONF-07	Nickel	0.53	
C4-CONF-07	Vanadium	1.5	
C4-CONF-07	Zinc	7.4	
INORGANICS (mg/kg)			
C4-CONF-08	Aluminum	141	
C4-CONF-08	Barium	14	
C4-CONF-08	Calcium	239000	
C4-CONF-08	Chromium	4.2	
C4-CONF-08	Copper	4.3	
C4-CONF-08	Iron	2000	
C4-CONF-08	Lead	8.5	
C4-CONF-08	Magnesium	1240	
C4-CONF-08	Manganese	15.6	
C4-CONF-08	Nickel	1.4	
C4-CONF-08	Sodium	1580	
C4-CONF-08	Tin	1.9	
C4-CONF-08	Vanadium	2.2	
C4-CONF-08	Zinc	13.5	
INORGANICS (mg/kg)			
C4-CONF-09	Aluminum	298	
C4-CONF-09	Barium	15.2	B
C4-CONF-09	Chromium	5.9	
C4-CONF-09	Copper	10.9	
C4-CONF-09	Iron	1970	
C4-CONF-09	Lead	50	

Sample	Parameter	Result	Qual. (*)
C4-CONF-09	Manganese	15.3	
C4-CONF-09	Nickel	1.9	
C4-CONF-09	Selenium	0.81	
C4-CONF-09	Vanadium	2.5	
C4-CONF-09	Zinc	31.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-09	Benzo(a)anthracene	345	J
C4-CONF-09	Benzo(a)pyrene	607	
C4-CONF-09	Benzo(b)fluoranthene	1410	
C4-CONF-09	Benzo(g,h,i)perylene	345	J
C4-CONF-09	Benzo(k)fluoranthene	893	
C4-CONF-09	Chrysene	666	
C4-CONF-09	Fluoranthene	174	J
C4-CONF-09	Indeno(1,2,3-cd)pyrene	290	J
C4-CONF-09	Pyrene	224	J
INORGANICS (mg/kg)			
C4-CONF-10	Aluminum	127	
C4-CONF-10	Barium	8.7	
C4-CONF-10	Chromium	6.2	
C4-CONF-10	Copper	1.8	
C4-CONF-10	Iron	206	
C4-CONF-10	Lead	8.9	
C4-CONF-10	Manganese	3.1	
C4-CONF-10	Nickel	1.7	
C4-CONF-10	Selenium	1	
C4-CONF-10	Vanadium	1.2	
C4-CONF-10	Zinc	7.1	

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CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-11	Aluminum	144	
C4-CONF-11	Barium	8.8	
C4-CONF-11	Chromium	4.2	
C4-CONF-11	Copper	2	
C4-CONF-11	Iron	134	
C4-CONF-11	Lead	4.1	
C4-CONF-11	Manganese	3.1	
C4-CONF-11	Nickel	1.2	
C4-CONF-11	Selenium	0.86	
C4-CONF-11	Vanadium	1.4	
C4-CONF-11	Zinc	5.4	
INORGANICS (mg/kg)			
C4-CONF-12	Aluminum	170	
C4-CONF-12	Barium	10	
C4-CONF-12	Chromium	4.5	
C4-CONF-12	Copper	0.91	
C4-CONF-12	Iron	138	
C4-CONF-12	Lead	1.7	
C4-CONF-12	Manganese	2.2	
C4-CONF-12	Vanadium	1.1	
C4-CONF-12	Zinc	4.1	
INORGANICS (mg/kg)			
C4-CONF-13-AVG	Aluminum	204.5	
C4-CONF-13-AVG	Barium	18.6	
C4-CONF-13-AVG	Chromium	4.4	
C4-CONF-13-AVG	Copper	6.25	
C4-CONF-13-AVG	Iron	347.5	
C4-CONF-13-AVG	Lead	18.35	
C4-CONF-13-AVG	Manganese	7.9	
C4-CONF-13-AVG	Vanadium	2.15	
C4-CONF-13-AVG	Zinc	18.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-13-AVG	Benzo(a)anthracene	178	J
C4-CONF-13-AVG	Benzo(a)pyrene	805.5	
C4-CONF-13-AVG	Benzo(b)fluoranthene	1110	
C4-CONF-13-AVG	Benzo(g,h,i)perylene	386	
C4-CONF-13-AVG	Benzo(k)fluoranthene	892	
C4-CONF-13-AVG	Chrysene	344	J
C4-CONF-13-AVG	Indeno(1,2,3-cd)pyrene	399	J
INORGANICS (mg/kg)			
C4-CONF-15	Aluminum	228	
C4-CONF-15	Barium	25.8	
C4-CONF-15	Chromium	6.7	
C4-CONF-15	Copper	22.2	
C4-CONF-15	Iron	450	
C4-CONF-15	Lead	146	
C4-CONF-15	Manganese	7.7	
C4-CONF-15	Nickel	1.8	
C4-CONF-15	Selenium	0.77	
C4-CONF-15	Silver	10.8	
C4-CONF-15	Tin	2.4	
C4-CONF-15	Vanadium	2.5	
C4-CONF-15	Zinc	47.2	

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CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-15	Benzo(a)pyrene	165	J
C4-CONF-15	Benzo(b)fluoranthene	244	J
C4-CONF-15	Benzo(k)fluoranthene	211	J
INORGANICS (mg/kg)			
C4-CONF-16	Aluminum	769	
C4-CONF-16	Arsenic	4	
C4-CONF-16	Barium	26.9	
C4-CONF-16	Cadmium	0.69	
C4-CONF-16	Chromium	12.5	
C4-CONF-16	Cobalt	0.45	
C4-CONF-16	Copper	46	
C4-CONF-16	Iron	1870	
C4-CONF-16	Lead	187	
C4-CONF-16	Manganese	22.6	
C4-CONF-16	Mercury	0.06	
C4-CONF-16	Nickel	4.1	
C4-CONF-16	Selenium	0.74	
C4-CONF-16	Tin	11.2	
C4-CONF-16	Vanadium	5.1	
C4-CONF-16	Zinc	157	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-16	Benzo(a)anthracene	294	J
C4-CONF-16	Benzo(a)pyrene	402	J
C4-CONF-16	Benzo(b)fluoranthene	698	
C4-CONF-16	Benzo(g,h,i)perylene	129	J
C4-CONF-16	Benzo(k)fluoranthene	590	
C4-CONF-16	Chrysene	408	J
C4-CONF-16	Fluoranthene	589	
C4-CONF-16	Indeno(1,2,3-cd)pyrene	142	J
C4-CONF-16	Phenanthrene	326	J
C4-CONF-16	Pyrene	389	J
INORGANICS (mg/kg)			
C4-CONF-17	Aluminum	584	
C4-CONF-17	Barium	19.6	
C4-CONF-17	Cadmium	0.51	
C4-CONF-17	Chromium	7.2	
C4-CONF-17	Copper	21.6	
C4-CONF-17	Iron	1390	
C4-CONF-17	Lead	66.1	
C4-CONF-17	Manganese	17.9	
C4-CONF-17	Mercury	0.06	
C4-CONF-17	Nickel	2.8	
C4-CONF-17	Selenium	0.86	
C4-CONF-17	Tin	3.6	
C4-CONF-17	Vanadium	3.9	
C4-CONF-17	Zinc	74.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-17	Benzo(a)anthracene	332	J
C4-CONF-17	Benzo(a)pyrene	482	
C4-CONF-17	Benzo(b)fluoranthene	781	
C4-CONF-17	Benzo(g,h,i)perylene	134	J
C4-CONF-17	Benzo(k)fluoranthene	760	
C4-CONF-17	Chrysene	452	

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CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
C4-CONF-17	Fluoranthene	584	
C4-CONF-17	Indeno(1,2,3-cd)pyrene	158	J
C4-CONF-17	Phenanthrene	265	J
C4-CONF-17	Pyrene	418	
INORGANICS (mg/kg)			
C4-CONF-18	Aluminum	275	
C4-CONF-18	Barium	18.1	
C4-CONF-18	Chromium	4	
C4-CONF-18	Copper	17.4	
C4-CONF-18	Iron	604	
C4-CONF-18	Lead	55.8	
C4-CONF-18	Manganese	9.7	
C4-CONF-18	Nickel	1.2	
C4-CONF-18	Tin	4.2	
C4-CONF-18	Vanadium	2.3	
C4-CONF-18	Zinc	32.7	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-18	Benzo(b)fluoranthene	172	J
C4-CONF-18	Benzo(k)fluoranthene	148	J
INORGANICS (mg/kg)			
C4-CONF-19	Aluminum	413	
C4-CONF-19	Barium	26.2	
C4-CONF-19	Cadmium	0.9	
C4-CONF-19	Chromium	5.4	
C4-CONF-19	Copper	17.3	
C4-CONF-19	Iron	792	
C4-CONF-19	Lead	51.8	
C4-CONF-19	Manganese	10.9	
C4-CONF-19	Nickel	1.3	
C4-CONF-19	Potassium	81.8	
C4-CONF-19	Tin	3.1	
C4-CONF-19	Vanadium	3.1	
C4-CONF-19	Zinc	38.4	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-19	Benzo(a)pyrene	225	J
C4-CONF-19	Benzo(b)fluoranthene	310	J
C4-CONF-19	Benzo(k)fluoranthene	299	J
C4-CONF-19	Chrysene	163	J
INORGANICS (mg/kg)			
C4-CONF-20	Aluminum	279	
C4-CONF-20	Arsenic	0.87	
C4-CONF-20	Barium	23.9	
C4-CONF-20	Cadmium	0.47	
C4-CONF-20	Chromium	4.7	
C4-CONF-20	Cobalt	0.11	
C4-CONF-20	Copper	12.6	
C4-CONF-20	Iron	952	
C4-CONF-20	Lead	396	
C4-CONF-20	Manganese	11.8	
C4-CONF-20	Nickel	1.2	
C4-CONF-20	Selenium	0.86	
C4-CONF-20	Tin	7.1	
C4-CONF-20	Vanadium	2.2	
C4-CONF-20	Zinc	41	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-20	Benzo(a)anthracene	154	J

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CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
C4-CONF-20	Benzo(a)pyrene	211	J
C4-CONF-20	Benzo(b)fluoranthene	256	J
C4-CONF-20	Benzo(k)fluoranthene	209	J
C4-CONF-20	Chrysene	185	J
C4-CONF-20	Fluoranthene	199	J
C4-CONF-20	Pyrene	197	J
INORGANICS (mg/kg)			
C4-CONF-21	Aluminum	435	
C4-CONF-21	Arsenic	1.9	
C4-CONF-21	Barium	17.1	
C4-CONF-21	Cadmium	0.2	
C4-CONF-21	Chromium	3.9	
C4-CONF-21	Cobalt	0.12	
C4-CONF-21	Copper	14.1	
C4-CONF-21	Iron	831	
C4-CONF-21	Lead	43.2	
C4-CONF-21	Manganese	15.8	
C4-CONF-21	Nickel	1.1	
C4-CONF-21	Selenium	0.88	
C4-CONF-21	Tin	18.2	
C4-CONF-21	Vanadium	2.6	
C4-CONF-21	Zinc	63.4	
INORGANICS (mg/kg)			
C4-CONF-22	Aluminum	383	
C4-CONF-22	Arsenic	1.4	
C4-CONF-22	Barium	17.7	
C4-CONF-22	Cadmium	0.39	

Sample	Parameter	Result	Qual. (*)
C4-CONF-22	Chromium	4.6	
C4-CONF-22	Cobalt	0.11	
C4-CONF-22	Copper	8.3	
C4-CONF-22	Iron	569	
C4-CONF-22	Lead	45.8	
C4-CONF-22	Manganese	9.5	
C4-CONF-22	Nickel	1.4	
C4-CONF-22	Selenium	1.1	
C4-CONF-22	Tin	9.1	
C4-CONF-22	Vanadium	2.9	
C4-CONF-22	Zinc	25.6	
INORGANICS (mg/kg)			
C4-CONF-23	Aluminum	277	
C4-CONF-23	Arsenic	0.8	
C4-CONF-23	Barium	17.2	
C4-CONF-23	Cadmium	0.23	
C4-CONF-23	Chromium	2.5	
C4-CONF-23	Cobalt	0.13	
C4-CONF-23	Copper	4.3	
C4-CONF-23	Iron	480	
C4-CONF-23	Lead	12.7	
C4-CONF-23	Manganese	6.7	
C4-CONF-23	Nickel	0.84	
C4-CONF-23	Selenium	0.59	
C4-CONF-23	Tin	4.8	
C4-CONF-23	Vanadium	1.6	
C4-CONF-23	Zinc	28.2	

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CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-24-AVG	Aluminum	640	
C4-CONF-24-AVG	Arsenic	0.97	
C4-CONF-24-AVG	Barium	16.65	
C4-CONF-24-AVG	Beryllium	0.05	
C4-CONF-24-AVG	Cadmium	0.14	
C4-CONF-24-AVG	Chromium	5.15	
C4-CONF-24-AVG	Cobalt	0.155	
C4-CONF-24-AVG	Copper	3.05	
C4-CONF-24-AVG	Iron	4.39	
C4-CONF-24-AVG	Lead	5.95	
C4-CONF-24-AVG	Manganese	7.45	
C4-CONF-24-AVG	Nickel	1.35	
C4-CONF-24-AVG	Selenium	1.05	
C4-CONF-24-AVG	Tin	3.25	
C4-CONF-24-AVG	Vanadium	2.2	
C4-CONF-24-AVG	Zinc	6.8	
INORGANICS (mg/kg)			
C4-CONF-25	Aluminum	490	
C4-CONF-25	Antimony	2.1	
C4-CONF-25	Arsenic	1.9	
C4-CONF-25	Barium	53.3	
C4-CONF-25	Beryllium	0.05	
C4-CONF-25	Cadmium	0.66	
C4-CONF-25	Chromium	8.1	
C4-CONF-25	Cobalt	0.77	
C4-CONF-25	Copper	33.8	

Sample	Parameter	Result	Qual. (*)
C4-CONF-25	Iron	5320	
C4-CONF-25	Lead	543	
C4-CONF-25	Manganese	41.3	
C4-CONF-25	Mercury	0.05	
C4-CONF-25	Nickel	4	
C4-CONF-25	Selenium	0.89	
C4-CONF-25	Tin	5.6	
C4-CONF-25	Vanadium	3.4	
C4-CONF-25	Zinc	122	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-25	Benzo(a)anthracene	208	J
C4-CONF-25	Benzo(a)pyrene	245	J
C4-CONF-25	Benzo(b)fluoranthene	291	J
C4-CONF-25	Benzo(k)fluoranthene	285	J
C4-CONF-25	Chrysene	264	J
C4-CONF-25	Fluoranthene	348	J
C4-CONF-25	Pyrene	324	J
INORGANICS (mg/kg)			
C4-CONF-26	Aluminum	374	
C4-CONF-26	Arsenic	0.7	
C4-CONF-26	Barium	20.3	
C4-CONF-26	Beryllium	0.04	
C4-CONF-26	Cadmium	0.26	
C4-CONF-26	Chromium	4.9	
C4-CONF-26	Cobalt	0.15	
C4-CONF-26	Copper	10.5	
C4-CONF-26	Iron	736	

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CHEMICALS DETECTED IN DRMO
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Sample	Parameter	Result	Qual. (*)
C4-CONF-26	Lead	50.4	
C4-CONF-26	Manganese	9	
C4-CONF-26	Mercury	0.061	
C4-CONF-26	Nickel	1.8	
C4-CONF-26	Selenium	0.89	
C4-CONF-26	Tin	8.9	
C4-CONF-26	Vanadium	1.9	
C4-CONF-26	Zinc	48.6	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-26	Benzo(a)anthracene	134	J
C4-CONF-26	Benzo(a)pyrene	146	J
C4-CONF-26	Benzo(b)fluoranthene	166	J
C4-CONF-26	Benzo(k)fluoranthene	152	J
C4-CONF-26	Chrysene	167	J
C4-CONF-26	Fluoranthene	270	J
C4-CONF-26	Phenanthrene	115	J
C4-CONF-26	Pyrene	220	J
INORGANICS (mg/kg)			
C4-CONF-27	Aluminum	700	
C4-CONF-27	Arsenic	1.2	
C4-CONF-27	Barium	59.3	
C4-CONF-27	Beryllium	0.13	
C4-CONF-27	Cadmium	0.26	
C4-CONF-27	Chromium	3.7	
C4-CONF-27	Cobalt	0.23	
C4-CONF-27	Copper	11.1	
C4-CONF-27	Iron	869	

Sample	Parameter	Result	Qual. (*)
C4-CONF-27	Lead	144	
C4-CONF-27	Manganese	67.8	
C4-CONF-27	Nickel	1.7	
C4-CONF-27	Selenium	0.97	
C4-CONF-27	Tin	2.8	
C4-CONF-27	Vanadium	2.3	
C4-CONF-27	Zinc	211	
INORGANICS (mg/kg)			
C4-CONF-28	Aluminum	166	
C4-CONF-28	Arsenic	0.98	
C4-CONF-28	Barium	13.9	
C4-CONF-28	Chromium	3.5	
C4-CONF-28	Cobalt	0.1	
C4-CONF-28	Copper	5.4	
C4-CONF-28	Iron	241	
C4-CONF-28	Lead	7.3	
C4-CONF-28	Manganese	3.9	
C4-CONF-28	Selenium	1.1	
C4-CONF-28	Silver	0.14	
C4-CONF-28	Tin	1.8	
C4-CONF-28	Vanadium	1.8	
C4-CONF-28	Zinc	13.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-28	Benzo(a)pyrene	312	J
C4-CONF-28	Benzo(b)fluoranthene	499	
C4-CONF-28	Benzo(k)fluoranthene	440	
C4-CONF-28	Chrysene	254	J

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CHEMICALS DETECTED IN DRMO
PLANNED EXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-32	Aluminum	882	
C4-CONF-32	Barium	36.7	
C4-CONF-32	Chromium	6.7	
C4-CONF-32	Copper	12.2	
C4-CONF-32	Iron	1250	
C4-CONF-32	Lead	174	
C4-CONF-32	Manganese	12.2	
C4-CONF-32	Nickel	2.3	
C4-CONF-32	Tin	5	
C4-CONF-32	Vanadium	5	
C4-CONF-32	Zinc	40.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-32	Benzo(a)pyrene	228	J
C4-CONF-32	Benzo(b)fluoranthene	282	J
C4-CONF-32	Benzo(k)fluoranthene	203	J
INORGANICS (mg/kg)			
C4-CONF-33	Aluminum	121	
C4-CONF-33	Barium	17.1	
C4-CONF-33	Chromium	3	
C4-CONF-33	Copper	2.4	
C4-CONF-33	Iron	299	
C4-CONF-33	Lead	8.5	
C4-CONF-33	Manganese	6.5	
C4-CONF-33	Nickel	0.31	
C4-CONF-33	Vanadium	1.1	
C4-CONF-33	Zinc	11.4	

Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-34	Aluminum	131	
C4-CONF-34	Barium	16.8	
C4-CONF-34	Chromium	5	
C4-CONF-34	Cobalt	0.33	
C4-CONF-34	Copper	2.6	
C4-CONF-34	Iron	325	
C4-CONF-34	Lead	17.1	
C4-CONF-34	Manganese	9.4	
C4-CONF-34	Nickel	2.1	
C4-CONF-34	Tin	4	
C4-CONF-34	Vanadium	1.3	
C4-CONF-34	Zinc	15.8	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
B – Indicates analyte found in associated method blank.

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CHEMICALS DETECTED IN DRMO (EAST)
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-CONF-01	Aluminum	246	
C3-CONF-01	Arsenic	1.2	
C3-CONF-01	Barium	55.4	
C3-CONF-01	Cadmium	0.59	
C3-CONF-01	Chromium	5.8	
C3-CONF-01	Cobalt	0.24	
C3-CONF-01	Copper	66.7	
C3-CONF-01	Iron	1200	
C3-CONF-01	Lead	247	
C3-CONF-01	Manganese	14	
C3-CONF-01	Mercury	0.15	
C3-CONF-01	Nickel	2.2	
C3-CONF-01	Selenium	1.2	
C3-CONF-01	Tin	6.7	
C3-CONF-01	Vanadium	3.7	
C3-CONF-01	Zinc	228	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-01	Benzo(a)pyrene	154	J
C3-CONF-01	Benzo(b)fluoranthene	204	J
C3-CONF-01	Benzo(g,h,i)perylene	326	J
C3-CONF-01	Benzo(k)fluoranthene	112	J
C3-CONF-01	Indeno(1,2,3-cd)pyrene	241	J
C3-CONF-01	Pyrene	137	J
INORGANICS (mg/kg)			
C3-CONF-02	Aluminum	275	
C3-CONF-02	Arsenic	1.3	
C3-CONF-02	Barium	24.4	
C3-CONF-02	Cadmium	0.51	
C3-CONF-02	Chromium	6.8	
C3-CONF-02	Cobalt	0.28	
C3-CONF-02	Copper	66.1	
C3-CONF-02	Iron	1300	
C3-CONF-02	Lead	187	
C3-CONF-02	Manganese	13	
C3-CONF-02	Mercury	0.08	
C3-CONF-02	Nickel	2.7	
C3-CONF-02	Selenium	0.82	
C3-CONF-02	Tin	8.4	
C3-CONF-02	Vanadium	4	
C3-CONF-02	Zinc	241	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-02	Benzo(a)anthracene	142	J
C3-CONF-02	Benzo(a)pyrene	304	J
C3-CONF-02	Benzo(b)fluoranthene	417	
C3-CONF-02	Benzo(g,h,i)perylene	321	J
C3-CONF-02	Benzo(k)fluoranthene	253	J
C3-CONF-02	Chrysene	229	J
C3-CONF-02	Fluoranthene	223	J
C3-CONF-02	Indeno(1,2,3-cd)pyrene	265	J
C3-CONF-02	Pyrene	281	J
INORGANICS (mg/kg)			
C3-CONF-03	Aluminum	393	
C3-CONF-03	Arsenic	1.2	
C3-CONF-03	Barium	29	
C3-CONF-03	Cadmium	1	
C3-CONF-03	Chromium	9.1	
C3-CONF-03	Cobalt	0.45	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-03	Copper	72	
C3-CONF-03	Iron	2510	
C3-CONF-03	Lead	234	
C3-CONF-03	Manganese	22.7	
C3-CONF-03	Mercury	0.23	
C3-CONF-03	Nickel	4.2	
C3-CONF-03	Selenium	1.3	
C3-CONF-03	Silver	0.29	
C3-CONF-03	Tin	39.5	
C3-CONF-03	Vanadium	4.9	
C3-CONF-03	Zinc	427	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-03	Benzo(a)anthracene	247	J
C3-CONF-03	Benzo(a)pyrene	429	
C3-CONF-03	Benzo(b)fluoranthene	507	
C3-CONF-03	Benzo(g,h,i)perylene	544	
C3-CONF-03	Benzo(k)fluoranthene	375	
C3-CONF-03	Chrysene	378	
C3-CONF-03	Fluoranthene	492	
C3-CONF-03	Indeno(1,2,3-cd)pyrene	529	
C3-CONF-03	Phenanthrene	212	J
C3-CONF-03	Pyrene	375	
INORGANICS (mg/kg)			
C3-CONF-04	Aluminum	829	
C3-CONF-04	Arsenic	1.6	
C3-CONF-04	Barium	33.1	
C3-CONF-04	Cadmium	1.5	
C3-CONF-04	Chromium	12.8	
C3-CONF-04	Cobalt	1.2	

Sample	Parameter	Result	Qual. (*)
C3-CONF-04	Copper	117	
C3-CONF-04	Iron	3810	
C3-CONF-04	Lead	350	
C3-CONF-04	Manganese	27.3	
C3-CONF-04	Mercury	0.25	
C3-CONF-04	Nickel	4.7	
C3-CONF-04	Selenium	1.2	
C3-CONF-04	Silver	0.35	
C3-CONF-04	Tin	8.8	
C3-CONF-04	Vanadium	6.5	
C3-CONF-04	Zinc	874	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-04	Benzo(a)anthracene	618	J
C3-CONF-04	Benzo(a)pyrene	771	
C3-CONF-04	Benzo(b)fluoranthene	899	
C3-CONF-04	Benzo(g,h,i)perylene	924	
C3-CONF-04	Benzo(k)fluoranthene	651	J
C3-CONF-04	Butylbenzylphthalate	524	J
C3-CONF-04	Chrysene	762	
C3-CONF-04	Fluoranthene	1280	
C3-CONF-04	Indeno(1,2,3-cd)pyrene	901	
C3-CONF-04	Phenanthrene	658	J
C3-CONF-04	Pyrene	925	
INORGANICS (mg/kg)			
C3-CONF-05	Aluminum	429	
C3-CONF-05	Antimony	11.2	
C3-CONF-05	Arsenic	1.8	
C3-CONF-05	Barium	104	
C3-CONF-05	Cadmium	1.4	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-05	Chromium	15.9	
C3-CONF-05	Cobalt	0.66	
C3-CONF-05	Copper	431	
C3-CONF-05	Iron	5280	
C3-CONF-05	Lead	878	
C3-CONF-05	Manganese	39.1	
C3-CONF-05	Mercury	0.88	
C3-CONF-05	Nickel	5.1	
C3-CONF-05	Selenium	1.3	
C3-CONF-05	Silver	0.42	
C3-CONF-05	Tin	15.6	
C3-CONF-05	Vanadium	5.9	
C3-CONF-05	Zinc	822	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-05	Benzo(a)anthracene	444	J
C3-CONF-05	Benzo(a)pyrene	702	J
C3-CONF-05	Benzo(b)fluoranthene	852	
C3-CONF-05	Benzo(g,h,i)perylene	1210	
C3-CONF-05	Benzo(k)fluoranthene	512	J
C3-CONF-05	Chrysene	657	J
C3-CONF-05	Fluoranthene	889	
C3-CONF-05	Indeno(1,2,3-cd)pyrene	1020	
C3-CONF-05	Phenanthrene	416	J
C3-CONF-05	Pyrene	638	J
INORGANICS (mg/kg)			
C3-CONF-06-AVG	Aluminum	374	
C3-CONF-06-AVG	Antimony	2.44	
C3-CONF-06-AVG	Arsenic	1.135	
C3-CONF-06-AVG	Barium	42.05	

Sample	Parameter	Result	Qual. (*)
C3-CONF-06-AVG	Cadmium	0.705	
C3-CONF-06-AVG	Chromium	9.45	
C3-CONF-06-AVG	Cobalt	0.33	
C3-CONF-06-AVG	Copper	93	
C3-CONF-06-AVG	Iron	1980	
C3-CONF-06-AVG	Lead	637	
C3-CONF-06-AVG	Manganese	22.45	
C3-CONF-06-AVG	Mercury	0.55	
C3-CONF-06-AVG	Nickel	3.05	
C3-CONF-06-AVG	Selenium	1.1	
C3-CONF-06-AVG	Silver	0.185	
C3-CONF-06-AVG	Tin	7.75	
C3-CONF-06-AVG	Vanadium	5.25	
C3-CONF-06-AVG	Zinc	366	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-06-AVG	Benzo(a)pyrene	427	J
C3-CONF-06-AVG	Benzo(g,h,i)perylene	637.5	J
C3-CONF-06-AVG	Fluoranthene	706	J
C3-CONF-06-AVG	Indeno(1,2,3-cd)pyrene	476.5	J
C3-CONF-06-AVG	Pyrene	535.5	J
INORGANICS (mg/kg)			
C3-CONF-07	Arsenic	1.7	
C3-CONF-07	Barium	36.9	
C3-CONF-07	Cadmium	0.57	
C3-CONF-07	Chromium	7.2	
C3-CONF-07	Cobalt	0.43	
C3-CONF-07	Copper	92.4	
C3-CONF-07	Iron	2960	
C3-CONF-07	Lead	305	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-07	Manganese	23.6	
C3-CONF-07	Mercury	0.12	
C3-CONF-07	Nickel	3.5	
C3-CONF-07	Selenium	0.63	
C3-CONF-07	Tin	14.9	
C3-CONF-07	Vanadium	3.7	
C3-CONF-07	Zinc	158	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-07	Benzo(a)anthracene	210	J
C3-CONF-07	Benzo(a)pyrene	248	J
C3-CONF-07	Benzo(b)fluoranthene	267	J
C3-CONF-07	Benzo(g,h,i)perylene	266	J
C3-CONF-07	Benzo(k)fluoranthene	181	J
C3-CONF-07	Chrysene	274	J
C3-CONF-07	Fluoranthene	512	
C3-CONF-07	Indeno(1,2,3-cd)pyrene	270	J
C3-CONF-07	Phenanthrene	209	J
C3-CONF-07	Pyrene	362	J
INORGANICS (mg/kg)			
C3-CONF-08	Aluminum	786	
C3-CONF-08	Antimony	14.8	
C3-CONF-08	Arsenic	2.4	
C3-CONF-08	Barium	83.9	
C3-CONF-08	Cadmium	3.5	
C3-CONF-08	Chromium	22.3	
C3-CONF-08	Cobalt	1.1	
C3-CONF-08	Copper	172	
C3-CONF-08	Iron	9640	
C3-CONF-08	Lead	947	

Sample	Parameter	Result	Qual. (*)
C3-CONF-08	Manganese	72.8	
C3-CONF-08	Mercury	0.88	
C3-CONF-08	Nickel	7.7	
C3-CONF-08	Tin	15.1	
C3-CONF-08	Vanadium	6.3	
C3-CONF-08	Zinc	561	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-08	Acenaphthene	268	J
C3-CONF-08	Anthracene	900	
C3-CONF-08	Benzo(a)anthracene	2880	
C3-CONF-08	Benzo(a)pyrene	2040	
C3-CONF-08	Benzo(b)fluoranthene	1570	
C3-CONF-08	Benzo(g,h,i)perylene	1220	
C3-CONF-08	Benzo(k)fluoranthene	1490	
C3-CONF-08	Chrysene	2780	
C3-CONF-08	Dibenzo(a,h)anthracene	440	J
C3-CONF-08	Fluoranthene	5280	
C3-CONF-08	Indeno(1,2,3-cd)pyrene	1570	
C3-CONF-08	Phenanthrene	3030	
C3-CONF-08	Pyrene	4040	
INORGANICS (mg/kg)			
C3-CONF-09	Aluminum	10600	
C3-CONF-09	Antimony	163	
C3-CONF-09	Arsenic	24.5	
C3-CONF-09	Barium	359	
C3-CONF-09	Cadmium	20.5	
C3-CONF-09	Chromium	136	
C3-CONF-09	Cobalt	11.6	
C3-CONF-09	Copper	1730	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-09	Iron	79200	
C3-CONF-09	Lead	2600	
C3-CONF-09	Manganese	5910	
C3-CONF-09	Mercury	1	
C3-CONF-09	Nickel	83.5	
C3-CONF-09	Silver	3.5	
C3-CONF-09	Tin	79.3	
C3-CONF-09	Vanadium	30.9	
C3-CONF-09	Zinc	11000	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-09	Benzo(A)Anthracene	976	J
C3-CONF-09	Benzo(a)pyrene	995	J
C3-CONF-09	Benzo(b)fluoranthene	932	J
C3-CONF-09	Benzo(g,h,i)perylene	991	J
C3-CONF-09	Benzo(k)fluoranthene	784	J
C3-CONF-09	Chrysene	1060	J
C3-CONF-09	Fluoranthene	1810	
C3-CONF-09	Indeno(1,2,3-cd)pyrene	1080	J
C3-CONF-09	Phenanthrene	629	J
C3-CONF-09	Pyrene	1270	J
INORGANICS (mg/kg)			
C3-CONF-10-AVG	Aluminum	1440	
C3-CONF-10-AVG	Antimony	47.7	
C3-CONF-10-AVG	Arsenic	7.95	
C3-CONF-10-AVG	Barium	446	J
C3-CONF-10-AVG	Cadmium	10.15	
C3-CONF-10-AVG	Chromium	70.2	
C3-CONF-10-AVG	Cobalt	3.65	
C3-CONF-10-AVG	Copper	967.5	

Sample	Parameter	Result	Qual. (*)
C3-CONF-10-AVG	Iron	32300	
C3-CONF-10-AVG	Lead	3215	
C3-CONF-10-AVG	Manganese	214	
C3-CONF-10-AVG	Mercury	21	J
C3-CONF-10-AVG	Nickel	39.4	
C3-CONF-10-AVG	Silver	1.28	
C3-CONF-10-AVG	Tin	43.5	
C3-CONF-10-AVG	Vanadium	17.7	
C3-CONF-10-AVG	Zinc	2000	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-10-AVG	Benzo(a)anthracene	2365	
C3-CONF-10-AVG	Benzo(a)pyrene	2320	
C3-CONF-10-AVG	Benzo(b)fluoranthene	3375	
C3-CONF-10-AVG	Benzo(g,h,i)perylene	1016.5	J
C3-CONF-10-AVG	Benzo(k)fluoranthene	3440	
C3-CONF-10-AVG	Chrysene	2465	
C3-CONF-10-AVG	Fluoranthene	3995	
C3-CONF-10-AVG	Indeno(1,2,3-cd)pyrene	1186.5	J
C3-CONF-10-AVG	Phenanthrene	758	J
C3-CONF-10-AVG	Pyrene	3400	
INORGANICS (mg/kg)			
C3-CONF-11	Aluminum	1260	
C3-CONF-11	Antimony	29	
C3-CONF-11	Arsenic	4.4	
C3-CONF-11	Barium	175	J
C3-CONF-11	Cadmium	12.8	
C3-CONF-11	Chromium	42.1	
C3-CONF-11	Cobalt	2	
C3-CONF-11	Copper	602	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-11	Iron	16100	
C3-CONF-11	Lead	2550	
C3-CONF-11	Manganese	118	
C3-CONF-11	Mercury	0.1	J
C3-CONF-11	Nickel	17.2	
C3-CONF-11	Selenium	0.8	
C3-CONF-11	Silver	2	
C3-CONF-11	Tin	26.5	
C3-CONF-11	Vanadium	16.6	
C3-CONF-11	Zinc	1570	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-11	Benzo(a)anthracene	391	J
C3-CONF-11	Benzo(a)pyrene	458	J
C3-CONF-11	Benzo(b)fluoranthene	711	J
C3-CONF-11	Benzo(k)fluoranthene	640	J
C3-CONF-11	Chrysene	522	J
C3-CONF-11	Fluoranthene	832	J
C3-CONF-11	Pyrene	863	J
INORGANICS (mg/kg)			
C3-CONF-12	Aluminum	2040	
C3-CONF-12	Antimony	0.62	
C3-CONF-12	Arsenic	2.5	
C3-CONF-12	Barium	61.8	
C3-CONF-12	Cadmium	1	
C3-CONF-12	Chromium	8.8	
C3-CONF-12	Cobalt	1.3	
C3-CONF-12	Copper	128	
C3-CONF-12	Iron	4000	
C3-CONF-12	Lead	470	

Sample	Parameter	Result	Qual. (*)
C3-CONF-12	Manganese	227	
C3-CONF-12	Mercury	0.06	
C3-CONF-12	Nickel	4.5	
C3-CONF-12	Selenium	0.89	
C3-CONF-12	Tin	7.2	
C3-CONF-12	Vanadium	6.8	
C3-CONF-12	Zinc	214	
INORGANICS (mg/kg)			
C3-CONF-13	Aluminum	900	
C3-CONF-13	Antimony	21.9	
C3-CONF-13	Arsenic	4.7	
C3-CONF-13	Barium	61.5	
C3-CONF-13	Cadmium	11.8	
C3-CONF-13	Chromium	22	
C3-CONF-13	Cobalt	1.2	
C3-CONF-13	Copper	230	
C3-CONF-13	Iron	2610	
C3-CONF-13	Lead	3900	
C3-CONF-13	Manganese	56.8	
C3-CONF-13	Nickel	7.3	
C3-CONF-13	Selenium	1	
C3-CONF-13	Silver	1.5	
C3-CONF-13	Tin	15	
C3-CONF-13	Vanadium	13.2	
C3-CONF-13	Zinc	949	
INORGANICS (mg/kg)			
C3-CONF-14	Aluminum	1180	
C3-CONF-14	Antimony	30.6	
C3-CONF-14	Arsenic	3.4	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-14	Barium	71.3	
C3-CONF-14	Cadmium	12.6	
C3-CONF-14	Chromium	32.6	
C3-CONF-14	Cobalt	1.7	
C3-CONF-14	Copper	387	
C3-CONF-14	Iron	7410	
C3-CONF-14	Lead	2890	
C3-CONF-14	Manganese	72.9	
C3-CONF-14	Mercury	0.06	
C3-CONF-14	Nickel	10.8	
C3-CONF-14	Selenium	0.57	
C3-CONF-14	Silver	1.6	
C3-CONF-14	Tin	32.4	
C3-CONF-14	Vanadium	17.4	
C3-CONF-14	Zinc	690	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-14	Benzo(a)anthracene	892	
C3-CONF-14	Benzo(a)pyrene	762	J
C3-CONF-14	Benzo(b)fluoranthene	772	J
C3-CONF-14	Benzo(g,h,i)perylene	582	J
C3-CONF-14	Benzo(k)fluoranthene	582	J
C3-CONF-14	Chrysene	998	
C3-CONF-14	Dibenzo(a,h)anthracene	159	J
C3-CONF-14	Fluoranthene	1560	
C3-CONF-14	Indeno(1,2,3-cd)pyrene	634	J
C3-CONF-14	Phenanthrene	743	J
C3-CONF-14	Pyrene	1490	
INORGANICS (mg/kg)			
C3-CONF-15-AVG	Aluminum	117.95	

Sample	Parameter	Result	Qual. (*)
C3-CONF-15-AVG	Arsenic	0.48	
C3-CONF-15-AVG	Barium	21.2	
C3-CONF-15-AVG	Cadmium	0.41	
C3-CONF-15-AVG	Chromium	5.25	
C3-CONF-15-AVG	Cobalt	0.2	
C3-CONF-15-AVG	Copper	16	
C3-CONF-15-AVG	Iron	1043	
C3-CONF-15-AVG	Lead	150	
C3-CONF-15-AVG	Manganese	8.95	
C3-CONF-15-AVG	Nickel	4.95	
C3-CONF-15-AVG	Selenium	0.965	
C3-CONF-15-AVG	Tin	2.05	
C3-CONF-15-AVG	Vanadium	1.4	
C3-CONF-15-AVG	Zinc	185.6	
INORGANICS (mg/kg)			
C3-CONF-16	Aluminum	136	
C3-CONF-16	Arsenic	0.33	
C3-CONF-16	Barium	15	
C3-CONF-16	Cadmium	0.12	
C3-CONF-16	Chromium	2.6	
C3-CONF-16	Copper	3.9	
C3-CONF-16	Iron	221	
C3-CONF-16	Lead	14.1	
C3-CONF-16	Manganese	4.1	
C3-CONF-16	Mercury	0.06	
C3-CONF-16	Nickel	0.8	
C3-CONF-16	Selenium	0.92	
C3-CONF-16	Tin	5.1	
C3-CONF-16	Vanadium	1.3	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-16	Zinc	11.5	
INORGANICS (mg/kg)			
C3-CONF-17	Aluminum	100	
C3-CONF-17	Barium	13.3	
C3-CONF-17	Cadmium	0.19	
C3-CONF-17	Chromium	3.2	
C3-CONF-17	Cobalt	0.07	
C3-CONF-17	Copper	8.3	
C3-CONF-17	Iron	384	
C3-CONF-17	Lead	101	
C3-CONF-17	Manganese	4.4	
C3-CONF-17	Nickel	1.3	
C3-CONF-17	Selenium	0.67	
C3-CONF-17	Tin	1.5	
C3-CONF-17	Vanadium	1.5	
C3-CONF-17	Zinc	14.4	
INORGANICS (mg/kg)			
C3-CONF-18	Aluminum	127	
C3-CONF-18	Barium	14.1	
C3-CONF-18	Chromium	5.1	J
C3-CONF-18	Copper	7.4	
C3-CONF-18	Iron	1090	
C3-CONF-18	Lead	41.6	
C3-CONF-18	Manganese	5.5	J
C3-CONF-18	Nickel	3.2	
C3-CONF-18	Vanadium	1.2	
C3-CONF-18	Zinc	23.4	
INORGANICS (mg/kg)			
C3-CONF-19	Antimony	7.6	
C3-CONF-19	Arsenic	2.1	
C3-CONF-19	Barium	104	
C3-CONF-19	Cadmium	2.6	
C3-CONF-19	Chromium	17.6	
C3-CONF-19	Cobalt	1.1	
C3-CONF-19	Copper	667	
C3-CONF-19	Iron	10900	
C3-CONF-19	Lead	1300	
C3-CONF-19	Manganese	61.5	
C3-CONF-19	Mercury	0.31	
C3-CONF-19	Nickel	6.4	
C3-CONF-19	Silver	0.64	
C3-CONF-19	Tin	13.5	
C3-CONF-19	Vanadium	3	
C3-CONF-19	Zinc	729	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-19	Benzo(a)pyrene	131	J
C3-CONF-19	Benzo(b)fluoranthene	135	J
C3-CONF-19	Benzo(g,h,i)perylene	158	J
C3-CONF-19	Benzo(k)fluoranthene	110	J
C3-CIBF-19	Butylbenzylphthalate	243	J
C3-CONF-19	Chrysene	130	J
C3-CONF-19	Fluoranthene	168	J
C3-CONF-19	Indeno(1,2,3-cd)pyrene	141	J
C3-CONF-19	Pyrene	139	J
PCBs (µg/kg)			
C3-CONF-19	Aroclor-1260	2340	
INORGANICS (mg/kg)			
C3-CONF-20-AVG	Aluminum	579	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-20-AVG	Antimony	15.2	
C3-CONF-20-AVG	Arsenic	2.3	
C3-CONF-20-AVG	Barium	138.5	
C3-CONF-20-AVG	Cadmium	3.15	
C3-CONF-20-AVG	Chromium	32.8	
C3-CONF-20-AVG	Cobalt	1.25	
C3-CONF-20-AVG	Copper	898.5	
C3-CONF-20-AVG	Iron	11900	
C3-CONF-20-AVG	Lead	2790	
C3-CONF-20-AVG	Manganese	83.45	
C3-CONF-20-AVG	Mercury	0.51	
C3-CONF-20-AVG	Nickel	15.9	
C3-CONF-20-AVG	Tin	47.15	
C3-CONF-20-AVG	Vanadium	3.4	
C3-CONF-20-AVG	Zinc	816.5	
INORGANICS (mg/kg)			
C3-CONF-21	Aluminum	272	
C3-CONF-21	Barium	47.6	
C3-CONF-21	Cadmium	1.4	
C3-CONF-21	Chromium	18.3	
C3-CONF-21	Copper	82.1	
C3-CONF-21	Iron	5190	
C3-CONF-21	Lead	618	
C3-CONF-21	Manganese	33.8	
C3-CONF-21	Mercury	0.46	
C3-CONF-21	Nickel	8	
C3-CONF-21	Selenium	0.85	
C3-CONF-21	Vanadium	2.6	
C3-CONF-21	Zinc	193	

Sample	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-21	Bis(2-ethylhexyl)phthalate	187	J
INORGANICS (mg/kg)			
C3-CONF-22	Aluminum	103	
C3-CONF-22	Barium	24.1	
C3-CONF-22	Copper	18.2	
C3-CONF-22	Iron	476	
C3-CONF-22	Lead	24.3	
C3-CONF-22	Manganese	5.1	
C3-CONF-22	Mercury	0.05	
C3-CONF-22	Selenium	0.74	
C3-CONF-22	Vanadium	1.1	
C3-CONF-22	Zinc	19	
INORGANICS (mg/kg)			
C3-CONF-23	Aluminum	88.8	
C3-CONF-23	Arsenic	0.6	
C3-CONF-23	Barium	12.9	
C3-CONF-23	Cadmium	0.14	
C3-CONF-23	Chromium	2.2	
C3-CONF-23	Cobalt	0.13	
C3-CONF-23	Copper	1.7	
C3-CONF-23	Iron	1020	
C3-CONF-23	Lead	3.2	
C3-CONF-23	Manganese	5.9	
C3-CONF-23	Nickel	1.2	
C3-CONF-23	Selenium	0.88	
C3-CONF-23	Tin	4.3	
C3-CONF-23	Vanadium	1.4	
C3-CONF-23	Zinc	5.6	

TABLE 4-6

CHEMICALS DETECTED IN DRMO (EAST)
PLANNED EXCAVATION AREA
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-CONF-24	Aluminum	98	
C3-CONF-24	Arsenic	0.5	
C3-CONF-24	Barium	13.6	
C3-CONF-24	Cadmium	0.12	
C3-CONF-24	Chromium	2.3	
C3-CONF-24	Cobalt	0.07	
C3-CONF-24	Copper	2.1	
C3-CONF-24	Iron	307	
C3-CONF-24	Lead	6.1	
C3-CONF-24	Manganese	3	
C3-CONF-24	Nickel	0.74	
C3-CONF-24	Selenium	0.83	
C3-CONF-24	Tin	4.9	
C3-CONF-24	Vanadium	1.2	
C3-CONF-24	Zinc	6.6	
INORGANICS (mg/kg)			
C3-CONF-26	Aluminum	143	
C3-CONF-26	Barium	10.95	
C3-CONF-26	Chromium	2.4	J
C3-CONF-26	Copper	1.8	
C3-CONF-26	Iron	192	
C3-CONF-26	Lead	7.5	
C3-CONF-26	Manganese	4.6	J
C3-CONF-26	Tin	3	
C3-CONF-26	Vanadium	1.75	
C3-CONF-26	Zinc	11	
INORGANICS (mg/kg)			
C3-CONF-27	Aluminum	378	
C3-CONF-27	Barium	17.7	J
C3-CONF-27	Chromium	3.6	
C3-CONF-27	Copper	4.8	J
C3-CONF-27	Iron	456	J
C3-CONF-27	Lead	12.3	J
C3-CONF-27	Manganese	5.2	
C3-CONF-27	Mercury	0.06	
C3-CONF-27	Nickel	1.3	
C3-CONF-27	Vanadium	2.6	
INORGANICS (mg/kg)			
C3-CONF-28-AVG	Aluminum	89.8	
C3-CONF-28-AVG	Barium	12.95	J
C3-CONF-28-AVG	Chromium	3.15	
C3-CONF-28-AVG	Copper	2.3	J
C3-CONF-28-AVG	Iron	110.2	J
C3-CONF-28-AVG	Lead	3.25	J
C3-CONF-28-AVG	Manganese	1.95	
C3-CONF-28-AVG	Vanadium	1.25	
C3-CONF-28-AVG	Zinc	6	J
INORGANICS (mg/kg)			
C3-CONF-29-AVG	Aluminum	229.5	
C3-CONF-29-AVG	Barium	17.25	J
C3-CONF-29-AVG	Chromium	5.4	
C3-CONF-29-AVG	Copper	10.8	J
C3-CONF-29-AVG	Iron	344	J
C3-CONF-29-AVG	Lead	12.05	J
C3-CONF-29-AVG	Manganese	4.45	
C3-CONF-29-AVG	Vanadium	2.55	
C3-CONF-29-AVG	Zinc	17.45	J

TABLE 4-6

CHEMICALS DETECTED IN DRMO (EAST)
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-CONF-30	Aluminum	112	
C3-CONF-30	Arsenic	0.74	
C3-CONF-30	Barium	15.1	
C3-CONF-30	Cadmium	0.19	
C3-CONF-30	Chromium	6.4	
C3-CONF-30	Copper	3.3	
C3-CONF-30	Iron	263	
C3-CONF-30	Lead	7.3	
C3-CONF-30	Manganese	9.1	
C3-CONF-30	Nickel	3.2	
C3-CONF-30	Selenium	0.89	
C3-CONF-30	Tin	36	
C3-CONF-30	Vanadium	1.1	
C3-CONF-30	Zinc	24.9	
INORGANICS (mg/kg)			
C3-CONF-31	Aluminum	614	
C3-CONF-31	Arsenic	1.6	
C3-CONF-31	Barium	156	
C3-CONF-31	Cadmium	0.18	
C3-CONF-31	Chromium	12.5	
C3-CONF-31	Copper	11	
C3-CONF-31	Iron	1170	
C3-CONF-31	Lead	52.7	
C3-CONF-31	Manganese	9.4	
C3-CONF-31	Nickel	1.7	
C3-CONF-31	Selenium	1.3	
C3-CONF-31	Tin	7.9	
C3-CONF-31	Vanadium	5.4	

Sample	Parameter	Result	Qual. (*)
C3-CONF-31	Zinc	37.9	
INORGANICS (mg/kg)			
C3-CONF-32	Aluminum	154	
C3-CONF-32	Arsenic	0.48	
C3-CONF-32	Barium	29.4	
C3-CONF-32	Cadmium	0.065	
C3-CONF-32	Chromium	1.82	
C3-CONF-32	Copper	6	
C3-CONF-32	Iron	321.5	
C3-CONF-32	Lead	19.85	
C3-CONF-32	Manganese	4.4	
C3-CONF-32	Nickel	0.465	
C3-CONF-32	Selenium	1.035	
C3-CONF-32	Tin	1.9	
C3-CONF-32	Vanadium	1.65	
C3-CONF-32	Zinc	16.65	
INORGANICS (mg/kg)			
C3-CONF-36	Aluminum	742	
C3-CONF-36	Antimony	11.6	
C3-CONF-36	Arsenic	13.5	
C3-CONF-36	Barium	92	
C3-CONF-36	Cadmium	4.6	
C3-CONF-36	Chromium	22.8	
C3-CONF-36	Cobalt	1.2	
C3-CONF-36	Copper	301	
C3-CONF-36	Iron	8060	
C3-CONF-36	Lead	2280	
C3-CONF-36	Manganese	80.8	
C3-CONF-36	Mercury	0.28	

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CHEMICALS DETECTED IN DRMO (EAST)
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Sample	Parameter	Result	Qual. (*)
C3-CONF-36	Nickel	9.7	
C3-CONF-36	Selenium	0.74	
C3-CONF-36	Silver	1.7	
C3-CONF-36	Tin	26.3	
C3-CONF-36	Vanadium	11.5	
C3-CONF-36	Zinc	549	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
B – Indicates analyte found in associated method blank.

TABLE 4-7

PALINTEST RESULTS FOR DRMO PLANNED EXCAVATION AREA SAMPLES NAS KEY WEST

Sample ID	Lead Result (mg/kg)
C4-CONF-01	120.9
C4-CONF-02	77.8
C4-CONF-03	143.0
C4-CONF-04	71.3
C4-CONF-05	156.3
C4-CONF-06	79.1
C4-CONF-07	65.0
C4-CONF-08	86.4
C4-CONF-09	96.7
C4-CONF-10	82.0
C4-CONF-11	81.8
C4-CONF-12	91.5
C4-CONF-13	83.0
C4-CONF-15	120.3
C4-CONF-16	171.3
C4-CONF-17	109.3
C4-CONF-18	86.3
C4-CONF-19	66.5
C4-CONF-20	231.9
C4-CONF-21	76.1
C4-CONF-22	89.6
C4-CONF-23	69.2
C4-CONF-24	64.4
C4-CONF-25	482.7
C4-CONF-26	84.9
C4-CONF-27	102.2
C4-CONF-28	85.6

TABLE 4-8

PALINTEST RESULTS FOR DRMO PLANNED EXCAVATION (EAST)
SAMPLES C3-CONF-01 THROUGH C3-CONF-30
NAS KEY WEST

Sample ID	Lead Result (mg/kg)
C3-CONF-01	58.9
C3-CONF-02	37.1
C3-CONF-03	77.6
C3-CONF-04	136.3
C3-CONF-05	310.6
C3-CONF-06	203.3
C3-CONF-07	98.7
C3-CONF-08	401.1
C3-CONF-09	526.3
C3-CONF-10	706.2
C3-CONF-10B	415.3
C3-CONF-11	484.3
C3-CONF-11B	662.0
C3-CONF-12	106.3
C3-CONF-13	1191.1
C3-CONF-13B	40.6
C3-CONF-14	597.6
C3-CONF-14B	28.3
C3-CONF-15	45.3
C3-CONF-16	19.4
C3-CONF-17	36.9
C3-CONF-18	17.8
C3-CONF-19	245.1
C3-CONF-20	839.5
C3-CONF-21	197.8
C3-CONF-22	24.5
C3-CONF-23	17.8
C3-CONF-24	18.0
C3-CONF-26	18.9
C3-CONF-27	20.1
C3-CONF-28	19.4
C3-CONF-29	20.1
C3-CONF-30	20.2

TABLE 4-9

CHEMICALS DETECTED IN DRMO
OVEREXCAVATION AREA (WEST)
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-29	Aluminum	282	
C4-CONF-29	Arsenic	1.3	
C4-CONF-29	Barium	16	
C4-CONF-29	Cadmium	0.39	
C4-CONF-29	Chromium	4.1	
C4-CONF-29	Cobalt	0.23	
C4-CONF-29	Copper	16.8	
C4-CONF-29	Iron	559	
C4-CONF-29	Lead	57.2	
C4-CONF-29	Manganese	7.8	
C4-CONF-29	Selenium	1	
C4-CONF-29	Silver	0.2	
C4-CONF-29	Tin	2.5	
C4-CONF-29	Vanadium	2.3	
C4-CONF-29	Zinc	255	
INORGANICS (mg/kg)			
C4-CONF-30	Aluminum	142	
C4-CONF-30	Arsenic	0.68	
C4-CONF-30	Barium	12	
C4-CONF-30	Chromium	2.6	
C4-CONF-30	Cobalt	0.06	
C4-CONF-30	Copper	5.8	
C4-CONF-30	Iron	363	
C4-CONF-30	Lead	26.5	
C4-CONF-30	Manganese	4.4	
C4-CONF-30	Selenium	1.1	
C4-CONF-30	Silver	0.21	
C4-CONF-30	Tin	12.3	
C4-CONF-30	Vanadium	1.2	
C4-CONF-30	Zinc	17.1	
INORGANICS (mg/kg)			
C4-CONF-31	Aluminum	112	
C4-CONF-31	Arsenic	0.95	
C4-CONF-31	Barium	13.2	
C4-CONF-31	Chromium	3.7	
C4-CONF-31	Cobalt	0.06	
C4-CONF-31	Copper	33.1	
C4-CONF-31	Iron	485	
C4-CONF-31	Lead	8.4	
C4-CONF-31	Manganese	6.1	
C4-CONF-31	Selenium	1.1	
C4-CONF-31	Silver	0.3	
C4-CONF-31	Tin	2.4	
C4-CONF-31	Vanadium	1.4	
C4-CONF-31	Zinc	19.5	
INORGANICS (mg/kg)			
C4-CONF-37	Aluminum	114	
C4-CONF-37	Barium	12	
C4-CONF-37	Copper	1.2	
C4-CONF-37	Iron	108	
C4-CONF-37	Lead	10.1	
C4-CONF-37	Manganese	2.5	
C4-CONF-37	Tin	5.7	
C4-CONF-37	Zinc	6	
INORGANICS (mg/kg)			
C4-CONF-38	Aluminum	109	
C4-CONF-38	Barium	16.3	

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CHEMICALS DETECTED IN DRMO
OVEREXCAVATION AREA (WEST)
NAS KEY WEST
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Sample	Parameter	Result	Qual. (*)
C4-CONF-38	Copper	1.3	
C4-CONF-38	Iron	271	
C4-CONF-38	Lead	197	
C4-CONF-38	Manganese	3.7	
C4-CONF-38	Zinc	4	
INORGANICS (mg/kg)			
C4-CONF-39	Aluminum	268	
C4-CONF-39	Barium	20.3	
C4-CONF-39	Copper	4	
C4-CONF-39	Iron	405	
C4-CONF-39	Lead	27.3	
C4-CONF-39	Manganese	11	
C4-CONF-39	Vanadium	1.8	
C4-CONF-39	Zinc	26.9	
INORGANICS (mg/kg)			
C4-CONF-40	Aluminum	256	
C4-CONF-40	Barium	20.3	
C4-CONF-40	Copper	4.7	
C4-CONF-40	Iron	358	
C4-CONF-40	Lead	22.9	
C4-CONF-40	Manganese	5.2	
C4-CONF-40	Vanadium	1.8	
C4-CONF-40	Zinc	23.3	
INORGANICS (mg/kg)			
C4-CONF-41	Aluminum	312	
C4-CONF-41	Barium	18.5	
C4-CONF-41	Copper	9.2	
C4-CONF-41	Iron	604	
C4-CONF-41	Lead	19.5	

Sample	Parameter	Result	Qual. (*)
C4-CONF-41	Manganese	7	
C4-CONF-41	Vanadium	1.7	
C4-CONF-41	Zinc	20.5	
INORGANICS (mg/kg)			
C4-CONF-42-A	Aluminum	741	
C4-CONF-42-A	Barium	22.4	B
C4-CONF-42-A	Chromium	8.1	
C4-CONF-42-A	Copper	19.7	
C4-CONF-42-A	Iron	897	
C4-CONF-42-A	Lead	50.1	
C4-CONF-42-A	Manganese	13.4	
C4-CONF-42-A	Nickel	1.0	
C4-CONF-42-A	Tin	3.0	
C4-CONF-42-A	Vanadium	2.3	
C4-CONF-42-A	Zinc	72	
INORGANICS (mg/kg)			
C4-CONF-43	Aluminum	158	
C4-CONF-43	Barium	16.6	
C4-CONF-43	Chromium	2.3	
C4-CONF-43	Copper	3.9	
C4-CONF-43	Iron	655	
C4-CONF-43	Lead	14.8	
C4-CONF-43	Manganese	6.5	
C4-CONF-43	Mercury	0.06	
C4-CONF-43	Nickel	0.84	
C4-CONF-43	Selenium	0.75	
C4-CONF-43	Tin	3	
C4-CONF-43	Vanadium	1.5	
C4-CONF-43	Zinc	17.1	

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CHEMICALS DETECTED IN DRMO
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C4-CONF-44-A	Aluminum	149	
C4-CONF-44-A	Barium	16.2	
C4-CONF-44-A	Chromium	3.0	
C4-CONF-44-A	Copper	4.8	
C4-CONF-44-A	Iron	963	
C4-CONF-44-A	Lead	44.8	
C4-CONF-44-A	Manganese	6.7	
C4-CONF-44-A	Nickel	1.1	
C4-CONF-44-A	Selenium	0.84	
C4-CONF-44-A	Silver	0.078	
C4-CONF-44-A	Tin	2.5	
C4-CONF-44-A	Vanadium	2.6	
C4-CONF-44-A	Zinc	34	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-44-A	Benzo(a)anthracene	150.5	J
C4-CONF-44-A	Benzo(a)pyrene	390	J
C4-CONF-44-A	Benzo(b)fluoranthene	504	
C4-CONF-44-A	Benzo(g,h,i)perylene	584	
C4-CONF-44-A	Benzo(k)fluoranthene	324	J
C4-CONF-44-A	Dibenzo(a,h)anthracene	166	J
C4-CONF-44-A	Chrysene	271	J
C4-CONF-44-A	Indeno(1,2,3-cd)pyrene	469	
INORGANICS (mg/kg)			
C4-CONF-45	Aluminum	148	
C4-CONF-45	Barium	12.5	
C4-CONF-45	Chromium	2.6	
C4-CONF-45	Copper	5.3	
C4-CONF-45	Iron	354	
C4-CONF-45	Lead	13.1	
C4-CONF-45	Manganese	4.4	
C4-CONF-45	Nickel	0.87	
C4-CONF-45	Selenium	0.76	
C4-CONF-45	Tin	3.3	
C4-CONF-45	Vanadium	1.4	
C4-CONF-45	Zinc	12.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C4-CONF-45	Benzo(a)pyrene	162	J
C4-CONF-45	Benzo(b)fluoranthene	187	J
C4-CONF-45	Benzo(g,h,i)perylene	270	J
C4-CONF-45	Benzo(k)fluoranthene	111	J
C4-CONF-45	Indeno(1,2,3-cd)pyrene	223	J

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
B – Indicates analyte found in associated method blank.

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CHEMICALS DETECTED IN DRMO OVEREXCAVATION AREA (EAST) NAS KEY WEST

Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-CONF-33	Aluminum	134	
C3-CONF-33	Barium	22.5	
C3-CONF-33	Chromium	9.4	
C3-CONF-33	Copper	3.3	
C3-CONF-33	Iron	225	
C3-CONF-33	Lead	12.3	
C3-CONF-33	Manganese	4.2	
C3-CONF-33	Vanadium	1.8	
C3-CONF-33	Zinc	14	
INORGANICS (mg/kg)			
C3-CONF-34	Aluminum	156	
C3-CONF-34	Barium	15	
C3-CONF-34	Chromium	4	
C3-CONF-34	Copper	4.7	
C3-CONF-34	Iron	157	
C3-CONF-34	Lead	9.5	
C3-CONF-34	Manganese	2.5	
C3-CONF-34	Nickel	1.1	
C3-CONF-34	Vanadium	1.2	
C3-CONF-34	Zinc	14.2	
INORGANICS (mg/kg)			
C3-CONF-35	Aluminum	273	
C3-CONF-35	Arsenic	0.78	
C3-CONF-35	Barium	11.2	
C3-CONF-35	Cadmium	0.07	
C3-CONF-35	Chromium	4.7	
C3-CONF-35	Cobalt	0.14	
C3-CONF-35	Copper	4.3	
C3-CONF-35	Iron	321	
C3-CONF-35	Lead	4.1	
C3-CONF-35	Manganese	5.1	
C3-CONF-35	Nickel	2.3	
C3-CONF-35	Selenium	0.87	
C3-CONF-35	Tin	2	
C3-CONF-35	Vanadium	1.6	
C3-CONF-35	Zinc	7.2	
INORGANICS (mg/kg)			
C3-CONF-37	Aluminum	390	
C3-CONF-37	Antimony	5.7	
C3-CONF-37	Arsenic	2	
C3-CONF-37	Barium	46.4	
C3-CONF-37	Cadmium	1.7	
C3-CONF-37	Chromium	7.3	
C3-CONF-37	Cobalt	0.42	
C3-CONF-37	Copper	267	
C3-CONF-37	Iron	2080	
C3-CONF-37	Lead	493	
C3-CONF-37	Manganese	29.5	
C3-CONF-37	Mercury	0.25	
C3-CONF-37	Nickel	5.9	
C3-CONF-37	Selenium	0.97	
C3-CONF-37	Tin	8.6	
C3-CONF-37	Vanadium	4.8	
C3-CONF-37	Zinc	453	
PCBs (µg/kg)			
C3-CONF-38	Aroclor-1260	255	
PCBs (µg/kg)			
C3-CONF-39	Aroclor-1260	3710	
PCBs (µg/kg)			
C3-CONF-40	Aroclor-1260	8500	
PCBs (µg/kg)			
C3-CONF-41	Aroclor-1260	11800	

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CHEMICALS DETECTED IN DRMO
OVEREXCAVATION AREA (EAST)
NAS KEY WEST
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Sample	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
C3-CONF-50	Aluminum	6370	
C3-CONF-50	Arsenic	3	
C3-CONF-50	Barium	141	
C3-CONF-50	Calcium	287000	
C3-CONF-50	Chromium	7.9	
C3-CONF-50	Cobalt	1.8	
C3-CONF-50	Copper	19.5	
C3-CONF-50	Iron	5760	
C3-CONF-50	Lead	103	
C3-CONF-50	Magnesium	32600	
C3-CONF-50	Manganese	656	
C3-CONF-50	Nickel	4.7	
C3-CONF-50	Potassium	260	
C3-CONF-50	Sodium	1970	
C3-CONF-50	Tin	3.8	
C3-CONF-50	Vanadium	11.2	
C3-CONF-50	Zinc	73.2	
INORGANICS (mg/kg)			
C3-CONF-51	Aluminum	1430	
C3-CONF-51	Arsenic	3.4	
C3-CONF-51	Barium	73.1	
C3-CONF-51	Cadmium	1.4	
C3-CONF-51	Chromium	14.7	
C3-CONF-51	Copper	108	
C3-CONF-51	Iron	3050	
C3-CONF-51	Lead	374	
C3-CONF-51	Manganese	124	
C3-CONF-51	Mercury	0.43	
C3-CONF-51	Nickel	4.5	
C3-CONF-51	Selenium	0.94	
C3-CONF-51	Tin	15.1	
C3-CONF-51	Vanadium	10.6	
C3-CONF-51	Zinc	285	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-51	Benzo(a)anthracene	306	J
C3-CONF-51	Benzo(a)pyrene	330	J
C3-CONF-51	Benzo(b)fluoranthene	319	J
C3-CONF-51	Benzo(g,h,i)perylene	354	J
C3-CONF-51	Benzo(k)fluoranthene	281	J
C3-CONF-51	Chrysene	356	J
C3-CONF-51	Fluoranthene	560	J
C3-CONF-51	Indeno(1,2,3-cd)pyrene	344	J
C3-CONF-51	Pyrene	451	J
INORGANICS (mg/kg)			
C3-CONF-52	Aluminum	619	
C3-CONF-52	Arsenic	1.6	
C3-CONF-52	Barium	27	
C3-CONF-52	Chromium	8.2	
C3-CONF-52	Copper	50.5	
C3-CONF-52	Iron	1210	
C3-CONF-52	Lead	136	
C3-CONF-52	Manganese	38.2	
C3-CONF-52	Mercury	0.19	
C3-CONF-52	Nickel	2.2	
C3-CONF-52	Selenium	0.77	
C3-CONF-52	Tin	3	
C3-CONF-52	Vanadium	7	
C3-CONF-52	Zinc	120	
INORGANICS (mg/kg)			
C3-CONF-53	Aluminum	323	
C3-CONF-53	Arsenic	1.7	
C3-CONF-53	Barium	27.2	

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Sample	Parameter	Result	Qual. (*)
C3-CONF-53	Chromium	2.9	
C3-CONF-53	Copper	13.9	
C3-CONF-53	Iron	505	
C3-CONF-53	Lead	25.2	
C3-CONF-53	Manganese	21.3	
C3-CONF-53	Mercury	0.16	
C3-CONF-53	Nickel	0.83	
C3-CONF-53	Selenium	1	
C3-CONF-53	Tin	4.7	
C3-CONF-53	Vanadium	2.6	
C3-CONF-53	Zinc	31.4	
INORGANICS (mg/kg)			
C3-CONF-54	Aluminum	321	
C3-CONF-54	Arsenic	1.3	
C3-CONF-54	Barium	22.9	
C3-CONF-54	Chromium	4.8	
C3-CONF-54	Copper	30.3	
C3-CONF-54	Iron	1290	
C3-CONF-54	Lead	83.3	
C3-CONF-54	Manganese	13	
C3-CONF-54	Mercury	0.08	
C3-CONF-54	Nickel	1.4	
C3-CONF-54	Selenium	1.1	
C3-CONF-54	Tin	4.2	
C3-CONF-54	Vanadium	2.1	
C3-CONF-54	Zinc	99.2	
INORGANICS (mg/kg)			
C3-CONF-58	Aluminum	637	
C3-CONF-58	Antimony	5.7	
C3-CONF-58	Barium	55.9	
C3-CONF-58	Cadmium	3.4	

Sample	Parameter	Result	Qual. (*)
C3-CONF-58	Calcium	289000	
C3-CONF-58	Chromium	20.2	
C3-CONF-58	Copper	180	
C3-CONF-58	Iron	6540	
C3-CONF-58	Lead	720	
C3-CONF-58	Magnesium	1570	
C3-CONF-58	Manganese	53.4	
C3-CONF-58	Mercury	0.18	
C3-CONF-58	Nickel	6.4	
C3-CONF-58	Potassium	80.2	
C3-CONF-58	Sodium	1500	
C3-CONF-58	Tin	13.7	
C3-CONF-58	Vanadium	9.5	
C3-CONF-58	Zinc	717	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-58	Benzo(a)anthracene	240	J
C3-CONF-58	Benzo(a)pyrene	306	J
C3-CONF-58	Benzo(b)fluoranthene	314	J
C3-CONF-58	Benzo(g,h,i)perylene	377	J
C3-CONF-58	Benzo(k)fluoranthene	256	J
C3-CONF-58	Chrysene	314	J
C3-CONF-58	Fluoranthene	533	J
C3-CONF-58	Indeno(1,2,3-cd)pyrene	352	J
C3-CONF-58	Phenanthrene	221	J
C3-CONF-58	Pyrene	391	J
INORGANICS (mg/kg)			
C3-CONF-59	Aluminum	406	
C3-CONF-59	Antimony	8.1	
C3-CONF-59	Arsenic	2.9	
C3-CONF-59	Barium	77	
C3-CONF-59	Calcium	334000	

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CHEMICALS DETECTED IN DRMO
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Sample	Parameter	Result	Qual. (*)
C3-CONF-59	Chromium	12.4	
C3-CONF-59	Copper	265	
C3-CONF-59	Iron	7070	
C3-CONF-59	Lead	760	
C3-CONF-59	Magnesium	3380	
C3-CONF-59	Manganese	70.7	
C3-CONF-59	Mercury	0.24	
C3-CONF-59	Nickel	8.2	
C3-CONF-59	Potassium	66.5	
C3-CONF-59	Silver	1.2	
C3-CONF-59	Sodium	1850	
C3-CONF-59	Tin	12.3	
C3-CONF-59	Vanadium	7.1	
C3-CONF-59	Zinc	341	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
C3-CONF-59	Benzo(a)anthracene	329	J
C3-CONF-59	Benzo(a)pyrene	386	J
C3-CONF-59	Benzo(b)fluoranthene	366	J
C3-CONF-59	Benzo(g,h,i)perylene	382	J
C3-CONF-59	Benzo(k)fluoranthene	295	J
C3-CONF-59	Chrysene	422	J
C3-CONF-59	Fluoranthene	767	
C3-CONF-59	Indeno(1,2,3-cd)pyrene	372	J
C3-CONF-59	Phenanthrene	400	J
C3-CONF-59	Pyrene	646	J
INORGANICS (mg/kg)			
C3-CONF-59	Lead	760	
INORGANICS (mg/kg)			
C3-CONF-60	Lead	6580	
INORGANICS (mg/kg)			
C3-CONF-67	Aluminum	264	

Sample	Parameter	Result	Qual. (*)
C3-CONF-67	Arsenic	0.7	
C3-CONF-67	Barium	18.1	
C3-CONF-67	Chromium	3.1	
C3-CONF-67	Copper	15.6	
C3-CONF-67	Iron	409	
C3-CONF-67	Lead	54.6	
C3-CONF-67	Manganese	11	
C3-CONF-67	Nickel	1.2	
C3-CONF-67	Selenium	0.91	
C3-CONF-67	Vanadium	1.8	
C3-CONF-67	Zinc	35.2	
PCBs (µg/kg)			
C3-CONF-68	Aroclor-1260	237	
PCB (mg/ kg)			
C3-CONF-61	Aroclor-1260	270	
C3-CON F-62	Aroclor-1260	1030	
C3-CON F-63	Aroclor-1260	1500	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

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PALINTEST RESULTS FOR DRMO OVEREXCAVATION AREA (WEST) NAS KEY WEST

Sample ID	Lead Result (mg/kg)
C4-CONF-29	89.4
C4-CONF-30	74.5
C4-CONF-31	74.4
C4-CONF-32	117.2
C4-CONF-33	74.1
C4-CONF-34	60.7
C4-CONF-35	77.2
C4-CONF-36	69.6
BKFL-RNKR-01	66.5

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PALINTEST RESULTS FOR DRMO OVEREXCAVATION (EAST) NAS KEY WEST

Sample ID	Lead Result (mg/kg)
C3-CONF-31	20.5
C3-CONF-32	19.6
C3-CONF-33	19.8
C3-CONF-34	19.6
C3-CONF-35	18.9
C3-CONF-36	719.2
C3-CONF-37	150.4
C3-CONF-47T	747.0
C3-CONF-48T	1723.0
C3-CONF-50	26.9
C3-CONF-51	128.3
C3-CONF-52	28.7
C3-CONF-53	17.9
C3-CONF-54	29.2
C3-CONF-55	52.0
C3-CONF-56	32.5
C3-CONF-57	18.4
C3-CONF-58	184.0
C3-CONF-59	247.2
C3-CONF-60	1816.5

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CHEMICALS DETECTED IN SEMINOLE BATTERY
NAS KEY WEST
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Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
D1-CONF-01	Aluminum	450	
D1-CONF-01	Arsenic	1.2	
D1-CONF-01	Barium	56.1	
D1-CONF-01	Chromium	3.8	
D1-CONF-01	Copper	3.3	
D1-CONF-01	Iron	615	
D1-CONF-01	Lead	20.3	
D1-CONF-01	Manganese	15.6	
D1-CONF-01	Nickel	0.83	
D1-CONF-01	Selenium	0.84	
D1-CONF-01	Vanadium	2.1	
D1-CONF-01	Zinc	40.1	
INORGANICS (mg/kg)			
D1-CONF-02	Aluminum	994	
D1-CONF-02	Arsenic	1.5	
D1-CONF-02	Barium	39	
D1-CONF-02	Chromium	3.8	
D1-CONF-02	Cobalt	0.29	
D1-CONF-02	Copper	27.1	
D1-CONF-02	Iron	1320	
D1-CONF-02	Lead	292	
D1-CONF-02	Manganese	49.3	
D1-CONF-02	Mercury	0.08	
D1-CONF-02	Nickel	1.3	
D1-CONF-02	Selenium	0.8	
D1-CONF-02	Vanadium	6.2	
D1-CONF-02	Zinc	37.3	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
D1-CONF-02	Benzo(a)anthracene	169	J
D1-CONF-02	Benzo(a)pyrene	238	J
D1-CONF-02	Benzo(b)fluoranthene	254	J
D1-CONF-02	Benzo(g,h,i)perylene	161	J
D1-CONF-02	Benzo(k)fluoranthene	192	J
D1-CONF-02	Chrysene	249	J
D1-CONF-02	Fluoranthene	341	J
D1-CONF-02	Indeno(1,2,3-cd)pyrene	154	J
D1-CONF-02	Phenanthrene	130	J
D1-CONF-02	Pyrene	426	
INORGANICS (mg/kg)			
D1-CONF-03	Aluminum	179	
D1-CONF-03	Arsenic	1.7	
D1-CONF-03	Barium	38	
D1-CONF-03	Chromium	2.9	
D1-CONF-03	Copper	8.3	
D1-CONF-03	Iron	508	
D1-CONF-03	Lead	37.3	
D1-CONF-03	Manganese	14.1	
D1-CONF-03	Nickel	0.5	
D1-CONF-03	Selenium	0.71	
D1-CONF-03	Vanadium	2	
D1-CONF-03	Zinc	17.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
D1-CONF-03	Benzo(a)anthracene	259	J
D1-CONF-03	Benzo(a)pyrene	454	
D1-CONF-03	Benzo(b)fluoranthene	571	
D1-CONF-03	Benzo(g,h,i)perylene	338	J
D1-CONF-03	Benzo(k)fluoranthene	502	
D1-CONF-03	Chrysene	609	
D1-CONF-03	Fluoranthene	1190	

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CHEMICALS DETECTED IN SEMINOLE BATTERY
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Location	Parameter	Result	Qual. (*)
D1-CONF-03	Indeno(1,2,3-cd)pyrene	334	J
D1-CONF-03	Phenanthrene	740	
D1-CONF-03	Pyrene	1360	
INORGANICS (mg/kg)			
D1-CONF-04	Aluminum	508	
D1-CONF-04	Arsenic	1.9	
D1-CONF-04	Barium	26.8	
D1-CONF-04	Chromium	4.3	
D1-CONF-04	Cobalt	0.21	
D1-CONF-04	Copper	29.4	
D1-CONF-04	Iron	980	
D1-CONF-04	Lead	143	
D1-CONF-04	Manganese	34.8	
D1-CONF-04	Mercury	0.09	
D1-CONF-04	Nickel	2	
D1-CONF-04	Selenium	0.97	
D1-CONF-04	Vanadium	4.4	
D1-CONF-04	Zinc	113	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

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CHEMICALS DETECTED IN FORMER LOCATION BUILDING 136
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Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-CONF-01	Aluminum	293	
E2-CONF-01	Barium	19.1	
E2-CONF-01	Copper	4.3	
E2-CONF-01	Iron	711	
E2-CONF-01	Lead	23.5	
E2-CONF-01	Manganese	6.1	
E2-CONF-01	Tin	4.5	
E2-CONF-01	Vanadium	3	
E2-CONF-01	Zinc	49.1	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-01	Benzo(a)pyrene	85.9	J
E2-CONF-01	Fluoranthene	194	J
E2-CONF-01	Phenanthrene	168	J
E2-CONF-01	Pyrene	182	J
INORGANICS (mg/kg)			
E2-CONF-02	Aluminum	596	
E2-CONF-02	Barium	46.3	
E2-CONF-02	Chromium	18.2	
E2-CONF-02	Copper	27.5	
E2-CONF-02	Iron	1820	
E2-CONF-02	Lead	221	
E2-CONF-02	Manganese	25.1	
E2-CONF-02	Nickel	3.6	
E2-CONF-02	Tin	7.9	
E2-CONF-02	Vanadium	14.2	
E2-CONF-02	Zinc	206	

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-02	Anthracene	144	J
E2-CONF-02	Benzo(a)anthracene	701	
E2-CONF-02	Benzo(a)pyrene	571	
E2-CONF-02	Benzo(b)fluoranthene	511	
E2-CONF-02	Benzo(g,h,i)perylene	432	
E2-CONF-02	Benzo(k)fluoranthene	457	
E2-CONF-02	Chrysene	714	
E2-CONF-02	Dibenzo(a,h)anthracene	85.8	J
E2-CONF-02	Fluoranthene	1440	
E2-CONF-02	Indeno(1,2,3-cd)pyrene	485	
E2-CONF-02	Phenanthrene	355	J
E2-CONF-02	Pyrene	940	
INORGANICS (mg/kg)			
E2-CONF-022	Aluminum	542	
E2-CONF-022	Barium	31.3	
E2-CONF-022	Chromium	4.8	
E2-CONF-022	Copper	13.6	
E2-CONF-022	Iron	775	
E2-CONF-022	Lead	57.4	
E2-CONF-022	Manganese	13	
E2-CONF-022	Tin	6.5	
E2-CONF-022	Vanadium	3.7	
E2-CONF-022	Zinc	57.1	
INORGANICS (mg/kg)			
E2-CONF-03	Aluminum	1640	
E2-CONF-03	Barium	42.6	

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Location	Parameter	Result	Qual. (*)
E2-CONF-03	Chromium	10.6	
E2-CONF-03	Copper	13.4	
E2-CONF-03	Iron	1950	
E2-CONF-03	Lead	60.6	
E2-CONF-03	Manganese	24.9	
E2-CONF-03	Mercury	0.05	
E2-CONF-03	Nickel	2.5	
E2-CONF-03	Tin	17.6	
E2-CONF-03	Vanadium	7.1	
E2-CONF-03	Zinc	79.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-03	Benzo(a)anthracene	187	J
E2-CONF-03	Benzo(a)pyrene	238	J
E2-CONF-03	Benzo(b)fluoranthene	308	J
E2-CONF-03	Benzo(k)fluoranthene	342	J
E2-CONF-03	Chrysene	238	J
E2-CONF-03	Fluoranthene	349	J
E2-CONF-03	Phenanthrene	118	J
E2-CONF-03	Pyrene	238	J
INORGANICS (mg/kg)			
E2-CONF-04	Aluminum	414	
E2-CONF-04	Barium	17.6	
E2-CONF-04	Chromium	2.9	
E2-CONF-04	Copper	6	
E2-CONF-04	Iron	444	
E2-CONF-04	Lead	13.6	
E2-CONF-04	Manganese	6.2	

Location	Parameter	Result	Qual. (*)
E2-CONF-04	Nickel	1.1	
E2-CONF-04	Tin	5.2	
E2-CONF-04	Vanadium	3.1	
E2-CONF-04	Zinc	12.8	
INORGANICS (mg/kg)			
E2-CONF-06	Aluminum	201	
E2-CONF-06	Barium	17.2	
E2-CONF-06	Chromium	4.1	
E2-CONF-06	Copper	8	
E2-CONF-06	Iron	261	
E2-CONF-06	Lead	12.1	
E2-CONF-06	Manganese	4.2	
E2-CONF-06	Nickel	1.3	
E2-CONF-06	Selenium	1.3	
E2-CONF-06	Vanadium	3.3	
E2-CONF-06	Zinc	10.9	
INORGANICS (mg/kg)			
E2-CONF-07	Aluminum	491	
E2-CONF-07	Arsenic	2.9	
E2-CONF-07	Barium	29.9	
E2-CONF-07	Chromium	2.9	
E2-CONF-07	Copper	5.7	
E2-CONF-07	Iron	693	
E2-CONF-07	Lead	44.6	
E2-CONF-07	Manganese	17.9	
E2-CONF-07	Nickel	0.68	
E2-CONF-07	Selenium	1.3	

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Location	Parameter	Result	Qual. (*)
E2-CONF-07	Vanadium	1.6	
E2-CONF-07	Zinc	42.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-07	Benzo(a)anthracene	101	J
E2-CONF-07	Benzo(a)pyrene	196	J
E2-CONF-07	Benzo(b)fluoranthene	206	J
E2-CONF-07	Benzo(g,h,i)perylene	218	J
E2-CONF-07	Benzo(k)fluoranthene	216	J
E2-CONF-07	Chrysene	248	J
E2-CONF-07	Fluoranthene	320	J
E2-CONF-07	Indeno(1,2,3-cd)pyrene	209	J
E2-CONF-07	Pyrene	305	J
INORGANICS (mg/kg)			
E2-CONF-08-A	Aluminum	129	
E2-CONF-08-A	Barium	11.9	
E2-CONF-08-A	Chromium	2.7	
E2-CONF-08-A	Copper	4.0	
E2-CONF-08-A	Iron	137	
E2-CONF-08-A	Lead	3.9	
E2-CONF-08-A	Manganese	3.2	
E2-CONF-08-A	Nickel	0.92	
E2-CONF-08-A	Tin	5.2	
E2-CONF-08-A	Vanadium	1.4	
E2-CONF-08-A	Zinc	6.6	
INORGANICS (mg/kg)			
E2-CONF-09	Aluminum	185	
E2-CONF-09	Barium	22.4	

Location	Parameter	Result	Qual. (*)
E2-CONF-09	Chromium	2.8	
E2-CONF-09	Copper	7.9	
E2-CONF-09	Iron	320	
E2-CONF-09	Lead	21.9	
E2-CONF-09	Manganese	4.1	
E2-CONF-09	Mercury	0.05	
E2-CONF-09	Tin	4.1	
E2-CONF-09	Vanadium	1.8	
E2-CONF-09	Zinc	33.2	
INORGANICS (mg/kg)			
E2-CONF-10	Aluminum	1320	
E2-CONF-10	Barium	30.1	
E2-CONF-10	Chromium	5.6	
E2-CONF-10	Cobalt	0.51	
E2-CONF-10	Copper	14.2	
E2-CONF-10	Iron	2200	
E2-CONF-10	Lead	40.8	
E2-CONF-10	Manganese	43.4	
E2-CONF-10	Nickel	2.5	
E2-CONF-10	Vanadium	5.4	
E2-CONF-10	Zinc	52.4	
INORGANICS (mg/kg)			
E2-CONF-11	Aluminum	3340	
E2-CONF-11	Arsenic	3.4	
E2-CONF-11	Barium	145	
E2-CONF-11	Chromium	10.2	
E2-CONF-11	Cobalt	1.9	

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Location	Parameter	Result	Qual. (*)
E2-CONF-11	Copper	30.6	
E2-CONF-11	Iron	12500	
E2-CONF-11	Lead	78.4	
E2-CONF-11	Manganese	578	
E2-CONF-11	Nickel	7.2	
E2-CONF-11	Vanadium	7.1	
E2-CONF-11	Zinc	105	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-11	Benzo(a)anthracene	372	J
E2-CONF-11	Benzo(a)pyrene	361	J
E2-CONF-11	Benzo(b)fluoranthene	366	J
E2-CONF-11	Benzo(g,h,i)perylene	405	
E2-CONF-11	Benzo(k)fluoranthene	283	J
E2-CONF-11	Chrysene	377	J
E2-CONF-11	Fluoranthene	697	
E2-CONF-11	Indeno(1,2,3-cd)pyrene	356	J
E2-CONF-11	Phenanthrene	314	J
E2-CONF-11	Pyrene	521	
INORGANICS (mg/kg)			
E2-CONF-12	ALUMINUM	258	
E2-CONF-12	BARIUM	16.9	
E2-CONF-12	CHROMIUM	26.5	
E2-CONF-12	COBALT	0.6	
E2-CONF-12	COPPER	45.6	
E2-CONF-12	IRON	18800	
E2-CONF-12	LEAD	36.1	
E2-CONF-12	Manganese	135	

Location	Parameter	Result	Qual. (*)
E2-CONF-12	Mercury	0.12	
E2-CONF-12	Nickel	3.4	
E2-CONF-12	Vanadium	1.7	
E2-CONF-12	Zinc	43.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-12	Benzo(a)anthracene	4890	
E2-CONF-12	Benzo(a)pyrene	4420	
E2-CONF-12	Benzo(b)fluoranthene	5480	
E2-CONF-12	Benzo(g,h,i)perylene	2960	
E2-CONF-12	Benzo(k)fluoranthene	3880	
E2-CONF-12	Chrysene	5120	
E2-CONF-12	Dibenzo(a,h)anthracene	699	
E2-CONF-12	Fluoranthene	5430	
E2-CONF-12	Indeno(1,2,3-cd)pyrene	3180	
E2-CONF-12	Phenanthrene	417	
E2-CONF-12	Pyrene	6400	
INORGANICS (mg/kg)			
E2-CONF-13	ALUMINUM	282	
E2-CONF-13	BARIUM	26.8	
E2-CONF-13	CHROMIUM	6.3	
E2-CONF-13	COBALT	0.32	
E2-CONF-13	COPPER	49.9	
E2-CONF-13	IRON	1590	
E2-CONF-13	LEAD	108	
E2-CONF-13	MANGANESE	31	
E2-CONF-13	Mercury	0.07	
E2-CONF-13	Nickel	3.7	

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Location	Parameter	Result	Qual. (*)
E2-CONF-13	Vanadium	2.7	
E2-CONF-13	Zinc	60.4	
INORGANICS (mg/kg)			
E2-CONF-14	Aluminum	321	
E2-CONF-14	Barium	29.9	
E2-CONF-14	Chromium	8.8	
E2-CONF-14	Cobalt	0.33	
E2-CONF-14	Copper	35.6	
E2-CONF-14	Iron	2390	
E2-CONF-14	Lead	61	
E2-CONF-14	Manganese	22.2	
E2-CONF-14	Nickel	4.2	
E2-CONF-14	Vanadium	2.7	
E2-CONF-14	Zinc	121	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-14	Acenaphthylene	132	J
E2-CONF-14	Benzo(a)anthracene	491	
E2-CONF-14	Benzo(a)pyrene	591	
E2-CONF-14	Benzo(b)fluoranthene	432	
E2-CONF-14	Benzo(g,h,i)perylene	610	
E2-CONF-14	Benzo(k)fluoranthene	411	
E2-CONF-14	Chrysene	504	
E2-CONF-14	Dibenzo(a,h)anthracene	74	J
E2-CONF-14	Fluoranthene	955	
E2-CONF-14	Indeno(1,2,3-cd)pyrene	554	
E2-CONF-14	Phenanthrene	113	J
E2-CONF-14	Pyrene	974	

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-CONF-16	Aluminum	361	
E2-CONF-16	Barium	15	
E2-CONF-16	Chromium	3.5	
E2-CONF-16	Copper	4.7	
E2-CONF-16	Iron	495	
E2-CONF-16	Lead	10.2	
E2-CONF-16	Manganese	6.6	
E2-CONF-16	Nickel	0.95	
E2-CONF-16	Vanadium	3	
E2-CONF-16	Zinc	19.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-16	Benzo(a)anthracene	124	J
E2-CONF-16	Benzo(a)pyrene	112	J
E2-CONF-16	Bis(2-ethylhexyl)phthalate	177	J
E2-CONF-16	Chrysene	124	J
E2-CONF-16	Fluoranthene	161	J
E2-CONF-16	Pyrene	143	J
INORGANICS (mg/kg)			
E2-CONF-17-A	Aluminum	378	
E2-CONF-17-A	Barium	20.9	
E2-CONF-17-A	Chromium	4.2	
E2-CONF-17-A	Copper	6.2	
E2-CONF-17-A	Iron	602	
E2-CONF-17-A	Lead	26.8	
E2-CONF-17-A	Manganese	7.6	
E2-CONF-17-A	Mercury	0.07	

TABLE 4-14

CHEMICALS DETECTED IN FORMER LOCATION BUILDING 136
PLANNED EXCAVATION
NAS KEY WEST
PAGE 6 OF 6

Location	Parameter	Result	Qual. (*)
E2-CONF-17-A	Tin	14	
E2-CONF-17-A	Vanadium	2.9	
E2-CONF-17-A	Zinc	20.9	
INORGANICS (mg/kg)			
E2-CONF-18	Aluminum	288	
E2-CONF-18	Barium	24	
E2-CONF-18	Chromium	3.1	
E2-CONF-18	Copper	4.3	
E2-CONF-18	Iron	392	
E2-CONF-18	Lead	17.6	
E2-CONF-18	Manganese	5.6	
E2-CONF-18	Tin	6.7	
E2-CONF-18	Vanadium	2.2	
E2-CONF-18	Zinc	16.2	
PCBs (µg/kg)			
E2-CONF-19	Aroclor-1260	114	
PCBs (µg/kg)			
E2-CONF-20	Aroclor-1260	27	J

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
B – Indicates analyte found in associated method blank.

TABLE 4-15

CHEMICALS DETECTED IN FORMER LOCATION OF BUILDING 136
OVEREXCAVATION AREA
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E2-CONF-23	Aluminum	2080	
E2-CONF-23	Arsenic	4	
E2-CONF-23	Barium	153	
E2-CONF-23	Cadmium	2.2	
E2-CONF-23	Chromium	22.7	
E2-CONF-23	Cobalt	2.5	
E2-CONF-23	Copper	84.3	
E2-CONF-23	Iron	16600	
E2-CONF-23	Lead	173	
E2-CONF-23	Manganese	170	
E2-CONF-23	Nickel	21.7	
E2-CONF-23	Tin	8.6	
E2-CONF-23	Vanadium	8.1	
E2-CONF-23	Zinc	340	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-23	Anthracene	217	J
E2-CONF-23	Benzo(a)anthracene	1170	
E2-CONF-23	Benzo(a)pyrene	1240	
E2-CONF-23	Benzo(b)fluoranthene	1170	
E2-CONF-23	Benzo(g,h,i)perylene	1510	
E2-CONF-23	Benzo(k)fluoranthene	1100	
E2-CONF-23	Chrysene	1250	
E2-CONF-23	Dibenzo(a,h)anthracene	337	J
E2-CONF-23	Fluoranthene	2060	
E2-CONF-23	Indeno(1,2,3-cd)pyrene	1370	
E2-CONF-23	Phenanthrene	743	
E2-CONF-23	Pyrene	1520	
INORGANICS (mg/kg)			
E2-CONF-24	Aluminum	88.2	
E2-CONF-24	Barium	16.5	
E2-CONF-24	Copper	3.1	
E2-CONF-24	Iron	128	
E2-CONF-24	Lead	2.4	
E2-CONF-24	Manganese	4.3	
E2-CONF-24	Nickel	1	
E2-CONF-24	Tin	4.8	
E2-CONF-24	Zinc	6.1	
INORGANICS (mg/kg)			
E2-CONF-25	Aluminum	940	
E2-CONF-25	Arsenic	2.6	
E2-CONF-25	Barium	27.9	
E2-CONF-25	Chromium	6	
E2-CONF-25	Copper	19.6	
E2-CONF-25	Iron	2200	
E2-CONF-25	Lead	45.3	
E2-CONF-25	Manganese	36.7	
E2-CONF-25	Nickel	3.4	
E2-CONF-25	Selenium	0.88	
E2-CONF-25	Vanadium	4.9	
E2-CONF-25	Zinc	99.2	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E2-CONF-25	Acenaphthene	235	J
E2-CONF-25	Anthracene	223	J

TABLE 4-15

CHEMICALS DETECTED IN FORMER LOCATION OF BUILDING 136
OVEREXCAVATION AREA
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
E2-CONF-25	Benzo(a)anthracene	1260	
E2-CONF-25	Benzo(a)pyrene	1410	
E2-CONF-25	Benzo(b)fluoranthene	1290	
E2-CONF-25	Benzo(g,h,i)perylene	1430	
E2-CONF-25	Benzo(k)fluoranthene	1200	
E2-CONF-25	Chrysene	1400	
E2-CONF-25	Dibenzo(a,h)anthracene	323	J
E2-CONF-25	Fluoranthene	1850	
E2-CONF-25	Indeno(1,2,3-cd)pyrene	1300	
E2-CONF-25	Phenanthrene	1000	
E2-CONF-25	Pyrene	1960	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 4-16

CHEMICALS DETECTED IN BUILDINGS 102 AND 104 EXCAVATION AREAS
NAS KEY WEST
PAGE 1 OF 3

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E3-CONF-01	Aluminum	283	
E3-CONF-01	Arsenic	0.8	
E3-CONF-01	Barium	18.9	
E3-CONF-01	Chromium	3	
E3-CONF-01	Copper	8.2	
E3-CONF-01	Iron	711	
E3-CONF-01	Lead	35.3	
E3-CONF-01	Manganese	7.7	
E3-CONF-01	Nickel	1	
E3-CONF-01	Tin	9.9	
E3-CONF-01	Vanadium	4.6	
E3-CONF-01	Zinc	23.5	
INORGANICS (mg/kg)			
E3-CONF-02	Aluminum	170	
E3-CONF-02	Arsenic	0.66	
E3-CONF-02	Barium	17.6	
E3-CONF-02	Chromium	21.9	
E3-CONF-02	Copper	3.7	
E3-CONF-02	Iron	481	
E3-CONF-02	Lead	12.6	
E3-CONF-02	Manganese	5.7	
E3-CONF-02	Nickel	0.87	
E3-CONF-02	Tin	6.7	
E3-CONF-02	Vanadium	1.3	
E3-CONF-02	Zinc	13	
INORGANICS (mg/kg)			
E3-CONF-03	Aluminum	251	
E3-CONF-03	Arsenic	0.57	
E3-CONF-03	Barium	22.3	
E3-CONF-03	Chromium	3.2	
E3-CONF-03	Copper	22.8	
E3-CONF-03	Iron	566	
E3-CONF-03	Lead	23.4	
E3-CONF-03	Manganese	7.1	
E3-CONF-03	Mercury	0.07	
E3-CONF-03	Nickel	0.9	
E3-CONF-03	Tin	5.7	
E3-CONF-03	Vanadium	3.1	
E3-CONF-03	Zinc	35.5	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E3-CONF-03	Benzo(a)anthracene	113	J
E3-CONF-03	Benzo(a)pyrene	164	J
E3-CONF-03	Benzo(b)fluoranthene	164	J
E3-CONF-03	Benzo(k)fluoranthene	140	J
E3-CONF-03	Chrysene	116	J
E3-CONF-03	Fluoranthene	89.2	J
E3-CONF-03	Pyrene	90.2	J
INORGANICS (mg/kg)			
E3-CONF-04	Aluminum	323	
E3-CONF-04	Arsenic	1.5	
E3-CONF-04	Barium	21.2	
E3-CONF-04	Cadmium	1.3	
E3-CONF-04	Chromium	3.1	
E3-CONF-04	Copper	11.2	
E3-CONF-04	IRON	2170	

TABLE 4-16

CHEMICALS DETECTED IN BUILDINGS 102 AND 104 EXCAVATION AREAS
NAS KEY WEST
PAGE 2 OF 3

Location	Parameter	Result	Qual. (*)
E3-CONF-04	Lead	51.8	
E3-CONF-04	Manganese	18.6	
E3-CONF-04	Mercury	0.07	
E3-CONF-04	Nickel	1.3	
E3-CONF-04	Tin	16.2	
E3-CONF-04	Vanadium	3.7	
E3-CONF-04	Zinc	47.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E3-CONF-04	Benzo(a)anthracene	106	J
E3-CONF-04	Benzo(a)pyrene	112	J
E3-CONF-04	Benzo(b)fluoranthene	130	J
E3-CONF-04	Benzo(k)fluoranthene	119	J
E3-CONF-04	Chrysene	117	J
E3-CONF-04	Fluoranthene	139	J
E3-CONF-04	Pyrene	118	J
INORGANICS (mg/kg)			
E3-CONF-05	Aluminum	645	
E3-CONF-05	Barium	24.7	
E3-CONF-05	Cadmium	0.5	
E3-CONF-05	Chromium	5.2	
E3-CONF-05	Copper	24	
E3-CONF-05	Iron	907	
E3-CONF-05	Lead	129	
E3-CONF-05	Manganese	11.9	
E3-CONF-05	Nickel	2.9	
E3-CONF-05	Selenium	0.73	
E3-CONF-05	Silver	95.5	
E3-CONF-05	Vanadium	6.1	

Location	Parameter	Result	Qual. (*)
E3-CONF-05	Zinc	82.8	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E3-CONF-05	Benzo(a)anthracene	129	J
E3-CONF-05	Benzo(a)pyrene	150	J
E3-CONF-05	Benzo(b)fluoranthene	162	J
E3-CONF-05	Benzo(k)fluoranthene	168	J
E3-CONF-05	Chrysene	158	J
E3-CONF-05	Fluoranthene	300	J
E3-CONF-05	Phenanthrene	193	J
E3-CONF-05	Pyrene	233	J
E3-CONF-06	Benzo(b)fluoranthene	242	J
E3-CONF-06	Benzo(k)fluoranthene	224	J
E3-CONF-06	Chrysene	301	J
E3-CONF-06	Fluoranthene	490	J
E3-CONF-06	Pyrene	448	J
INORGANICS (mg/kg)			
E3-CONF-06-A	Aluminum	361	
E3-CONF-06-A	Barium	29.9	
E3-CONF-06-A	Chromium	2.9	
E3-CONF-06-A	Copper	11.3	
E3-CONF-06-A	Iron	665	
E3-CONF-06-A	Lead	42.4	
E3-CONF-06-A	Manganese	12.2	
E3-CONF-06-A	Nickel	1.0	
E3-CONF-06-A	Selenium	0.74	
E3-CONF-06-A	Vanadium	2.2	
E3-CONF-06-A	Zinc	38.4	

TABLE 4-16

CHEMICALS DETECTED IN BUILDINGS 102 AND 104 EXCAVATION AREAS
NAS KEY WEST
PAGE 3 OF 3

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
E3-CONF-07	Aluminum	537	
E3-CONF-07	Barium	28.1	
E3-CONF-07	Chromium	3.5	
E3-CONF-07	Copper	8.9	
E3-CONF-07	Iron	753	
E3-CONF-07	Lead	150	
E3-CONF-07	Manganese	8.5	
E3-CONF-07	Mercury	0.05	
E3-CONF-07	Nickel	1.4	
E3-CONF-07	Selenium	0.91	
E3-CONF-07	Vanadium	5.2	
E3-CONF-07	Zinc	56.9	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E3-CONF-07	Benzo(a)anthracene	287	J
E3-CONF-07	Benzo(a)pyrene	225	J
E3-CONF-07	Benzo(b)fluoranthene	303	J
E3-CONF-07	Benzo(k)fluoranthene	296	J
E3-CONF-07	Chrysene	296	J
E3-CONF-07	Fluoranthene	371	J
E3-CONF-07	Pyrene	310	J
INORGANICS (mg/kg)			
E3-CONF-08	Aluminum	377	
E3-CONF-08	Barium	21	
E3-CONF-08	Copper	15.3	
E3-CONF-08	Iron	2570	
E3-CONF-08	Lead	102	
E3-CONF-08	Manganese	14.7	
E3-CONF-08	Nickel	1.6	
E3-CONF-08	Vanadium	3.3	
E3-CONF-08	Zinc	37.2	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E3-CONF-08	Benzo(a)pyrene	82.9	J
E3-CONF-08	Fluoranthene	144	J
E3-CONF-08	Pyrene	108	J

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 4-17

CHEMICALS DETECTED IN BUILDING 103 EXCAVATION AREAS
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E9-CONF-02	Acenaphthylene	211	J
E9-CONF-02	Anthracene	173	J
E9-CONF-02	Benzo(a)anthracene	345	J
E9-CONF-02	Benzo(a)pyrene	1540	
E9-CONF-02	Benzo(b)fluoranthene	2600	
E9-CONF-02	Benzo(g,h,i)perylene	880	
E9-CONF-02	Benzo(k)fluoranthene	1860	
E9-CONF-02	Chrysene	614	
E9-CONF-02	Dibenzo(a,h)anthracene	246	J
E9-CONF-02	Fluoranthene	457	
E9-CONF-02	Indeno(1,2,3-cd)pyrene	751	
E9-CONF-02	Phenanthrene	208	J
E9-CONF-02	Pyrene	400	
PCBs (µg/kg)			
E9-CONF-05	Aroclor-1254	150	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E9-CONF-12	Acenaphthene	204	J
E9-CONF-12	Anthracene	862	
E9-CONF-12	Benzo(a)anthracene	2180	
E9-CONF-12	Benzo(a)pyrene	1960	
E9-CONF-12	Benzo(b)fluoranthene	1600	
E9-CONF-12	Benzo(g,h,i)perylene	1770	
E9-CONF-12	Benzo(k)fluoranthene	1410	
E9-CONF-12	Carbazole	216	J
E9-CONF-12	Chrysene	1990	
E9-CONF-12	Dibenzo(a,h)anthracene	364	J
E9-CONF-12	Fluoranthene	4540	
E9-CONF-12	Indeno(1,2,3-cd)pyrene	1750	
E9-CONF-12	Phenanthrene	2670	
E9-CONF-12	Pyrene	3460	
PCBs (µg/kg)			
E9-CONF-12	Aroclor-1260	41.7	J
PCBs (µg/kg)			
E9-CONF-13	Aroclor-1260	58.5	
PCBs (µg/kg)			
E9-CONF-14	Aroclor-1260	152	
SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg)			
E9-CONF-15	Benzo(a)pyrene	95.4	J
E9-CONF-15	Benzo(g,h,i)perylene	158	J
E9-CONF-15	Indeno(1,2,3-cd)pyrene	129	J

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 4-18

CHEMICALS DETECTED IN BUILDING 103
SOILS AROUND SUMP
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
PCBs (µg/kg)			
E9-CONF-08	Aroclor-1248	56.9	J
E9-CONF-08	Aroclor-1254	160	J
E9-CONF-08	Aroclor-1260	196	J

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

TABLE 4-19

CHEMICALS DETECTED IN FORMER LUBE AREA
NAS KEY WEST

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
F1-CONF-01	Aluminum	320	
F1-CONF-01	Arsenic	0.86	
F1-CONF-01	Barium	20.8	
F1-CONF-01	Chromium	2.4	
F1-CONF-01	Cobalt	0.09	
F1-CONF-01	Copper	1.7	
F1-CONF-01	Iron	347	
F1-CONF-01	Lead	2.2	
F1-CONF-01	Manganese	5.6	
F1-CONF-01	Nickel	0.38	
F1-CONF-01	Selenium	0.71	
F1-CONF-01	Vanadium	1.6	
F1-CONF-01	Zinc	1.5	
INORGANICS (mg/kg)			
F1-CONF-02	Aluminum	336	
F1-CONF-02	Arsenic	0.72	
F1-CONF-02	Barium	29.4	
F1-CONF-02	Chromium	2.9	
F1-CONF-02	Cobalt	0.12	
F1-CONF-02	Copper	2.4	
F1-CONF-02	Iron	311	
F1-CONF-02	Lead	3.5	
F1-CONF-02	Manganese	5.8	
F1-CONF-02	Nickel	0.63	
F1-CONF-02	Selenium	0.98	
F1-CONF-02	Vanadium	1.9	
F1-CONF-02	Zinc	5	
INORGANICS (mg/kg)			
F1-CONF-03	Aluminum	270	
F1-CONF-03	Arsenic	0.63	
F1-CONF-03	Barium	197	
F1-CONF-03	Chromium	2.8	
F1-CONF-03	Copper	7.4	
F1-CONF-03	Iron	431	
F1-CONF-03	Lead	16.8	
F1-CONF-03	Manganese	5.5	
F1-CONF-03	Nickel	0.77	
F1-CONF-03	Selenium	0.89	
F1-CONF-03	Vanadium	2.1	
F1-CONF-03	Zinc	15.6	
INORGANICS (mg/kg)			
F1-CONF-04	Aluminum	298	
F1-CONF-04	Arsenic	1.9	
F1-CONF-04	Barium	36	
F1-CONF-04	Chromium	5.3	
F1-CONF-04	Cobalt	0.12	
F1-CONF-04	Copper	4.7	
F1-CONF-04	Iron	423	
F1-CONF-04	Lead	13.8	
F1-CONF-04	Manganese	6.9	
F1-CONF-04	Nickel	0.66	
F1-CONF-04	Selenium	0.8	
F1-CONF-04	Vanadium	1.9	
F1-CONF-04	Zinc	8.1	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.
B – Indicates analyte found in associated method blank.

TABLE 4-20

CHEMICALS DETECTED IN BUILDING 223 HAZARDOUS WASTE STORAGE AREA
NAS KEY WEST
PAGE 1 OF 2

Location	Parameter	Result	Qual. (*)
INORGANICS (mg/kg)			
F3-CONF-01	Aluminum	579	
F3-CONF-01	Arsenic	1	
F3-CONF-01	Barium	16.9	
F3-CONF-01	Cadmium	0.25	
F3-CONF-01	Chromium	9.5	
F3-CONF-01	Cobalt	0.15	
F3-CONF-01	Copper	12	
F3-CONF-01	Iron	1070	
F3-CONF-01	Lead	37.7	
F3-CONF-01	Manganese	11.4	
F3-CONF-01	Nickel	1.2	
F3-CONF-01	Selenium	0.74	
F3-CONF-01	Tin	2.1	
F3-CONF-01	Vanadium	2.9	
F3-CONF-01	Zinc	29.2	
INORGANICS (mg/kg)			
F3-CONF-02	Aluminum	327	
F3-CONF-02	Arsenic	1.2	
F3-CONF-02	Barium	21.5	
F3-CONF-02	Cadmium	0.22	
F3-CONF-02	Chromium	4.9	
F3-CONF-02	Cobalt	0.17	
F3-CONF-02	Copper	21.7	
F3-CONF-02	Iron	1120	
F3-CONF-02	Lead	43	
F3-CONF-02	Manganese	9.5	
F3-CONF-02	Mercury	0.07	

Location	Parameter	Result	Qual. (*)
F3-CONF-02	Nickel	1.3	
F3-CONF-02	Selenium	0.96	
F3-CONF-02	Tin	1.3	
F3-CONF-02	Vanadium	2.1	
F3-CONF-02	Zinc	41.9	
INORGANICS (mg/kg)			
F3-CONF-03	Aluminum	438	
F3-CONF-03	Arsenic	26.5	
F3-CONF-03	Barium	28.7	
F3-CONF-03	Chromium	6.9	
F3-CONF-03	Cobalt	0.62	
F3-CONF-03	Copper	15.5	
F3-CONF-03	Iron	3210	
F3-CONF-03	Lead	31.9	
F3-CONF-03	Manganese	26	
F3-CONF-03	Nickel	2.9	
F3-CONF-03	Selenium	0.87	
F3-CONF-03	Tin	3.5	
F3-CONF-03	Vanadium	4.5	
F3-CONF-03	Zinc	29.4	
INORGANICS (mg/kg)			
F3-CONF-04	Aluminum	163	
F3-CONF-04	Arsenic	0.86	
F3-CONF-04	Barium	25.7	
F3-CONF-04	Chromium	3	
F3-CONF-04	Copper	11.5	
F3-CONF-04	Iron	301	
F3-CONF-04	Lead	17.1	

TABLE 4-20

CHEMICALS DETECTED IN BUILDING 223 HAZARDOUS WASTE STORAGE AREA
NAS KEY WEST
PAGE 2 OF 2

Location	Parameter	Result	Qual. (*)
F3-CONF-04	Manganese	6.5	
F3-CONF-04	Mercury	0.05	
F3-CONF-04	Nickel	0.7	
F3-CONF-04	Selenium	0.97	
F3-CONF-04	Tin	2.5	
F3-CONF-04	Vanadium	1.8	
F3-CONF-04	Zinc	15.2	
INORGANICS (mg/kg)			
F3-CONF-05	Aluminum	294	
F3-CONF-05	Barium	20.1	
F3-CONF-05	Chromium	7.6	
F3-CONF-05	Copper	12.7	
F3-CONF-05	Iron	614	
F3-CONF-05	Lead	32.9	
F3-CONF-05	Manganese	8.5	
F3-CONF-05	Nickel	2.2	
F3-CONF-05	Tin	6.4	
F3-CONF-05	Vanadium	1.8	
F3-CONF-05	Zinc	40.8	
INORGANICS (mg/kg)			
F3-CONF-06	Aluminum	239	
F3-CONF-06	Arsenic	3.1	
F3-CONF-06	Barium	51.8	
F3-CONF-06	Chromium	7.2	
F3-CONF-06	Copper	9.3	
F3-CONF-06	Iron	1150	
F3-CONF-06	Lead	19.9	
F3-CONF-06	Tin	5.6	
F3-CONF-06	Vanadium	2.6	
F3-CONF-06	Zinc	12.8	
INORGANICS (mg/kg)			
F3-CONF-07-A	Aluminum	211	
F3-CONF-07-A	Arsenic	4.7	
F3-CONF-07-A	Barium	16.5	
F3-CONF-07-A	Calcium	351500	
F3-CONF-07-A	Chromium	3.7	
F3-CONF-07-A	Copper	9	
F3-CONF-07-A	Iron	780	
F3-CONF-07-A	Lead	20	
F3-CONF-07-A	Magnesium	4300	
F3-CONF-07-A	Manganese	8.7	
F3-CONF-07-A	Potassium	77.3	
F3-CONF-07-A	Sodium	2385	
F3-CONF-07-A	Tin	4.5	
F3-CONF-07-A	Vanadium	1.85	
F3-CONF-07-A	Zinc	21	

Shading - Indicates a concentration in excess of the selected screening value.
* Qualifier (Qual.) Codes:
J - The associated value is an estimated quantity.

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APPENDIX A

RESPONSE TO COMMENTS

APPENDIX A. RESPONSE TO COMMENTS

Note: Responses to comments on Rev. 1 will be included in Rev. 2.

APPENDIX B

FIELD DOCUMENT

PARCEL C

TRUMAN ANNEX DRMO WASTE STORAGE AREA

SURFACE AND SUBSURFACE SOIL

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C16-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-24-98
Sample Time:	1046
Sample Depth (ft):	0-2' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) sw Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

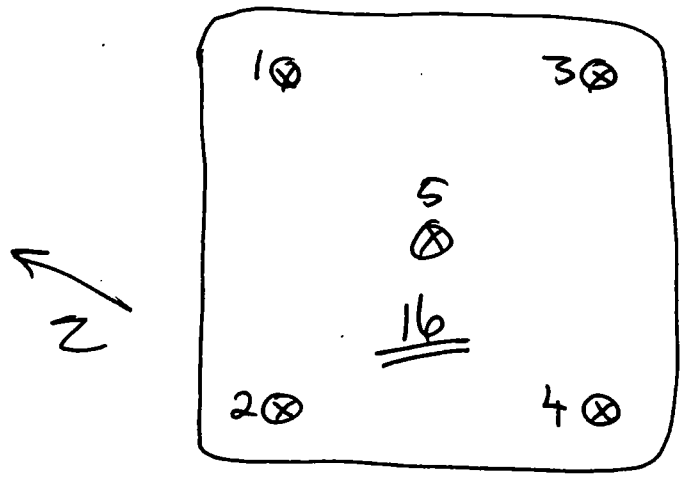
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~:	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: J. Sayers Signature(s): [signature]

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C16-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-24-98
Sample Time:	1045
Sample Depth (ft):	2-5' BGS
FID Reading:	0 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

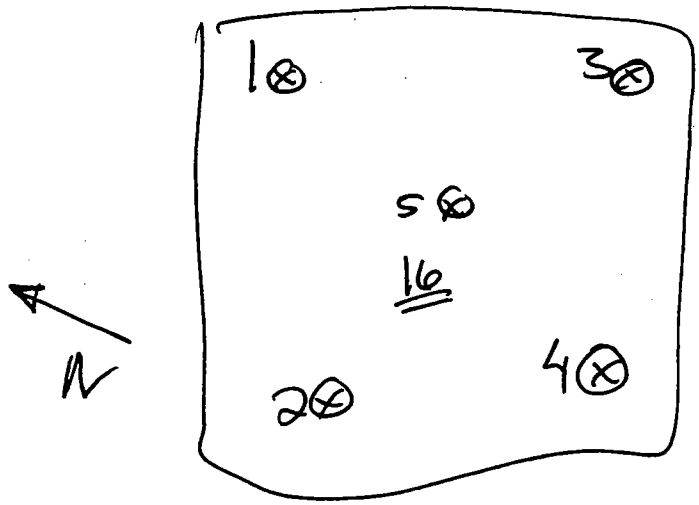
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C16-5BV, Volatile sample

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: J S Myers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C 16 - C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-24-98
Sample Time:	1050
Sample Depth (ft):	5-7' BGS
FID Reading:	0ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) Sw Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

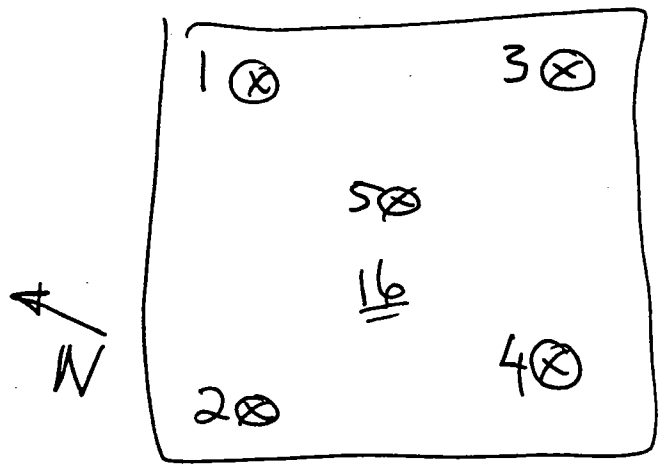
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 910032
DRILLING COMPANY: TTS
DRILLING RIG: Strataprobe

BORING NUMBER: C16-1
DATE: 7-24-98
GEOLOGIST: Jones
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	*Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification (Unified System)	Color	Rock Classification	USCS	Remarks	PID/FID Reading (ppm): Background	Well Head	Breathing Zone	Drilling Area
							Oolitic limestone			0			
			2.0				Dry Poorly Graded			0			
							White to Tan			5			
										0			
										0			
							Black Sand, Organics			0			
							Oolitic Quartz Sands white to lite Brn			0	0	0	0
				7.0									

* When rock coring, enter rock tricleanses.
** Include monitor reading on 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 510 032
DRILLING COMPANY: TEG
DRILLING RIG: Hydrapac

BORING NUMBER: C16-2
DATE: 2-24-98
GEOLOGIST: J Sykes
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moisture Content	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
							Oolitic Limestone, Dg			0
			2.0				Poorly Graded, white			0
							to Tan			0
										0
			2.0							0
							Sandy Black Organics			0
				▽			Oolitic Nature Graded			0
			2.0				Medium to Coarse Saturated			0 0 0 0
				7.0						

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

PROJECT NAME: NAS Key West
PROJECT NUMBER: 90033
DRILLING COMPANY: TGI
DRILLING RIG: Stratoprobe

BORING NUMBER: C16-3
DATE: 7-24-98
GEOLOGIST: Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Density	Color	Rock Description	USCS	Remarks	PID/FID Reading (ppm)* Background	Breathing Zone	Borehole	Drilling Area
							Oolitic Limestone, Dry			0			
			2.0				Poorly Graded,			0			
							White to Tan			0			
							↑						
			1.0										
										0			
				▽			Sandy Silt, Saturated			0			
							Gray to Tan			0	0	0	0
				70									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

PROJECT NAME: Wts Dallas
PROJECT NUMBER: G10032
DRILLING COMPANY: FTB
DRILLING RIG: Stratigraphe

BORING NUMBER: C16-4
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER: Hart

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Staining Odor/Sheen Type Amount	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Breathing Zone	Borehole Mouth	Borehole Bottom	Drilled Material
							Oolitic Limestone			0			
			20				Dk. white to Tan			0			
							Poorly Graded			0			
										0			
			25							0			
				▽						0			
							Sandy Silt Gray Saturated			0	0	0	0
				20									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: C10032
DRILLING COMPANY: TES
DRILLING RIG: Strata probe
BORING NUMBER: C16-5
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Density Porosity	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Borehole Top	Borehole Bottom
							Oolitic limestone,			0			
			20				Dry, Poorly Graded			0			
							white to Tan			0			
							↓			0			
			20							0			
							Sandy Silt			0	0	0	0

* When rock coring, enter rock criterianess.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-17-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1100
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

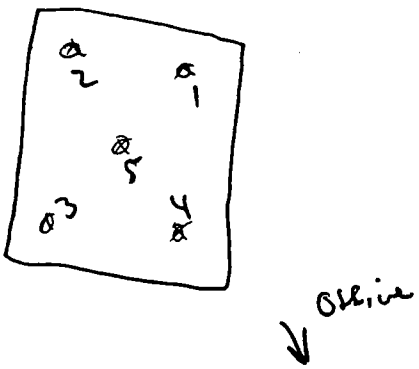
Duplicate ID: C-17-A-MS/MSD

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [x] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-17-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1115
Sample Depth (ft):	2 to 5'
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

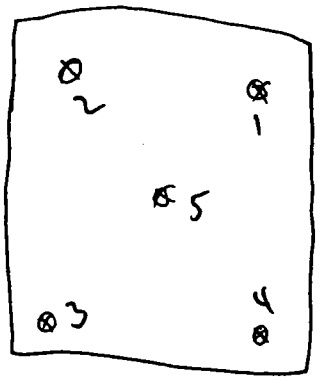
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-17-5BV Volatile sample #

Observations/Notes:



Office

ANALYSES:

TCL VOCs (~~HCL Preservative~~) 7/27/98	YES [x]	NO [ ]	Bottle Lot Number:	Freeman
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + ~~Tin (HNO3 Preservative)~~	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-17-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1117
Sample Depth (ft):	5 & 7
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

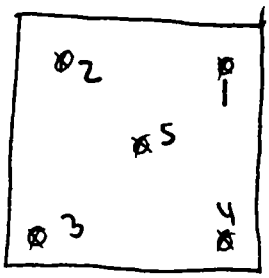
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



↓ above

ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals ~~+ Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: JW Signature(s):

BORING LOG

Page ___ of ___

PROJECT NAME: NAS - Key West
PROJECT NUMBER: CTO 052
DRILLING COMPANY: TEG
DRILLING RIG: Shortbright
BORING NUMBER: C-17-1
DATE: Thu/ss
GEOLOGIST: Tom Crane
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Red Munsell Designation (Dry)	Color	Description	USCS*	Remarks [IZ]	Photo Reading (ppm)
					white		oolitic limestone p.s w gravel			0.0
0955 S-1	1		20						mc/msd volume	
			~4							0.0
	2		X2		Tan					
					white		sand sw/sp p.s. grading to better sorting			0.0
0960 S-2	3		20				p.s is med and fine grained to w.s - fine grained			
										0.0
	4		36							
	5				white		well sorted oolitic limestone			10
1005										–
	6									–
									Saturated	–
	7									
							End Boring			
	8									

* When rock coring, enter rock breakaways.
** Include monitor reading at 5 foot intervals @ borehole. Increase reading frequency if elevated reading read

Remarks: C-17-A 1100
C-17-B 1115
C-17- 1117

Drilling Area Background (ppm): ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Kingsville
PROJECT NUMBER: C1.03
DRILLING COMPANY: TGG
DRILLING RIG: Shelby
BORING NUMBER: ~~FED~~ C-17-2
DATE: 7/24/98
GEOLOGIST: [illegible]
DRILLER: Fedric

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Geologic Interface	MATERIAL DESCRIPTION: Soil Classification Description (Soil Type, Color, Moisture, Consistency, Structure, Odor, Other Comments)	USCS	Remarks	Photo Ionizing Meter (ppm)
					LT Tan oolitic limestone p.S w/ cemented gravel			0.0 0.0 0.0 0.0
S1	1		18				MS/MSD	
1008			24					0.0
	2				white DS oolitic limestone grading to buttery sorted			
					O.L.			0.0
	3							
1013	S2		18					0.0
	4		36					
								0.0
	5							
					"			
1016	S-3 6		16					
			24				saturate	0.0
	7							0.0
					End Boring			

* When rock coring, enter rock hardness.

** Initiate monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEQ
DRILLING RIG: Stratoprobe

BORING NUMBER: C-17-3
DATE: 7/24/98
GEOLOGIST: John G. Webster
DRILLER: Eddie

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Name, Consistency, Moisture, Structure)	Color		USCS*	Remarks	Photo Ionizing Meter (ppm)
									Asphalt 3"	
1029					Sand	P.S.	oolitic sand w/ some coarser gravels			0.0
~~0724~~	1		18		white		fine, medium, and coarse grained			
5			24						MS / MSD	0.0
	2									
					white	oolitic limestone P.S w/ coarse cemented gravels				0.0
	3									
1030			18							0.0
5	4		36							
										0.0
	5								saturated	
										0.0
1034	6		12							
			24		Dark gray	sand silt w organic. large wood fragments				0.0
	7					'creosol' logs				
						End Boring				

* When rock coring, enter rock hardness.

** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Key West
PROJECT NUMBER: 070 032
DRILLING COMPANY: TRC
DRILLING RIG: Strataprobe

BORING NUMBER: C-17-4
DATE: 7/27/98
GEOLOGIST: Toby G. Wolosin
DRILLER: Eddie

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / (6" or RQD (%))	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Description (Name, Density, Moisture)	Color		USCS	Remarks	Photo Ionizing Meter*			
									Asphalt 3"				
					white	sandy	oolitic limestone w/ some gravel			0.0			
1041 S-1	1		18										
			24		← moist well sandy silt lens				gray MS/MGD	0.0			
	2		24										
					white	oolitic limestone w/ cemented gravel (SW)							
	3									0.0			
1043 S-2			18										
	4		20							0.0			
	5								saturated	0.0			
					Sand	well sorted	oolitic limestone (FW)						
1045 S-3	6												
					Dark Gray to Black								
	7				wood smell like creosol								
							End Boring						

7/27/98

* When rock coring, enter rock brokenness.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reading read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C-10 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoholer

BORING NUMBER: C-17-5
DATE: 7/24/97
GEOLOGIST: [illegible]
DRILLER: [illegible]

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Name, Consistency, Moisture, Odor)	Color	Other Characteristics	USCS	Remarks	Photo Reading (ppm)			
									Asphalt 3"				
					white		oolitic limestone p.s. w/ cemented gravel			0.0			
1050 S-1	1		18										
			24						MS/MSD	0.0			
	2												
					white		oolitic limestone p.s to w.s.			0.0			
	3		18										
1057 S2										0.0			
	4		36		moist		pocket gray sand silt						
										0.0	0.0	0.0	0.0
	5												
					white		oolitic sand poorly sorted to well sorted areas			0.0			
1100 S-3	6		18				in saturation very coarse		saturation				
			24				sand			0.0			
	7												
							End Boring						

7/24/97

* When rock coring, enter rock hardness.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1B-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7.25.98
Sample Time:	0900
Sample Depth (ft):	0-2' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

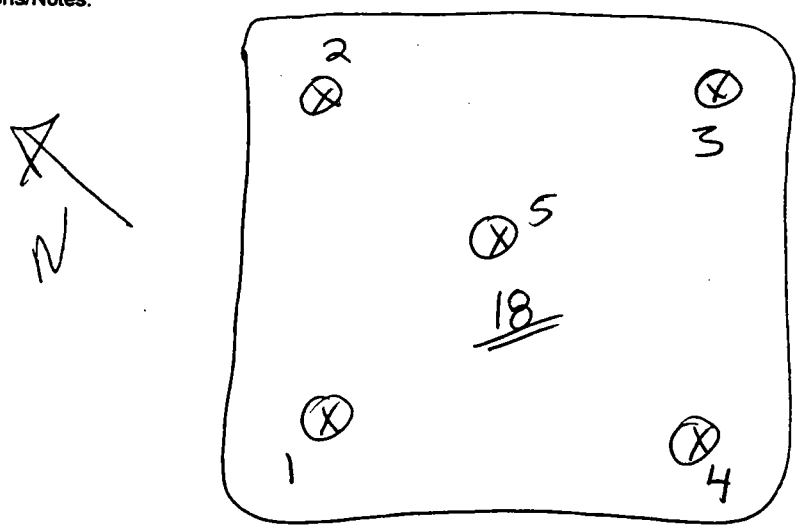
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~ Nd):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [signature]

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C18-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone B Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7.25.98
Sample Time:	0905
Sample Depth (ft):	2-5' BGS
FID Reading:	0ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

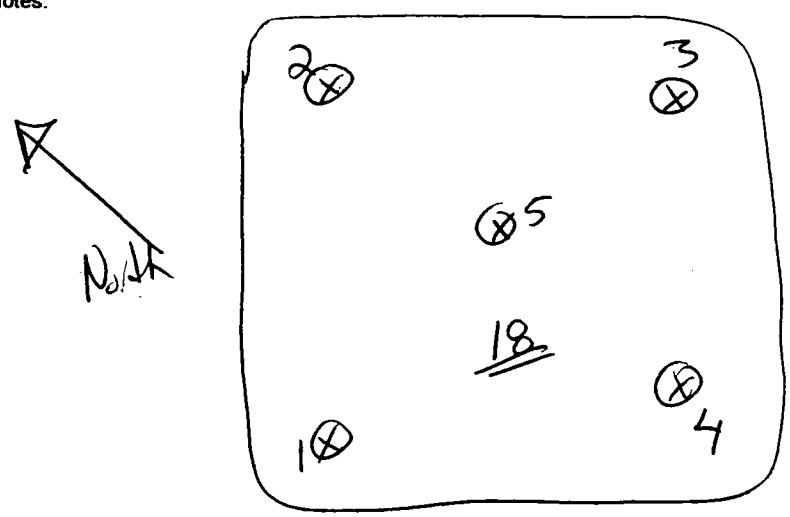
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-18-5BV Volatile sample

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~) 7/27/98	YES [x]	NO [ ]	Bottle Lot Number:	Encore
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: JSoyes Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C18-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-25-98
Sample Time:	0910
Sample Depth (ft):	5'-7' BGS
FID Reading:	0ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

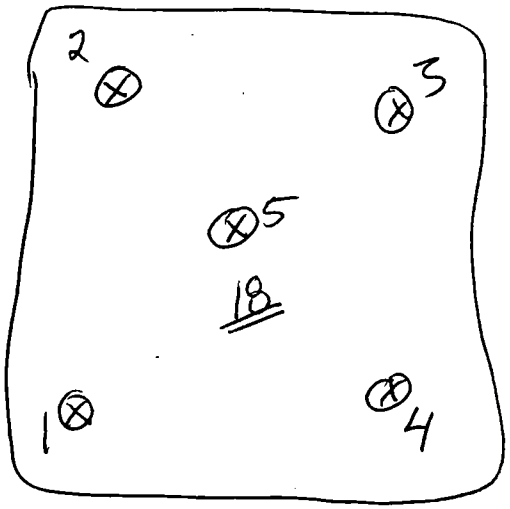
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayre Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO032
DRILLING COMPANY: TEG
DRILLING RIG: Geoprobe
BORING NUMBER: C18-1
DATE: 7-24-98
GEOLOGIST: J. Sevag
DRILLER: Mark & Matt

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Description, Consistency, Moisture, Odor	Color	Mineral Composition	USCS	Remarks	Photo Ionizing Meter Reading (ppm): Background	Drilling Area	Sample Interval	Sample Location
							Oolite Limestone			0			
			2.0				Dry Poorly Graded			0			
							white to Tan			0			
							↓			0			
			1.0							0			
				▽			Gray Sandy Silt Saturated			0			
							Native Oolite wet, Tan			0	0	0	0
				7.0									

* When rock coring, enter rock breakaways.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTR032
DRILLING COMPANY: TEG
DRILLING RIG: Strategic

BORING NUMBER: C18-2
DATE: 7-25-98
GEOLOGIST: J Sayers
DRILLER: Hart & Moff

Sample No. and Type of RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Classification Symbol	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Reading (ppm)
							Oolitic Limestone			0
			2.0				Org, Poorly Graded			0
							White to Tan			0
										0
			1.0							0
				▽			Sandy Silt, Saturated Gray			0
			2.0				Native oolite, wet Tan			0 0 0 0
				7.0						

* When rock coring, enter rock breakaways.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C18-3
DATE: 7-25-98
GEOLOGIST: J Soyers
DRILLER: Hart & Mott

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Organization Size Moisture	Color	Mineral Composition	USCS*	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Borehole	Sample Headspace
							Oolite limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			2.75				Gray Sandy silt, wet			0			
							to Saturated			0			
			2.0				Native Oolite, Tan wet			0	0	0	0

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: C18-4
DATE: 7-25-98
GEOLOGIST: J. Sears
DRILLER: Hub & Mott

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification, Consistency, Moisture, Approximate Depth	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm): Background			
							Oolitic limestone			0			
			2.0				Dry, Poorly Graded			0			
							white to Tan			0			
										0			
			2.5				Sandy Silt Dark Gray to Lt Gray		Saturated	0			
							Native Oolite white			0			
			2.0				to Gray, Wet			0	0	0	0
				7.0									

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C18-5
DATE: 7.24.98
GEOLOGIST: J Sayers
DRILLER: Hoot & Moff

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	Soil Standard Organoleptic Description	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Reading (ppm)			
							Oolitic Limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
							↓			0			
			2.5	▽			Sandy Silt, Saturated			0			
							Gray			0			
			2.0				Native Oolitic Coarse Sand, White to Tan			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.

** Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C 19-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-24-98
Sample Time:	1230
Sample Depth (ft):	0-2' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

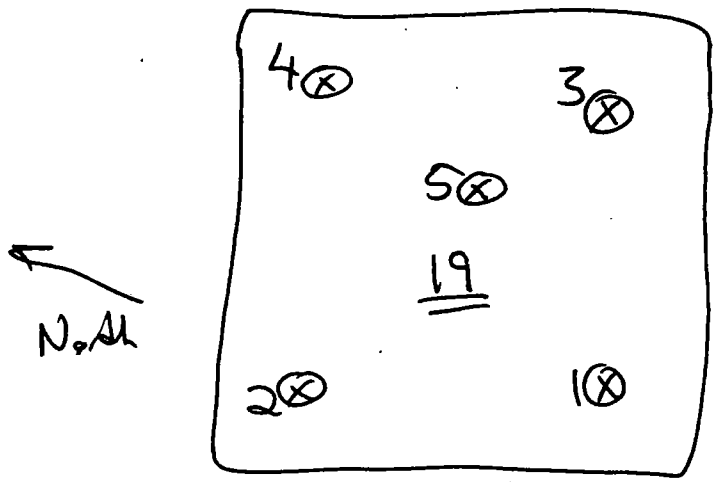
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [x] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~ HCL):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [signature]

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C19-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-24-98
Sample Time:	1235
Sample Depth (ft):	2'-5' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

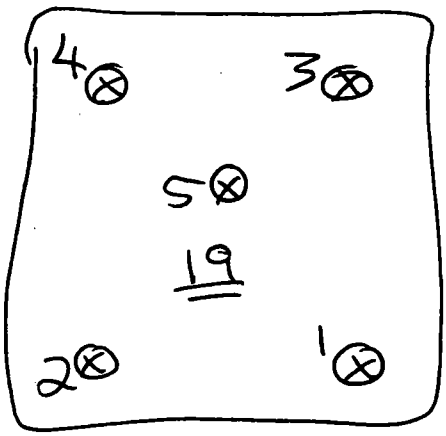
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-19-5BV Volatiles Sample

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~) 7/27/98	YES [x]	NO [ ]	Bottle Lot Number:	Fmone
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C19-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7.24.98
Sample Time:	1240
Sample Depth (ft):	5'-7' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

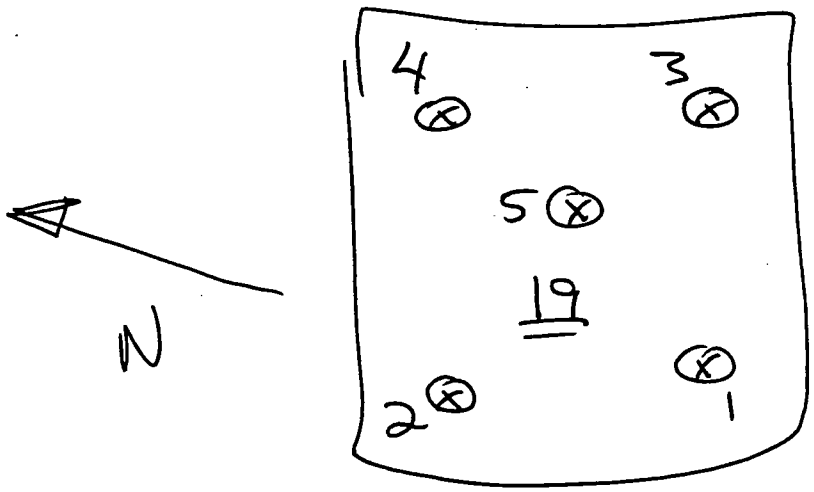
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 210632
DRILLING COMPANY: TES
DRILLING RIG: Strataprobe
BORING NUMBER: C19-1
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER: Hart & Mott

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Soil Type, Grain Size, Moisture, Consistency, Structure, Plasticity, Odor)	Color	Rock Description (Rock Type, Hardness, Color, Texture, Structure, Weathering, Fracture Density, Odor)	USCS*	Remarks	PID/FID Reading (ppm)			
							Oolitic Limestone Dry			0			
			20				Poorly Graded			0			
							White to Tan			0			
							↓			0			
			1.5				↓			0			
							Sandy Silt Gray Saturated			0			
			20				Oolitic Native Wet			0	0	0	0
				70									

*When rock coring, enter rock hardness.

** Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks: MSMSD (A)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Key West
PROJECT NUMBER: 610032
DRILLING COMPANY: TBG
DRILLING RIG: Stratoprobe

BORING NUMBER: 619-2
DATE: 5-21-98
GEOLOGIST: S Sexes
DRILLER: Hart

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Classification Symbol	Color	Soil Description and Comments	USCS*	Remarks	Photo Reading (ppm):			
							Oolitic Limestone			0			
			2.0				Dry Poorly Graded			0			
							White to Tan			0			
										0			
			2.0							0			
							Sandy Silt Gray Saturated			0			
			2.0				Oolite Limestone wet			0	0	0	0
				20									

* When rock coring, enter rock breakdown.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks: MSMSD (A)

Drilling Area Background (ppm): ___

Converted to Well: Yes ___ No ✓ Well I.D. #: ___

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C19.03
DRILLING COMPANY: TTG
DRILLING RIG: Stationary

BORING NUMBER: C19-3
DATE: 7-21-98
GEOLOGIST: [illegible]
DRILLER: Matt & Nat

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft) or Screened Interval	Soil Sampling Organization Sp. Gravity	Color	MATERIAL DESCRIPTION	USCS	Remarks	Photo Ionizing Meter			
							Oolitic Limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			1.5							0			
				8			Coarse Silt			0			
			2.0				Oolitic Matrix Gray			0	0	0	0
				2.0									

* When rock coring, enter rock lithologies.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks: MSMSD (A)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C10032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C19-4
DATE: 7-24-98
GEOLOGIST: SSoxes
DRILLER: Hank & Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Components (Type, Density, Moisture)	Color	Description (Lithology, Structure, Texture, Grain Size, Fossils, Other Features)	USCS*	Remarks	Photo Ionizing Units			
				---			Oolitic limestone (Marine Foraminifera)			0			
			20				Dry, Hard, Graded			0			
							white to tan			0			
										0			
			1.5							0			
										0			
			2.0	---			Sand, silty, saturated Natural Oolite, Gray wet white to gray			0	0	0	0
				20									

*When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks: MSMSD (A)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C0032
DRILLING COMPANY: TGG
DRILLING RIG: Stratoprobe

BORING NUMBER: C19-5
DATE: 7-7-98
GEOLOGIST: J Sayers
DRILLER: Hart & Mott

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Soil)	Color	MATERIAL DESCRIPTION: Rock Description (Rock)	USCS*	Remarks	Photo Ionizing Meter (ppm):			
							Oolitic limestone			0			
			2.0				Poorly Graded			0			
							White to Tan			0			
										0			
			2.0							0			
										0			
			2.0				Silt to Sandy Gray wet			0	0	0	0
				7.0									

* When rock coring, enter rock breakpoints.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks: MSMSD (A)

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-20-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/94
Sample Time:	1233
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic lms stone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

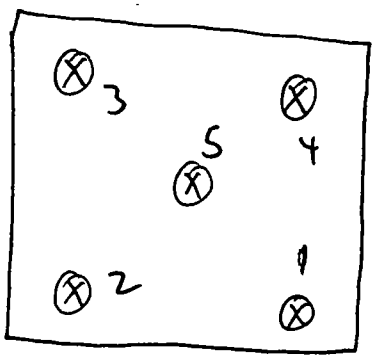
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



↓ ashio

ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:	
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: JV Signature(s): [signature]

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-20-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1235
Sample Depth (ft):	2 to 5
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

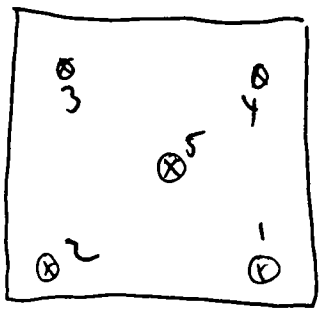
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-20-5BV Volatile sample

Observations/Notes:



→ oolitic

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:	Encore
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:	

7/27/98

Sampled By: JW Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-20-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1245
Sample Depth (ft):	~~[illegible]~~ 5' to 7'
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

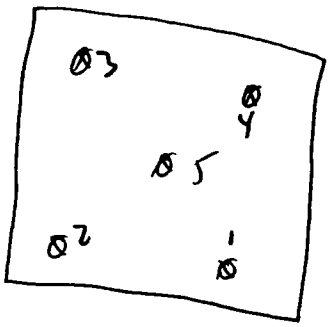
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

~~C-20-5BV volatile sample~~

Observations/Notes:



→ oolitic

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~ 4°C):	YES [ ]	NO [x]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: JN Signature(s): [illegible]

BORING LOG

PROJECT NAME: NAS. Lyndhurst
PROJECT NUMBER:
DRILLING COMPANY:
DRILLING RIG:

BORING NUMBER: C-20-1
DATE: 7/24/98
GEOLOGIST:
DRILLER:

Boring No. and Type or Rig	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Surficial Material	MATERIAL DESCRIPTION: Soil Classification Characteristics (Type, Density, Moisture)	Color	Other Characteristics	USCS	Remarks	Photo Ionizing Detector*			
					Dark Gray Loam					0.0			
1143 S-1	1				white coarse limestone p.s w/ f. m.c grain w/quartz					-			
										0.0			
	2									-			
										0.0			
	3									-			
1145 S-2										0.0			
	4									-			
										0.0			
	5				gray fine sand silt-marl wet to moist					-			
					white fine grained well sorted coarse Saturation					0.0			
1149 S-3	6				limestone sand								
	7												

* When rock coring, enter rock lithologies.
* Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Kingsville
PROJECT NUMBER: C10 002
DRILLING COMPANY: TRC
DRILLING RIG: Stratoprobe

BORING NUMBER: C-20-2
DATE: 5/24/99
GEOLOGIST: Gwen Wilson
DRILLER: Estis

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft) or Screened Interval ✓✓	Soil Description Changes (Depth/ft)	Color	Material Description	USCS	Remarks	Photo Ionizing Meter			
					LT Brown	SW	oolitic limestone p.s. f. m. c gravel			0.0			
1157	1		18		white								
S1			24							0.0			
	2												
					LT Tan		o.c. p.s & w.s. some gravels			0.0			
	3					SW/SP							
1200 S-2			24							0.0			
	4		36										
										0.0			
	5												
					Gray		Sand silt mod moist to wet			0.0			
1204 S3	6		16						saturated				
			24		Gray		fine sand w.s w/ some carbonate oolitic lm. gravel at base			0.0			
	7												
							Final Boring						

* When rock coring, enter rock hardness.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reading read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ___ Well I.D. #: ___

BORING LOG

PROJECT NAME: NAS-Key West
PROJECT NUMBER: G00221
DRILLING COMPANY: TEG
DRILLING RIG: Geoprobe
BORING NUMBER: C-20-3
DATE: 7/24/98
GEOLOGIST: Tom Lewis
DRILLER: Edale

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	Color	MATERIAL DESCRIPTION	USCS	Remarks	Photo Ionizing Detector
								Asphalt 3"	
					Brown				0.0
1210	1		18		White	O.L. sand P.S. w/gravel			
5-1			24			SW			0.0
	2								
									0.0
	3								
1212			24						0.0
5-2	4		36						
						SP oolitic limestone moist to wet		saturated	0.0 0.0 0.0 0.0
1216	5								
5-3									0.0
C	6		10						
									0.0
	7		12						
						↓ some gravel at base O.L. cemented			

Final Depth 7/24/98

* When rock coring, enter rock hardness.
** Indicate monitor reading in 6 test intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS.
PROJECT NUMBER:
DRILLING COMPANY:
DRILLING RIG:

BORING NUMBER: C-20-4
DATE:
GEOLOGIST:
DRILLER:

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Gray Biological Organisms (Type)	Color	Lithologic Description	USCS*	Remarks: Disturbed 3"	Photo Ionizing Meter (PIM)
					white poorly sorted oolitic limestone					0.0
1150	1		18							
S1			24							0.0
	2									
					white oolitic limestone poorly sorted w/ grounds					0.0
	3						W.S. pockets (W)			
1154			24							0.0
S2	4		36							
										0.0
	5									
					gray fine grain sandy silt oolitic			(GP)	Saturated	0.0
1159 S3	6									
	7				← wood fragment					
							End Boring			

7/27/98

* When rock coring, enter rock hardness.
** Include monitor reading in ppm at each interval @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Key West
PROJECT NUMBER: 702374
DRILLING COMPANY: TEG
DRILLING RIG: Stratabrake

BORING NUMBER: 1-20-5
DATE: 7/24/97
GEOLOGIST: Fay Galworth
DRILLER: Eddie

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moisture Grain Size	Color	Soil Description Comments	USCS*	Remarks	PID/FID Reading (ppm):			
					Tan	O.L.	p.s w/ gravel	SW	Dirt	0			
1225	1		24		white								
S-1			24							0			
	2												
										0			
1229	3												
			24							0			
S-2	4		36										
										0	0	0	0
	5												
					LT Gray	O	lithic limestone well sorted	SP		0			
1231													
S-3	6		10										
			24							0			
	7									0			

7/24/97

* When rock coring, enter rock hardness.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks: 1233
1233
1240

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C21-A Project: NAS Key West BRAC S1 Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.25.98
Sample Time:	1020
Sample Depth (ft):	0-2' BGS
FID Reading:	0ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

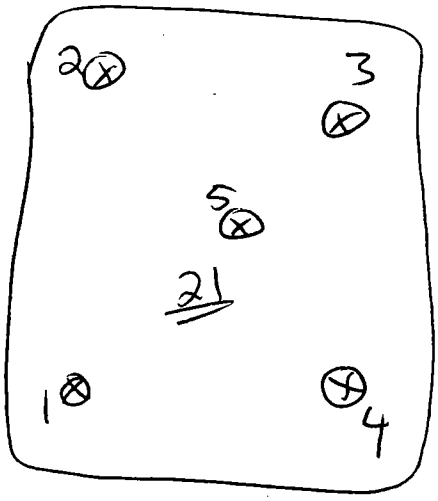
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin ~~(HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayos Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C21-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.25.98
Sample Time:	1025
Sample Depth (ft):	2'-5'
FID Reading:	0ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

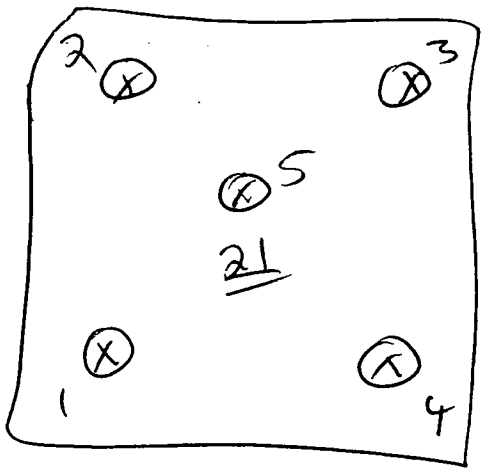
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-21-5BV Volatiles

Observations/Notes:



(B) 7/27/98

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Freeze
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: J Sayos Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C21-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.25.98
Sample Time:	1030
Sample Depth (ft):	5-7'
FID Reading:	0 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

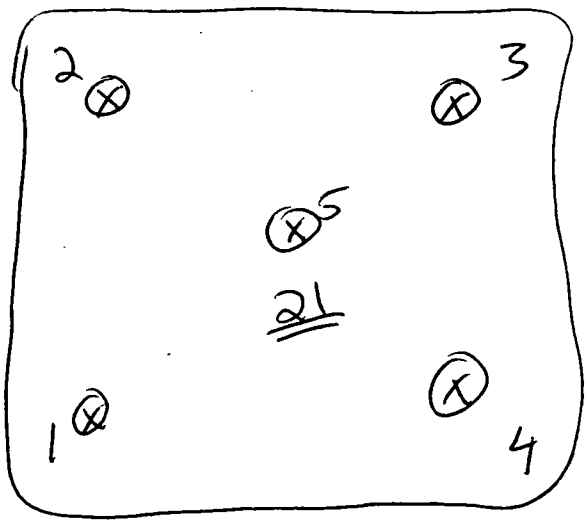
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

PROJECT NAME: NAS Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C21-1
DATE: 7-25-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample Bkgrd	Sample BZ	Borehole	Drilled BZ
							Oolitic Limestone			0			
			2.0				Dry Poorly Graded			0			
							White to Tan			0			
							↓			0			
			3.0	- - -			Poorly Graded - -			0			
							Some silt, Gray			0			
			2.0				↓			0	0	0	0
				7.0									

* When rock coring, enter rock breakages.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C21-2
DATE: 7.25-98
GEOLOGIST: J Sayers
DRILLER: Hart & Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Sample Description Top Soil Topsoil	Color	Mineral Composition	USCS*	Remarks	PID/FID Reading (ppm)
							Oolitic Limestone			0
			2.0				Dry, Poorly Sorted			0
							White to Tan.			0
										0
			1.0							0
				V			Silty Sand, lite Gray Wet to Saturated Fine			0
			2.0				Sandy Silt, lite to medium Gray, Wet			0 0 0 0
				7.0						

* When rock coring, enter rock underneath.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO032
DRILLING COMPANY: TBG
DRILLING RIG: Stratoprobe
BORING NUMBER: C21-3
DATE: 7.25.98
GEOLOGIST: J Sayers
DRILLER: Matt Hunt

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	Soil Classification Description	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Ionizing Detector**			
							Oolitic Limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			3.0	▽						0			
							Fine Silty Sand, lt Gray, Saturated			0			
			2.0				Medium to Coarse Sand Black to Gray			0	0	0	0
				7.0									

* When rock coring, enter rock underneath.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO022
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C21-4
DATE: 7.25.98
GEOLOGIST: J Sayers
DRILLER: Matt & Hank

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample Bag	Sample Jar	Background	Drilled Soil Pile
							Oolitic limestone			0			
			2.0				Dry, Poorly Graded			0			
							white to Tan			0			
										0			
			2.5							0			
							Fine Sand Some Silt lt Gray			0			
			2.0				Coarse to Medium Sand Dark Gray, Saturated			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C21-5
DATE: 7-25-98
GEOLOGIST: J Sivers
DRILLER: Hank & Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Classification Name, Secondary Name, Basic Description	Color	Additional Comments	USCS*	Remarks	Photo Reading (ppm): Background	Well Head	Breathing Zone	Breathing Zone
							Oolitic Limestone,			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
							↓			0			
			2.5				Sandy Silt, fine, Moist			0			
							to wet			6			
			2.0				Medium to Fine Grained Sand lite Grey			0	0	0	0

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C22-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.24.98
Sample Time:	1520
Sample Depth (ft):	0-2' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

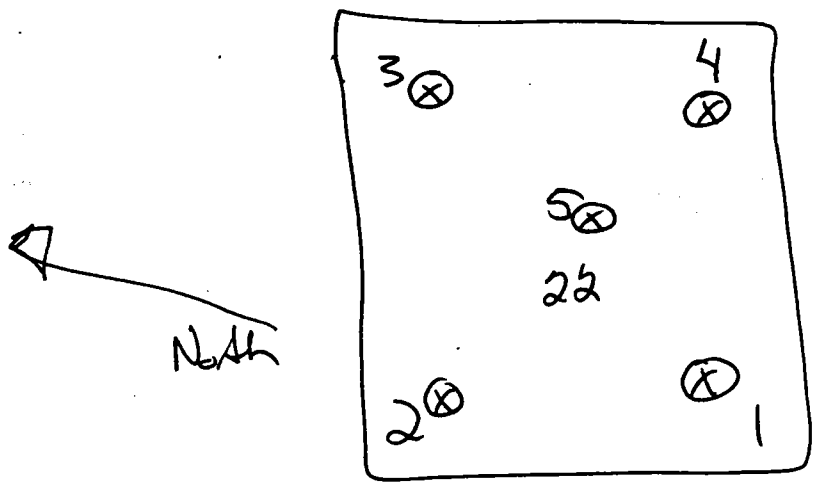
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

~~C22~~

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C22-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone B Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-24-98
Sample Time:	1525
Sample Depth (ft):	2-5' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

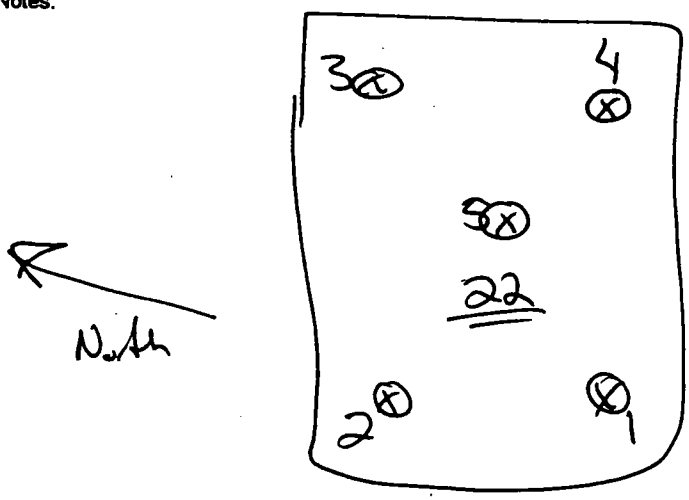
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C22-5BV, Volatile sample

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C22-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7.24.98
Sample Time:	1530
Sample Depth (ft):	5-7' BGS
FID Reading:	0 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

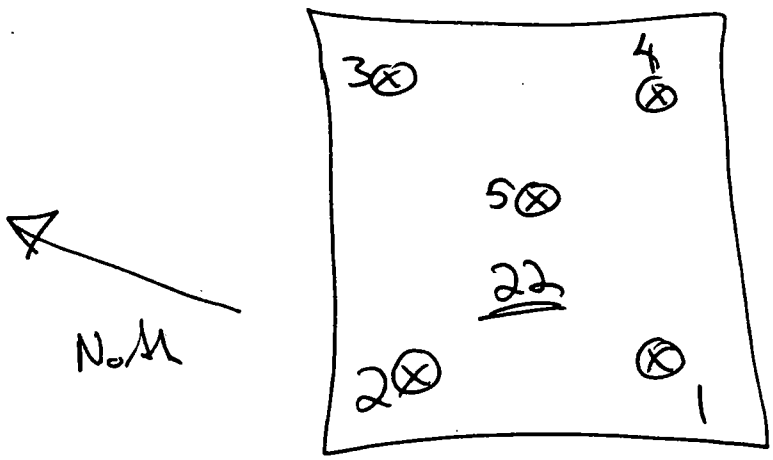
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayos Signature(s): [signature]

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TTG
DRILLING RIG: Strataprobe
BORING NUMBER: C22-1
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER: Hart & Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Consistency Term	Color	Description	USCS*	Remarks	Photo Ionizing Detector
							Oolitic Limestone Dry			0
			20				Poorly Graded			0
							White to Tan			0
										0
				▽			Sandy Silt Grey Saturated			0
							Native Oolitic Limestone			0
							Wet white to Tan			0 0 0 0
				20						

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: C22-2
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER: Matt & Hank

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Classification to Rock Terminology	Color	Material Description	USCS	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Breathing Zone	Breathing Zone	Breathing Zone
							oolitic limestone,			0				
			20				dry white to tan			0				
							Poorly graded.			0				
										0				
			1.0							0				
										0				
			2.0				Sandy Silt Gray Sediments			0	0	0	0	0
				7.0			Native oolite limestone wet white to gray tan							

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C22-3
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Descriptions Consistency Moist Density	Color	Lithologic Description	USCS*	Remarks	Photo Ionizing Meter Reading (ppm)
							Oolitic Limestone			0
			20				Poorly Graded			0
							White to tan			0
										0
										0
							Black to Tan to Brown			0
							Oolitic limestone Native			0 0 0 0
				70						

* When rock coring, enter rock underscores.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TTEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C22-4
DATE: 7-24-98
GEOLOGIST: J Sayers
DRILLER: Matt & Hale

Sample No. and Type of RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Grain Size/Structure/Consistency/Moisture/Odor	Color	Visual Classification	USCS*	Remarks	Photo Ionizing Meter (ppm)
							Oolitic limestone			0
			20				Dry, Poorly Graded			0
							White to Tan			0
										0
			25							0
							Sandy silt, Stained			0
							Gray to Black			
			20				Native Oolitic Limestone			0 0 0 0
				7.0			White to Gray wet			

* When rock coring, enter rock underscores.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ____ Well I.D. # ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TES
DRILLING RIG: Strateprobe
BORING NUMBER: C22-5
DATE: 7-25-98
GEOLOGIST: J Sayers
DRILLER: Hunt & Moff

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Complexity, Texture, Moisture	Color	Lithologic Description	USCS*	Remarks	Photo Reading (ppm): Hole Mouth	Sample Top	Sample Middle	Sample Bottom
							Oolitic limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
										0			
										0			
							Sandy Silt Black Grey Saturated			0	0	0	0
				7.0									

* When rock coring, enter rock ordinances.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-23-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1515
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

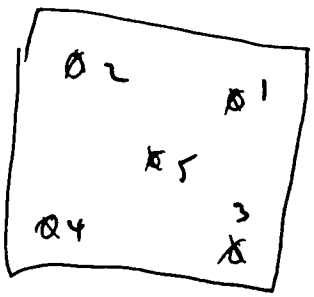
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] ~~Grab~~
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C23-5BV, Volatile sample

Observations/Notes:



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ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:	
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: JW Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-23-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/94
Sample Time:	1520
Sample Depth (ft):	2'to 5'
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

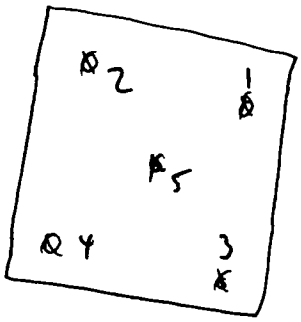
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



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ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-23-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1525
Sample Depth (ft):	5' to 7'
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

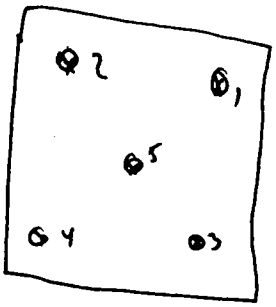
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



↓ office

ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JJ Signature(s):

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Hyannis
PROJECT NUMBER: C70 037
DRILLING COMPANY: TEA
DRILLING RIG: Strata probe

BORING NUMBER: C-23-01
DATE: 7/24/99
GEOLOGIST: John Walsh
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Sampling Organization (Sp. Gravity)	Color	Soil Description (Texture, Consistency, Moisture, Odor, Other Comments)	USCS*	Remarks: Groups	PID/FID Reading (ppm):			
					LT Tan	OL -	P.S w/gravel	SW		0.0			
1451 S1	1		20										
			24							0.0			
	2												
					white		OL. P.S w/pea gravel	SW	Low recovery	0.0			
	3												
1453 S2			8							0.0			
	4		36										
										0.0	0.0	0.0	0.0
	5												
					white		quartz oolitic sand	slightly silty	saturated	0.0			
1455 S3	6					SP							
										0%			
	7												
							End Boring						

7/24/99

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 670 03
DRILLING COMPANY: Tetra Tech
DRILLING RIG: Shelby
BORING NUMBER: C-23-2
DATE: 7/24/98
GEOLOGIST: [illegible]
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Brief Identification Description (Soil or Rock)	Color	Geologic Description (Soil or Rock)	USCS	Remarks	Photo Ionizing Meter (ppm)
					Tan to	white	Oolitic limestone v.s	(SW)	w gravel	0.0
1411 S-1	1		16							
			24							0.0
	2			0						
										0.0
	3									
1414 S-2			24							0.0
	4		36							
										0.0
	5				moist	SW	O.L. fine grained		moist to wet	
										0.0
1417 S-3	6									
				0	white	SW	Coarse grained O.L cemented			0.0
	7									
										0.0

* When rock coring, enter rock hardness.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ___ Well I.D. #: ___

BORING LOG

Page ___ of ___

PROJECT NAME: NAS. Key West
PROJECT NUMBER: C70
DRILLING COMPANY: TEG
DRILLING RIG: Shatterpoint

BORING NUMBER: C-23-3
DATE: 7/24/98
GEOLOGIST: [illegible]
DRILLER: Redline

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Color, Texture, Consistency)	Color	Material Description	USCS	Remarks	PID/FID Reading (ppm):			
					LT brown oolitic limestone			SW		0.0			
1432	1												
			20							1.0			
	2		24		white								
					white to LT Tan O.L BB to WS wt Base					0.0			
	3												
1425			16					SP		0.0	0.0	0.0	0.0
	4												
			36							0.0			
	5								moist	1.0			
1439	6									0.0			
					coarse oolitic limestone gravels			SW					
	7				large wood fragment					5			
										-			
								7/24/98					
					End Bore								

* When rock coring, enter rock lithologies.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Jax West
PROJECT NUMBER: 670.032
DRILLING COMPANY: TEG
DRILLING RIG: Strata Probe
BORING NUMBER: C-23-4
DATE: 7/24/98
GEOLOGIST: JW
DRILLER: Eddie

Sample No. and Type or RQD	Depth (ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Screened Interval	Soil Classification Description Top Soil Depth	Color	Soil Classification Description	USCS*	Remarks	Field Screening (ppm)			
					Depth 0.0m		Oolitic limestone RS.	SW	Grassy	0.0	0.0	0.0	0.0
1420 S-1	1		18	6	Tan								
			24	10						0.4			
	2			7									
					white								
	3				white		O.L well sorted	SP		0.0			
1424			12				w/ trace cemented		fine gravel				
S-2	4									0.0			
			36										
	5								moist	0.0			
					Fine grained oolitic sand				Saturation				
1428 S-3	6		10							0.0			
			24										
	7									0.0	0.0	0.0	0.0

7/24/98

* When rock coring, enter rock hardness.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: Nas Meridian
PROJECT NUMBER: C70 038
DRILLING COMPANY: TRC
DRILLING RIG: Stratoprobe

BORING NUMBER: C-23-5
DATE: 7/24/97
GEOLOGIST: John C. Webster II
DRILLER: Roddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Color	Material Description	USCS	Remarks	Field Reading (ppm)
						LT Tan Oolitic limestone p.s	(SW)	gravels	0.0
1502 S-1	1		18						
			24						0.0
	2								
					white	O.L. p.s SW			0.0
	3								
1504 S-2			24						
	4		36						0.0
	5				white	O.L W.S. fine grained SP	SP	moist / Subrounded / Subangular	0.0
1507 S-3							SP		
	6		12						0.0
			24		Dark Gray to Black organic fine grained well sorted				10
	7								—
						End Boring			
						7/24/97			

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: 1515 1520 1525

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C24-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.26.98
Sample Time:	1015
Sample Depth (ft):	0-2' BGS
FID Reading:	0 to 10 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

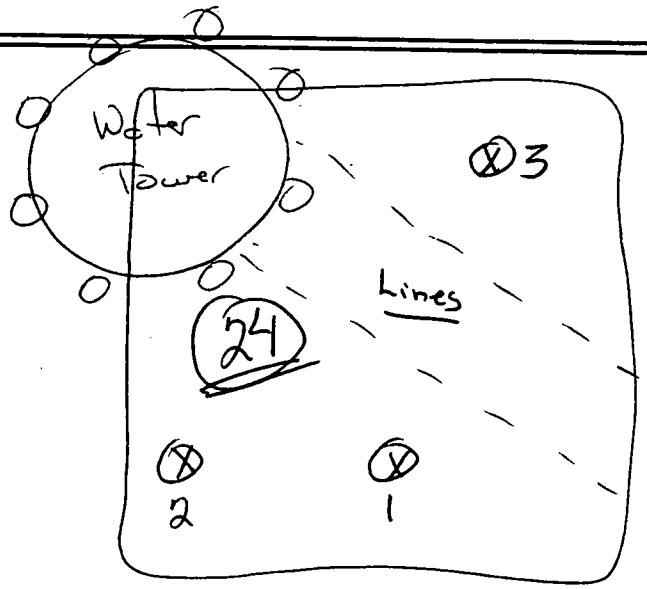
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C24-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7.26.98
Sample Time:	1020
Sample Depth (ft):	2'-5' BGS
FID Reading:	0 to 10 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

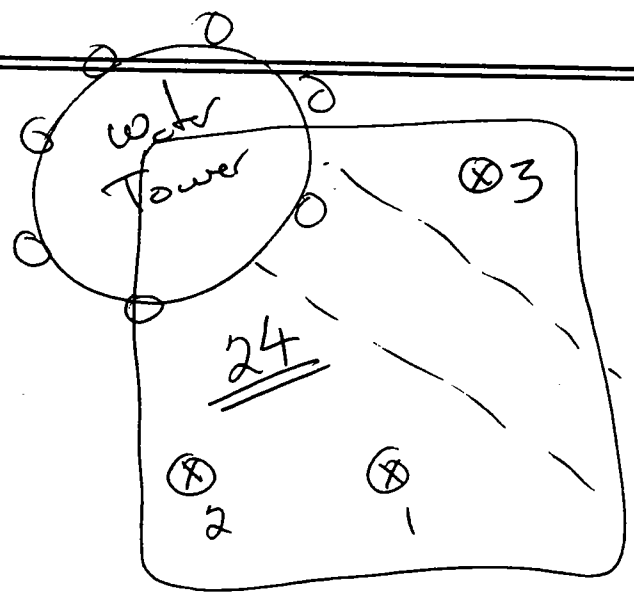
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C24-1BV

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: J Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C24-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.26.98
Sample Time:	1025
Sample Depth (ft):	5'-7' BGS
FID Reading:	0 to 5 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

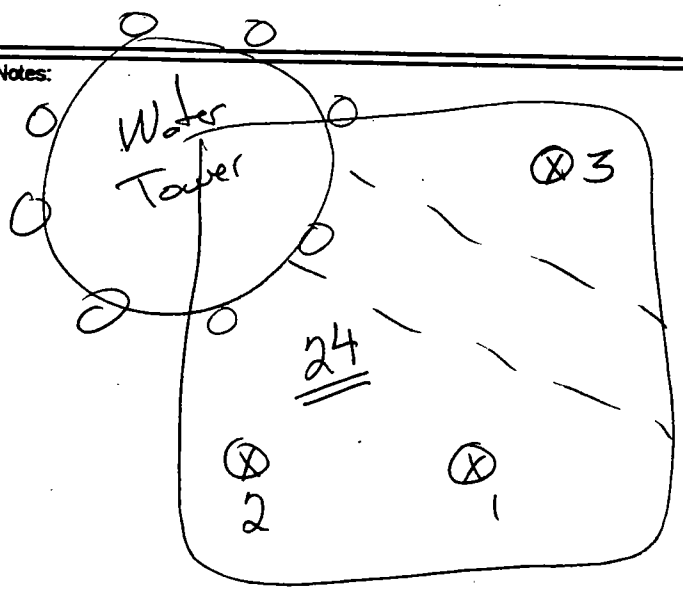
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HN~~O3 Preservative~~ and):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe

BORING NUMBER: C24-1
DATE: 7-26-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Description Symbol Name	Color	Lithologic Description	USCS	Remarks	Photo Reading (ppm):			
							Oolitic Limestone			0			
			2.0				Dry, Poorly Graded			0			
							white to Tan			0			
							↓			0			
			2.0							0			
							Silt sand, Gray Saturated			0			
			2.0				Native Oolite wet Tan			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C24-2
DATE: 7-26-98
GEOLOGIST: J Sokes
DRILLER: Mott & Hall

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Description Top Basis Modifiers	Color	Primary Description Secondary Modifiers	USCS	Remarks	PID/FID Reading (ppm): 10	20	30	40
							Oolitic Limestone,			5			
			2.0				Poorly Graded, Dry			10			
							white to tan			10			
							↓			10			
			2.0	▽			↓			10			
							Sandy Silt, Gray, Saturated			5			
			2.0				Native Oolite Poorly Graded Tan			5	0	0	0
				7.0									

* When rock coring, enter rock underscore.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratagraphe
BORING NUMBER: C24-3
DATE: 7-26-98
GEOLOGIST: J Sykes
DRILLER: Hank & Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Description, Texture, Moisture	Color	Mineral Composition, Structure	USCS*	Remarks	PID/FID Reading (ppm):				
							Oolitic Limestone			0				
			2.0				Prx. Poorly Graded			0				
							White to Tan			0				
				▽			Sandy Silt			0				
			2.5				Sandy Silt, Grey wet to Saturated			0				
										0				
			2.0				Vari. Oolitic Gravel to Tan, Wet Coarse Grain			0	0	0	0	0
				7.0										

* When rock coring, enter rock hardness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-25-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1645
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

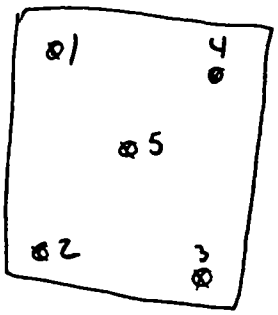
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C25-5BV, Volatile sample

Observations/Notes:



office

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals ~~+ Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: SW Signature(s): [signature]

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-25-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	~~1695~~ 1658
Sample Depth (ft):	~~0 to 2~~ 2 to 5
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

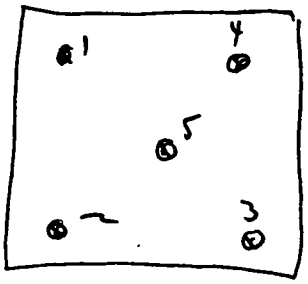
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



N other

ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [X]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [X]	NO [ ]	

Sampled By: JW Signature(s): [signature]

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-25-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/24/98
Sample Time:	1659
Sample Depth (ft):	5-7
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

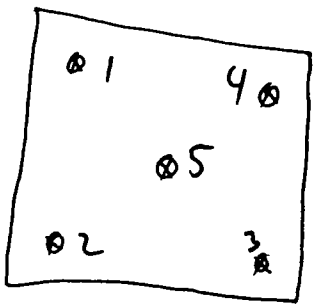
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



office

ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: JW Signature(s):

PROJECT NAME: NAS Key West
PROJECT NUMBER: G0037
DRILLING COMPANY: TEA
DRILLING RIG: Stratoprobe

BORING NUMBER: C-25-1
DATE: 7/24/98
GEOLOGIST: John C. Webster II
DRILLER: Fedline

Sample No. and *Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Descriptor Consistency Rock Hardness Weathering	Color	Material Classification	USCS	Remarks	PID/FID Reading (ppm)
1638					Dark Gray white	GW	Oolitic limestone p.S.	w/	cemented gravel	0.0
	1		20				medium and course sand		fine matrix	
S1			24				better sorting to depth			0.0
	2									
					Sand	SP	Oolitic limestone well sorted		some medium	0.0
	3						grained			
1640			24							0.0
S2	4		36		Very fine sand wet pocket					
										0.0
	5									
					LT Gray	SP	Oolitic limestone well sorted		moist some medium grained	
1642							sand			
S3	6		12				very fine grained pockets			
			24							
	7				to ten					
							End Boring			

7/24/98

* When rock coring, enter rock brokenness.

– Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: C-25-A 1645
C-25-B 1658
C-25-C 1659

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS Lexington
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratigraphe

BORING NUMBER: C-25-2
DATE: 7/24/99
GEOLOGIST: [illegible]
DRILLER: Paddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moist, Density, Permeability	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm)			
					LT	Gray to white	oolitic limestone gravels	P.S. SW	Asphalt w/cemented	0.0			
1559 S9	1		18/24							—			
										0.0			
	2									—			
					White	very	coarse oolitic sand well cemented zone the day	SW	6" saturated				
	3		20							0.0			
1601 S2													
	4		36		White	fine grained	well sorted sand	SP	dry	0.0	0.0	0.0	0.0
	5									0.0			
					White	oolitic limy stone coarse porosity slight		SW	Saturated				
1608 S2	6		12/24							0.0			
					E organic pocket	Dark gray	oolitic sand	P.S.					
	7									0.0			
					End Boring								

7/24/99

* When rock coring, enter rock uniaxiness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS Jax West
PROJECT NUMBER: C70 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe

BORING NUMBER: C-25-3
DATE: 7/24/98
GEOLOGIST: Tom Lebbatard
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Density Structure	Color	Rock Classification Hardness Weathering Fracture Spacing	USCS*	Remarks	PID/FID Reading (ppm): Sample Bag	Sample Jar	Breathing Zone	Drilled Hole
					LT Tan to	white	Oolitic limestone	SW		0.0			
1610 S-1	1		24				poorly sorted w/ cemented			—			
			24				gravels			0.0			
	2									—			
								SW		0.0			
	3				White	Oolitic	limestone p.g. grading			-			
1614 S-2			12				to well sorted at base	SP		0.0			
	4						increase moisture			-			
			36							0.0			
	5									-			
									moist				
					white to gray		Oolitic limestone some coarse		saturation	0.0			
1615 S-3	6		12				grading to well sorted		sand w/ trace silt				
			24				w/ trace organics.			0.0			
	7												
					End Boring 7/24/98								

* When rock coring, enter rock hardness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe

BORING NUMBER: C-25-4
DATE: 7/24/98
GEOLOGIST: Tom C. Vrbatich
DRILLER: Fiddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density/Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Sample Bag	Breathing Zone	Background	Drilling Area
					LT Tan to white		Oolitic lime stone p.s w/gravel s			0.0			
1620 S1	1		12			Sw							
			24							0.0			
	2					✓							
											0.0	0.0	0.0
	3				White		Oolitic limestone p.s w/gravel			0.0			
1624 S2			24			Sw/Sw				0.0			
	4		36										
					LT Tan		oolitic limestone w/gravels			0.0			
	5				Brown		oolitic coating						
					oxidation at GW table very coarse				moist gravels blocky	0.0			
1627 S3	6		12		LT Tan to white		Cemented oolitic limestone better sorted						
			24							0.0			
	7												
	8												
							End Bore 7/24/98						

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS - Dallas
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Shelbyville

BORING NUMBER: C-25-5
DATE: 7/24/99
GEOLOGIST: John A. Webster
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	*Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval ✓ ✓	MATERIAL DESCRIPTION: Soil Description Consistency Moist Density	Color	Rock Description	USCS	Remarks	PID/FID Reading (ppm): Sample Bag	Shaker Bag	Background	Drilled Hole
					Brown		colitic limestone poorly sorted	SP		0.0	0.0	0.0	0.0
1648 S-2	1				white		w/cemented gravels						
										0.0			
	2												
					white to Tan		Oolitic limestone well sorted	SP		0.0			
	3						w/trace organics						
1650 S-2			16										
	4		24							0.0			
	5									0.0			
					LT Grey		oolitic limestone well sorted w/trace		moist saturated				
1653 S-3	6		20				silt.						
			24		organic layering								
	7												
							End Boring						

7/24/99

* When rock coring, enter rock recoveries.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-26-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/25/98
Sample Time:	0836
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone P.S. Sand

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

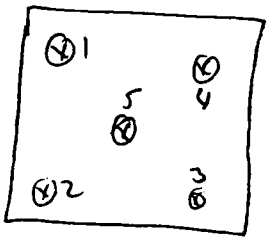
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

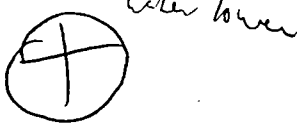
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Office





ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JU Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-26-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/25/98
Sample Time:	0838
Sample Depth (ft):	2 to 5
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone P.S. Sand

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

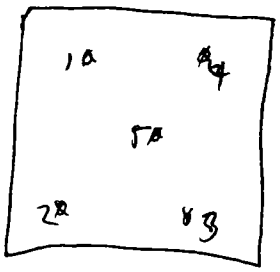
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C26-5BV, Volatile sample

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: JW Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-26 C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/25/97
Sample Time:	0840
Sample Depth (ft):	5 to 7
FID Reading:	0 0
Sample Color:	white calcitic layer
Sample Description:	

Sample Method:
- [x] BPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

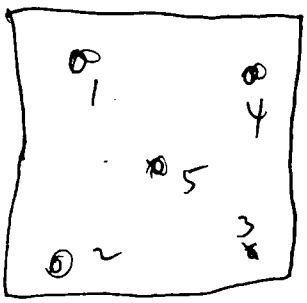
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

office



Water Tower

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: JW Signature(s):

PROJECT NAME: NAS. Key West
PROJECT NUMBER: C70 032
DRILLING COMPANY: TRG
DRILLING RIG: Stationary

BORING NUMBER: C-26-1
DATE: 7/25/99
GEOLOGIST: Tom Webster
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Description Consistency Moist, Density, Structure	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm)
					Sand LT Tan to white p.s. - Oolitic limestone w/ coastal gravel			SP		0.0
0930 S1	1		20							
			24							0.0
	2									
					white	oolitic limestone well sorted		SP		0.0 0.0 0.0 0.0
	3		15				fragmental			
0934 S-2			36							0.0
	4									
										0.0
	5									
					Dark Gray to		Fine grained sand w/ green glass fragments observed coquina limestone rock w/ trace fossils			
	6									
					white			SP		
	7									
							End Boring			

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. # ____

PROJECT NAME: NAS - Key West
PROJECT NUMBER: C90 022
DRILLING COMPANY: TRC
DRILLING RIG: Stratoprobe

BORING NUMBER: C-26-2
DATE: 7/25/98
GEOLOGIST: [illegible]
DRILLER: Eddie

Sample No. and Type or RQD	Depth (PL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/PL) or Screened Interval	Soil Density/ Consistency Unit, Basic Description	Color	Material Classification	USCS	Remarks	PID/FID Reading (ppm)
					LT Tan to white		Oolitic limestone	SW		
0915 S-1	1		20				P.S w/cemented gravels			
			24							
	2									
	3		24					SP		
0819 S-2			26							
	4									
					Gray sand silt-marl			SW		
	5				~~Gray~~ LT	Gray	O.L. coarse sand and pea gravel		saturated	13.5
S-3	6		6							
			24							
	7									
							End Boring 7/25/98			

* When rock coring, enter rock properties.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0302
DRILLING COMPANY: TRC
DRILLING RIG: Stratoprobe

BORING NUMBER: C-26-3
DATE: 7/25/97
GEOLOGIST: John Cardoso
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moist Plasticity Structure	Color	Mineral Composition	USCS*	Remarks	PID/FID Reading (ppm) Breathing Zone	Borehole	Borehole Edge	Drilling Area
					Dark brown to	tan to white	oolitic limestone	SW		0.0			
S-1 0850	1		20				poorly sorted						
			24							0.0			
	2												
					Tan to white		"	SW		0.0			
	3												
0855 S-2			8										
	4		36							0.0			
										0.0			
	5				White oolitic limestone		fine grained w/	SP	medium grained				
					Grey fine grained sand silt - marl			SM		0.0			
0902	6		27		Grey fine grained sand			SP					
S-3			24		Black organics								
					Tan to white oolitic limestone p.s			SW		0.0			
	7						Coarse grained						
							End Boring						

* When rock coring, enter rock characteristics.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0032
DRILLING COMPANY: TEG
DRILLING RIG: Stratopolar

BORING NUMBER: C-26-4
DATE: 7/26/94
GEOLOGIST: Fish & Welsh
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Consistency Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm)
					Dsm	poorly sorted oolitic sand		SW		00
	1		8							
0720 S-1			24							00
	2									
					LT Tan	well sorted oolitic sand		SP		00
	3									
0830 S-2			24							
	4		36							00
						stained trace/organics		SW		00
	5								Saturated	
					Dark Gray	sand silt w/organics				
S-3 0934	6				white	oolitic limestone some medium		SW/SP		
						to coarse grains				
	7									
						Bad Tang				

7/26/94

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS Key West
PROJECT NUMBER: C7T 032
DRILLING COMPANY: TEG
DRILLING RIG: Shelbyprobe

BORING NUMBER: C-26-5
DATE: 7/25/98
GEOLOGIST: [illegible]
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Moisture	Color	Rock Classification	USCS	Remarks	PID/FID Reading (ppm)
					LT Brown to white oolitic limestone			SW		
0911 S-1	1		?				P.S. w/shell fragments			0.0
									Mechanical difficulties w S.S. bent sample out	
	2									0.0
	3									0.0
			8							
0918 S-2	4		30							0.0
	5				white fine grained well sorted oolitic sand			SP		0.0
					Dark Gray fine grained sandy silt very organic				Saturn	0.0
0927 S-3	6				white well sorted well rounded fine grained oolitic sand					0.0
	7				↓ increase to coarse sand w/depth					
					End Boring					0

7/25/98

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C27-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C27 - Former ORMO Storage / Water Tower Area Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-26-98
Sample Time:	1030
Sample Depth (ft):	0-2'
FID Reading:	0 ppm
Sample Color:	white to lite gray
Sample Description:	Oolitic Limestone (fill) SW poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

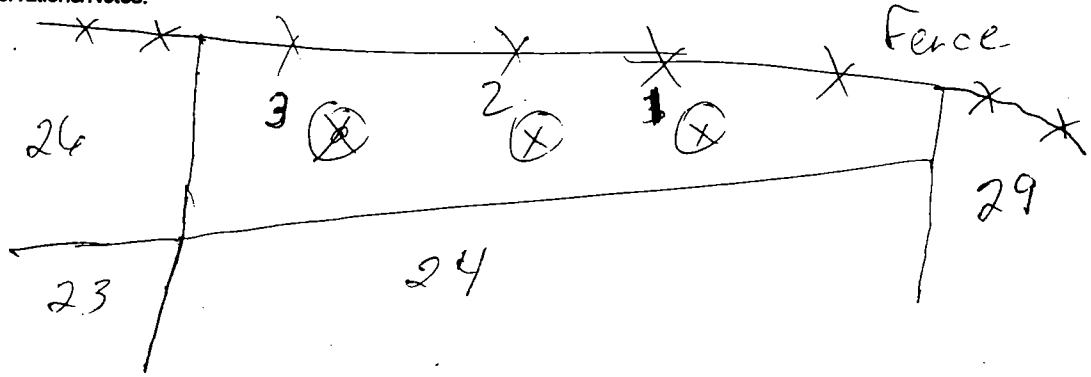
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C27-2BV, Volatile sample

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C27-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C - Former ARMD Storage Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-26-98
Sample Time:	1035
Sample Depth (ft):	2'-5'
FID Reading:	0 ppm
Sample Color:	white to lite gray
Sample Description:	Oolitic Limestone (fill) SW poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C27-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C- Former DRMO Storage Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-26-98
Sample Time:	1040
Sample Depth (ft):	5'-7'
FID Reading:	0 ppm
Sample Color:	white to lite gray
Sample Description:	Oolitic Limestone (fill) SW poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. D.

BORING LOG

PROJECT NAME: NAS Key West BRAC SSI
BORING NUMBER: C27-1
PROJECT NUMBER: 75931
DATE: 7-24-98
DRILLING COMPANY: TEG
GEOLOGIST: RDAIS
DRILLING RIG: Strata Probe
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Organization Type Moisture	Color	Visual Classification	USCS*	Remarks	Photo Reading (ppm): K	[illegible]	[illegible]	[illegible]
							lite brown to lite			0			
			2.0				tan silte, poorly forml			0			
							dry			0			
			3.0				lite tan, dry to			0			
							moist, top of saturated			0			
				4			zone			0			
			2.0				lite tan moist			0	0	0	0
				7.0			poorly formed						

* When rock coring, enter rock underscore.

** Include monitor reading at 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West BRAC SSI
PROJECT NUMBER: 7593
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C27-2
DATE: 7-26-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Brief Stratigraphic Description Top Depth Thickness	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)
							dark brown to			0
			2.0				white oolite, poorly			0
							formed, dry			0
			3.0				white to lite tan			0
				5			dry to moist, dark layer			0
			2.0				wet, brown			0
							coarse, sandy to			0
				7.0			lite tan, poorly formed			0 0 0 0

* When rock coring, enter rock underscore.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West BRAC SSI
PROJECT NUMBER: 7593
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C27-3
DATE: 7-26-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description Type, Texture, Moisture	Color	Description	USCS*	Remarks	Photo Reading (ppm)			
							Brown to lite brown			0			
			2.0				very little white			0			
							oolitic content			0			
			3.0				Brown to lite tan			0			
				5						0			
			2.0	6			Sandy, light brown			0			
							to brown in saturated			0	0	0	0
				7.0			zone, very light tan						
							below poorly formed						

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-28-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/25/98
Sample Time:	1030
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

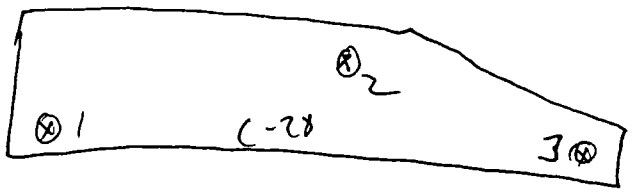
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C28-5BV, Volatile sample

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~ Nat):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-28-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/25/98
Sample Time:	1033
Sample Depth (ft):	2 to 5
FID Reading:	0.0
Sample Color:	Dark Brown
Sample Description:	

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

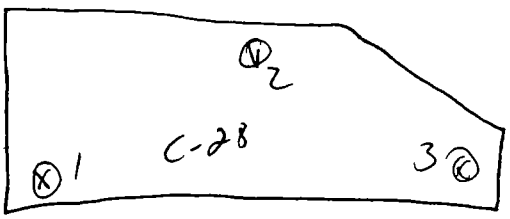
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-28-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/25/98
Sample Time:	1035
Sample Depth (ft):	5 to 7
FID Reading:	0.0
Sample Color:	white
Sample Description:	Clithic Inclusions

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

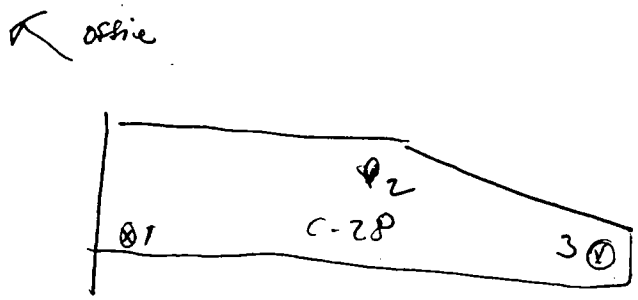
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: SG Signature(s):

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C-28-1
DATE: 7/25/90
GEOLOGIST: John Chwebsin
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm)			
					Brown to white oolitic limestone poorly sorted			SW		0.0			
1020 S-1	1		20										
			24							0.0			
	2												
					Tan oolitic sand			SW		0.0			
	3												
1024 S-2			24							0.0			
	4		36										
					Tan fine grained well sorted pockets			SP		0.0	0.0	0.0	0.0
	5				course grained			SW	saturated				
										0.0			
S-3	6		19		White oolitic limestone course grained								
			24							0.0			
	7												
							End Boring						

7/25/90

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: C-28-A @ 1030 0.0
C-28-B @ 1022 0.0
C-28-C @ 1035 0.0

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

PROJECT NAME: NAS Pensacola
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TTEC
DRILLING RIG: Shelbypolm

BORING NUMBER: C-28-2
DATE: 7/25/91
GEOLOGIST: [illegible]
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moist, Structure	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Background	Breathing Zone	Borehole	Drilling Area
					White		Oolitic sand f, m, c	SW		0.0			
1008 S1	1		20										
			24							0.0			
	2				White	Tan	well sorted Oolitic sand	SP					
							increasing fines						
	3									0.0			
			24										
1011 S2	4		36			W/	trace organics			0.0			
	5									0.0			
			20		Cong	Grey	fine grained sand with med plastic	SM					
	6		5/8										
			24		White		oolitic limestone f, m, c grained poorly sorted well rounded ooids	SW					
	7												
							End Boring 7/25/91						

* When rock coring, enter rock hardness.

** Include monitor reading on 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes _____ No _____ Well I.D. #: _____

PROJECT NAME: NASSY Lots
PROJECT NUMBER: C70-04
DRILLING COMPANY: TRC
DRILLING RIG: Shelbyback

BORING NUMBER: C-28-3
DATE: 7/25/94
GEOLOGIST: John Gwilliam
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Moisture	Color	Mineral Composition	USCS*	Remarks	PID/FID Reading (ppm): Background	Borehole	Breathing Zone	Drilling Area
					Brown		oolitic sand f, m, c.	(SW)					
0954 S-1	1		20		white		w/ grain cemented			0.0			
			24										
	2									0.0			
					Tan		fine grained oolitic sand	SP					
	3									0.0			
0957 S-2													
	4									0.0			
	5									0.0			
									moist				
			52		Grey		fine grained sandy silt - marl	SM	sat				
1000 S-3	6		24							0.0			
			22										
	7									0.0			
					E very fine grained sand grading to increasing coarse oolitic sand								
							End Boring						
							7/25/94						

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C29-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C - Foemer DRMO Storage / Water Tower Area Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-26-98
Sample Time:	1200
Sample Depth (ft):	0 - 2'
FID Reading:	Open
Sample Color:	Tan to light tan white to lite gray
Sample Description:	Oolitic limestone (Fill) SW poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

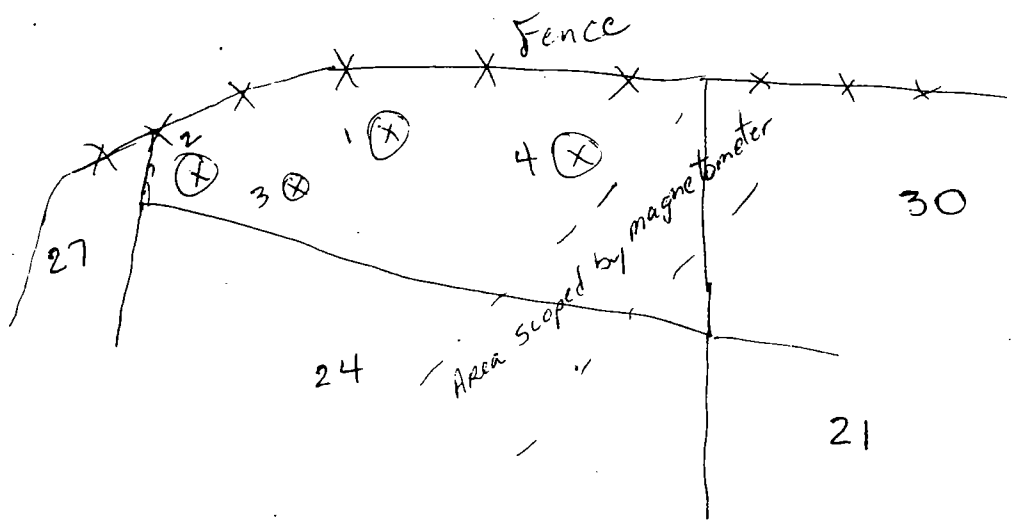
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C29-1BV, Volatile sample

Observations/Notes:



ANALYSES:

TCL VOCs ~~(HCL Preservative)~~ (DI H2O):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin ~~(HNO3 Preservative)~~ (DI H2O):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C29-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C- Former DRMO Storage Subzone:

Airbill No.: C Laboratory: GEL

Sample Date:	7-26-98
Sample Time:	1205
Sample Depth (ft):	2'- 5'
FID Reading:	0 ppm
Sample Color:	white to lite gray
Sample Description:	Dolitic limestone (Fill) SW Poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs ~~(HCL Preservative)~~:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [✓]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [✓]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [✓]	Bottle Lot Number:
TAL Metals + Tin ~~(HNO3 Preservative)~~:	YES [✓]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Da

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C29-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C- Formee DRMO Storage Subzone:

Airbill No: Laboratory: GEL

Sample Date: 7-26-98

Sample Time: 1210

Sample Depth (ft): 5-7'

FID Reading: 0 ppm

Sample Color: White to lite gray

Sample Description: Oolitic limestone (Fill) SW Poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Davis

BORING LOG

PROJECT NAME: NAS Key West BRAC SSI
PROJECT NUMBER: 7593
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C29-1
DATE: 7-26-98
GEOLOGIST: R. Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Descriptions Consistency, Moisture, Texture	Color	Other Characteristics (Odor, Staining, Consistency, Moisture, Texture)	USCS*	Remarks	PID/FID Reading (ppm): Background	Drilling Area	Breathing Zone	Breathing Zone
							Brown to tan, dry			0			
			2.0				poorly formed			0			
							tan to lite tan			0			
			3.0				dry to moist			0			
				▼			coarse, sandy			0			
			2.0							0			
										0	0	0	0
				7.0									

* When rock coring, enter rock descriptions.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West BRAC SSE
BORING NUMBER: C29-2
PROJECT NUMBER: 7593
DATE: 7-26-98
DRILLING COMPANY: TEG
GEOLOGIST: R Davis
DRILLING RIG: Strata probe
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Sample Description Including Consistency, Moisture, Density, Structure	Color	Material Description	USCS*	Remarks	Photo Reading (ppm)			
							Brown to lite tan			0			
			2.0				fine consistency			0			
							lite tan dry			0			
			3.0				to moist			0			
				5			↓			0			
				6			Coarse, moist to wet			0			
			2.0				Tan, poorly formed			0	0	0	0
				7.0									

* When rock coring, enter rock underneath.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reading read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West, BRAC SSI
BORING NUMBER: C293
PROJECT NUMBER: 7593.1
DATE: 7-26-98
DRILLING COMPANY: TEG
GEOLOGIST: R Davis
DRILLING RIG: Stratoprobe
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Sampling Interval	MATERIAL DESCRIPTION: Soil Classification Description	Color	Visual Description	USCS	Remarks	Photo Reading (ppm)			
							white Oolitic limestone			0			
			2.0				poorly formed, dry			0			
							tan, dry to moist			0			
			3.0				~~pocket of moisture~~ (NO)			0			
				4.5			moist to wet			0			
							lite tan to tan			0			
			2.0				poorly formed			0	0	0	0
				7.0			saturated zone starts						
							at 4.5' coarse sandy						

* When rock coring, enter rock underscore.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reading read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS BRAC Key West SSI
PROJECT NUMBER: 7593
DRILLING COMPANY: TEG
DRILLING RIG: Strata Probe
BORING NUMBER: C29-4
DATE: 7-26-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Description Moisture Consistency Density Hardness	Color	Material Description	USCS*	Remarks	Photo Ionizing Meter (ppm)			
							tan to lite tan, poorly			0			
			2.0				formed, dry			0			
							dry to wet			0			
			3.0	▽			tan, coarse, sandy			0			
							lite tan			0	0	0	0
				5.0									

* When rock coring, enter rock underneath.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C30-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.26.98
Sample Time:	1125
Sample Depth (ft):	0-2' BGS
FID Reading:	0 ppm
Sample Color:	White to light Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

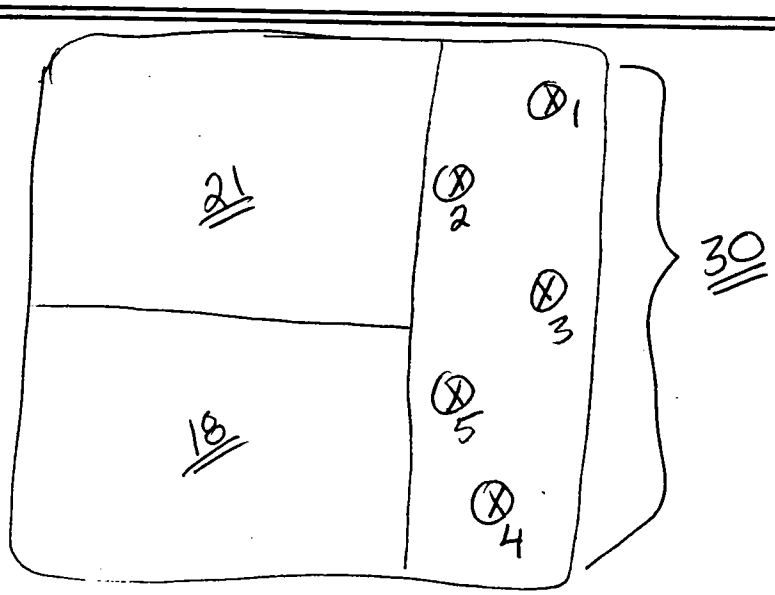
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C30 - 2 BV, Volatile sample

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C30-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7.26.98
Sample Time:	1130
Sample Depth (ft):	2-5' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

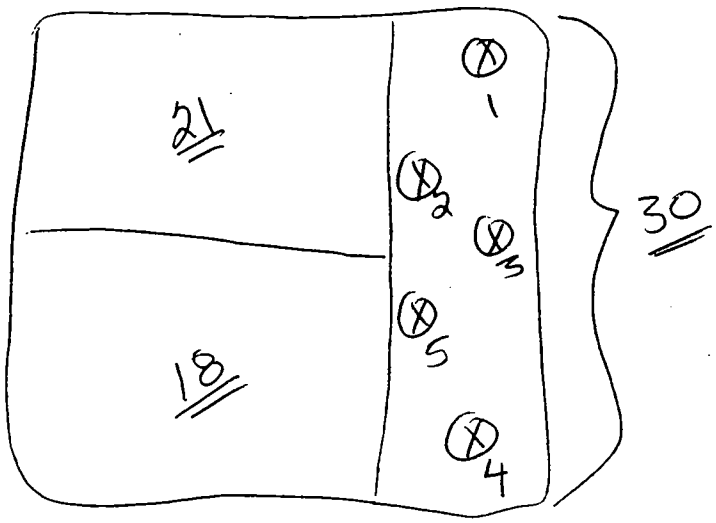
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C30-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-26-98
Sample Time:	1135
Sample Depth (ft):	5-7' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

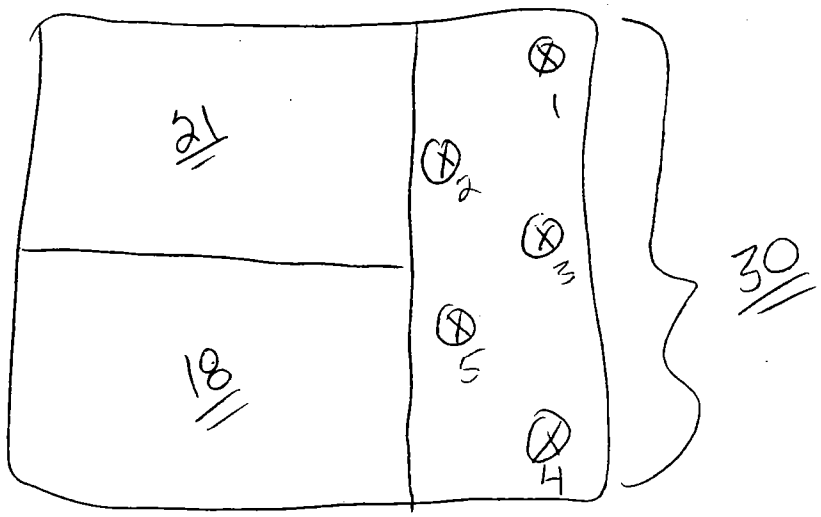
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayes Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 03d
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C30-1
DATE: 7-26-98
GEOLOGIST: J Sayers
DRILLER: Matt & Mark

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description Or Rock Description	Color	Additional Description	USCS*	Remarks	Photo Ionizing Detector Reading (ppm)			
							Oolitic Limestone			0			
			2.0				Poorly Graded			0			
							White to Tan			0			
							Lite Gray			0			
			2.0			Sand	Dark Gray Moist Fine			0			
							Native Oolite Saturated			0			
			2.0				Gray to Dark Gray			0	0	0	0
				7.0									

* When rock coring, enter rock underscores.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C30-2
DATE: 7.26.98
GEOLOGIST: J Sayers
DRILLER: Hale & Mott

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Description	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Reading (ppm)
							Oolitic Limestone			0
			2.0				Dry, Poorly Graded			0
							Silty, Calcite bitan			0
										0
			1.0				Moist			0
				▽			Sandy Silty Grey, Saturated			0
							Sandy oolite Poorly Graded			0 0 0 0
				7.0						

* When rock coring, enter rock underscores.
** Include monitor reading on 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TEG
DRILLING RIG: Stidetrube
BORING NUMBER: C30-3
DATE: 7.26.98
GEOLOGIST: J Sayers
DRILLER: Matt & Hank

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Description	Color	MATERIAL DESCRIPTION	USCS	Remarks	Photo Reading (ppm)
							Oolitic limestone,			0
			2.0				Dry, Poorly Graded			0
							white to Tan			0
			0.5							0
			2.0						Minimal Recovery	0
				▽			Native Oolitic limestone			0
			20				Sandy Gray to Tan Wet			0 0 0 0
				7.0						

* When rock coring, enter rock underscores.
** Include monitor reading at 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. # ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TBG
DRILLING RIG: Stratoprobe
BORING NUMBER: C30-4
DATE: 7.26.98
GEOLOGIST: J Sayers
DRILLER: Mott & Hart

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Nomenclature Non-Plastic Dry Strength Toughness	Color	MATERIAL DESCRIPTION: Material Description	USCS*	Remarks	PID/FID Reading (ppm): Background	Well Screen	Drilling Area	Breathing Zone
							Oolitic Limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			2.0							0			
				▽			Sandy Silt, Gray Saturated			0			
			2.0				Black to Dk Brown Coarse Green Sand, Saturated			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CT0032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C30-5
DATE: 7.26.98
GEOLOGIST: JSayer
DRILLER: Moff & Hart

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery/Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Complexity Type Texture Moisture	Color	Material Description	USCS*	Remarks	Photo Reading (ppm): Background	Drilling Area	Breathing Zone	Breathing Zone
							Oolitic Limestone,			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
			-							0			
			3.0	▽						0			
							Sandy Silt, Gray to Black			0			
			2.0				Brick chunks Oolite Native, Black Gray			0	0	0	0
				7.0									

* When rock coring, enter rock underway.

** Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-22-98
Sample Time:	1040
Sample Depth (ft):	0-2'
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Colitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-22-98
Sample Time:	1045
Sample Depth (ft):	2-5'
FID Reading:	0ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7.22.98
Sample Time:	1050
Sample Depth (ft):	5 - 7'
FID Reading:	0 ppm
Sample Color:	white to Lite Gray
Sample Description:	Oolitic Limestone (Fill) SW

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-5B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-22-98
Sample Time:	1040
Sample Depth (ft):	5
FID Reading:	0
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [illegible]

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 052
DRILLING COMPANY: TES
DRILLING RIG: Stratoprobe

BORING NUMBER: C1-1
DATE: 7-22-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moist Moisture Content	Color	Lithologic Description	USCS	Remarks	PID/FID Reading (ppm)			
							oolitic limestone			0			
			2.0				poorly graded white			0			
							to lite tan, dry			0			
							Brown to tan			0			
			3.0							0			
				5						0			
			2.0				Brown to Gray Damp			0			
				7.0			to moist, poorly			0	0	0	0
							graded			0			

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ✓ Well I.D. #:

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C1-2
DATE: 7-22-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moisture Structure	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm) Breathing Zone	Wellhead	Background	Drilled Soil
							Oolitic limestone			C			
			2.0				Poorly sorted Ds			C			
							white to tan			C			
							↓			C			
			3.0				white, silt wet			C			
				▽			Trace oyster Saturated			C			
			2.0				Brown to tan			C	C	C	C
				7.0									

* When rock coring, enter rock brokenness.
– Include monitor reading in 6 foot intervals ● borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ✓ Well I.D. #:

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 052
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C1-5
DATE: 7 22 98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Color Moisture Content	Color	MATERIAL DESCRIPTION (Soil Classification)	USCS*	Remarks	PID/FID Reading (ppm)			
							Oolitic limestone			0			
			2.0				Partly sated white			0			
							Dry			0			
										0			
			3.0				White silt wet			0			
				▽			Saturated						
			2.0				Black red to Bigtan Dark sandy Oolite			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading on 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

Page ___ of ___

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO c32
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe

BORING NUMBER: C1-4
DATE: 7.22.98
GEOLOGIST: J Sovris
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency, Moisture, Density	Color	Geologic Description	USCS*	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Borehole	Drill Rig
							Oolitic limestone			0			
			2.0				white to tan Poorly Graded Dry			0			
										0			
										0			
			3.0							0			
							Trace Silt 3"			0			
			2.0							0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ✓ Well I.D. #:

Page 1 of 1

PROJECT NAME: N.A.S. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TFG
DRILLING RIG: Stratoprobe

BORING NUMBER: C1-5
DATE: 7-22-98
GEOLOGIST: J. Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Density Structure	Color	MATERIAL DESCRIPTION Material Classification	U.S.C.S.	Remarks	PID/FID Reading (ppm)*			
							Oolite Limestone			0			
			2.0				Poorly Graded, Dry			0			
							white to Tan			0			
										0			
			3.0				white silt			0			
				8			Black, Tan to red			0			
			2.0				Saturated, Sandy Oolite			0	0	0	0
				7									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C2-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C- Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-22-98
Sample Time:	1430
Sample Depth (ft):	0-2' bgs
FID Reading:	0 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

Duplicate: C-D1-A

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C2-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-22-98
Sample Time:	1435
Sample Depth (ft):	2-5
FID Reading:	0 to 5 ppm
Sample Color:	white to lite Gray
Sample Description:	Coralline Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [illegible]

Duplicate: C-D1-B

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C2-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C. Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7 22 98
Sample Time:	1440
Sample Depth (ft):	5-7' bgs
FID Reading:	0 to 300 ppm
Sample Color:	white to lite Grey
Sample Description:	Oolitic limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [signature]

Duplicate: C-D1-C

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C2-5BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-22-98
Sample Time:	1400
Sample Depth (ft):	5'
FID Reading:	0
Sample Color:	white to lite Gray
Sample Description:	oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s): [signature]

Duplicate: C-D1

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 053
DRILLING COMPANY: TBG
DRILLING RIG: Stratoprobe

BORING NUMBER: C2-1
DATE: 7-22-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/Consistency (Loose, Med., Dense)	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Blanker	Background	Drill Rig Exh.
							Oolitic Limestone			0			
			2.0				Poorly Graded Dry			0			
							Tan to white			0			
							↓			0			
			3.0							0			
							True Sandy wet			0			
			2.0	▽			Saturated			0	0	0	0

* When rock coring, enter rock brokenness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0053
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C2-2
DATE: 7-22-98
GEOLOGIST: J Sexes
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Consistency (Lin. Inch)	Color	Soil Classification / Rock Classification	USCS*	Remarks	PID/FID Reading (ppm): Breathing Zone	Borehole	Background	Drilling Area
							Oolitic limestone			0			
			20				Poorly Graded Dry			0			
							white to Tan			0			
							↓			5			
			50				↓			5			
				▽			Trace Sand wet			3			
			20				saturated			0	0	0	0
				7									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTC 532
DRILLING COMPANY: TTG
DRILLING RIG: Strataprobe
BORING NUMBER: C2-3
DATE: 7-22-98
GEOLOGIST: SS. Yates
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Density Texture	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)			
							Oolite limestone			0			
			2.0				Partly Graded Dry			0			
							white to Tan			0			
							↓			0			
			1.0				~~Sandy Tan~~			0			
				4			crystals tan to Brown			0			
			2.0				Dark Brn to Blk wet			150	0	0	0
				7									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 53
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C2-4
DATE: 7-22-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Plasticity Density Moisture	Color	Mineral Composition	USCS	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Borehole	Cuttings
							Oolitic limestone			0			
			2.0				Poorly Graded, Dry			0			
							white to Tan			0			
							↓			0			
			3.0							0			
				▽			Silt, Grey wet			0			
			2.0				Saturated Oolite			1	0	0	0
				7									

* When rock coring, enter rock breakaway.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO C52
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C2-5
DATE: 7-22-98
GEOLOGIST: J Sowers
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Blended Consistency (Lin. Feet)	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)
							Oolitic limestone			C
			2.0				Poorly Graded, Dry			C
							white to tan			C
							↓			C
			3.0				↓			C
				5			Silt white wet			C
			2.0				Silty Clay Dark Brn to Blk Saturated			300 C C C
				7						

* When rock coring, enter rock ordinance.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1450
Sample Depth (ft):	0-2'
FID Reading:	0ppm
Sample Color:	white to light Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL ~~Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone 3 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1455
Sample Depth (ft):	2-5'
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1800
Sample Depth (ft):	5-7'
FID Reading:	Open
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-SBV Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1430
Sample Depth (ft):	5'
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Colitic Limestone (SW) Fill Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C10C3d
DRILLING COMPANY: FES
DRILLING RIG: Stratenzke

BORING NUMBER: C3-1
DATE: 7.23.98
GEOLOGIST: [illegible]
DRILLER: [illegible]

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Contact (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Symbol, Texture, Consistency	Color	MATERIAL DESCRIPTION: Description	USCS	Remarks	Photo Reading (ppm): [illegible]	[illegible]	[illegible]	[illegible]
							Oolitic Limestone			0			
			2.0				Orn. Poorly Graded			0			
							White to Tan			0			
							↓		Minimal Recovery*	0			
			3.0				↓			0			
							↓			0			
			2.0	▽			Silty Sand / Calcite Native Material Saturated			0	0	0	0
				7.0									

[1] When rock coring, enter rock brokenness.

* Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 910232
DRILLING COMPANY: ITG
DRILLING RIG: Stratoprobe

BORING NUMBER: CS-2
DATE: 7-23-92
GEOLOGIST:
DRILLER:

Sample No. and Type of RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Dry Soil Moisture Consistency Density	Color	Lithologic Description	USCS	Remarks	PID/FID Reading (ppm): Background	Drilling Area	Sample Headspace	Sample Headspace
							Oolitic Limestone			0			
			2.0				Dry, Poorly graded			0			
							White to Tan			0			
							↓			0			
			2.0							0			
				▽			S. Hy Sand Grey wet			0			
			2.0				Oolitic Native Saturated			0	0	0	0
				7.0									

* When rock coring, enter rock breakaways.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Fence DRMO C4 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	
Sample Depth (ft):	0-2'
FID Reading:	0 - 20 ppm
Sample Color:	White to light gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

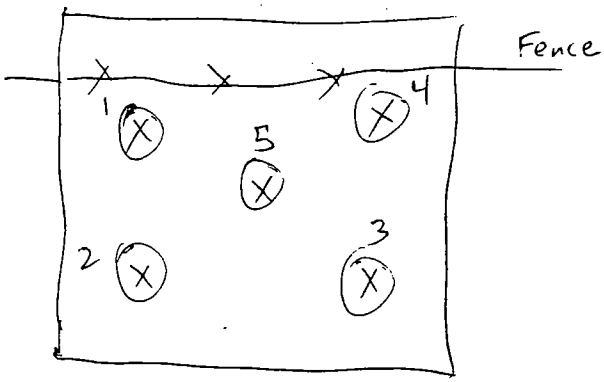
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~) QAO:	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~) QAO:	YES [x]	NO [ ]	

Sampled By: Richard Davis Signature(s): Richard Davis

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Former DRMO C4 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	
Sample Depth (ft):	2'-5'
FID Reading:	0-20 ppm
Sample Color:	white to light gray
Sample Description:	Oolitic limestone (Fill) SW poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

VOLATILE SAMPLE - C4-5BV

Observations/Notes:

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~ Rad):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~ Rad):	YES [x]	NO [ ]	

Sampled By: RICHARD DAVIS Signature(s): Richard Davis

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Former DRMO C4 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	
Sample Depth (ft):	5'-7'
FID Reading:	0-20 ppm
Sample Color:	White to light gray
Sample Description:	Oolitic limestone (fill) SW Poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~ DW):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
DW TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Richard Davis Signature(s): Richard Davis

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: C4-1
DATE: 7-23-98
GEOLOGIST: R. Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Brief Stratigraphic Description Top Soil, Topsoil	Color	Description	USCS*	Remarks	Photo Reading (ppm):			
							Oolitic Limestone			18			
			2.0				poorly graded, white to			20			
							light tan, dry			18			
			3.0				Brown to tan			20			
										20			
			2.0				Brown to gray,			19			
							damp to moist,			20			
				7.0			poorly graded			20	0	0	

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0132
DRILLING COMPANY: TEG
DRILLING RIG: Strata Probe
BORING NUMBER: C4-2
DATE: 7-23-98
GEOLOGIST: R. Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist, Density, Hardness	Color	Description	USCS*	Remarks	Photo Reading (ppm)			
							Oolitic Limestone			20			
			2.0				poorly graded, white to			20			
							light ~~gray~~ tan, dry			13			
			3.0				Brown to tan			13			
							↓			13			
							Brown to gray, damp			11			
			2.0				to moist, poorly			10		0	0
				7.0			graded						

* When rock coring, enter rock breakages.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS - Key West
PROJECT NUMBER: CTO 031
DRILLING COMPANY: T&E
DRILLING RIG: Strata probe

BORING NUMBER: G4-3
DATE: 7-23-98
GEOLOGIST: R. Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Descriptor Consistency Moist Texture	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Breathing Zone	Borehole	Background	Drilling Area
							Oolitic Limestone			0			
			2.0				poorly graded, white to			0			
							light tan, dry			0			
			3.0				Brown to tan			0			
							↓			0			
			2.0	6			Brown to gray, damp			0			
							to moist, poorly graded			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0321
DRILLING COMPANY: T&G
DRILLING RIG: Strata probe
BORING NUMBER: C4-4
DATE: 7-23-98
GEOLOGIST: R. Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampled Interval	MATERIAL DESCRIPTION: Soil Sample Description (Lithology, Texture, Moisture, Consistency)	Color	Geologic Description (Structure, Composition, Fossils, Other Features)	USCS*	Remarks	Photo Reading (ppm):			
							Dolitic limestone			12			
			2.0				poorly graded, white			11			
							to light tan, dry			12			
			3.0				Brown to Tan			12			
							↓			12			
			2.0				Brown to gray, damp			13			
				▽ 7.0			to moist, poorly graded			12	0	0	

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C4-5
DATE: 7-23-98
GEOLOGIST: R. Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Classification Name, Moisture, Density	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Reading (ppm)			
							Oolitic Limestone			0			
			2.0				poorly graded, white to			0			
							light tan, dry			0			
			3.0				Brown to tan			0			
							↓			0			
			2.0	▽			Brown to gray, damp			0			
							to moist, poorly graded			0			
				7.0						0	0	0	0

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ✓ Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CS-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7 23-98
Sample Time:	0910
Sample Depth (ft):	0-2'
FID Reading:	0 to 15 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (SW) Fill Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: D. Sayers Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C5- B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	0915
Sample Depth (ft):	2' - 5'
FID Reading:	0 to 11 ppm
Sample Color:	white to lite Grey
Sample Description:	Calitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C5-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	0920
Sample Depth (ft):	5'-7' bgs
FID Reading:	0 to 10 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C5-5BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	0900
Sample Depth (ft):	5'
FID Reading:	0
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 033
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe

BORING NUMBER: CS-1
DATE: 7-23-98
GEOLOGIST: Sexes
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Unified System)	Color	Geologic Description	USCS	Remarks	PID/FID Reading (ppm): Background	Drilling Area Background	Breathing Zone	Borehole
							Oolitic Limestone			0			
			2.0				Org. white to Tan Poorly Graded			0			
										0			
										0			
			3.0							0			
							Silty Sand, wet to Saturated			0			
			2.0				Oolitic Native Saturated			0			
				7.0						0	0	0	0

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 052
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: CS-2
DATE: 7-23-98
GEOLOGIST:
DRILLER: J Sykes

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Type, Texture, Structure)	Color	Description	USCS	Remarks	PID/FID Reading (ppm)			
							Oolitic Limestone Dis			0			
			2.0				white to Tan, Poorly Graded			0			
										0			
			1.0							0			
							Silt-Gray wet			0			
			2.0				Oolitic Native Sediment			0	0	5	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTC 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata Probe

BORING NUMBER: CS-3
DATE: 2-23-98
GEOLOGIST: [illegible]
DRILLER: [illegible]

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Contact (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Chart Key / Color	Color	Description	USCS*	Remarks	PID/FID Reading (ppm): [illegible]	[illegible]	[illegible]	[illegible]
							Calcite Limestone White			12			
			2.0				Poorly Graded			14			
										5			
			1.0							5			
										1			
							Silt-Grey wet			0			
			2.0				Calcite Native Saturated			5	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTC 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe

BORING NUMBER: C5-4
DATE: 7-23-98
GEOLOGIST:
DRILLER: Jones

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery/ Sample Length	Lithology Changes (Depth/Ft.) or Sampled Interval	Gas Monitor Organic Vapors (ppm)	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID Reading (ppm)			
							Oolitic Limestone D.Q			5			
			2.0				Poorly Graded White			15			
										11			
			1.0							5			
							Silt-Gray wet			1			
			2.0				Oolite Saturated			10			
				7						5	0	0	0

* When rock coring, enter rock brackets.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTS 032
DRILLING COMPANY: FEG
DRILLING RIG: Strata Probe

BORING NUMBER: CS-5
DATE: 7-23-98
GEOLOGIST:
DRILLER:

Boring No. and Type of RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampling Interval	Soil Sample Description Color Texture Consistency Moisture Content	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
						Oolitic Limestone, Dry			0
			20			white to Tan, Poorly Graded			0
									0
									0
			30						0
						Silty, wet Gray			0
			20			Brown to Tan Oolitic Native Strata			0
				7.0					0 0 0 0

* When rock coring, enter rock breakpoints.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

#0900 VOC

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C6-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1350
Sample Depth (ft):	0-2'
FID Reading:	0 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) Sw Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: J. Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C6-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1355
Sample Depth (ft):	2-5'
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Colitic Limestone (Fill) w/ Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C6-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1400
Sample Depth (ft):	5-7'
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:	
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: J Sayers Signature(s):

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gwb 8/23/98

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C6-~~5~~ 2 BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1345
Sample Depth (ft):	5' bgs
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~ Ind):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~ Ind):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: T.S. Yes Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 052
DRILLING COMPANY: CBG
DRILLING RIG: Stratoprobe

BORING NUMBER: C6-1
DATE: 7-23-98
GEOLOGIST: [illegible]
DRILLER: Hank

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification, Consistency, Moisture, Odor	Color	Rock Classification, Hardness, Weathering, Fracture	USCS	Remarks	Photo Reading (ppm): [illegible]	[illegible]	[illegible]	[illegible]
							Oolitic Limestone			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			1.0							0			
				▼						0			
			2.0				Silty Sand, Very Saturated Oolite White Wet			0	0	0	0
				7.0									

* When rock coring, enter rock brackings.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): [ ]

Converted to Well: Yes ___ No 1 Well I.D. #: ___

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER:
DRILLING COMPANY:
DRILLING RIG:

BORING NUMBER: C6-2
DATE:
GEOLOGIST:
DRILLER:

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description	Color	Additional Observations	USCS*	Remarks	Photo Reading (ppm)			
							Oolitic limestone, Dn			0			
			2.0				Poorly sorted			0			
							white to Tan			0			
							↓			0			
			2.5							0			
				2			S. Fine Sand, Selected			0			
			2.0				↓			0	0	0	0
				2.0									

VCC * 1345

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: N.A.S. Key West
PROJECT NUMBER: C6 C33
DRILLING COMPANY: IEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C6-3
DATE: 2-23-96
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moisture Content	Color	Rock Description Hardness Weathering Structure	USCS*	Remarks	Photo Reading (ppm):			
							Oolitic Limestone, Dry			0			
			2.0				white to Tan			0			
							Poorly Sorted			0			
										0			
			2.0				Sandy, Gray			0			
				▽			Sorted			0			
			2.0				Oolitic Limestone wet			0	0	0	0

* When rock coring, enter rock brokenness.

** Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C7-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C7 Former DRMO Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	@ 12:20
Sample Depth (ft):	0-2
FID Reading:	0 ppm
Sample Color:	White to light gray
Sample Description:	calcific limestone (fill) poorly graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

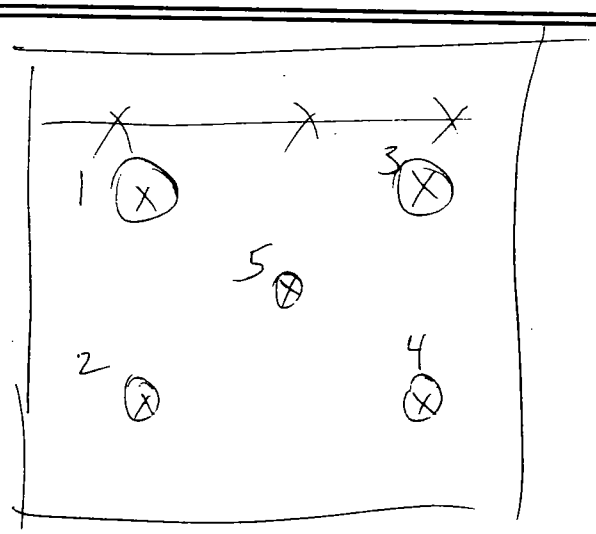
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C7-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	12:30
Sample Depth (ft):	2-5'
FID Reading:	0 ppm
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE (FILL) SW POORLY GRADED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

VOC SAMPLE – C7-5BV

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Dai

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C7-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	12:35
Sample Depth (ft):	5-7'
FID Reading:	0
Sample Color:	white to light gray
Sample Description:	oolitic limestone (fill) SW poorly graded

Sample Method:
- [x] DRT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 0321
DRILLING COMPANY: T&G
DRILLING RIG: Strata probe
BORING NUMBER: C7-1
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery/Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification (Unified Soil Classification System)	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Reading (ppm)
							Oolitic limestone			0
			2.0				poorly graded, white to			0
							tan, dry			0
			3.0				Brown to tan			0
							↓			0
				6			Brown to gray to black			0
			2.0				-black silt at saturated			0
				7.0			damp to moist, poorly			0
							graded			

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0321
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C7-2
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Brief Stratigraphic Description (Soil, Rock, Moisture)	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
							white layers - 1 foot	O		
			2.0				Oolitic limestone, poorly	O		
							graded, white to tan, dry	O		
			3.0				Brown to tan	O		
							↓	O		
				6			Brown to gray, damp	O		
			2.0				to moist, poorly graded	O		
				7.0						

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C7-3
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampled Interval	MATERIAL DESCRIPTION: Soil Sample Description Rock Description	Color		USCS*	Remarks	Photo Reading (ppm):			
							Oolitic limestone, white			0			
			2.0				to tan, poorly graded, dry			0			
							Brown to tan			0			
			3.0							0			
							↓			0			
				6			Brown to gray,			0			
			2.0				damp to moist, poorly			0			
				7.0			graded			0			

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0327
DRILLING COMPANY: T&G
DRILLING RIG: Strata probe
BORING NUMBER: C7-4
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampling Interval	MATERIAL DESCRIPTION: Soil Descriptor Consistency Moisture Density	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm):			
							Oolitic limestone,			0			
			2.0				poorly graded, white			0			
							to tan, dry			0			
			3.0				↓			0			
							Brown to tan			0			
				6			Brown to gray			0			
			2.0				damp to moist, poorly			0			
				7.0			graded						

* When rock coring, enter rock hardness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: C7-5
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Including Color, Moisture, Consistency, Structure, Odor)	Color		USCS*	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Borehole	Borehole Composite
					Oolitic limestone					0			
			2.0		poorly graded, white to					0			
					tan, dry					0			
			3.0		Brown to tan					0			
					↓					0			
					Brown to gray to					0			
			2.0		black silt at 7.0',					0			
				7.0	damp to moist, poorly								
					graded								

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C8-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1200
Sample Depth (ft):	0-2'
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~ NA):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~ NA):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C8 B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1205
Sample Depth (ft):	2-5'
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CE-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1210
Sample Depth (ft):	5-7'
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Calitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL ~~Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: J Sayers Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C8-5BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-23-98
Sample Time:	1210
Sample Depth (ft):	5'
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL ~~Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 ~~Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTC 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: CB-1
DATE: 7-23-98
GEOLOGIST:
DRILLER: J Sayers

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Characteristics (Color, Texture, Consistency)	Color	Mineral Composition	USCS*	Remarks	PID/FID Reading (ppm)			
							Oolitic Limestone Piv			0			
			2.0				Whitish tan, Poorly Graded			0			
										0			
			2.0							0			
				2						0			
			2.0				Silt Grex wet Oolitic Sorted Native			0			
				7.0						0	0	0	0

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #

BORING LOG

PROJECT NAME: VAS. Key West
PROJECT NUMBER: C10 032
DRILLING COMPANY: IEG
DRILLING RIG: Strobank

BORING NUMBER: CE-2
DATE: 7-23-98
GEOLOGIST: S. Sykes
DRILLER:

Boring No. and Type of RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Description (Name, Color, Moisture, Consistency, Grain Size, Structure, Odor)	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
							Oolitic Limestone Dk.			0
			2.0				White to Tan, Porous			0
										0
										0
			3.0							0
				▽			Silty Sand Grey, Saturated, Wet			0
			2.0				Oolitic Sands, Saturated			0 0 0 0
				7.0						

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe

BORING NUMBER: CB-5
DATE: 7-23-98
GEOLOGIST: J Sears
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Description Consistency Moisture Content	Color	Classification	USCS*	Remarks	PID/FID Reading (ppm):			
							Oolitic Limestone, Dry						
			20				White to Tan, Pebbly Sand			0			
										0			
										0			
			1.0							1			
										1			
										0			
							Silty, Grey Saturated Native Soil						
				20						0	0	0	0

* When rock coring, enter rock breakages.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: IEG
DRILLING RIG: Stratoprobe

BORING NUMBER: CB-4
DATE: 7-23-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampled Interval	Soil Description Consistency Moist Density Structure	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)			
							Concrete						
			2.0				Oolitic Limestone			0			
							Poorly Sorted, Dry			0			
							White to Tan			0			
			2.5							0			
										0			
			1.0				Silty Sand - Grey			0			
				7.0						0	0	0	0

* When rock coring, enter rock brackets.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 053
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: C8-5
DATE: 7-23-98
GEOLOGIST: J Sayers
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampling Interval	MATERIAL DESCRIPTION: Soil Description (Color, Texture, Moisture)	Color	Mineral Composition	USCS*	Remarks	PID/FID Reading (ppm): Background	Drilling Area	Breathing Zone	Breathing Zone
							Oolitic Limestone			0			
			20				Poorly Graded, Dry			0			
							White to Tan			0			
										0			
										0			
1045										0			
							Silty Sand Gray Saturated			0			
							Oolitic Nature Saturated			0	0	0	0
				70									

* When rock coring, enter rock breakpoints.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ___ No ✓ Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CG-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: CG Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	
Sample Depth (ft):	0-2'
FID Reading:	0 ppm
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE (FINE) SW POORLY SORTED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

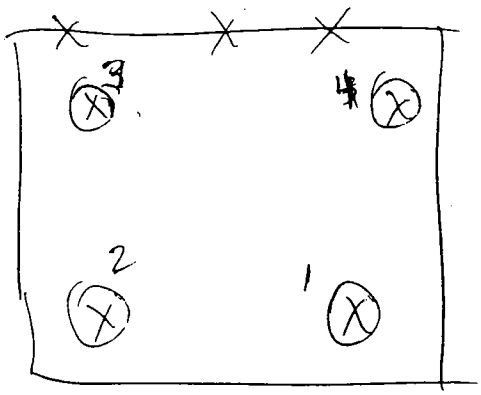
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C9-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	
Sample Depth (ft):	0-5'
FID Reading:	0ppm
Sample Color:	WHITE to LIGHT GRAY
Sample Description:	POORLY GRADED OOLITIC LIMESTONE (Fill) SW

Sample Method:
- [x] SPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

VOC SAMPLE - C9-4BV

Observations/Notes:

At C9-4B hit creosote timber moved location over 1 foot and re-sampled.

ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: R Davis Signature(s): R Davis

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C9-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	
Sample Depth (ft):	5-9'
FID Reading:	0 ppm
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE (FILL) SW POORLY GRADED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): [signature]

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: T&G
DRILLING RIG: Stratoprobe
BORING NUMBER: C9-1
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description Top Depth	Color		USCS*	Remarks	Photo Ionizing Meter (ppm)			
							Oolitic limestone			0			
			2.0				poorly graded, white to			0			
							light tan, dry			0			
			3.0				Brown to tan			0			
				5.5'			↓			0			
							Gray, damp to			0			
			2.0				moist, poorly graded			0			
				7.0			Tan below gray silt						

* When rock coring, enter rock hardness.
* Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C9-2
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Boring No. and Type of Rig	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Bed Strength Consistency (Unit Name)	Color	Description	USCS*	Remarks	Photo Ionizing Detector (PID) Reading (ppm)
							Oolitic limestone			0
			2.0				poorly graded, white			0
							to tan, dry			0
			3.0				sandy brown to tan			0
				5.5			↓			0
				▽			Grey in the saturated			0
			2.0	↑			zone to tan just			0
				7.0			below, moist, poorly			
							graded			

* When rock coring, enter rock hardness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reading read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: E10.832
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C9-3
DATE: 7-23-98
GEOLOGIST: R Ogris
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Lithology Characteristics (Type, Texture, Structure)	Color	Description	USCS	Remarks	Photo Ionizing Unit
							Oolitic Limestone			0
			2.0				poorly graded, white to			0
							light tan, dry			0
			3.0	▽			Tan to gray, damp to			0
							moist, poorly graded			0
				5.0			gray silt			
			2.0				stopped at 3'-5'			
							saturated zone			

[1] When rock coring, enter rock lithologies.
[2] Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0312
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe

BORING NUMBER: CG-4
DATE: 7-23-98
GEOLOGIST: R Davis
DRILLER:

Boring No. and Type of RIG	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Sample Interval	MATERIAL DESCRIPTION: Gray Scale Chromatography (ppm)	Color	Description	USCS	Remarks	Photo Ionizing Meter*			
			2.0				Oolitic limestone			0			
							poorly graded white to			0			
							light tan, dry			0			
			3.0	4.5			Brown to gray			0			
							damp to moist poorly			0			
				5			graded						
							Saturated zone at						
							2'-5' did not push						
							5'-7', moved 2'-5'						
							location over 1' hit						
							creosote Timber						

* When rock coring, enter rock brokenness.
* Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C10-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C - SCRAP METAL STORAGE AREA Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081598
Sample Time:	1618
Sample Depth (ft):	0-2'
FID Reading:	0.0
Sample Color:	WHITE TO LIGHT BROWN
Sample Description:	CRUSHED COLITIC LIMESTONE/ETC

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

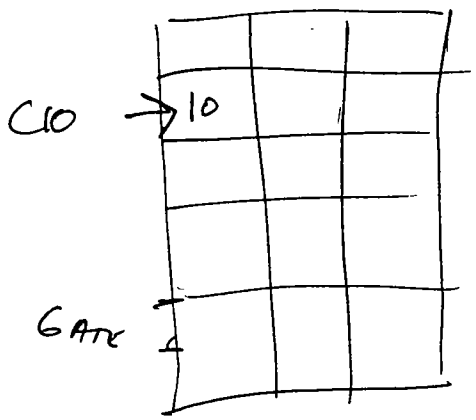
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [ ]	NO [x]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: E. Harrison Signature(s): Eric J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C16-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: C - SCRAP METAL STORAGE AREA Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081598
Sample Time:	1620
Sample Depth (ft):	2-5'
FID Reading:	0.0
Sample Color:	WHITE TO LIGHT BROWN
Sample Description:	CRUSHED COLTIC LIMESTONE FILL

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

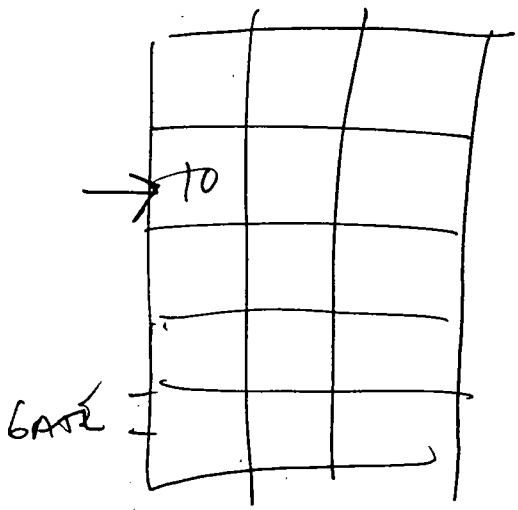
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C10-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: C - SCRAP METAL STORAGE AREA Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081598
Sample Time:	1637
Sample Depth (ft):	5-8'
FID Reading:	0.0
Sample Color:	WHITE TO LIGHT BROWN
Sample Description:	CRUSHED OOLITIC LIMESTONE, MEDIUM GRADE

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

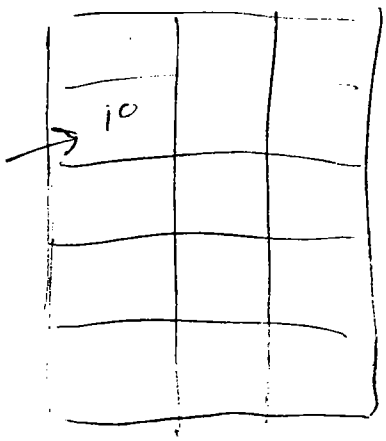
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): Eug J. Harrison

BORING LOG

PROJECT NAME: CTO. 0032. PORAL SSI
PROJECT NUMBER: 7593 B10 OSC 105
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT
BORING NUMBER: C10 - 1
DATE: 081598
GEOLOGIST:
DRILLER: J. BODY / J. MALO

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / (6" or RQD (%))	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification, Consistency, Moisture, Texture	Color	Rock Description, Structure, Hardness, Weathering, Fracture Spacing, Mineralogy, Porosity, Permeability	USCS*	Remarks	Photo Ionizing (ppm)
							ASPHALT			0.0 0.0
	1		24				WHITE TO LIGHT BROWN			
							FRACTURED OOLITIC LIMESTONE			
	2		24				POORLY GRADED			
										0.0 0.0
	3		6				"			
	4									
			36							
	5									
										0.0 0.0 0.0 0.0
	6		3				SAME			
	7									
	8		36							

* When rock coring, enter rock underscore.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

BORING LOG

PROJECT NAME: CTO 0032 BRAZSSL
PROJECT NUMBER: 7593 BLO DSC 106
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT
BORING NUMBER: C10 - 2
DATE: 081598
GEOLOGIST:
DRILLER: J. BODY / J. MALO

Boring No. and Type of RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Sample Description	Color	MATERIAL DESCRIPTION	USCS*	Remarks	Photo Reading (ppm)			
				0			WHITE TO LIGHT BROWN			0.0	0.0		0.0
	1		24				CRUSHED OOLITIC, POORLY						
			24	0.5			GRADED						
	2												
							WHITE TO LIGHT BROWN			0.0	0.0		0.0
	3		12				COARSE OOLITIC FILL						
	4												
			36										
	5								ENOUGH SAT SAMPLE	0.0	0.0	0.0	0.0
									BTF 4-5' FOR				
	6								COMPOSITE C				
	7												
	8												

* When rock coring, enter rock underneath.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

BORING LOG

PROJECT NAME: LTO 0032
PROJECT NUMBER: 7593 BLO OSG 005
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT

BORING NUMBER: C10-3
DATE: 081598
GEOLOGIST:
DRILLER: JOHNNY BODY [redacted]

Sample No. and Type or RQD	Depth (Ft) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Contact (Depth/Ft.) or Screened Interval	Soil Moisture Consistency Approx. Moisture Content	Color	MATERIAL DESCRIPTION	USCS	Remarks	Photo Ionizing Detector			
							WHITE TO LIGHT BROWN CRUSHED			0.0	0.0		0.0
	1		24				LIMESTONE - POORLY						
			24				GRADE						
	2												
							↑			0.0	0.0		0.0
	3		12										
	4												
	5		36										
							WHITE TO LIGHT BROWN			0.0	0.0		0.0
	6		36				OOLITIC LIMESTONE						
							GRAYISH AT CAT ZONE						
	7												
			36										
	8												
	9												
	10												

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

BORING LOG

PROJECT NAME: CTO 0032
PROJECT NUMBER: 7593 BLO 05C 105
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT
BORING NUMBER: C10-4
DATE: 081598
GEOLOGIST:
DRILLER: JOHNNY BODY / JOHN MALO

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description Name Symbol	Color	Visual Description	USCS	Remarks	Photo Ionizing (ppm)			
			6				CRUSHED LIMESTONE LIGHT			0.0	0.0		0.0
	1						BROWN W/ BLACK MIXED						
			24				IN. POORLY GRADED						
	2												
							LIGHT BROWN CRUSHED			0.0	0.0		0.0
	3		6				LIMESTONE FILL						
							POORLY GRADED						
	4												
			36										
	5												
	6		0				NO RECOVERY			0.0	0.0		0.0
	7												
			36										
	8												
				27.0			LIGHT TO MEDIUM		SAMPLE FOR	0.0			0.0
	9						GRAY SANDY SILTY		C-10COMP				
									TAKEN FROM				
	10								HERE				
	11												

* When rock coring, enter rock underscore.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

BORING LOG

PROJECT NAME: CTO 0032 BRAC SSI
PROJECT NUMBER: 7693 BLO 05C 105
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT
BORING NUMBER: L10-5
DATE: 7/15/98
GEOLOGIST:
DRILLER: JOHNNY BODY / JOHN MALO

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	Soil Standard Classification Jar Headspace	Color	MATERIAL DESCRIPTION	USCS	Remarks	Photo Reading (ppm)			
							WHITE TO LIGHT BROWN,			0.0	0.0		0.0
	1		24				CRUSHED OOLITIC LIMESTONE						
							FILL						
	2		24										
							WHITE TO LIGHT BROWN			0.0	0.0		0.0
	3		8				CRUSHED OOLITIC LIMESTONE						
							FILL, POORLY GRADED						
	4		36										
	5												
							WHITE TO LIGHT BROWN			0.0	0.0		0.0
	6		20				MEDIUM GRADE						
	7												
	8		36				ASPHALT PIECES			0.0	0.0	0.0	0.0

* Where rock coring, enter rock underscore.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ___ No X Well I.D. #: ___

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-11-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: OMRO Subzone:

Airbill No.: Laboratory: GEL

Sample Date: 7/28/98

Sample Time: 1010

Sample Depth (ft): 0 to 2

FID Reading: 0.0

Sample Color: White Oolitic limestone P.S.

Sample Description: Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

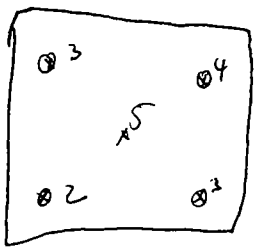
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-11-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: DMRO Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/28/98
Sample Time:	1015
Sample Depth (ft):	2 to 5
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic Limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

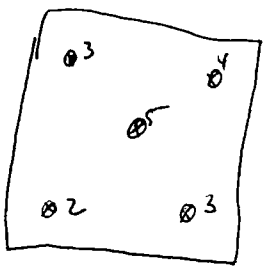
MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-11-5BV Volatile Sample @ 1005

Observations/Notes:

Sample Time from Rich Davis's Watch (SW)



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:	Encore
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: (SW) Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C11-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: DMMO Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/28/98
Sample Time:	1020
Sample Depth (ft):	5 to 7
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

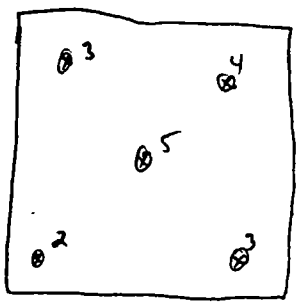
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

BORING LOG

PROJECT NAME: NAS Myrtle
PROJECT NUMBER: 910032
DRILLING COMPANY: TRC
DRILLING RIG: Stratprobe
BORING NUMBER: C-11-1
DATE: 7/28/98
GEOLOGIST: John G Webstead
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Standard Classification	Color	Material Description	USCS	Remarks: Asphalt-Black	Photo Reading (ppm)
					white	D.S.	f, m, c grained oolitic sand w/gravel			0.0
0945 S-1	1		20							
			24							0.0
	2									
										0.0
	3									
			24							0.0
0947 S-2	4		36							
										0.0
	5									
					Very fine grained sand silt-med w/ med clay					0.2 0.0 0.0 0.0
0953 S-3	6		20				fine grained sandy lens w/ less silt-dispersed			
			24							0.0
	7				E organic layer - Black					
							End Boring			

7/28/98

* When rock coring, enter rock hardness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C70032
DRILLING COMPANY: TTNUS
DRILLING RIG: Stratoprobe
BORING NUMBER: C-11-2
DATE: 7/28/97
GEOLOGIST: Tom Gwebb
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description, Color, Soil Classification	USCS	Remarks	Photo Ionizing Detector (ppm)
					wh-H Tan P.S. f, m, c grained oolitic sand w/gravels			0.1
0936	1		20					0.5
S-1			24					–
	2							–
								0.0
	3		24					
								0.0
0958	4		06					
S-2								0.0
	5				Gray fine grained sand silt-mud w/trace clay SA			
					~~SA~~ Gray fine grained well sorted sand w/trace silt and clay –		oolitic sand	0.0
1021	6		12"					
S-3			24					0.0
	7							
					End Boring			
					7/28/98			

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Hyrnet
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TRG
DRILLING RIG: Shakeprobe
BORING NUMBER: C-11-3
DATE: 7/28/91
GEOLOGIST: Eric Weatherford
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery/Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Classification (Soil Name, Consistency, Moisture, Odor)	Color	General Classification	USCS	Remarks	Photo Reading (ppm)			
									Asphalt				
					white		O.S. f,m,c grained calcitic limestone sand	SW					
0910	1		30				w/gravel w/shells						
			24										
	2												
					Tan		"			6.0			
0920	3		24							8.5			
S-2			36							7.1			
	4									8			
	5				Grey	very fine	sandy silt - mod	SP/SM		10.1	0.0	0.0	0.0
							w/trace clay						
0925	6								very organic	13.1			
S-3					Grey	fine	grained well sorted sand	SP	smell.				
	7												
							Final Boring						
							7/28/91						
									K Bittle				

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Mythwest
PROJECT NUMBER: C70 032
DRILLING COMPANY: TtNUS
DRILLING RIG: Shelby pipe
BORING NUMBER: C-11-4
DATE: 7/28/98
GEOLOGIST: [illegible]
DRILLER: Freddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Classification (Name, Consistency, Moisture, Odor)	Color	Material Description	USCS	Remarks	PID/FID Reading (ppm)
									Asphalt	
					white		poorly sorted f, m, c sheared sand			0.0
0905 S-1	1		20				oolitic	SW		
			24							0.0
	2									
										0.0
	3									
D910										
S-2	4									0.2 00 00 0.0
	5				Grey		very fine sandy silt - moist w/trace clay			0.2
			1 foot							
7915 S-3	6							SP		
			20		Gray fine grained well sorted sand					
	7		24							
							End Boring 7/28/98			
									F. oolitic	

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Myrtle Beach
PROJECT NUMBER: G70032
DRILLING COMPANY: TEG
DRILLING RIG: Shatterpoda
BORING NUMBER: C-11-5
DATE: 7/28/91
GEOLOGIST: [illegible]
DRILLER: Ridline

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ (6" or RQD (%))	Sample Recovery / Sample Length	Lithology Contact (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Brief Soil/Rock Description, Incl. Moisture, Density/Consistency	Color	Geologic Description	USCS	Remarks	Photo Reading (ppm)
					white		D.S. f, m, c gravel oolitic sand v/gravel	SW		0.0
1000	1		20							
51			24							0.0
	2									
								SW		0.0
	3									
1005			24							0.0
	4		36							
										0.0
	5				Gray vfg fine sandy silt mod - w/trace clay			SM/S		
										0.2
1010	6		20							
			24		Gray fine grained well sorted sand			SP		0.0
	7									
					End Boring					
					7/28/90					

* When rock coring, enter rock underneath.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C12-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-28-98
Sample Time:	
Sample Depth (ft):	0-2' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

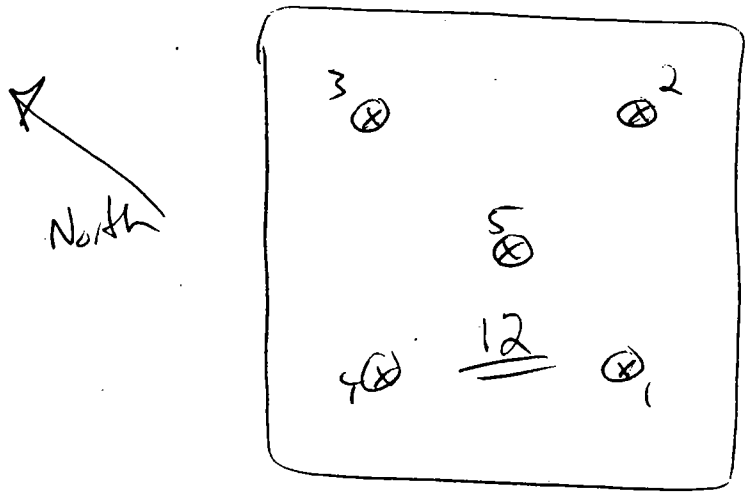
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayer Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C12-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.28.98
Sample Time:	
Sample Depth (ft):	2-5' BGS
FID Reading:	0 to 10 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

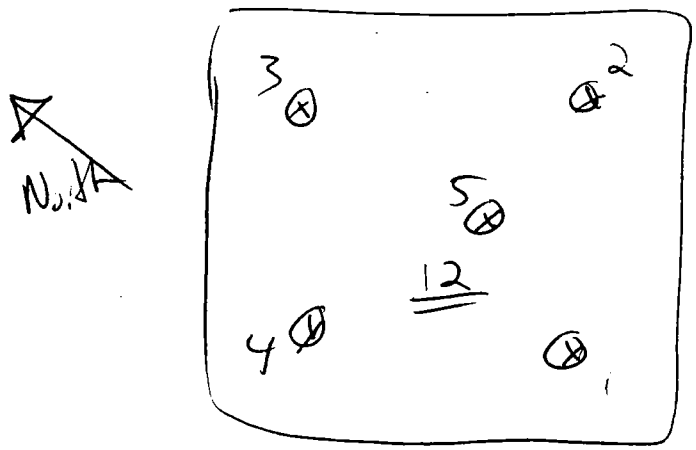
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C12-5BV, Volatile Sample Grab

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C12-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-28-98
Sample Time:	
Sample Depth (ft):	5-7' BGS
FID Reading:	0 to 5 ppm
Sample Color:	white to lite Gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

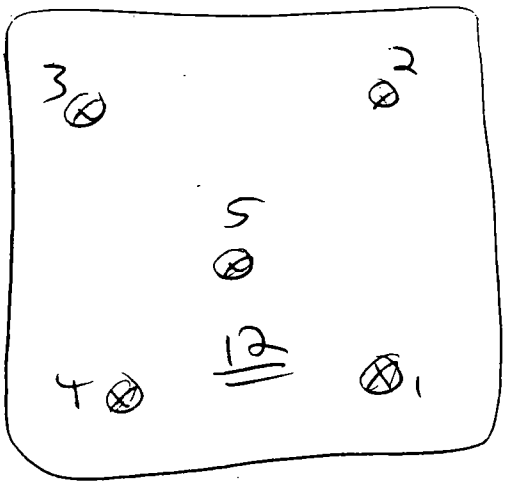
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C12-1
DATE: 7-28-98
GEOLOGIST: J Sayes
DRILLER: Hart & Hoff

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Description Symbol	Color	Material Description	USCS	Remarks	Photo Ionizing Detector (ppm)			
							Oolitic Limestone Fill			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			2.0							0			
							Sandy Silty Gray Saturated			0			
			2.0							0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C10032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C12-2
DATE: 7-28-98
GEOLOGIST: J Sayers
DRILLER: Hall & Neff

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Type, Moist, Density)	Color	Description (Include Odor, Staining, Consistency, Texture, Grain Size, Structure, Composition)	USCS*	Remarks	Photo Reading (ppm): [illegible]	[illegible]	[illegible]	[illegible]
							Oolitic Limestone, Fill			0			
			2.0				Dry, Poorly Graded,			0			
							White to Tan			0			
										0			
			1.0				Sand, Silt, Gray, Wet to Saturated			0			
							Sand, Very Fine Grain			0			
			2.0				Saturated, Gray			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TBG
DRILLING RIG: Stratoprobe
BORING NUMBER: C12-3
DATE: 7-28-98
GEOLOGIST: J Sykes
DRILLER: Hart & Mott

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Sample Description (Including Moisture Content)	Color	Material Description	USCS*	Remarks	Photo Reading (ppm)			
							Oolitic Limestone, Fill			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			10			
										5			
			1.0							10			
							Sandy Silt, Gray, wet			5			
				▽			Native Oolite, Gray, wet			5	2	15	5
				7.0									

* When rock coring, enter rock hardness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ___ No ✓ Well I.D. #: ___

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C10032
DRILLING COMPANY: TTG
DRILLING RIG: Stratoprobe
BORING NUMBER: C12-4
DATE: 7-28-98
GEOLOGIST: J Sayers
DRILLER: Hall & Mott

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Symbol (Unified System)	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm):			
							Oolitic Limestone, Fill			0			
			2.0				Dry, Poorly Graded			0			
							white to Tan			5			
										10			
			1.0							5			
							Sandy Silt Gray wet			0			
			2.0				Native Oolite, Gray wet			0	0	0	0
				7.0									

* When rock coring, enter rock underscores.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 010032
DRILLING COMPANY: TTS
DRILLING RIG: Stratoprobe
BORING NUMBER: C12-5
DATE: 7-28-98
GEOLOGIST: S Sayers
DRILLER: Hart & Moff

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Texture	Color	Primary Constituent Secondary Constituent Other Components	USCS*	Remarks	PID/FID Reading (ppm): Background	Well Screen	Drilling Area Background	Breathing Zone
							Oolitic Limestone, Fill			0			
			2.0				Dry, Poorly Graded			0			
							white to Tan			0			
							Sandy Silt, wet,			0			
			2.5				Gray			0			
										0			
			2.0				Native Oolite, Gray wet			0	0	0	0
				7.0									

* When rock coring, enter rock hardness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C13-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-27-98
Sample Time:	1420
Sample Depth (ft):	0 - 2' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

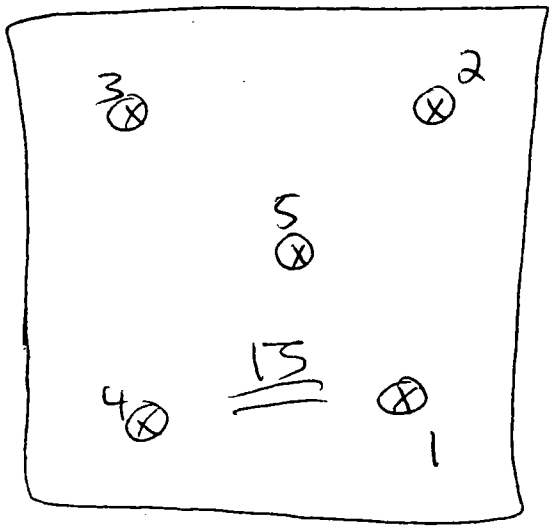
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C13-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-27-98
Sample Time:	1425
Sample Depth (ft):	2-5' BGS
FID Reading:	0 ppm
Sample Color:	white to lite Grey
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

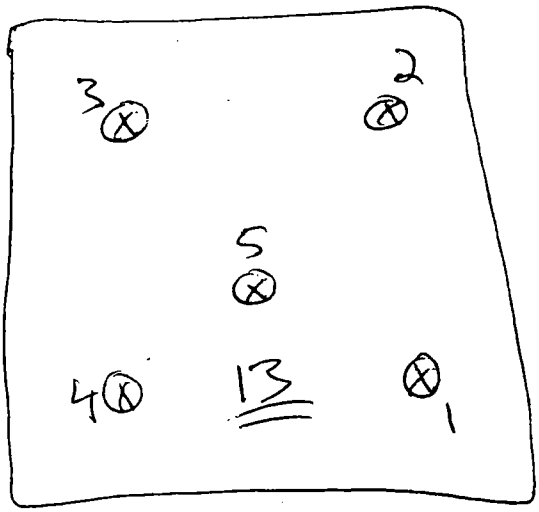
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C13-5BU, Volatile sample 1020 (Grab)

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~ Not):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~ Not):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s): [signature]

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C13-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Zone C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-27-98
Sample Time:	1430
Sample Depth (ft):	5-7' BGS
FID Reading:	0 ppm
Sample Color:	White to lite Gray
Sample Description:	Oolitic Limestone (F.1) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

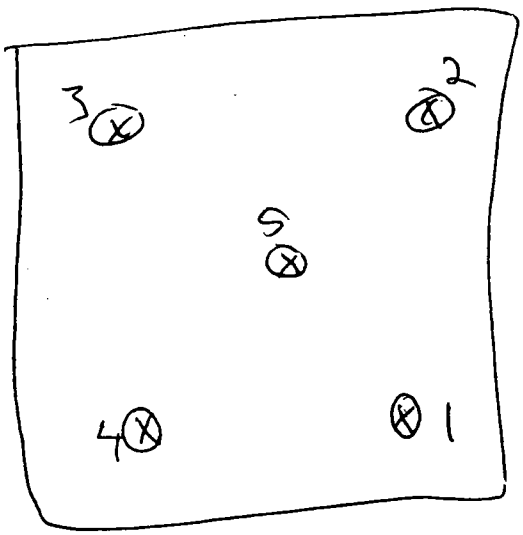
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CD082
DRILLING COMPANY: TTS
DRILLING RIG: Strataprobe
BORING NUMBER: C13-1
DATE: 7-27-98
GEOLOGIST: J Sykes
DRILLER: Matt & Hank

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Texture Structure	Color	Material Description	USCS	Remarks	Photo Reading (ppm): Background	Well Screen	Drilling Area	Breathing Zone
							Oolitic Limestone,			0			
			2.0				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			1.0							0			
				▽			Gray Sandy Silt Wet			0			
			2.0				Native Calcite, Poorly Graded Tan to Grey Wet			0	0	0	0
				7.0									

* When rock coring, enter rock thickness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: C0032
DRILLING COMPANY: TBG
DRILLING RIG: stratoprobe

BORING NUMBER: C13-2
DATE: 7-27-98
GEOLOGIST: J Sayes
DRILLER: Matt & Hart

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Inc. Texture, Moisture)	Color	Visual Description	USCS	Remarks	PID/FID Reading (ppm): Background	Drilling Area	Breathing Zone	Well Head
							Oolitic limestone Fill			0			
			2.0				Dry, Poorly Graded,			0			
							white to Tan			0			
							↓			0			
			2.0							0			
				▽			Native Oolite, Sandy			0			
			2.0				Wet, Tan to Grey			0	0	0	0
				7.0									

* When rock coring, enter rock underneath.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C13-3
DATE: 7-27-98
GEOLOGIST: J Sorrell
DRILLER: Matt Hunt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Brief Description	Color	Detailed Description	USCS*	Remarks	PID/FID Reading (ppm): Background	Drilling Area	Breathing Zone	Borehole
							Oolitic Limestone Fill			0			
			20				Dry Poorly Graded			0			
							White to Tan			0			
										0			
			10							0			
										0			
			20				Native Oolite like Gray to Dark Gray, wet			0	0	0	0
				7.0									

* When rock coring, enter rock brokenness.
** Include monitor reading at 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: C15-4
DATE: 7-22-98
GEOLOGIST: J Soares
DRILLER: Hal & Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Density Moisture	Color	Major Constituents Minor Constituents Other Characteristics	USCS*	Remarks	PID/FID Reading (ppm): Background	Hole	Bottom	Top
							Oolitic Limestone Fill			0			
			20				Dry, Poorly Graded			0			
							White to Tan			0			
										0			
			1.5							0			
										0			
			20				Native Oolitic Limestone Gray wet to Saturated			0	0	0	0
				20									

* When rock coring, enter rock underscores.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: G0032
DRILLING COMPANY: TEG
DRILLING RIG: Stetson bc
BORING NUMBER: C13-5
DATE: 7-28-98
GEOLOGIST: J Sayers
DRILLER: Hart & Mott

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Type, Density, Moisture)	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm): Background	Drilling Area			
							Oolitic Limestone (Fill)			0				
			2.0				Rock Gravel, Dry			0				
							White to Tan			0				
										0				
										0				
				▽			Native Oolite Lite			0				
			2.0				Gray to Dark Gray Moist to Wet/Saturated			0	0	0	0	
				7.0										

* When rock coring, enter rock hardness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-14-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: DMRO Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/27/99
Sample Time:	1435
Sample Depth (ft):	0 to 2
FID Reading:	0.6
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

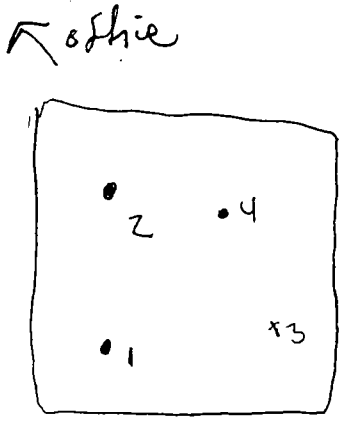
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Frozen
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: S Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-14-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: DMRO Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/27/99
Sample Time:	1440
Sample Depth (ft):	2.5
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolite Limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

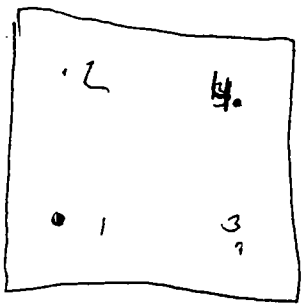
MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-14-~~4~~ 3 BV volatile sample

Observations/Notes:

Rosha



ANALYSES:

TCL VOCs (HCL ~~Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number: Encore
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

7/28/99

Sampled By: JS Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-14-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1445
Sample Depth (ft):	~~0.0~~ 5 to 7
FID Reading:	0.0
Sample Color:	White
Sample Description:	Ooliti Inside

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

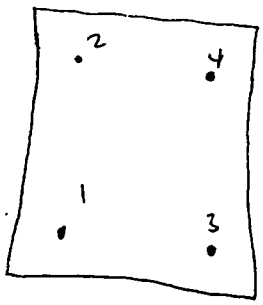
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

↖ office



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Encore
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: Signature(s):

BORING LOG

PROJECT NAME: NAS. Kwest
PROJECT NUMBER: C70034
DRILLING COMPANY: TEG
DRILLING RIG: Shakerator
BORING NUMBER: S-14-1
DATE: 7/26/98
GEOLOGIST: Sh Gulbish
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ (6" or RQD (%))	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description, Moisture, Consistency	Color	Rock Classification	USCS*	Remarks	Photo Reading (ppm): Background	Breathing Zone	Borehole	Filter Pack
					Down to white f.-c. oolitic sand w/ gravel			SW		0.0			
1345	1		15										
1			24							0.0			
	2												
	3									0.0	0.0	0.0	0.0
1348			24										
	4		22							0.0			
	5									0.0			
					grey	fine	grained sandy silt mix	SM					
1350	6		20		white	fine	grained well sorted oolitic sand			0.0			
			24										
	7												
					End Boring								
					7/26/98								

* When rock coring, enter rock brokenness.

** Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0302
DRILLING COMPANY: TtG
DRILLING RIG: Shelterpoder
BORING NUMBER: C-14-2
DATE: 7/26/98
GEOLOGIST: John Lingebach
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description	Color	Soil Classification Description	USCS	Remarks	Photo Ionizing Meter*			
					white		active sand w/gravel	SW		0.0			
1355 S-1	1		20										
			24							0.0			
	2												
					white		60	ith poorly sorted sand	SW	0.0			
	3		24										
1357 S-2			24							0.0			
	4												
										0.0			
	5												
					Tan fine grained well sorted sand				SP				
	6		20										
1400 S-3			24										
	7				← organics at base								
							End Boring						
							7/26/98						

* When rock coring, enter rock underscores.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: MB-Mylant
PROJECT NUMBER: C70052
DRILLING COMPANY: TTNS
DRILLING RIG: Strubmacher
BORING NUMBER: C-14-B
DATE: 7/26/98
GEOLOGIST: [illegible]
DRILLER: [illegible]

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Color	Soil Description (Unified Classification)	USCS	Remarks	Photo Reading (ppm)
1420					Brown to white	P.S oolitic sand w gravels	SW	Asphalt	0.0
	1		12						
S-1			24						0.0
	2								
							SW		0.0
	3								
1424			15						0.0
S-2	4		22						
									0.0 0.0 0.0 0.0
	5				White	fine grained well sorted sand	SP		
					Light Gray	fine sandy silt-marl	SM	Saturated	0.0
	6		20						
1435 S-3			24		White	oolitic limestone well sorted	SP		0.0
	7								
						End Boring			
						7/26/98			

* When rock coring, enter rock brokenness.
** Include monitor reading at 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks: C-14-A @ 0h2 1435
C-14-D @ 2h5 1440
C-14-C @ 5h7 1445

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ___ No ✓ Well I.D. #: ___

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C40 032
DRILLING COMPANY: TRC
DRILLING RIG: Simtrupder
BORING NUMBER: C-14-B4
DATE: 7/26/98
GEOLOGIST: [illegible]
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Sample Description (Name, Moisture, Consistency)	Color	Lithologic Description	USCS	Remarks	PID/FID Reading (ppm): Background			
					Black			SW	oil stain at	151			
	1		15		white	oolitic	sand w/gravel		surface				
141	52		24							00			
	2												
								SW		00			
	3				white	oolitic	sand w/gravel p.s.						
1413			16							0.0			
	5-2 4		36										
										0.0			
	5								saturated at 5				
					Gray	sand	silty-moist	SM					
	6		12		white	fine	grained well sorted sand	SP					
416	5-3		24										
	7												
							End Boring						
							7/26/98						

* When rock coring, enter rock underreams.
** Include monitor reading at 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. # ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-15-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: C Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/28/98
Sample Time:	1145
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone p.s.

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

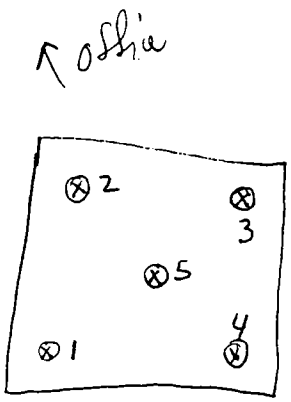
Duplicate ID: C-D4-A

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs ~~(HCL Preservative)~~:	YES [x]	NO [x]	Bottle Lot Number:	
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin ~~(HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: JW Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-15-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: BMRD Subzone:

Airbill No: 1150 Laboratory: GEL

Sample Date:	7/28/98
Sample Time:	
Sample Depth (ft):	2 to 5
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID: C-04-B

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

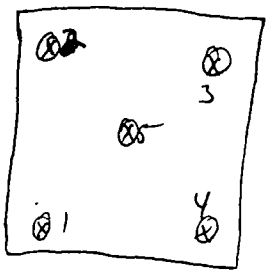
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

C-15-5BV = Volatile sample #
C-04-BV = Volatile Duplicate ID#

Observations/Notes:

↑ office



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Encore
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: JW Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C-15-E Project: NAS Key West BRAC SI Project Number: 7593

Zone: DM RO Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/28/98
Sample Time:	11 55
Sample Depth (ft):	5 to 7
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID: C-04-C

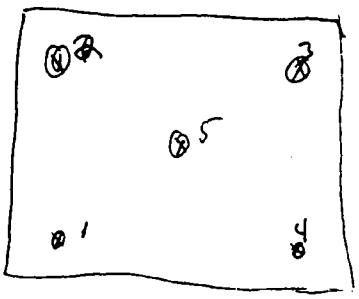
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

↑ office



ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [x]	Bottle Lot Number: Encore
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JG Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: 67.0320
DRILLING COMPANY: TTNUS
DRILLING RIG: Schramm
BORING NUMBER: C-15-1
DATE: 7/28/98
GEOLOGIST: Scott Washle
DRILLER: Falcone

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / (6" or RQD) (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description, Type, Moisture	Color	Visual Classification	USCS*	Remarks	PID/FID Reading (ppm): Background			
					Tan	white	P.S fine to coarse grained	SW	dry Asphalt	0.0			
1123	1		20				sand w/gravel						
S-1			24							1.0			
	2												
					Tan		"			0.0			
	3												
1125 S-2			12							0.0			
	4		36										
										0.0	0.0	0.0	0.0
	5												
					Gray	fine	grained sandy silt-mud		w/trace clay fine	0.0			
	6		20/24				plastic						
					Gray	fine	grained well sorted sand		w/trace silt	0.0			
	7												
									Koffie				
							End Proof 7/28/98						

* When rock coring, enter rock underscores.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Keywest
PROJECT NUMBER: 670 034
DRILLING COMPANY: TEG
DRILLING RIG: Strategwhe

BORING NUMBER: C-15-2
DATE: 7/28/98
GEOLOGIST: Johnson
DRILLER: Fedeke

Boring No. and Type of RQD	Depth (ft) or Run No.	Blows / (6" or RQD (%))	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Sampled Interval	MATERIAL DESCRIPTION: Soil Classification Description	Color		USCS	Remarks	Photo Ionizing Meter
									Asphalt	
					White to Tan		p.s f, m, c grained calcite sand w/gravel	SP		0.0
1100 S-1	1		20							
			24							0.0
	2									
					"		"			0.0
1013	3		12							
										0.0
	4		36							
										0.0 0.0 0.0 0.0
	5				Gray	fine grained calcarenite		SP		
								SP		
1119 S-3	6		24		← fine sand silt lens - marl					0.0
			24		Gray	f, m, course grained shell sand		SW		
	7									0.0
						Bad Boring				

7/28/98

* When rock coring, enter rock hardness.
** Initiate monitor reading at 5 foot intervals @ borehole. Increase reading frequency if elevated response read

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C70 03R
DRILLING COMPANY: TTCA
DRILLING RIG: Strataprobe
BORING NUMBER: C-15-3
DATE: 7/28/98
GEOLOGIST: [illegible]
DRILLER: Pedelice

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Description (Type, Texture, Moisture)	Color	Material Description (Soil, Rock, Structure)	USCS*	Remarks	Photo Reading (ppm): Background			
					white to	Tan	P.S. fine, c grained	SW		0.0			
1030	1		20				oolitic sand w/cemented gravel						
			24							0.0			
	2												
										0.0			
1032	3												
			~4		3.8					1.0			
	4		36		Grey	fine	grained well sorted oolitic sand	SP					
									Saturated	0.0			
1035	5				Grey	fine, med, and course		SW					
C-3							Shell fragment sand gravel to fine sand silt to a fine grained well sorted grey sand			0.0	0.0	0.0	0.0
	6		20		organic			SW					
			~4					SP		0.0			
	7												
							End boring						
									Roshe				
							7/28/98						

* When rock coring, enter rock classification.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Myrtle
PROJECT NUMBER: C70082
DRILLING COMPANY: TEG
DRILLING RIG: Strata probe
BORING NUMBER: C-15-4
DATE: 7/28/98
GEOLOGIST: John Gurbowski
DRILLER: Fedelia

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Brief Material Description, Including Major Constituents	Color	Physical Characteristics	USCS*	Remarks	Photo Ionizing Detector (PID) Readings (ppm)
					white MLT Tan P.S f, m, c grained			SW		0.0
1045 S-1	1		20		← wood fragment oolitic sand w/gravel					
			24							0.0
	2									
								SW		0.0
	3		12							
1047 S-2			36							0.0
	4									
										0.0
	5				← saturated large oolitic gravel					
					Gray - fine to medium sand large gravel			SW	very saturated	
1053 S-3	6		12		Black Asphalt look - Possible bedrock material					0.0
			24							
	7									0.0
					End Boring					
									Rotten	
					7/28/98					

* When rock coring, enter rock underscores.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. # ____

PROJECT NAME: WAS Mg. Unit
PROJECT NUMBER: C70032
DRILLING COMPANY: TRC
DRILLING RIG: Shakopee

BORING NUMBER: C-15-5
DATE: 7/28/98
GEOLOGIST: John Curtis
DRILLER: Eddie

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Description Classification Rock Description	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm)
					Tan	p.s.	f, m, c gravel sand w/gravel	SW		0.0
1140	1		20							
			24							0.0
	2									
										0.0
	3									
1145			27							0.0
	4		36							
					Gray	Gy	fine grained sandy silty mud	SM	wet plastic	0.0
	5									
					G					0.0
1145	6		27		& red Brick fragment					
			24		gray f, m, c sand w/gravel					1.2
	7									

7/28/98

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PARCEL E

FORMER BUILDING 36

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E1-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	12:15
Sample Depth (ft):	0 - 2' bgs
FID Reading:	0 ppm
Sample Color:	White to lite gray
Sample Description:	Oolitic limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

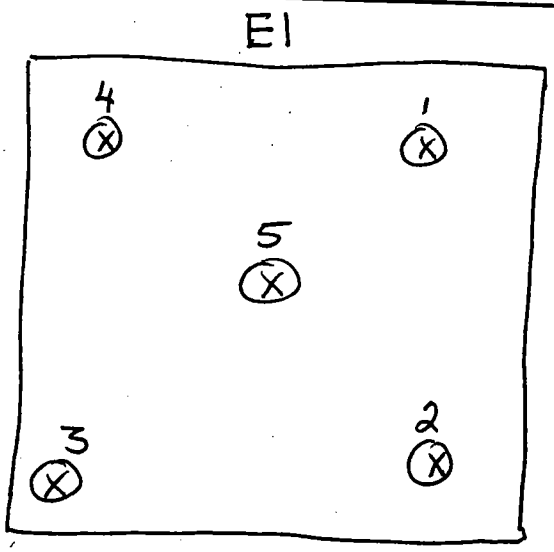
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E1-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	12:15
Sample Depth (ft):	2'-5' bgs
FID Reading:	0 to 10 ppm
Sample Color:	White to lite gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

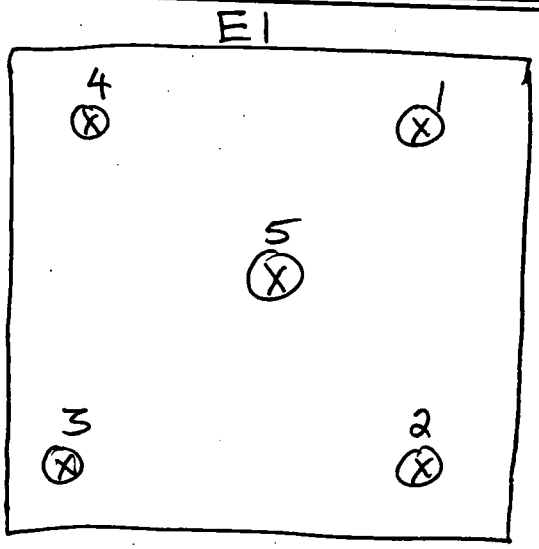
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: J. Sayers Signature(s): [signature]

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E1-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	12:15
Sample Depth (ft):	5' to 8' bgs
FID Reading:	0 ppm
Sample Color:	White to lite gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

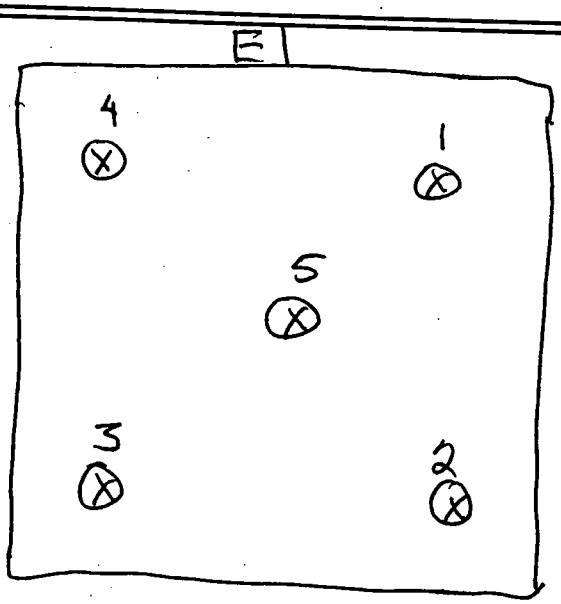
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: J Sayers Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E1-BY Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 1310 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1200
Sample Depth (ft):	6.5'
FID Reading:	0
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE (FILL) SW POORLY GRADED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

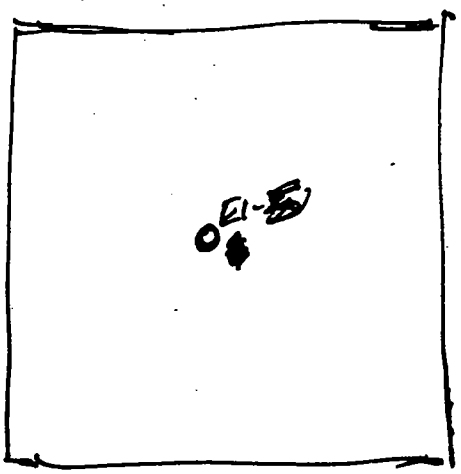
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): Earl J. Harrison

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe

BORING NUMBER: E1-1
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Top Soil Subsoil	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
A										
			2.0				Oolite, white to brown poorly sorted trace organics Org		0 ppm	
									0 ppm	
B									0 ppm	
							Oolite Brown to lite brown to white, medium to fine		0 ppm	
			3.0				striped limestone chunks			
				5			Oolite, white to lite brn		0 ppm	
C							Black silty sand Poorly sorted Oolite, white to brn		0 ppm	
							Black silty sand		0 ppm	
			3.0				Oolite well sorted Medium grain		0 ppm	
				8						
				10						

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TTG
DRILLING RIG: Strataprobe

BORING NUMBER: E1-2
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length*	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification System Used: Unified / Other	Color	MATERIAL DESCRIPTION	USCS**	Remarks	PID/FID Reading (ppm)
A										
			1.5'				Sand, oolite, white		NA	
B							to gray fine to		0 ppm	
			2.0				medium Dry		10 ppm	
	5						↓		0 ppm	
				5			white oolite gray		0 ppm	
C			2.0				Black sand/silt Dry		0 ppm	
				7			↓			
							white oolite Poorly sorted			
	10									

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: E1-3
DATE: 7-21
GEOLOGIST: J Sayers
DRILLER:

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Density	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)
A								Sand oolite - white		0ppm	
				2.0				do Grey fine to		0ppm	
								medium dry		0ppm	
B								Black-Red Clay 2" thick			
				3.0	5			Oolite poorly sorted		0ppm	
								fine to medium		0ppm	
C					7			Oolite Poorly sorted		0ppm	
								Black fine silt band 2"		0ppm	
				3.0				Oolite poorly sorted		0ppm	
					8			medium grain white		0ppm	
					10						

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: E1-4
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Chart / Rock Classification	Color	General Classification	USCS*	Remarks	PID/FID Reading (ppm)
A							Oolite, sandy,		0 ppm	
			2.0				Poorly sorted Dry		0 ppm	
B							Oolite limestone,		0 ppm	
							Poorly sorted white		0 ppm	
			3.0				lite brown Dry		0 ppm	
C				5			Poorly sorted Oolite brown to white		0 ppm	
							Black Silty sand saturated		0 ppm	
				8			Oolite well sorted medium grained white		0 ppm	
				10						

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals of borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: E1-5
DATE: 7-21
GEOLOGIST: SB
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Dry, Moist, Saturated	Color	MATERIAL DESCRIPTION (Unified Classification)	USCS*	Remarks	PID/FID Reading (ppm) Top of Sample	Middle of Sample	Bottom of Sample	Top of Hole
A							Oolite limestone frags		0 ppm				
			2.0				Poorly sorted Brx		0 ppm				
B							Oolite limestone frags		0 ppm				
							Poorly sorted white		0 ppm				
			3.0				to lite brown		0 ppm				
				5					0 ppm				
C							Black silty sand, saturated		0 ppm				
			5.0				Oolite well sorted, Med grain white		0 ppm				
				8									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Bldg 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	15:30
Sample Depth (ft):	0-2'
FID Reading:	0 to 48 ppm
Sample Color:	White to lite gray
Sample Description:	Oolitic limestone (fill) SW poorly graded, trace organics

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

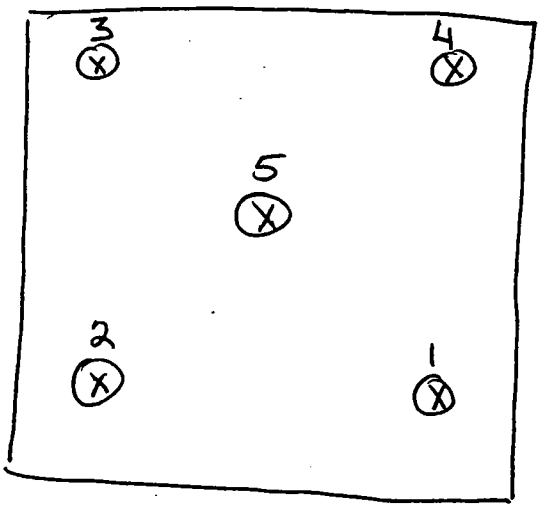
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J.V.A. Signature(s): J.V.A.

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E- Former Building 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	15:30
Sample Depth (ft):	2'-5'
FID Reading:	0-85 ppm
Sample Color:	white to Light gray
Sample Description:	Oolitic Limestone (fill) SW poorly graded, trace organics

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

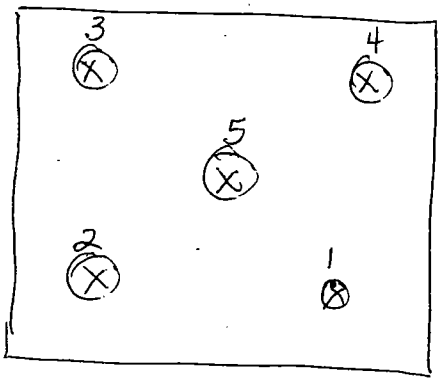
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	15:30
Sample Depth (ft):	5' - 8'
FID Reading:	0 to 140 ppm
Sample Color:	white to Light gray
Sample Description:	Oolitic Limestone (Fill) SW poorly graded, trace organics

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

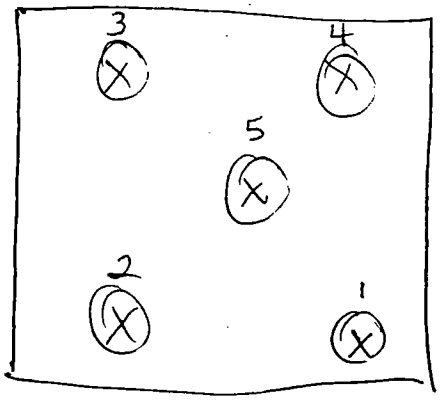
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - FORMER BUILDING 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1205
Sample Depth (ft):	6.75'
FID Reading:	0
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE (FILL) SW POORLY GRADED, TRACE ORGANICS

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

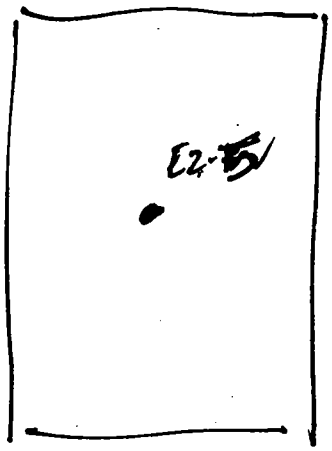
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): Emily J. Harrison

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strobprobe

BORING NUMBER: E2-1
DATE: 7-21-98
GEOLOGIST: JOS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Rock Density Consistency Hardness Compactness	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)
A							Oolite limestone / trace lt brown to white Poorly Sorted OB		6 ppm	
									0 ppm	
B									18 ppm	
							lt. Gray Poorly sorted		0 ppm	
				5					1 ppm	
C							lt Gray Dark Gray Black silty sand saturated Poorly sorted		0 ppm	
							Oolite well sorted		0 ppm	
							Moist to wet, white		0 ppm	
				8						
				10						

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals in borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: E2-2
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Name, Moisture, Consistency, Density	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
A											
				2.0				Oolitic Limestone (fress fibrous to white Poorly sorted dry		43 ppm	
										48 ppm	
B								Dark grey Dry		85 ppm	
								Red to Brown (Fill)		41 ppm	
				2.5				Dark grey Dry		—	
					▽			Oolite Gray to white Black Silty sand saturated Poorly sorted		23 ppm	
C								Oolite well sorted		34 ppm	
				3.0				Moist to wet white		56 ppm	
					8						

* When rock coring, enter rock hardness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: E2-3
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Color	USCS*	Remarks	PID/FID Reading (ppm)
A								
			2.0		Oolite limestone frags		3 ppm	
					Grey to white brn		36 ppm	
B							30 21 ppm	
							6 ppm	
			3.0		Oolite Black/Brown		64 ppm	
C				5	Oolite White poorly sorted		18 ppm	
				8	Black Sandy Silt Saturated		140 ppm	
			3.0		Oolite Brown/White well sorted		83 ppm	
				8				
				10				

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: E2-4
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	Soil Classification Conditions Rock Conditions	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
A							Oolite limestone frags		30 ppm	
			2.0				Gry brown to red		10 ppm	
							↓		18 ppm	
B							Oolite limestone		10 ppm	
			2.0				Gray to white		—	
				5 ▽			Slight white Saturated black sandy silt		70 ppm	
C							Saturated		50 ppm	
							Oolite well to poorly sorted		90 ppm	
				8			white			

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe

BORING NUMBER: E2-5
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	* Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Or Rock Classification	Color	Remarks: Soil Classification Or Rock Classification	USCS	Remarks	PID/FID Reading (ppm)
A					Oolite limestone/trace		Gray to lite Gray Dry		0 ppm	
					Oolite, rock trace		Red to Brown Dry		0 ppm	
B					Gray to Brown to white		well Sorted, Dry		0 ppm	
					white, Dry				0 ppm	
				5					0 ppm	
C					Black silt and Saturated		Oolite well sorted		0 ppm	
					white moist to wet				0 ppm	
				8					0 ppm	
				10						

* When rock coring, enter rock lithologies.

** Include monitor reading on 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Former Bld 136 Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/21/98
Sample Time:	1650
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	LT Grey
Sample Description:	Oolitic limestone sw/sp poorly sorted to well sorted fine and medium gr

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Wo the New Location:

poorly sorted to well sorted fine & medium granuals

Observations/Notes:

INNER MOLE

ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals ~~+ Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bravo Area 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/21/98
Sample Time:	1655
Sample Depth (ft):	2' to 5'
FID Reading:	0.0
Sample Color:	LT Grey to white
Sample Description:	Oolitic limestone poorly sorted bottom to base

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

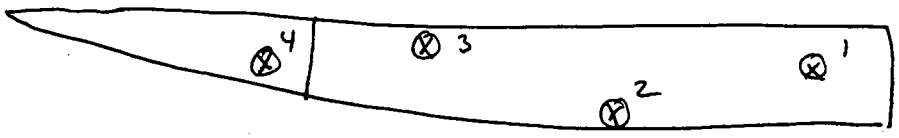
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Trench Note



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~ Zn:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3 - C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Former Bld 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date: 7/21/98

Sample Time: 1657

Sample Depth (ft): 5' to 7' - C

FID Reading: 0.0

Sample Color: Bright White

Sample Description: Oolitic Limestone partly lithofied

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

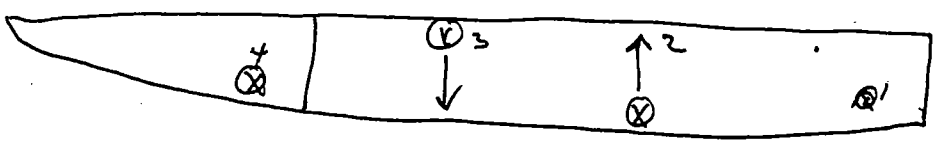
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

INNER MELT



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~ (Sn):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

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EJH E3 . **SURFACE SOIL SAMPLE LOG SHEET**

Sample Name: [redacted]-BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: E- FORMER BUILDING 136 Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	EJH ~~[illegible]~~ 1510
Sample Depth (ft)	EJH ~~[illegible]~~ 8'
FID Reading:	0
Sample Color:	BRIGHT WHITE
Sample Description:	OOLITIC LIMESTONE PARTLY lithified

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

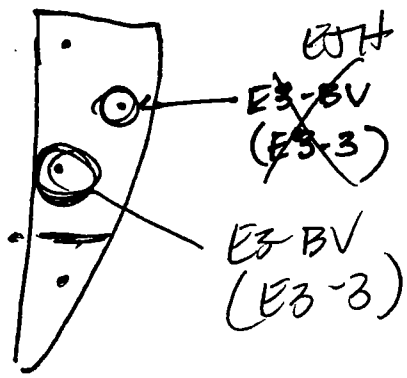
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): Earl J. Harrison

PROJECT NAME: NAS Rejoneda
PROJECT NUMBER: C-70 037
DRILLING COMPANY: TEG
DRILLING RIG: TEG Strataprobe

BORING NUMBER: E3-1
DATE: 7/21/98
GEOLOGIST: John G Webster
DRILLER: Matt Steen

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Rock Hardness	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm): Background	Breathing Zone	Borehole	Top of Casing
			12			lt Gray	sand oolite limestone	(SW)					
1547 S-1	1		12		-6		white oolitic limestone better sorting	(SP)		0.0			
			12										
	2		12							0.0			
						SW	poorly sorted oolitic sand		some rock to				
1550 S-2	3		12				coarse poorly lithified		w/trace shell				
	4		36										
	5												
						lt Gray	at base	sat.					
							organic black oolitic limestone						
1555	6		20			Bright	white oolitic limestone		saturated				
			24										
	7												

7/21/98

* When rock coring, enter rock brokenness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E3-A @ 1658 0 to 7
E3-B @ 1655 2 to 5
E3-C @ 1657 1 to 7

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Keyport
PROJECT NUMBER: CTO 036
DRILLING COMPANY: TEC
DRILLING RIG: Stratiprobe

BORING NUMBER: B3-2
DATE: 7/21/98
GEOLOGIST: John G. Wolosh Sr
DRILLER: Matt Steer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Color	Material Description	USCS	Remarks	PID/FID Reading (ppm)
						LT Gray oolitic sand poorly sorted fine to medium			
S1 1604	1		12			white grained " w/some lithification			0.0
			24						
	2					Better sorting w/depth			0.0
						Sand white oolitic limestone fine grained (SP)			
	3		12						0.0
S2 1610									
	4								0.0
			36						
	5								0.0
						Sand oolitic limestone uniform			
S3	6		24			white			0.0
						Saturated at 6.0'			
	7								0.0
			37						
	8								0.0
	9								
						Driller mis calculated and over drillers			
						Boring to 8 feet.			

Bad Boring
7/21/98

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TECo
DRILLING RIG: Stratoprobe
BORING NUMBER: E3-3
DATE: 7/21/98
GEOLOGIST: John Webster
DRILLER: Matt Steer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moist Density Structure	Color	Lithologic Description	USCS*	Remarks	PID/FID Reading (ppm)
					Sand	SW	Light grey to white poorly sorted to better sorted oolitic limestone some lithoherd irregular grains			0.0
1625 S-1	1		24							
			24							
	2					SP/SW				0.0
					Sand	SP	oolitic limestone			
	3									0.0
1627 S-2			16							
	4									0.0
			36							
	5				Dark grey organic in oolitic limestone matrix saturated				6" at base	0.0
1630 S-3	6		24		Bright white oolitic limestone 2" lithohird portion irregular grained w trace organic at top					0.0
	7									0.0
					End Boring					

7/21/98

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E3-A @ 1650 0 to 2
E3-B @ 1655 2 to 5
E3-C @ 1657 0 to 2

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Keywest
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TTN
DRILLING RIG: Shutabrake

BORING NUMBER: B3-4
DATE: 7/21/98
GEOLOGIST: Ben Winchester
DRILLER: Matt Steer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Description Consistency Moist Moisture Content	Color	Soil Classification	USCS*	Remarks	PID/FID Reading (ppm)
					Sand gray	SW	poorly sorted oolitic limestone some			
1640 5-1	1		24				lithoclast			6.0
			24							
	2									0.0
					white					
					Sandy gray	SW	poorly sorted oolitic limestone / large			
	3		12				well rounded quartz gravel			
1643										0.0
	4		36							
										0.0
	5									
							at base uniform oolitic limestone			0.0
1645	6		10							
			24						saturated	0.0
	7				organics		each 2" in oolitic matrix			
					Bright white oolitic limestone uniform - native					0.0

* When rock coring, enter rock hardness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E4-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Former Old 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/21/98
Sample Time:	1510
Sample Depth (ft):	0 to 2
FID Reading:	3.3 ppm 0.0 ppm
Sample Color:	~~Olive~~ LT Gray to White
Sample Description:	Ostitia limestone poorly sorted to better sorted

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

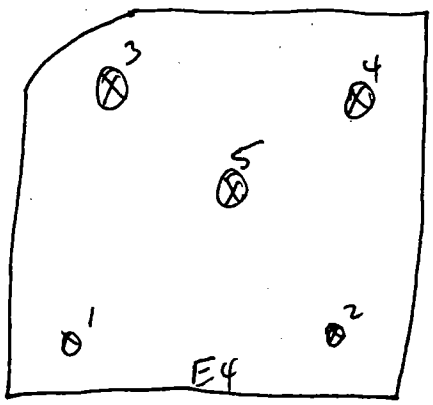
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E4-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Farmer Dr 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date: 7/21/98

Sample Time: 1515

Sample Depth (ft): 2 to 5

FID Reading: 0.0 - 3.3 ppm

Sample Color: White to dark gray to gray

Sample Description: Oolitic limestone w/ sandy silt lens - plastic

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

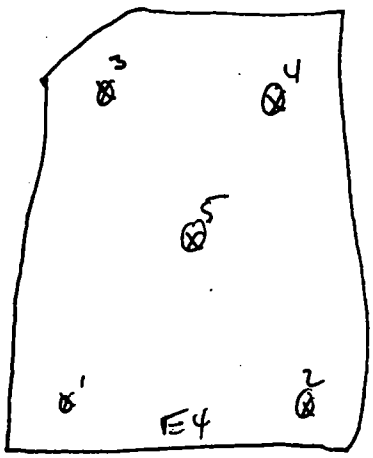
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E4-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Former Old 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/21/98
Sample Time:	1520
Sample Depth (ft):	5' to 7'
FID Reading:	3.3 Highest
Sample Color:	Bright White to grey
Sample Description:	Oolitic limestone w gray silty clay lens

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

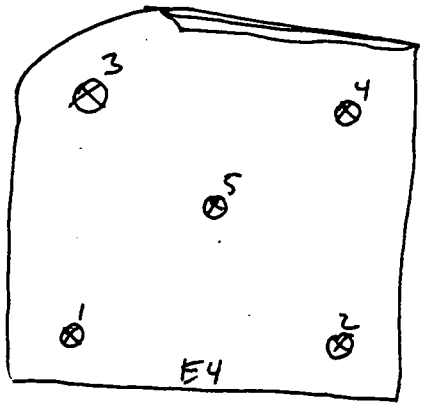
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E4 - BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - FORMER BUILDING Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1230
Sample Depth (ft):	8'
FID Reading:	~~[illegible]~~ 634 0
Sample Color:	BRIGHT WHITE TO GREY
Sample Description:	OOLITIC LIMESTONE W/GRAY SILTY CLAY LENS

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

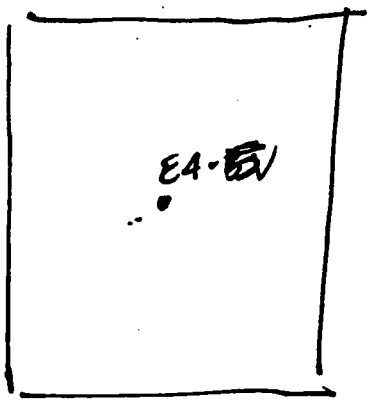
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

Duplicate ID:

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. Harrison Signature(s): Emily J. Harrison

BORING LOG

PROJECT NAME: NAS - Key West
PROJECT NUMBER: CTO-03
DRILLING COMPANY: TE Co
DRILLING RIG: Stratigraph

BORING NUMBER: E4-1
DATE: 7/21/98
GEOLOGIST: John Cowlishaw
DRILLER: Matt Steer / Hugh Greene

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moisture Odor	Color	Lithologic Description	USCS*	Remarks	PID/FID Reading (ppm)
1436					Sand	SW	poorly sorted fine med coarse grained			
	1		12		Light gray		oolitic matrix			0.0 0.0 0.0 0.0
			1.6		white		soft			
	2		24		organic lens					0.0
1438	3		24				"			0.0
	4		36							0.6
			4.2		Gray	SP	oolitic limestone trace gravel 1"			0.0
	5						trace medium grains		pure oolite	
1440							← moist to wet			
	6									0.0
			6.7		white		white shell fragment in oolitic matrix			0.0
	7						drill refusal at 6.5' bgs			
							Saturated			
							End boring			

* When rock coring, enter rock lithologies.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E4-A @ 1510 0.0 2
E4-D @ 1515 2.0 5'
E4-C @ 1520 5.0 7'

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: C70 002
DRILLING COMPANY: TEG
DRILLING RIG: Geotech probe

BORING NUMBER: EW-2
DATE: 7/21/98
GEOLOGIST: [illegible]
DRILLER: Matt Steer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Sample Consistency or Rock Hardness	Color	Soil Description or Rock Description	USCS*	Remarks	PID/FID Reading (ppm)
			12		Sand	Sw	light Gray brownish poorly sorted sand			
1420	1		.6		Red	Brick	(fill interbedded w/p.s. light gray sand			6.0
			12							
	2		12							0.0
					2.5	grey	sandy silt (SM) slightly plastic moist to wet			0.0
	3									
1424			24				wet and plastic trace clay			
	4									0.0
			36							
	5				5.8'		← saturated			0.0
					Sand Lt gray	Sw	poorly sorted sand coarse and gravel trace to abundant oolites trace shells			
1427	6									
					Trace organics					
	7						white Oolitic limestone uniform wet			

7/21/98

* When rock coring, enter rock brokenness.
** Include monitor reading on 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratabrake

BORING NUMBER: B4-3
DATE: 7/21/98
GEOLOGIST: Tony Gaworski
DRILLER: Matt Steer

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency, Moisture, Odor, Stratigraphy	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)
1400 S-1	1		20		Sand	SW	poorly sorted oolitic limestone fine and medium grained			0.0
			24		well sorted oolite being 2.					
	2				Sand	SW	medium to fine oolitic limestone			0.0
	3									0.0
1855 S-2			20		trace organics					
	4				moist here					0.0
			36							
	5									0.0
S-3										
	6		12							0.0
14			24				moist to wet at 6.0' bgs			
	7				oolitic limestone lithified					0.0
							End Boring			

7/21/98

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Meyrs
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TtNUS
DRILLING RIG: Shelby probe

BORING NUMBER: F 4-4
DATE: 7/21/94
GEOLOGIST: Johnson
DRILLER: Matt Steeves

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Description Consistency Moist Density Structure	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Cap. Bkgd. Bore. Bkgd. Bore. Bkgd. Bore. Bkgd. Bore.
1400			12		Sand	SW	Oolitic sand fine medium and course grained			0.0 0.0 0.0 0.
	1		12				poorly sorted some cementation w/shell			
			12				fragments			
	2		12							0.0
1405	3		30		2.5	gray	fine sandy silt (wet) (SM)		w/trace clay	0.0
	4		36				wet and plastic			0.0
					4.7					
	5				Sand	SP	Oolitic sand uniform w/trace shell slight cementation			0.0
1410					"	SP	Oolitic sand uniform w/trace cementation			0.0
	6									
	7									
							End Boring			
							7/21/94			

* When rock coring, enter rock brokenness.
** Include monitor reading on 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

PROJECT NAME: NAS Key West
PROJECT NUMBER: C70 036
DRILLING COMPANY: TEG
DRILLING RIG: Stanley proper

BORING NUMBER: EY-5
DATE: 7/21/99
GEOLOGIST: John C. Webster PE
DRILLER: Matt Shaw

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Density Consistency Bar Rock Hardness	Color	Material Classification	USCS	Remarks	PID/FID Reading (ppm)
1502					Sand	SW	poorly sorted fine and medium grained oolitic			0.0
8:4	1		20		Lt Gray	Sand				
			24				white oolitic sand some lithified oolitic gravel trace organics w/ trace shell			0.2
	2									
					Sand	SP	very fine oolitic sand w/ trace silt			0.0
1502	3						some bioturbation trace organics			
1508			16							
	4									0.0
			36							
	5									0.0
					5'					
1508					any	Sand silt	very plastic and wet			0.6
	6		20							
8:9			24"							
	7									0.3
					6.7'	white oolitic limestone				

7/21/99

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: EY-A @ 1510 0 to 2'
EY-B @ 1515 2 to 5'
EY-C @ 1520 5 to 7'

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E5-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Former Bld 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/21/99
Sample Time:	1210
Sample Depth (ft):	0 to 2 – A
FID Reading:	0.0
Sample Color:	white to Light grey
Sample Description:	Oolitic limestone fill (SW) poorly graded w/trace organics

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

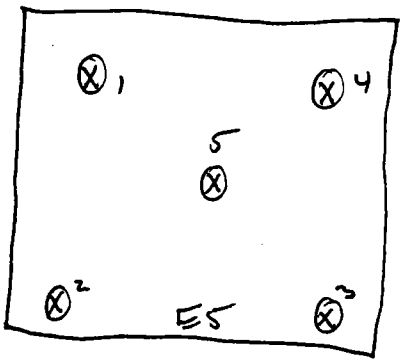
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

INNER MOLE PIER



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
~~TAL Metals + Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	Bottle Lot Number:

8 RCRA

Sampled By: JW Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E5-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Former Bld 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/21/99
Sample Time:	1220
Sample Depth (ft):	2 to 5 – B
FID Reading:	0.0
Sample Color:	white to a greyish white
Sample Description:	Oolitic lime stone poorly sorted (SW)

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

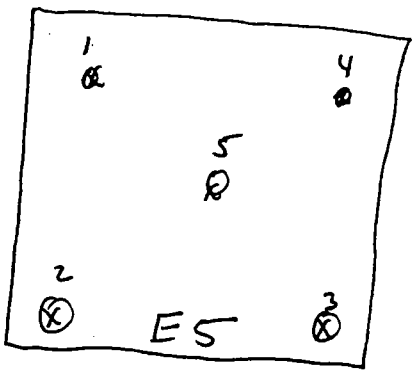
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes: Inner Nest



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
~~TAL Metals + Tin (HNO3 Preservative):~~ TAL Metals	YES [x]	NO [ ]	Bottle Lot Number:

8 RCRA

Sampled By: JW Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: ES-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Former Bld 136 Subzone:

Airbill No:: Laboratory: GEL

Sample Date: 7/21/98

Sample Time: 1225

Sample Depth (ft): 5 to 7

FID Reading: 0.0

Sample Color: Bright White

Sample Description: Oolitic lime stone - partly cemented

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

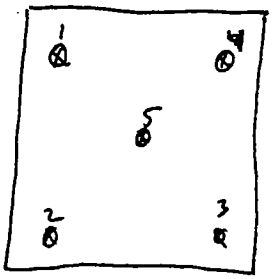
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Inner Note



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + ~~Tin (HNO3 Preservative)~~ (Ti):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JW Signature(s):

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ES-BV SURFACE SOIL SAMPLE LOG SHEET

Sample Name: ~~[illegible]~~ EJH

Project: NAS Key West BRAC SI

Project Number: 7593

Zone: E - Former Building 136

Subzone:

Airbill No:

Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1420
Sample Depth (ft):	8'
FID Reading:	0
Sample Color:	LIGHT GRAY ~~[illegible]~~
Sample Description:	OOLITIC LIMESTONE - PARTLY CEMENTED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

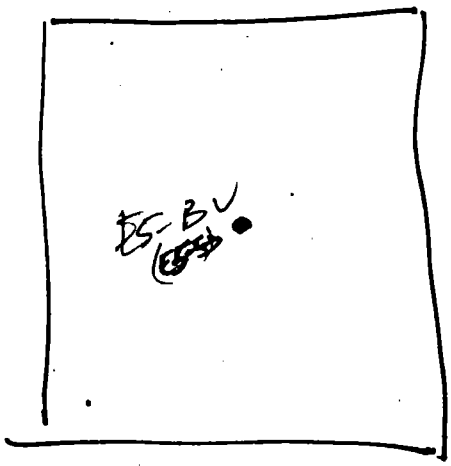
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): Emily J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E - DIV Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 136 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/22/9
Sample Time:	1445
Sample Depth (ft):	81
FID Reading:	0
Sample Color:	LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE - PARTLY CEMENTED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

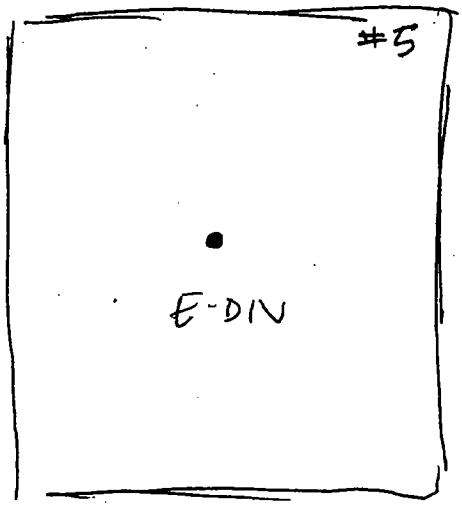
Duplicate ID: DUP FOR ES-BV

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): E J Harrison

BORING LOG

PROJECT NAME: NAS Keywest
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEC
DRILLING RIG: Strata Probe

BORING NUMBER: ES-1
DATE: 7/21/98
GEOLOGIST: John C Webster
DRILLER: Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval ✓ ✓	MATERIAL DESCRIPTION: Soil Classification Component / Depth / Symbol	Color	Rock Classification	USCS*	Remarks	PID/FID Reading (ppm)
1125			12		Sand	white to greyish white	oolitic limestone some cementation (SW) poorly sorted trace organic roots		fill	
	1		12							0.0
			12							
	2		12							0.0
							white oolite limestone poorly sorted (SW)			
	3		10							0.0
1130									low recovery	
	4								mechanical drill	0.0
			36							
	5									0.0
						light gray	oolite limestone poorly sorted trace wet at base. Not representative of interval (SW)			
1130	6		6							0.0
	7		21							
			12				← Blocky crystalline shell fragment.			0.0
1135	8					light gray	oolitic limestone with cement.			
			24			white	saturated over compacted liner			0.0
	9			8.5'		grey white	shell oolite limestone ← uniform oolite			0.0
	10						End boring			

* When rock coring, enter rock brokenness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: ES-A @ 1210 0 to 2
ES-B @ 1220 2 to 5
ES-C @ 1225 5 to 7

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Berkeley
PROJECT NUMBER: CTO 038
DRILLING COMPANY: TRA
DRILLING RIG: Stratoprobe

BORING NUMBER: ES-2
DATE: 7/21/98
GEOLOGIST: [illegible]
DRILLER: Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Saturated	Color	Lithologic Description	USCS*	Remarks	PID/FID Reading (ppm)
					Sand	Gray to Grey	(SW) poorly sorted oolitic limestone with slight cementation w/ some gravel reaction to concrete sand, trace shell fragments trace Dolo			
S-1 1144	1		24							0.1
			24							
	2									0.0
	3		12							0.0
1150	4									0.0
			36		4.5 4.8		← grey silty clay lense 30			
	5									0.0
1155	6		12							0.0
			24				Saturated			
	7									0.0
							← Dark Brown organic material 2" thick			
	8									
	9						7/21/98			
							Boring Fill			

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS - Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strata Probe

BORING NUMBER: ES-3
DATE: 7/21/97
GEOLOGIST: John G. Webb
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Density	Color	MATERIAL DESCRIPTION (Material Classification)	USCS*	Remarks	PID/FID Reading (ppm)
									fill	
S-1			2			LT white	oolitic limestone crushed			
1050	1					LT Tan	poorly sorted carbonate sand some lithified oolite gravels brick fill			0.0
	2		24			white	oolitic sand some cementation			0.0
S-2			12							
	3		12							
1055			12							
	4		12				wet oolite sand w trace silt medium stiff ← Saturated			0.0
			12							
	5		12							
S-3										0.0
	6					white	oolitic limestone wet trace silt to very fine sand well sorted			0.0
	7									0.0
							End Boring			

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No X Well I.D. #:

BORING LOG

PROJECT NAME: NAS - Keywest
PROJECT NUMBER: CTO 022
DRILLING COMPANY: TTGA
DRILLING RIG: Strata probe
BORING NUMBER: ES-4
DATE: 7/21/98
GEOLOGIST: John Gurdesh
DRILLER: Matt

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length (in)	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Density	Color	Lithologic Description	USCS*	Remarks	PID/FID Reading (ppm)
S-1			12		sand	white	oolitic limestone poorly sorted GW/some			
	1		12				cementation (SW) better sorted at base			0.0
1105			12				shift			
	2		12							0.1
			12							
	3		12							
1105 S-2			12							
	4		12			LT Tan	dark gray increase silt moist			
			12							
	5		12						← saturation	
			6				white oolitic limestone wet (SP)			
S-3	6		12							
1115			6							
	7		12							

7/21/98

* When rock coring, enter rock hardness.

** Include monitor reading in 5 foot intervals of borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TRC
DRILLING RIG: Strataprobe

BORING NUMBER: E5-5
DATE: 7/21/98
GEOLOGIST: John E Urbanko
DRILLER: Matt Shier

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Sand, Silt, Clay, Gravel	Color	Comments	USCS*	Remarks	PID/FID Reading (ppm)
S-1					Sand	(SU)	poorly sorted carbonate sand oolitic			
1200	1		24		Slight		limestone fine medium and course grained			0.0 0.0 0.0 0.0
			24		Grey to whitish		trace gravel			
	2									0.0
					Sand	greyish to white oolitic sand	trace silt to very fine sand			
1203	3		24							0.0
S-2					3.2	white oolitic limestone				
	4		36							0.0
	5									0.0
					Sand	white oolitic sand limestone uniform	moist (SP)			
1217 S-3	6		8							0.0 0.0 0.0 0.0
			24							
	7									0.0
	8									

End Boring
7/21/98

* When rock coring, enter rock breakaways.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E5-A 1210 0 to 2
E5-B 1220 2 to 5
E5-C 1225 5 to 7

Drilling Area Background (ppm):

Converted to Well: Yes ____ No X Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E6-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E- Former Building 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7.21.98
Sample Time:	1645
Sample Depth (ft):	0 - 2' bgs
FID Reading:	0 to 28 ppm
Sample Color:	White to lite grey
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

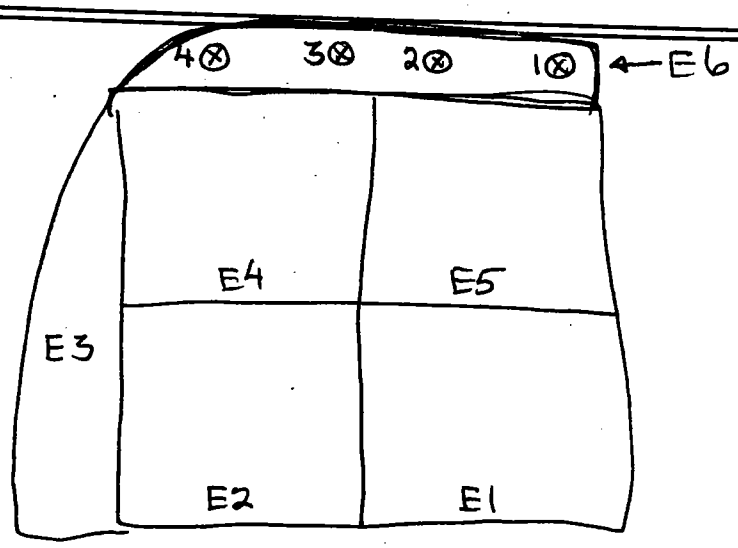
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: I Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E6-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E- Former Building 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	1650
Sample Depth (ft):	2' - 5' bgs
FID Reading:	0 to 26 ppm
Sample Color:	White to lite gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

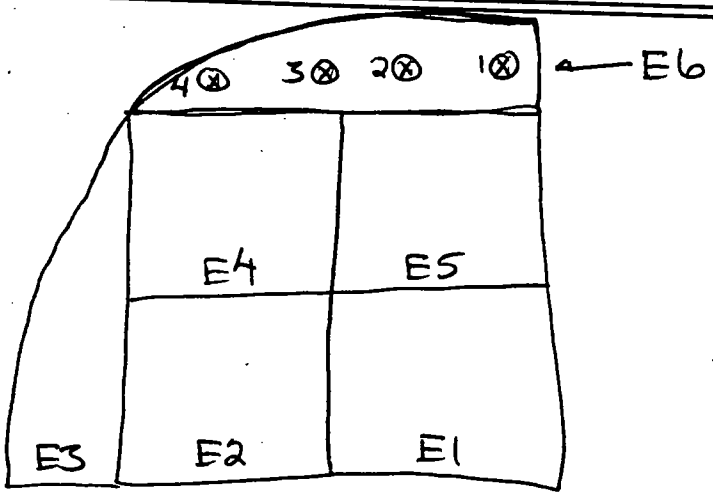
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E6-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - Former Building 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7-21-98
Sample Time:	1655
Sample Depth (ft):	5' - 8' bgs
FID Reading:	0 ppm
Sample Color:	White to lite gray
Sample Description:	Oolitic Limestone (Fill) SW Poorly Graded

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

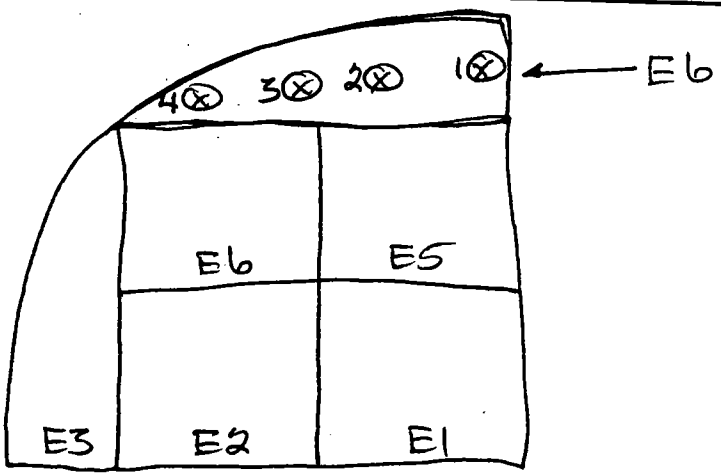
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [x] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: J. Sayers Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E6-BV Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - FORMER BUILDING 136 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/20/98
Sample Time:	1500
Sample Depth (ft):	0.5'
FID Reading:	0
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	OOLITIC LIMESTONE (FILL) SW POORLY GRADED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

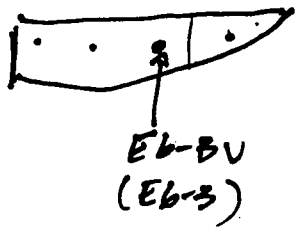
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): Eugene Harrison

BORING LOG

PROJECT NAME: NAS. Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: E6-1
DATE: 7-21-98
GEOLOGIST: J Sayers
DRILLER:

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened (Interval)	MATERIAL DESCRIPTION: Soil Classification Components (Sand, Silt, Clay, Gravel, Cobbles, Boulders)	Color	Material Characteristics	USCS*	Remarks	PID/FID Reading (ppm): Breathing Zone	Borehole Mouth	Borehole Bottom	Borehole Max
A								Oolite - limestone		4 ppm				
				2.0				Poorly sorted		8 ppm				
B								Tan to white, Prx		1 ppm				
										1 ppm				
				2.0						6 ppm				
C								Tan to white		0 ppm				
								White, saturated		0 ppm				
				3.0				Moist		0 ppm				
					8									

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Stratoprobe
BORING NUMBER: E6-2
DATE: 7-21-98
GEOLOGIST: SVS
DRILLER:

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Density	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)
A											
				2.0				Oolite limestone		0 ppm	
B								Poorly sorted Tan to		5 ppm	
								White Dry		0 ppm	
				1.5						0 ppm	
C								Tan		0 ppm	
					▽			Tan to Brown White		0 ppm	
				2.5				White Saturated		0 ppm	
					8					0 ppm	

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER:
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: E6-3
DATE: 7-21-98
GEOLOGIST:
DRILLER: JVS

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification, Consistency, Moisture, Comments	Color	Description	USCS*	Remarks	PID/FID Reading (ppm)
A								Oolite limestone frags		5 ppm	
				2.0				White to Tan, Dry		1 ppm	
B								Poorly sorted, Dry		0 ppm	
								↓		0 ppm	
				2.5						0 ppm	
C								Gray to Tan		0 ppm	
					▽			White, saturated		0 ppm	
				1.5				↓		0 ppm	
					8						

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: TEG
DRILLING RIG: Strataprobe
BORING NUMBER: E6-4
DATE: 7-21-98
GEOLOGIST: JVS
DRILLER:

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Color Chart Page No.	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm) Sample Bag	Headspace Bag	Background Bag	Background Air
A							Oolite - limestone		0 ppm				
			2.0				Poorly sorted white		28 ppm				
B							white to Tan		3 ppm				
									10 ppm				
			3.0						26 ppm				
C				▽			Poorly sorted Grey to brown to white		0 ppm				
							white, fair sorted		0 ppm				
			2.0	8					0 ppm				

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ✓ Well I.D. #:

PARCEL E

TRUMAN ANNEX BUILDINGS 102, 103, AND 104

SURFACE AND SUBSURFACE SOIL

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-07-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1110
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	~~Dark~~ LT Tan
Sample Description:	Oolitic Limestone p.s. gravelly cemented oolids

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

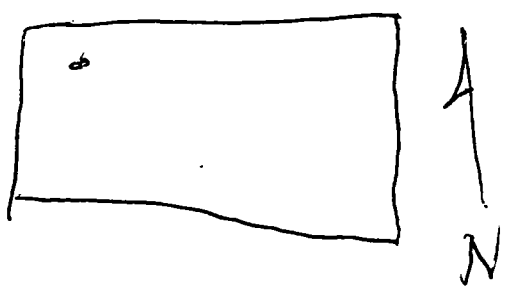
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Collected sample using hand auger due to possible utilities.

Observations/Notes:

BLDG 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~)	YES [✓]	NO [ ]	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [✓]	NO [ ]	

Sampled By: EW Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-07B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1130
Sample Depth (ft):	~~7' to 9'~~ 3 to 6'
FID Reading:	~~40.0~~ 50.
Sample Color:	White to gray
Sample Description:	Oolitic limestone sand w/ trace silt

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

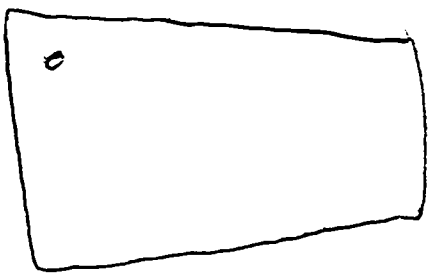
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Petroleum odor - heavy vot. hilite

Observations/Notes:

BLDG 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~ Pb/N):	YES [x]	NO [ ]	ENCORE
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals ~~+ Tin (HNO3 Preservative)~~ Pb:	YES [ ]	NO [ ]	

Sampled By: JO Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-07-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No:: Laboratory: GEL

Sample Date:	7/22/91
Sample Time:	1145
Sample Depth (ft):	7' to 9'
FID Reading:	50
Sample Color:	White
Sample Description:	Oolitic limestone - cemented

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

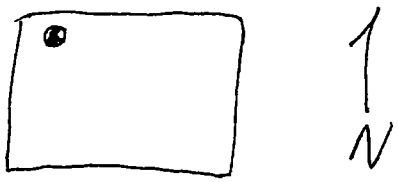
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Petroleum odor

Observations/Notes:

BLDG 102



N

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Encore
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: ~~TECO~~ Percision
DRILLING RIG: DPT

BORING NUMBER: E03-SS-07
DATE: 7/22/98
GEOLOGIST: John G Webster
DRILLER: Bob

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification Consistency Moist Structure Geologic Origin	Color	Lithologic Description	USCS*	Remarks	PID/FID Reading (ppm): Headspace	Borehole	Background	Drilling Area
									Concrete 8"				
	1				Sand	LT Tan	oolitic limestone p.s.		w/ cemented gravelly oolitis	0.0	0.0	0.0	0.0
1110									collect via open surface hole				
	2		See recovery							0.0			
	3												
	4				Sand	SW/SP	white to gray p.s.	W/	trace silt	—			
1136			12				petrolin odor			—			
	5		36										
	6									—			
	7		30		Sand	(SP)	gray to white grading to pure Bright White at base 9' increase cementation w/ trace fine silt before entering oolitic limestone			50.0			
1145	8		36										
	9												
	10		36				Oolitic limestone medium ~~fine~~ ooids			43	0.0	-	0.0
	11		36										
	12												

7/22/98 End Boring

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E03-SS-07-A @ 1110 0 to 2
E03-SS-07-B @ 1130 3 to 6
E03-SS-07-C @ 1145 7 to 9

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ✓ No

Well I.D. #: E03-SS-07-TW

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-08-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date: 7/23/98

Sample Time: ~~7/22/98~~ 0930

Sample Depth (ft): 0 to 2

FID Reading: 0.0

Sample Color: LT Tan to white

Sample Description: Oolitic limestone pos. fine medium at coarse grained

Sample Method: [X] DPT [ ] Hand Auger [ ] HSA

Duplicate ID: —

Type of Sample: [ ] Low Concentration [ ] High Concentration [X] Grab [ ] Composite [ ] Grab-Composite

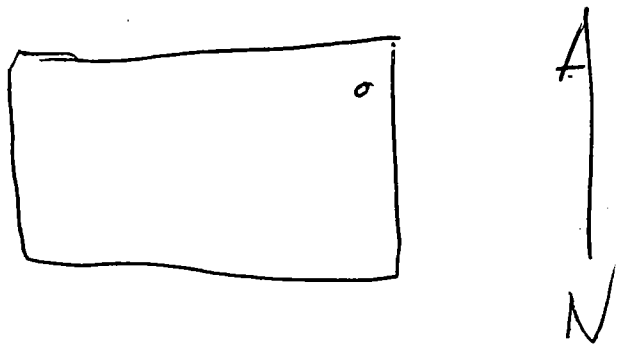
MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Collected via open bore hole

Observations/Notes:

BLDG 102



ANALYSES:

TCL VOCs ~~(HCL Preservative)~~ PDR	YES [✓]	NO [ ]	Bottle Lot Number:	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs: PDR	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [✓]	NO [ ]	Bottle Lot Number:	

Sampled By: JV Signature(s): [signature]

Brown & Root Environmental

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E03-SS-08B

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: ~~E03-SS-10B~~ Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	0950
Sample Depth (ft):	3 to 6
FID Reading:	0.0
Sample Color:	White & Gray
Sample Description:	O.L. grading to sand silty marl - med plastic - very moist

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

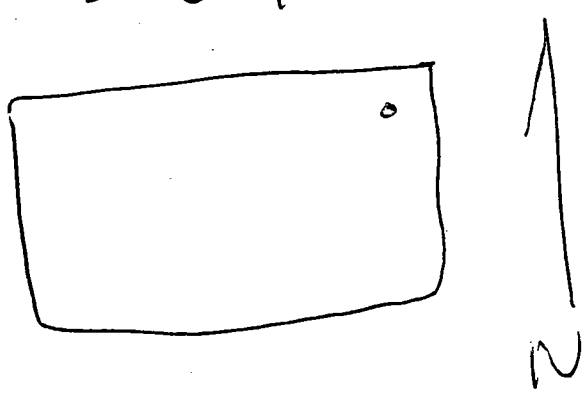
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

BLDG 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~)	YES [x]	NO [ ]	ENCORE
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~	YES [x]	NO [ ]	

Sampled By: Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-~~10~~08 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date: ~~7/22/98~~ 7/23/98	
Sample Time: 1000	
Sample Depth (ft): 7 to 9	
FID Reading: 1,000.00 ppm	
Sample Color: Grey to White	
Sample Description: Med to O.L. native well sorted some medium voids	

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

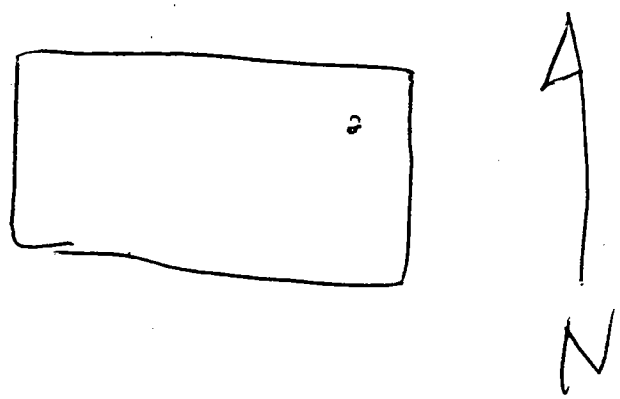
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Heavy petro odor

Observations/Notes:

BLDG 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative):~~	YES [x]	NO [ ]	ENCORE
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative):~~	YES [x]	NO [ ]	

Sampled By: Signature(s):

PROJECT NAME: NAS Key West
PROJECT NUMBER: C70 022
DRILLING COMPANY: Devcision
DRILLING RIG: DPT

BORING NUMBER: E03-SS-08
DATE: 7/23/98
GEOLOGIST: John C Webster
DRILLER: Bob

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / (6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Descriptor Consistency Moist Plastic Structure	Color	Soil Classification	USCS	Remarks	PID/FID Reading (ppm)			
				0-20					Concrete 5"				
	1				LT Tan to white poorly sorted oolitic sand (SW) fine medium					0.0	0.0	0.0	0.0
0930 S-1					and coarse grained w/some cemented gravels					-			
	2		See Remarks		better sorting w/depth (SW/SP)					0.0			
				10						-			
	3				"				Collection via	0.0			
									open bore hole	-			
	4									0.0			
				0.0	← coarse lay gravel at base of unit								
0950 S-2			30		LT Gray sand silt medium plastic very moist - Marl					0.0			
	5				~ increasing in silt content								
			36										
	6				~ organic pocket black					0.0			
	7		20		← very silty fine grained sand								
1000 S-3										50			
	8		36							50			
									1000	~~50~~	1	5	2
	9									~~50~~			
					white oolitic limestone unconsolidated w/some				300	~~100~~			
	10				cemented gravels					200			
1020			30		oolitic limestone consolidated white				-				
	11		36							200			
										100			
	12												
					End Boring								

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks: E03-SS-08-A 0W @ 0930
E03-SS-08-B 3106 @ 0950
E03-SS-08-C 7109 @ 1000

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: ~~08~~ E03-SS-08-TW

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-09-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1500
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	LT Tan
Sample Description:	Oolitic limestone poorly sorted some cementation v/ medium to fine grained

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

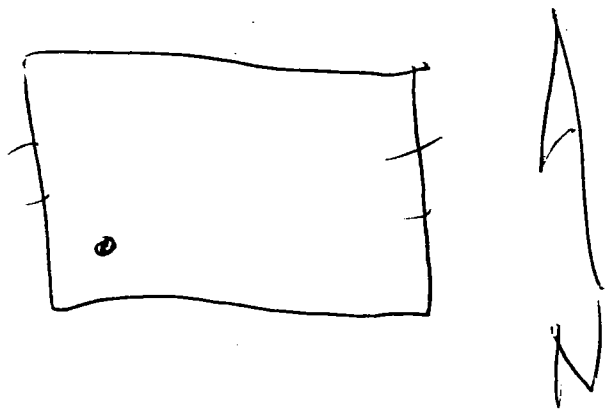
If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

*UNABLE TO RECOVER ENOUGH SOIL. 0-2'

No Recovery on 0' to 2' interval

Observations/Notes:

BLDG 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [x]	ENCORE
TCL SVOCs:	YES [x]	NO [x]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [x]	

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-09-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: 2 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1500
Sample Depth (ft):	3' to 6'
FID Reading:	15.0
Sample Color:	white to grey
Sample Description:	Oolitic limestone poorly sorted trace silt

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

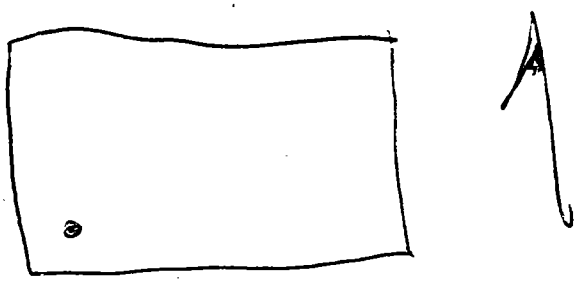
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Very low recovery 8/36 inches
w/ odor - petroleum.

Observations/Notes:

BLDG. 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~ ROP):	YES [✓]	NO [ ]	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Zn (HNO3 Preservative)~~ ROP:	YES [✓]	NO [ ]	

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-09-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No:: Laboratory: GEL

Sample Date:	7/22/98
Sample Time:	1510
Sample Depth (ft):	~~6' to 9'~~ 7' to 9'
FID Reading:	835.0
Sample Color:	white to grey w/ grey mottle layering
Sample Description:	Oolitic limestone p.s. some cementation saturated

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

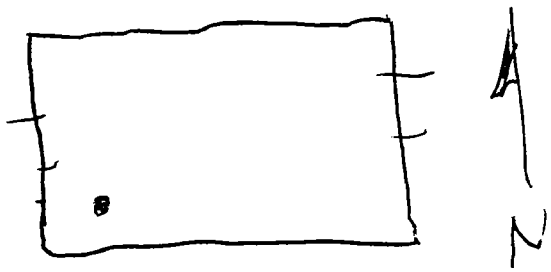
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Heavy petroleum odor

Observations/Notes:

BLDG 102



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Encore
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: Signature(s):

PROJECT NAME: NAS Whidbey
PROJECT NUMBER: C70 038
DRILLING COMPANY: ~~TEG~~ Percison
DRILLING RIG: ~~Standard~~ ODT

BORING NUMBER: E03-SS-09-
DATE: 7/22/98
GEOLOGIST: John Chlebosteck
DRILLER: Bob

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampled Interval	Soil Description Consistency, Moisture, Density, Structure	Color	Material Description	USCS*	Remarks	PID/FID Reading (ppm)
					Sand				Concrete 8"	0.0
	1				LT Tan fill		poorly sorted (SW) oolitic limestone some cemented			
1450 S-1			N							0.0
	2		Recovery						No Recovery collected SVOC/metals	0.0
	3									
					sand		white to grey poorly sorted trace silt w/odor - petroleum.			150 0.0 0.0 0.0
	4		8							
1459 S-2										-
	5		36							-
										-
	6									-
										-
					sand (SP)		white to grey poorly sorted oolitic limestone occasional grey mottle some cemented		saturated heavy odor petroleum	835
1708	7		27							770
S-3										-
	8		36							-
										-
	9									-
	10				9.8' LT Tan		to white fine grained sand silt (SM) medium plastic			
1728			36							
	11		36							
					sand	SP	oolitic limestone well compacted trace medium to coarse grained			
	12									
							End Boring			

7/22/98

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E03-SS-09-A @ 0 to 2
E03-SS-09-B @ 3 to 5
E03-SS-09-C @ 5 to 9

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No

Well I.D. #: E03-SS-09-TW

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-10A- Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Old 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date: 7/23/98

Sample Time: 0750

Sample Depth (ft): 0 to 2

FID Reading: 2.0

Sample Color: LT Tan & white

Sample Description: Oolitic limestone sand p.s. w/ concentration gravels

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

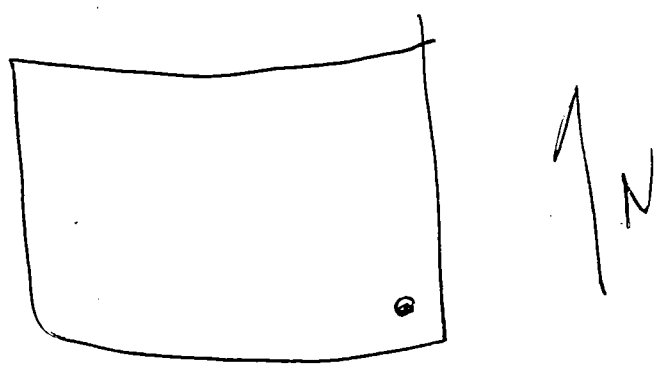
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Collected via open borehole

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~	YES [✓]	NO [ ]	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [✓]	NO [ ]	

Sampled By: JCB Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-10-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	0825
Sample Depth (ft):	3 to 6
FID Reading:	0.0
Sample Color:	white
Sample Description:	Oolitic limestone sand p.s. (5 u) u/sand silt lms - marl

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

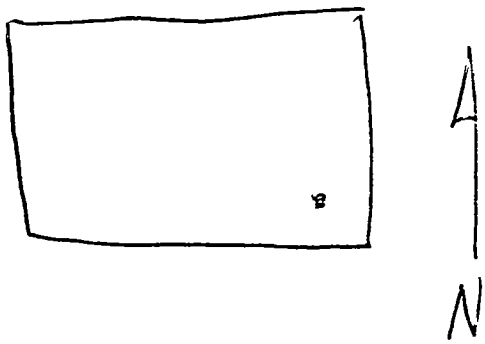
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

BLDG 102



ANALYSES:

TCL VOCs ~~(HCL Preservative)~~ PDA	YES [✓]	NO [ ]	Bottle Lot Number:	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	Bottle Lot Number:	
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs: PDA	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [ ]	NO [✓]	Bottle Lot Number:	

Sampled By: Ze Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS10-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	0930
Sample Depth (ft):	7 to 9
FID Reading:	1,000.0 ppm
Sample Color:	white
Sample Description:	Oolitic limestone s/fine to medium oolids

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

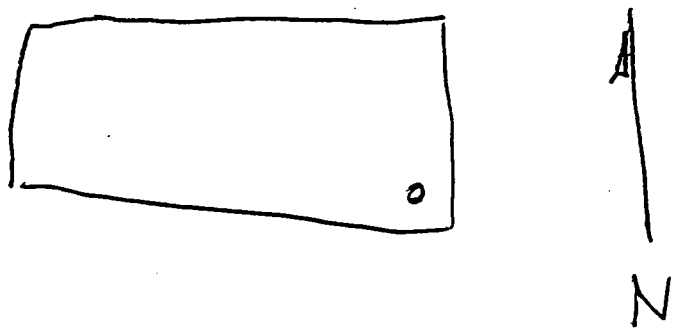
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Heavy petroleum odor

Observations/Notes:

102 BLDG



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~ PDA	YES [✓]	NO [ ]	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals ~~+ Tin (HNO3 Preservative)~~	YES [✓]	NO [ ]	

Sampled By: JW Signature(s): [signature]

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: Persistence
DRILLING RIG: ODT

BORING NUMBER: E03-SS-10
DATE: 7/23/99
GEOLOGIST: John G. Whitstead
DRILLER: Bob

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Standard Consistency or Rock Hardness	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm) Breathing Zone	Borehole Zone	Background Zone	Drilled Zone
			1.0	0.00					Concrete 4"				
0750 S-1	1				LT Tan		sand oolitic limestone (SW) poorly sorted w/ cementation			0.0			
	2								collected sample via open bore hole	0.0			
							organic pocket black to brown		- no odor	2.0	0.0	0.0	0.0
	3												
					white		sand (SW) poorly sorted oolitic limestone			0.0			
	4						cemented gravels						
0825 S-2			24		2"		sand/silt w/ slight organics		- grey				
	5		36				increasing moisture			0.0			
	6												
					white		oolitic limestone some fine to medium ooids						
	7						slight gray tint w/ some cemented gravels		Saturated	100			
0830 S-3			24							-			
	8		36										
										-			
	9								Heavy odor - petro	1000			
					Gray		saturated oolitic limestone w/ trace silt			750			
	10				Bright white		very consolidated oolitic limestone		Driller hit some really consolidated material.	100	0.0	0.0	0.0
0850			30							120			
	11		36							150			
										160			
	12									-			
										-			
							End Boring		7/23/99				

* When rock coring, enter rock brokenness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: E-03-SS-10-A @ 750 D&Z
E03-SS-10-B @ 825 2 to 6
E03-SS-10-C @ 850 7-9

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No

Well I.D. #: E03-SS-10-TW

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-13-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	1240
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	white
Sample Description:	green Oolitic Limestone p.s. Lary cemented

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

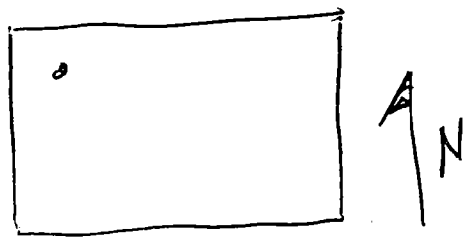
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Collected Via Open borehole

Observations/Notes:

BLDG 104



ANALYSES:

TCL VOCs (~~HCL Preservative~~ Pat):	YES [ ]	NO [ ]	Bottle Lot Number: Fricon
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals ~~+ Tin (HNO3 Preservative)~~:	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: Pat Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-13-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	1315
Sample Depth (ft):	3 to 6
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone p.s. w/cemented gravel

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

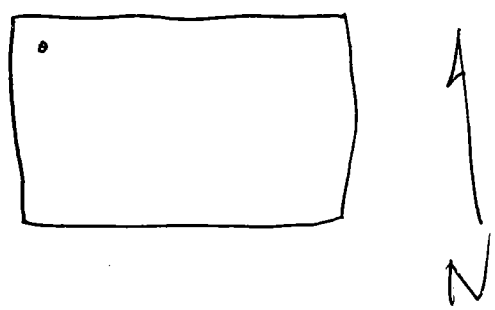
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

BLDG 104



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HSL Preservative~~):	YES [x]	NO [ ]	None
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-11-G Project: NAS Key West BRAC SI Project Number: 7593

Zone: bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date: 7/23/98

Sample Time: 1325

Sample Depth (ft): 7 to 9

FID Reading: 150.0 ppm

Sample Color: white

Sample Description: Oolitic limestone p.j. some cementation

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

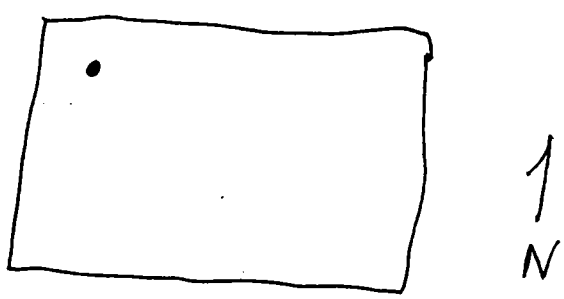
MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Odor mix petroleum al organics

Observations/Notes:

BLDG 104



N

ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~ (5w)	YES [x]	NO [ ]	Escova
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs: (2w)	YES [ ]	NO [ ]	
TAL Metals ~~+ Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: [illegible] Signature(s): [illegible]

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0217
DRILLING COMPANY: Precision
DRILLING RIG: DPT
BORING NUMBER: E03-SS-11
DATE: 7/23/97
GEOLOGIST: John Schwabe
DRILLER: Bob

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	Soil Moisture Condition Soil Consistency Rock Hardness	Color	Soil Description Rock Description	USCS	Remarks	Photo Reading (ppm)
									Concrete	
	1				white		oolitic limestone poorly sorted gravel (SW)		large cemented	0.0
1240										
	2								collected in open borehole	0.0
	3									0.0
	4		18							0.0
1315	S-2									
	5		36							0.0
	6									0.0
					white		oolitic limestone poorly sorted		some cementation	—
	7						odor mix - petroleum and organic			50
1325	S-3		20						Saturated	100
	8		36							120
										150
	9									— 0.0 0.0 0.0
				9.2'	Gray	very	fine sandy silt w/trace		Drilled into	0
	10			10'			clay plastic - marl		very consolidated	—
			34		white		oolitic limestone consolidated		material —	50
	11		34				well sorted mostly cemented			100
										110
	12									—
									7/23/97	

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks: E03-SS-11-A @ 1240 0 to 2
E03-SS-11-B @ 1315 3 to 6
E03-SS-11-C @ 1325 7 to 9

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No

Well I.D. #: E03-SS-11-TW

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-12A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No.: Laboratory: GEL

Sample Date: 7/23/98

Sample Time: 1430

Sample Depth (ft): 0 to 2

FID Reading: 0.0

Sample Color: White

Sample Description: Oolitic limestone p.s. w/cementation

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

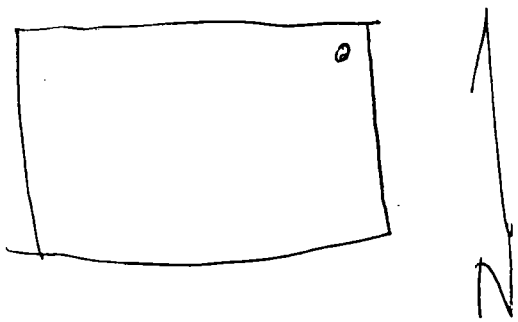
MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Collected via open bore hole

Observations/Notes:

BLDG 104



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCl Preservative~~) PQL	YES [✓]	NO [ ]	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~ PQL	YES [✓]	NO [ ]	

Sampled By: TO Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-12B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	1450
Sample Depth (ft):	3 to 6'
FID Reading:	0.0
Sample Color:	White
Sample Description:	Dolitic limestone P.S. Cemented gravel

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

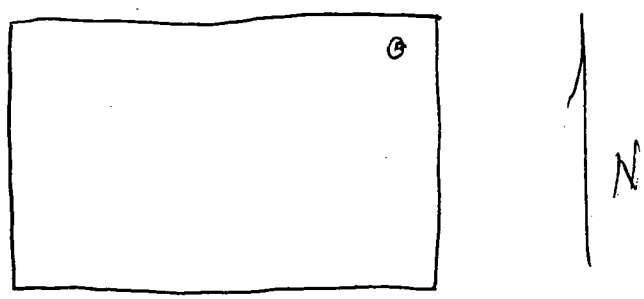
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

BLDG: 104



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~) PW	YES [✓]	NO [ ]	ENCORE
TCL SVOCs:	YES [✓]	NO [ ]	
TCL PESTs:	YES [ ]	NO [✓]	
TCL PCBs:	YES [ ]	NO [✓]	
TAL Metals + ~~Tin (HNO3 Preservative)~~ PW	YES [✓]	NO [ ]	

Sampled By: SCA Signature(s):

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-12-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Bld 104 Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	1500
Sample Depth (ft):	7 to 9
FID Reading:	120.0 ppm
Sample Color:	white
Sample Description:	Oolitic limestone

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID: E-DSS-01

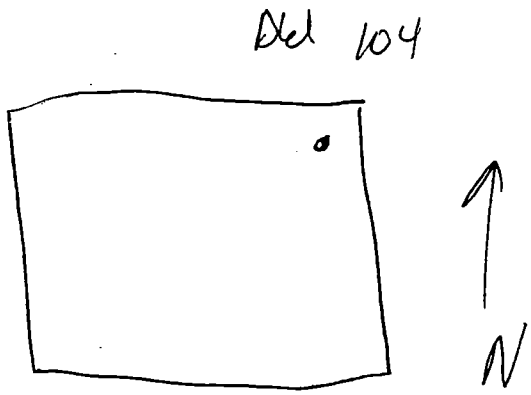
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

odor - petro.

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~:	YES [x]	NO [ ]	ENCORE.
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [ ]	NO [ ]	

Sampled By: JD Signature(s):

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 0327
DRILLING COMPANY: Precision
DRILLING RIG: DPT

BORING NUMBER: E03-SS-12
DATE: 7/23/98
GEOLOGIST: John G. Webster
DRILLER: Bob

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery/Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION (Soil Classification Description, Color, Consistency, Moisture, Odor)	USCS	Remarks	Photo Ionizing (ppm)
							Concrete 8"	
	1				white poorly sorted oolitic sand with cementation			0.0
1430 S-1					very large gravel to cobble		collected via	0
	2		6		conglomeratic oolites		open bore hole	0.0
	3				← rubble fill (red brick)			0.0
					white P.S. oolitic limestone cementation gravels			
	4		18					
1450 S-2								0.0
	5		36					0.0
					← sandy silt lens grey very soft and moist			
	6							0.0 0.0 0.0 0.0
					white oolitic limestone.			
	7						Duplicate	100
1500			30				order - petro	100
S-3	8							120
			36					–
	9				← Black organic pocket			–
					sand white oolitic limestone brown and purple gravel			15
	10				compacted w/ strong cementation			
			30				–	15
	11							
			36					50
	12							

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks: E03-SS-12-A @ 1430 0.0Z
E03-SS-12-B @ 1450 3.6
E03-SS-12-C @ 1500 7.6

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ✓ No ____ Well I.D. #: E03-SS-12-W

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-13-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Bld 104 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/26/99
Sample Time:	1100
Sample Depth (ft):	0 to 2
FID Reading:	0.0
Sample Color:	White
Sample Description:	Oolitic limestone gravel and coral

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

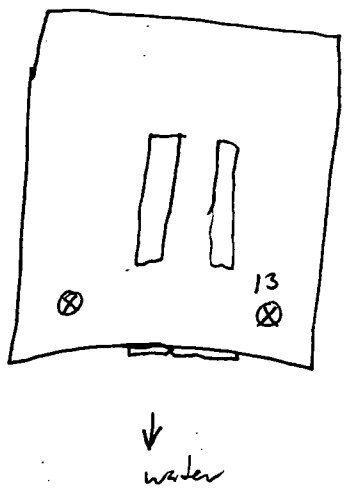
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Sample collected via open core hole directly under concrete slab.

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~:	YES [x]	NO [ ]	Encore
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin ~~(HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: JW Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EG-SS-13-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Old 104 Subzone:

Airbill No.: Laboratory: GEL

Sample Date: 7/26/98	
Sample Time: 1150	
Sample Depth (ft): 3 to 6	
FID Reading: 0.0	
Sample Color: white	
Sample Description: Oolitic limestone p.s. w/gravels very dense	

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

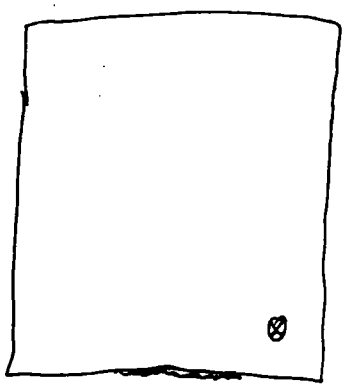
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



Water

ANALYSES:

TCL VOCs (~~HCL Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:	Encore
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:	
TCL PESTs	YES [ ]	NO [ ]	Bottle Lot Number:	
TCL PCBs	YES [ ]	NO [ ]	Bottle Lot Number:	
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:	

Sampled By: [illegible] Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-13-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: old 104 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	7/26/94
Sample Time:	1210
Sample Depth (ft):	7 to 9'
FID Reading:	850 ppm
Sample Color:	white to black
Sample Description:	Oolitic limestone granules -

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID: E-OSS-02

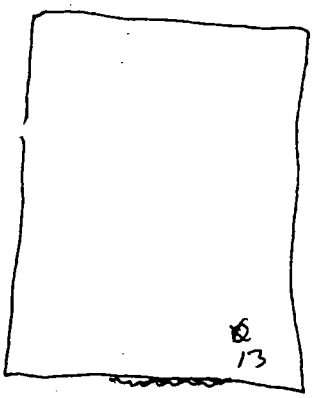
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Heavy staining and petro odor

Observations/Notes:



Water

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Foncove
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: JW Signature(s):

BORING LOG

Page ___ of ___

PROJECT NAME: NAS Keywest
PROJECT NUMBER: CTO 0321
DRILLING COMPANY: Precision
DRILLING RIG: DP7

BORING NUMBER: E03-SS-13
DATE: 7/26/98
GEOLOGIST: John G. Webster III
DRILLER: Bob

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Changes (Depth/ft.) or Screened Interval	MATERIAL DESCRIPTION: Grain Size, Consistency, Moisture, Odor	Color	Other Characteristics	USCS	Remarks	PID/FID Reading (ppm)
									Concrete 6"	
1100 S-1	1				white		coarse gravel – coral limestone	SW	cemented oolitic	0.0
			18						collected in open	
	2		50						bore hole	0.0
					white to tan		poorly sorted sand f, m, c grained	(SW)		
	3									0.0
					white		fine med and coarse grained	SW	S. sand oolitic	
	4						w/ gravel – cemented limestone – very dense			0.0
1150 S-2			32							
	5		36							0.0
	6									0.0
					white		f, m. & sand oolitic	SW		100 0.0 0.0 0.0
	7		36							
1210 S-2									Duplicate E-SS-02	500
	8		36		& Black staining – petro odor					850
					Gray					–
	9									–
					Course gravels – very Black staining					50
	10		36		Transitional Black to white					20
1227			36		white well consolidated fine grained oolitic limestone					.
	11									0
	12									0
					Final Away				7/26/98	

* When rock coring, enter rock breakaway.
** Indicate monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated readings read

Remarks: E03-SS-13-A @ 1100 0 to 2
E03-SS-13-B @ 1150 3 to 6
E03-SS-13-C 1210 7 to 9

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ___ Well I.D. #: E07-GS-29

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-14-A Project: NAS Key West BRAC SI Project Number: 7593

Zone: Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date: 7/23/98

Sample Time: 1540

Sample Depth (ft): 0 to 2

FID Reading: 0.0

Sample Color: white

Sample Description: Oolitic Limestone cement to very large gravel medium to course sand

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

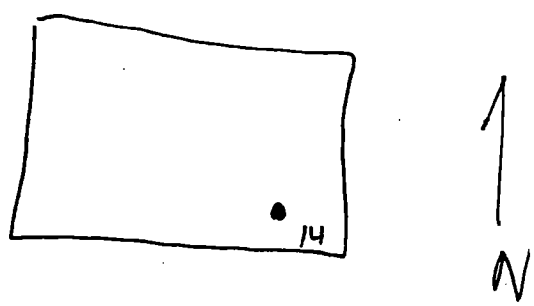
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Collected via open bore hole

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	Ensure
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: Signature(s):

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-14-B Project: NAS Key West BRAC SI Project Number: 7593

Zone: Bld 104 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	1600
Sample Depth (ft):	3' to 6'
FID Reading:	100.0 ppm
Sample Color:	white to grey
Sample Description:	Oolitic limestone, grading to a sandy silt marl

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

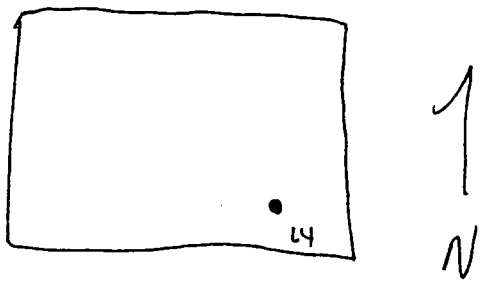
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Odor

Observations/Notes:



ANALYSES:

TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [ ]	Bottle Lot Number: Encore
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: JJ Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E03-SS-14-C Project: NAS Key West BRAC SI Project Number: 7593

Zone: Bld 104 Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	7/23/98
Sample Time:	1540
Sample Depth (ft):	7 to 9
FID Reading:	100.0 ppm
Sample Color:	Grey to white
Sample Description:	very fine sandy silt med medium plastic

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

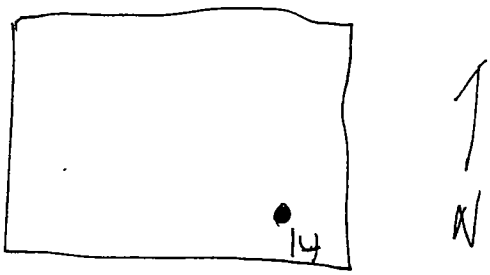
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Odor

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs ~~(HCL Preservative)~~:	YES [x]	NO [ ]	Encore
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + ~~Tin (HNO3 Preservative)~~:	YES [x]	NO [ ]	

Sampled By: Sw Signature(s): [signature]

BORING LOG

PROJECT NAME: NAS Key West
PROJECT NUMBER: CTO 032
DRILLING COMPANY: Precision
DRILLING RIG: DPT
BORING NUMBER: E03-SS-14
DATE: 7/23/98
GEOLOGIST: John G. Wolstenholme
DRILLER: Bob

Sample No. and Type or RQD	Depth (ft.) or Run No.	Blows/6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/ft.) or Screened Interval	Soil Classification Organization Moisture Grain Size	Color	Description	USCS*	Remarks	Photo Reading (ppm)
				0.0'					Concrete	
	1						white O.S. oolitic limestone cementation gravel			00
1540 S1							to very large gravel medium and coarse sand (Lw)			
	2		80						collected via	0.0
									open bored hole	
	3									
										0.0 0.0 0.0 0.0
	4						grey very fine sandy silt medium		plastic (SM)	-
1600 S2			30				marl		moist	-
	5		36							2
							← silty sand lens		odor	100
	6									15
										-
	7		30							-
1615 S-3										2
	8		36						wet	5
							very abrupt facies change to a fine to medium grained			100
	9						poorly sorted oolitic limestone	SW/SP		-
							white well cemented oolitic limestone		odor	100
	10									-
1641										100
	11									-
										29
	12									-

* When rock coring, enter rock brokenness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

End Boring 7/23/98

Remarks: E03-SS-14-A @ 1540 0 to 2
E03-SS-14-A @ 1600 3 to 6
E03-SS-14-A @ 1615 7 to 9

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ✓ No ____ Well I.D. #: E03-SS-14-MW

COC -

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E09-SS-05C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - BUILDING 103, SUMP #1 Subzone:

Airbill No: 807550695599 Laboratory: GEL

Sample Date:	081398
Sample Time:	1445
Sample Depth (ft):	0-3' (BELOW SLABS)
FID Reading:	0.0
Sample Color:	LIGHT BROWN, SILT - SILTY, CRUSHED LIMESTONE, POORLY GRADED
Sample Description:	

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

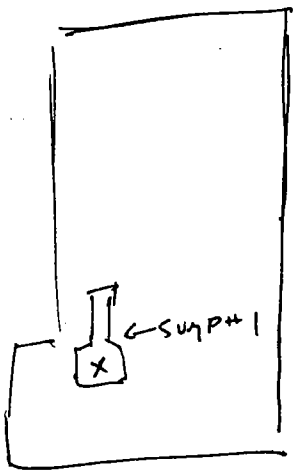
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: [illegible] Signature(s): [illegible]

BORING LOG

PROJECT NAME: BERC SSV
PROJECT NUMBER: 7593
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT

BORING NUMBER:
DATE: 08 13 98
GEOLOGIST:
DRILLER: JOHNNY BODY, JO

Sample No. and Type or RQD	Depth (FL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/FL) or Screened Interval	Rock Structure Continuity Rock Hardness	Color	MATERIAL DESCRIPTION Material Classification	USCS*	Remarks	HNu
							SILTY, SANDY, LIGHT		CONCRETE TO 4'7"	0.0
	1						BROWN W/ ROCKS THROUGHOUT		CONCRETE ANOTHER 7"	
			0				POORLY GRADED CRUSHED			0.0
	2			0 - 8			LIMESTONE			
			36				SATURATED			
	3						SEE 0 - 3'			0.0
	4		6"							
PELLETS	5									
			36							
	6									
SANDBAG										

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes X No Well I.D. #:

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E09-SS-08L Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - BUILDING 103 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	081498
Sample Time:	1640
Sample Depth (ft):	6 - 7'
FID Reading:	120
Sample Color:	LIGHT BROWN
Sample Description:	SANDY, LIMESTONE - STRONG DIESEL ODOR

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

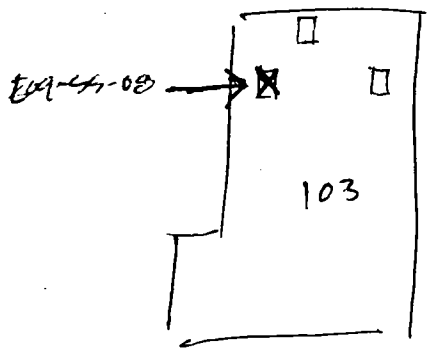
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: E. HARRISON Signature(s): E. J. Harrison

BORING LOG

PROJECT NAME: CLO 0032 BRAC SSI
PROJECT NUMBER: 7593 BLO 05C 105
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT

BORING NUMBER: E09-SS-08
DATE: 081498
GEOLOGIST:
DRILLER: JOHNNY BODY KOHN MAZO

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Grain Size	Color	Material Classification	USCS*	Remarks	PID/FID Reading (ppm)			
									CONCRETE TO 6'				
							SANDY LIMESTONE			1200.0			0.0
	7		18				LIGHT BROWN						
							STRONG PIESALODON						
1640	8												
	9		36										
	10												
	11												
	12												
	13												
	14												
	15												

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ___ Well I.D. #:

BORING LOG

Page ___ of ___

PROJECT NAME: GTO 0032 BRAC 661
PROJECT NUMBER: 75931340 05C 185
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT

BORING NUMBER: E09-SS-12
DATE: 081598
GEOLOGIST:
DRILLER: JOHNNY BODY

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Classification System (USCS) / Color / Material Description	U.S.C.S.	Remarks	PID/FID Reading (ppm): Background	Sample Bag	Headspace	Borehole
	8						"CONCRETE TO 8'				
							— NO SOIL SAMPLE		57		96
	9						TAKEN — TOO				
							HARD				
	10										
	11										
	12										

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm):

Converted to Well: Yes ____ No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Location E09-SS-09A

Sample Name: 103-SS-A2A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E-103 BUILDING OUTSIDE BACK Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081398
Sample Time:	1745
Sample Depth (ft):	1.0 - 2'
FID Reading:	0.0
Sample Color:	LIGHT BROWN, STREAKS OF BLACK
Sample Description:	SANDY, OOLITIC LIMESTONE, SMALL CLAY STREAKS, POORLY SORTED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

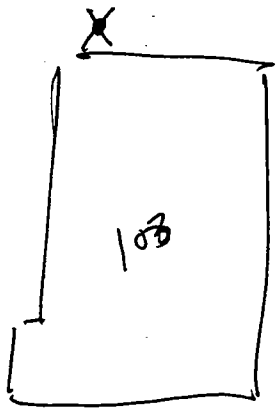
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale the New Location:

Entered sample name as 103-SS-A2A B C D JMB

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: BSH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-GS-A2B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - OUTSIDE BUILDING 103 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	081398
Sample Time:	1740
Sample Depth (ft):	5'
FID Reading:	0.6
Sample Color:	LIGHT GRAY
Sample Description:	DAMP, SILTY, SMOOTH.

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

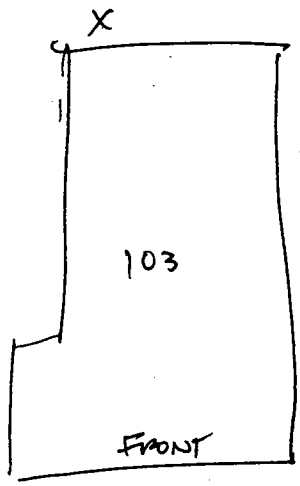
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: KTK Signature(s): Eric J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-GS-A2C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - BEHIND BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081398
Sample Time:	1810
Sample Depth (ft):	8.0
FID Reading:	HS
Sample Color:	LIGHT BROWN / TAN
Sample Description:	SANDY, MOIST, STRONG PETROODOR

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

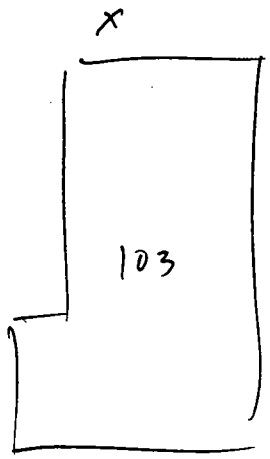
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: EJH Signature(s): Eg J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-CS-A2D Project: NAS Key West BRAC SI Project Number: 7593

Zone: E-BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081398
Sample Time:	1840
Sample Depth (ft):	10.5'
FID Reading:	18.5'
Sample Color:	LIGHT BROWN
Sample Description:	SANDY, WET, SAT ZONE

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

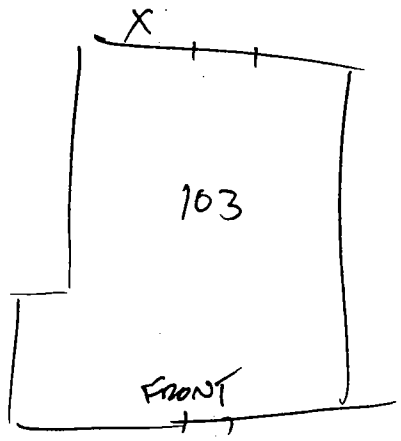
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

- NEW SAMPLE LOCATION DUE TO DIFFICULTIES INSIDE BUILDING

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eugene J. Hamrin

BORING LOG

PROJECT NAME: CTO 0032
PROJECT NUMBER: BRAC SS1
DRILLING COMPANY: 7593 BLO OSC 105
DRILLING RIG: PRECISION DPT

BORING NUMBER:
DATE: 081398
GEOLOGIST:
DRILLER: JOHNNY BODY / JOHN MILO

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Consistency Moist Density	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)			
							SANDY, CRUSHED OOLITIC LIMESTONE, POORLY GRADED, TRACE OF CLAY - LIGHT BROWN			0.000			0.0
	1		36										
	2												
	3		36										
	4						DAMP, GRAY CLAY LENS "STREAKS" FROM BLACK						
			48										
	5									0.0			
	6		41				- SANDY RED CLAY DRY						
	7						DARKER, BLACKISH						
	8		36				DAMP SANDY, POORLY GRADED			115			
	9		36										
	10						DAMP						
	11						SAT ZONE SANDY, WET, SOME ROCKS			18.5			
	12												
	13												

* When rock coring, enter rock brightness.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ____ Well I.D. #: ____

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-SS-B2A Project: NAS Key West BRAC SI Project Number: 7593

Zone: E. - BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081498
Sample Time:	0840
Sample Depth (ft):	0-2'
FID Reading:	0.0
Sample Color:	LIGHT BROWN
Sample Description:	CRUSHED LIMESTONE SANDY POORLY GRADED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

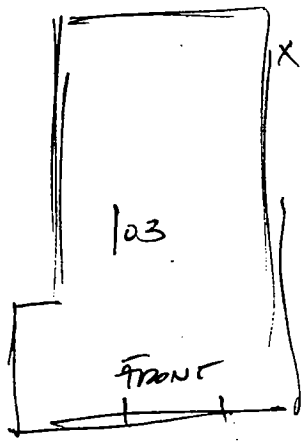
If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here along with a Description of the New Location:

Entered sample name as

103-SS-B2A
" B
" C
" D

JMB

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [x]	

Sampled By: DTH Signature(s): Eric J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-BS-02B Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date: 081998	
Sample Time: 1850	
Sample Depth (ft): 2-5'	
FID Reading: 8-9	
Sample Color: GREY	
Sample Description: Amp, SOLTY, PETROL odor	

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

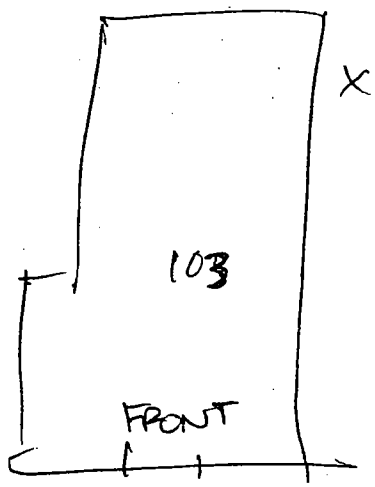
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: KSH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-GS-B02C Project: NAS Key West BRAC SI Project Number: 7593

Zone: E-BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081498
Sample Time:	0900
Sample Depth (ft):	5-8'
FID Reading:	315
Sample Color:	GREY, BLACK AREAS
Sample Description:	SILTY, SANDY, DAMP, WET AT BOTTOM

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

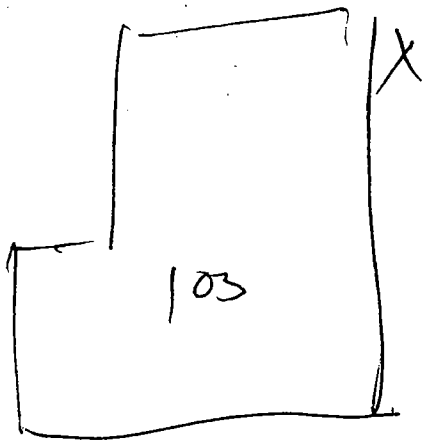
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EAH Signature(s): Craig J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-GS-B2D Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081498
Sample Time:	0920
Sample Depth (ft):	8-12'
FID Reading:	0.1
Sample Color:	LIGHT BROWN
Sample Description:	SANDY, SILTY, SMOOTH, SATURATED

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

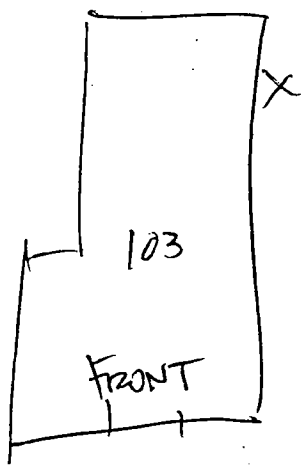
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL ~~Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eg J. Harrison

BORING LOG

PROJECT NAME: CTO 0032 BRAZ SSI
PROJECT NUMBER: 7593 BLO OSC 105
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT

BORING NUMBER: 103-GS-B2
DATE: 081498
GEOLOGIST:
DRILLER: JOHNNY BOY / JOHN MARO

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Color	Soil Classification	USCS*	Remarks	PID/FID Reading (ppm)			
	1		24	D		LIGHT BROWN, CRUSHED LIMESTONE			0.0	0.0		0.0
0840				G								
	2		24	0.7								
	3					DAMP, SILTY, GREY SMOOTH, ~~SPONGY~~ PETRO ODOR			8.4	0.0		0.0
0850			36									
	4											
	5		36									
	6					DAMP, WET AT BOTTOM GREY SILTY, VERY STRONG PETRO ODOR BLACK ARENTS			316	6.0		0.0
1400			56									
	7											
			36									
	8					LIGHT BROWN, SAT SANDY, SILTY, SMOOTH			0.1	0.0		0.0
	9		48									
1180	10											
	11		48									
	12											

* When rock coring, enter rock brackpieces.
** Include monitor reading on 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ___ Well I.D. #: ___

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-SS-CZB Project: NAS Key West BRAC SI Project Number: 7593

Zone: E. BUILDING 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	081498
Sample Time:	1115
Sample Depth (ft):	2-5'
FID Reading:	14.8
Sample Color:	DARK GREY W/ LIGHT SAND
Sample Description:	SANDY, ROCKY

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

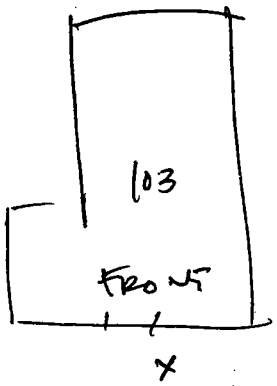
If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Entered sample name as

103-SS-CZB C
" D
"

JMB



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: [illegible] Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-GS-CZC Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - BUILDING 103 Subzone:

Airbill No:. Laboratory: GEL

Sample Date:	081498
Sample Time:	1125
Sample Depth (ft):	5-8'
FID Reading:	165.0
Sample Color:	LIGHT BROWN
Sample Description:	CRUSHED LIMESTONE

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

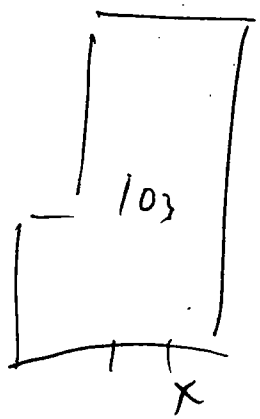
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (~~HNO3 Preservative~~):	YES [x]	NO [ ]	

Sampled By: BOH Signature(s): Eugene J. Hanson

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103GS-CZD Project: NAS Key West BRAC SI Project Number: 7593

Zone: E-BUILDING 103 Subzone:

Airbill No: Laboratory: GEL

Sample Date:	051498
Sample Time:	1135
Sample Depth (ft):	8-11'
FID Reading:	32.2
Sample Color:	LIGHT BROWN
Sample Description:	SAT., SILTY SANDS

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

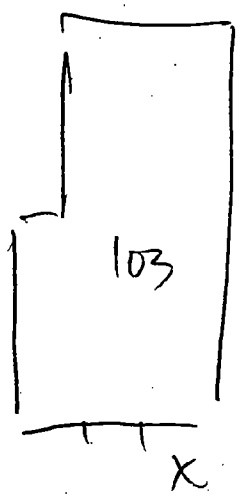
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eg J. Harrison

BORING LOG

PROJECT NAME: LRO 0032 BRAZ. SS.1
PROJECT NUMBER: 7543 BLO 05C 10C
DRILLING COMPANY: PRECISION
DRILLING RIG: DPT

BORING NUMBER: 103-GS-CZ
DATE: 081408
GEOLOGIST:
DRILLER: JOHNNY DOPY/JOHN MAD

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	Soil Classification Organoleptic Test Results	Color	MATERIAL DESCRIPTION	USCS	Remarks	PID/FID Reading (ppm)			
1110													
	1		24				GREY, POORLY GRADED, CRUSHED LIMESTONE			1.3	0.0		0.0
	2		24										
							DARK GREY, ROCKY, SOME LIGHTER SAND			14.8	0.0		0.0
1115	3		8										
	4												
	5		36										
125	6		18				CRUSHED LIMESTONE, STRONG PETRO ODOR LIGHT BROWN			16.5	0.0		0.0
	7												
	8		36										
	9		24				SANDY, SAT. SILTY, LIGHT BROWN			30.2	0.0		0.0
35	10		36										
	11												
	12												

* When rock coring, enter rock breakages.
** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No Well I.D. #:

Brown & Root Environmental

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SURFACE SOIL SAMPLE LOG SHEET

103

Sample Name: 103-GS-DZB Project: NAS Key West BRAC SI

Zone: E - BUILDING 103 Project Number: 7593

Airbill No: Laboratory: GEL Subzone:

Sample Date:	081498
Sample Time:	1345
Sample Depth (ft):	2-5'
FID Reading:	0.0
Sample Color:	LIGHT BROWN
Sample Description:	SANDY, CRUSHED LIMESTONE

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

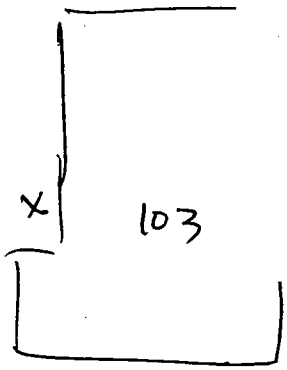
If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Entered sample name as

103-SS-DZB
" C
" D

JMB



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: E. Harrison Signature(s): E. J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 103-GS-D2B Project: NAS Key West BRAC SI

Zone: E-BUILDING 107 Project Number: 7593

Airbill No:. Laboratory: GEL Subzone:

Sample Date:	081992
Sample Time:	1357
Sample Depth (ft):	8-11
FID Reading:	0.0
Sample Color:	LIGHT BROWN, GRAY, BLACK STREAKS
Sample Description:	SANDY, SILT

Sample Method:
- [x] DPT
- [ ] Hand Auger
- [ ] HSA

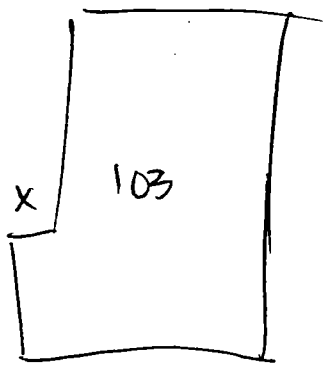
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: E Harrison Signature(s): E. J. Harrison

BORING LOG

PROJECT NAME: CTO 0032
PROJECT NUMBER: 7593 BLO 05L 105
DRILLING COMPANY: PREFLOW
DRILLING RIG: DPT

BORING NUMBER: 103-GS-D7
DATE: 081498
GEOLOGIST:
DRILLER: JOHNNY BODY / JOHN MALO

	Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Sampling Interval	Color	MATERIAL DESCRIPTION	USCS*	Remarks	PID/FID Reading (ppm)			
							DARK BROWN SANDY,						
1335		1		8			BLACK PLACES			0.0	0.0		0.0
				24									
		2					LIGHT BROWN SANDY						
		3		8						0.0	0.0		0.0
1345													
		4											
				36									
		5											
							NO RECOVERY						
		6											
				0									
		7											
		8		36									
1357							LIGHT BROWN W/ GRAY						
		9					+ BLACK STRIPES			0.0	0.0		0.0
				16			SANDY, SILTY						
		10											
				36									
		11											
		12											

* When rock coring, enter rock brokenness.
** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes X No ___ Well I.D. #: ___

GROUNDWATER

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: E07-GS-14 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No: Laboratory: GEL

Total Depth (ft):	11.20
Stickup Height (ft):	2.00
Casing Diameter (ID-inches):	1"
Static Water Level (ft below top of casing):	3.21
One Casing Volume (gal):	.639
Start Purge (hrs.):	1440
End Purge (hrs.):	
Total Purge Time (min.):	
Total Amount Purged (gal):	
Purge Method:	PERISTALTIC Pump
Sample Method:	PERISTALTIC Pump
Depth Sampled:	11.10
Sample Date:	8/15/98
Sample Time:	1510

Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

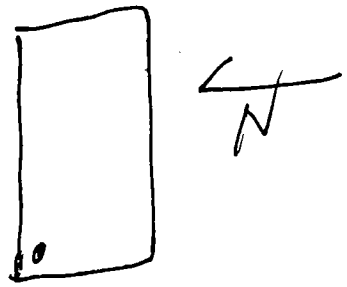
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)

Sump #1



RINSE OUT

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~)	YES [x]	NO [ ]	
TCL SVOCs	YES [x]	NO [ ]	
TCL PESTs	YES [ ]	NO [x]	N/A
TCL PCBs	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1440	.5	27.9	8.02	1.38	.97	99	CLEAR	0.06
1450	1.5	27.8	7.99	1.52	.95	-10	CLEAR	0.07
1500	2.5	27.7	7.98	1.53	.96	-10	CLEAR	0.07
1510	3.5GA	27.7	7.96	1.54	.99	-10	CLEAR	0.07

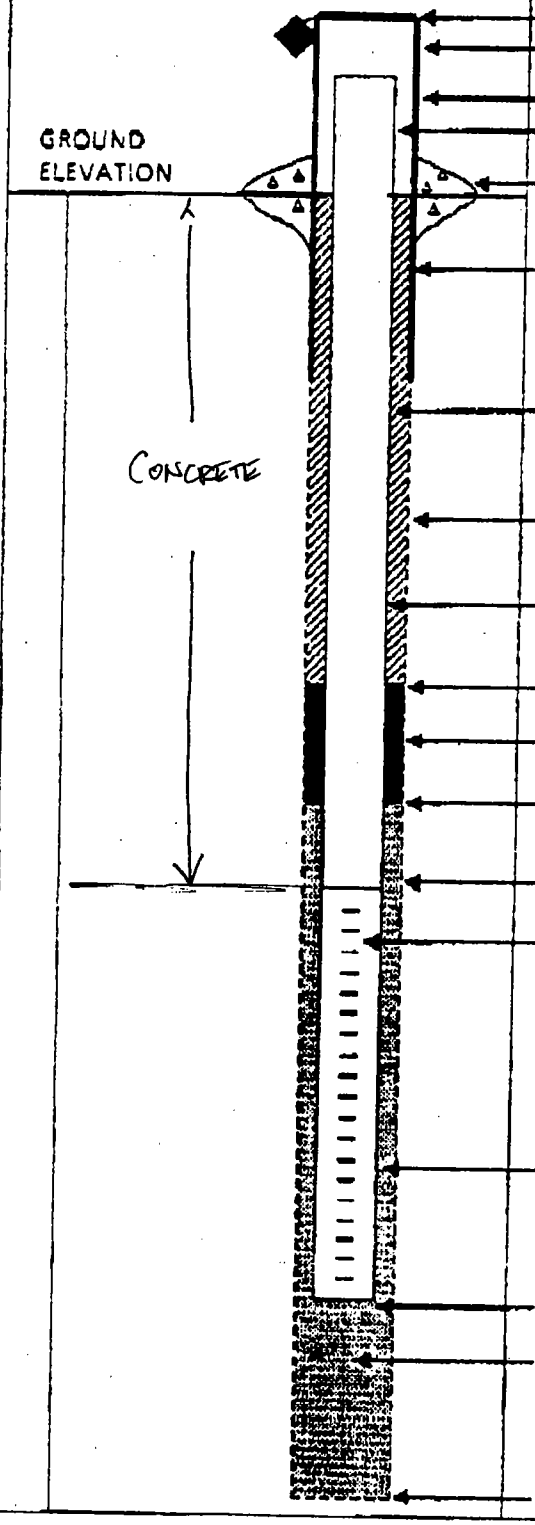
Sampled By: HALVERSON Signature(s): [signature]

OVERBURDEN
MONITORING WELL SHEET

PROJECT: BRAC SSI
PROJECT NO.: CTO 0032
ELEVATION: —
FIELD GEOLOGIST:

LOCATION: BUILDING 103,
BORING: SUMP #1
DATE: 081398

DRILLER: JOHNNY BODY
DRILLING METHOD: DPT
DEVELOPMENT METHOD:



ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING: —
STICK - UP RISER PIPE: —
TYPE OF SURFACE SEAL: —
I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING: —
RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: ~~BALLERS~~ —
ELEVATION / DEPTH TOP OF SEAL: BENTONITE 2'
TYPE OF SEAL: —
DEPTH TOP OF SAND PACK: 4'
ELEVATION / DEPTH TOP OF SCREEN: 6'
TYPE OF SCREEN: PVC SCHEDULE 40
SLOT SIZE x LENGTH: 0.010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: 11'
ELEVATION / DEPTH BOTTOM OF SAND PACK: 16'
TYPE OF BACKFILL BELOW OBSERVATION WELL:
ELEVATION / DEPTH OF HOLE: 16'

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: E07-GS-15 Project: NAS Key West BRAC SI Project Number: 7593
Zone: E Subzone:
Airbill No: Laboratory: GEL

Total Depth (ft):	11.70
Stickup Height (ft):	1.25
Casing Diameter (ID-inches):	1.0
Static Water Level (ft below top of casing):	7.65
One Casing Volume (gal):	.324
Start Purge (hrs.):	1240
End Purge (hrs.):	1255
Total Purge Time (min.):	15 min
Total Amount Purged (gal):	3
Purge Method:	PERISTALTIC PUMP
Sample Method:	PERISTALTIC PUMP VOC GRAVITY FEED
Depth Sampled:	11.50
Sample Date:	8/16/98
Sample Time:	1300

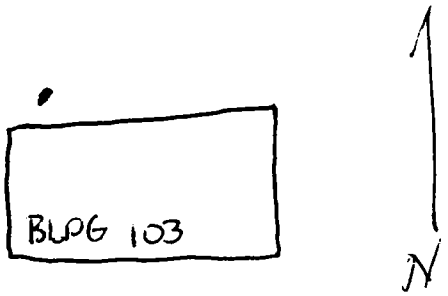
Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)



ANALYSES:

REMOVED

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [ ]	NO [x]	
TCL SVOCs:	YES [ ]	NO [x]	N/A
TCL PESTs:	YES [x]	NO [ ]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color
1240	2	30.0	8.51	0.98	2.20	492	GREY
1245	2.25	30.0	8.54	0.98	1.69	-10	CLEAR
1250	2.50	30.0	8.54	0.99	1.70	-10	CLEAR
1255	3	30.	8.55	0.98	1.69	-10	CLEAR

Sampled By: Signature(s):

OVERBURDEN MONITORING WELL SHEET

PROJECT CTO 0032
PROJECT NO. 7593 BLD 05 105
ELEVATION
FIELD GEOLOGIST
LOCATION BUILDING 103
BORING 103-GS-D2
DATE 08/4/98

DRILLER PRECISION
DRILLING METHOD DPT
DEVELOPMENT METHOD

ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING: —
STICK - UP RISER PIPE: —
TYPE OF SURFACE SEAL: —
I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING:
RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: —
ELEVATION / DEPTH TOP OF SEAL: — /
TYPE OF SEAL: —
DEPTH TOP OF SAND PACK: 4'
ELEVATION / DEPTH TOP OF SCREEN: 6' /
TYPE OF SCREEN: PVC Sched 40
SLOT SIZE x LENGTH: 0.010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: Sand
ELEVATION / DEPTH BOTTOM OF SCREEN: 11' /
ELEVATION / DEPTH BOTTOM OF SAND PACK: /
TYPE OF BACKFILL BELOW OBSERVATION WELL:
ELEVATION / DEPTH OF HOLE: 11' /

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: EC7-MW17 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No: Laboratory: GEL

Total Depth (ft):	13.15
Stickup Height (ft):	Ø
Casing Diameter (ID-inches):	2"
Static Water Level (ft below top of casing):	7.78
One Casing Volume (gal):	.875
Start Purge (hrs.):	1610
End Purge (hrs.):	1640
Total Purge Time (min.):	30
Total Amount Purged (gal):	3.0
Purge Method:	PERISTALTIC PUMP.
Sample Method:	PERISTALTIC PUMP VS GRAVITY FEED.
Depth Sampled:	12'
Sample Date:	8/15/98
Sample Time:	1700

Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

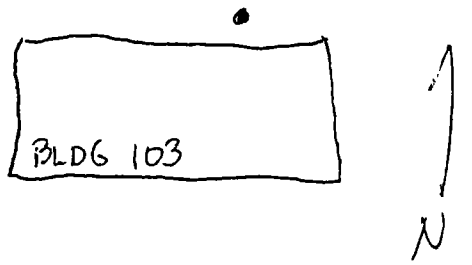
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)

MONITOR WELL



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCl Preservative~~) REMOVED	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	N/A
TCL PCBs:	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1610	1.75	28.4	8.49	.723	1.07	-10	CLEAR	.03
1620	2.0	28.4	8.50	.716	1.10	-10	CLEAR	.03
1630	2.5	28.4	8.49	.717	1.15	-10	CLEAR	.03
1640	3.0	28.4	8.46	.716	1.18	-10	CLEAR	.03

Sampled By: P. HALVERSON Signature(s): [signature]

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: E07-GS-17 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No: Laboratory: GEL

Total Depth (ft):	6.61
Stickup Height (ft):	~~5.22~~ 1.30
Casing Diameter (ID-inches):	1
Static Water Level (ft below top of casing):	5.22
One Casing Volume (gal):	.1112
Start Purge (hrs.):	0920
End Purge (hrs.):	0950
Total Purge Time (min.):	30
Total Amount Purged (gal):	1.0
Purge Method:	Peristaltic Pump
Sample Method:	Peristaltic Pump Vol-Gravity Feed
Depth Sampled:	6.50
Sample Date:	8/16/98
Sample Time:	1000

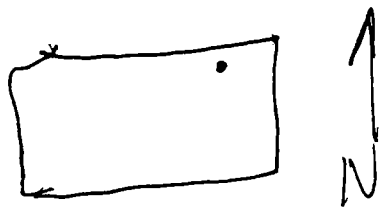
Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCl Preservative~~ Removed):	YES [x]	NO [ ]	N/A
TCL SVOCs:	YES [x]	NO [ ]	N/A
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
0920	.25	28.4	8.37	2.41	2.85	-10	CLEAR/YELLOW TINT	.11
0930	.50	28.3	8.38	2.05	2.75	-10	CLEAR/YELLOW	.09
0940	.78	28.3	8.35	2.02	2.78	-10	CLEAR/YELLOW TINT	.09
0950	1.0	28.3	8.34	2.02	2.80	-10		.09

Sampled By: P. Halverson Signature(s): [signature]

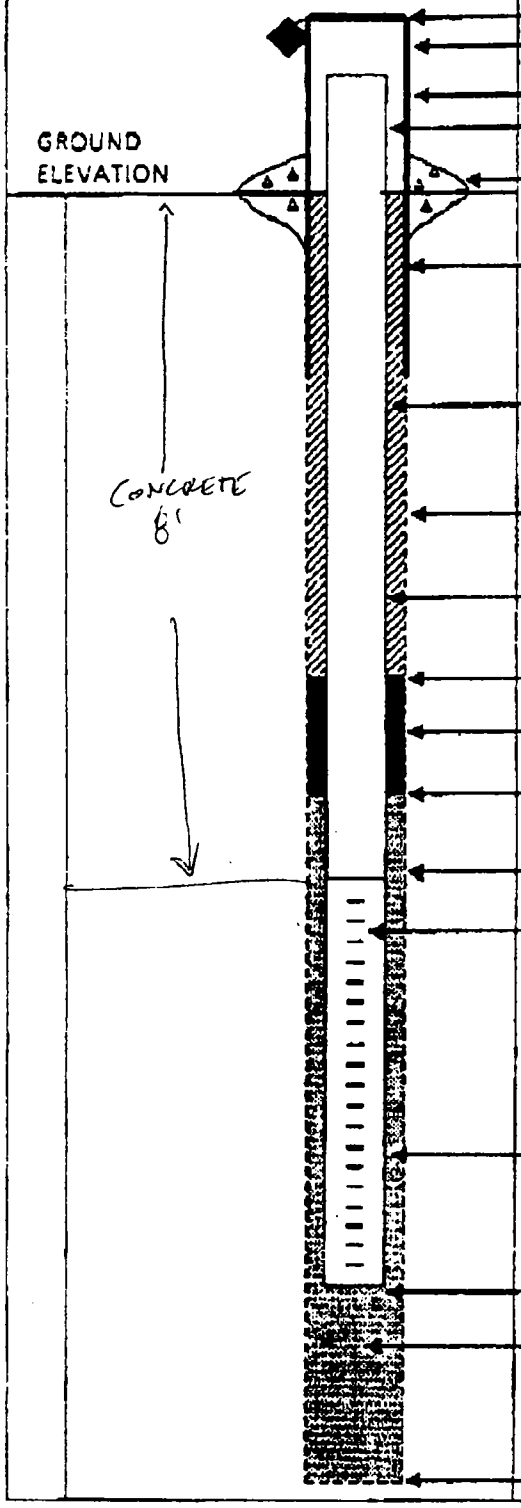
93 & 9359

OVERBURDEN MONITORING WELL SHEET

PROJECT CTO 0032 BRAC SSI
PROJECT NO. 7593 BLD 06L 105
ELEVATION
FIELD GEOLOGIST

LOCATION BUILDING 103
BORING E09-SS-08
DATE 081498

DRILLER PRECISION
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE: —
STICK - UP TOP OF SURFACE CASING: —
STICK - UP RISER PIPE: —
TYPE OF SURFACE SEAL: —
I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING: —
RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: BENTONITE - 2'
ELEVATION / DEPTH TOP OF SEAL: — /
TYPE OF SEAL: —
DEPTH TOP OF SAND PACK: 4'
ELEVATION / DEPTH TOP OF SCREEN: 8 /
TYPE OF SCREEN: PVC Sched 40
SLOT SIZE x LENGTH: 0.010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: 12 /
ELEVATION / DEPTH BOTTOM OF SAND PACK: 12 /
TYPE OF BACKFILL BELOW OBSERVATION WELL:
ELEVATION / DEPTH OF HOLE: 12 /

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: E07-GS-18 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No: Laboratory: GEL

Total Depth (ft):	13.72
Stickup Height (ft):	.90
Casing Diameter (ID-inches):	1.0
Static Water Level (ft below top of casing):	9.12
One Casing Volume (gal):	.368
Start Purge (hrs.):	1130
End Purge (hrs.):	1200
Total Purge Time (min.):	30
Total Amount Purged (gal):	3
Purge Method:	PERISTALTIC PUMP
Sample Method:	PERISTALTIC PUMP VOC GRAVITY FEED
Depth Sampled:	13.60
Sample Date:	8/16/98
Sample Time:	1200

Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

Duplicate ID: E07-GS-D2

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)

BLPG103

1

ANALYSES:

TCL VOCs (~~HCL Preservative~~ REMOVED)	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number: N/A
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1130	2.0	28.5	8.60	.362	2.77	98	CLEAR	.01
1140	2.25	28.4	8.56	.353	2.75	-10	CLEAR	.01
1150	2.75	28.1	8.50	.351	2.78	-10	CLEAR	.01
1200	3.0	28.1	8.51	.349	2.79	-10	CLEAR	.01

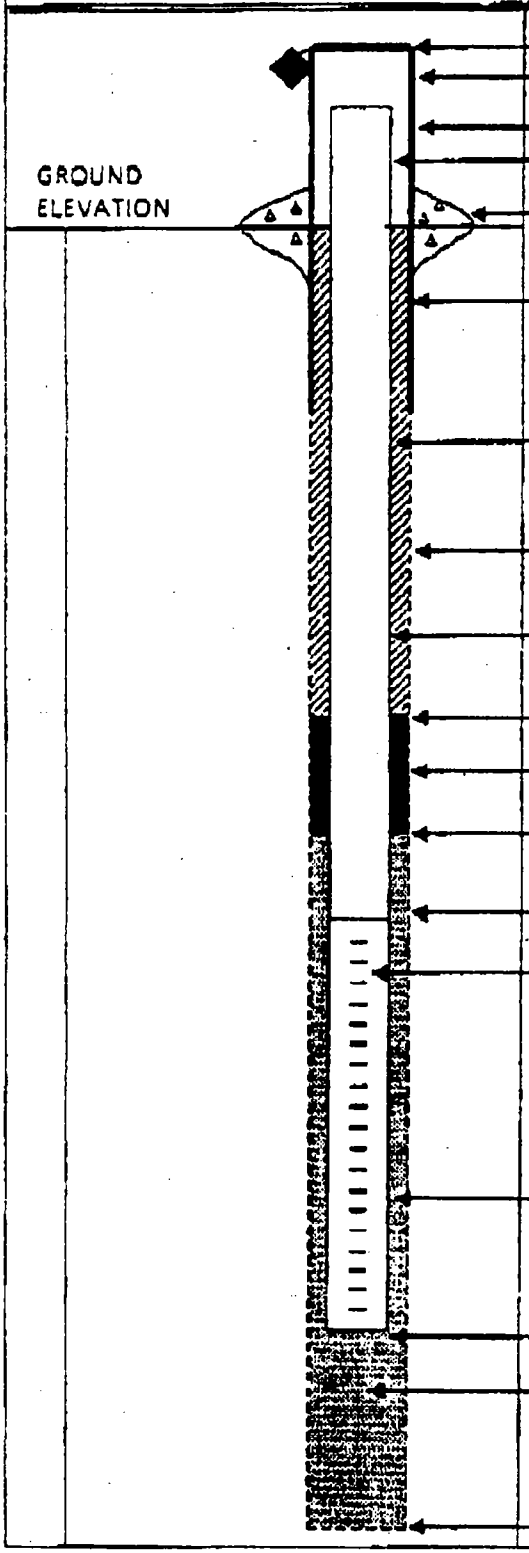
Sampled By: P. HALVERSON Signature(s):

OVERBURDEN MONITORING WELL SHEET

PROJECT: OTS 0032
PROJECT NO.: 7593 BLO 05C 105
ELEVATION:
FIELD GEOLOGIST:

LOCATION: BUILDING 103
BORING: 103-65-A2
DATE: 081398

DRILLER: PRECISION
DRILLING METHOD: AIR
DEVELOPMENT METHOD:



ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING: —
STICK - UP RISER PIPE: —
TYPE OF SURFACE SEAL: —
I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING: —
RISER PIPE I.D.: 1"
TYPE OF RISER PIPE: PVC Sched 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: [redacted]
ELEVATION / DEPTH TOP OF SEAL: [redacted] /
TYPE OF SEAL: —
DEPTH TOP OF SAND PACK: 4'
ELEVATION / DEPTH TOP OF SCREEN: 8' /
TYPE OF SCREEN: PVC Sched 40
SLOT SIZE x LENGTH: 0.010x5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: 13' /
ELEVATION / DEPTH BOTTOM OF SAND PACK: /
TYPE OF BACKFILL BELOW OBSERVATION WELL:
ELEVATION / DEPTH OF HOLE: 13 /

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: E07-GS-19 Project: NAS Key West BRAC SI Project Number 7593
Zone: E Subzone:
Airbill No: Laboratory: GEL

Total Depth (ft):	12.50
Stickup Height (ft):	1.20
Casing Diameter (ID-inches):	1.0
Static Water Level (ft below top of casing):	7.56
One Casing Volume (gal):	
Start Purge (hrs.):	1020
End Purge (hrs.):	1030
Total Purge Time (min.):	10
Total Amount Purged (gal):	1.25
Purge Method:	PERISTALTIC PUMP
Sample Method:	PERISTALTIC PUMP VOC GRAVITY FEED
Depth Sampled:	10.00
Sample Date:	9/17/98
Sample Time:	1030

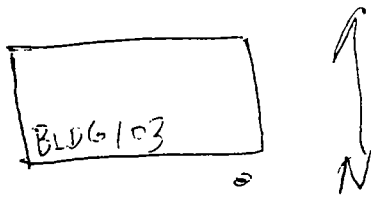
Type of Screening Sample:
- [ ] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)
* PURE PRODUCT IN THIS WELL



ANALYSES:

TCL VOCs (HCl ~~Preservative~~) REMOVED	YES [✓]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [✓]	NO [ ]	Bottle Lot Number: N/A
TCL PESTs:	YES [ ]	NO [✓]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [✓]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [✓]	NO [ ]	Bottle Lot Number:

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color

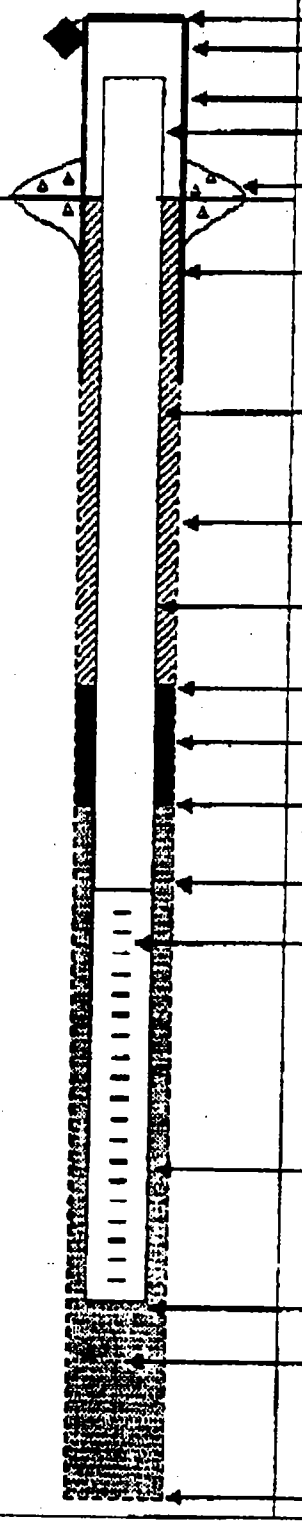
Sampled By: P. HALVERSON Signature(s): [signature]

OVERBURDEN MONITORING WELL SHEET

PROJECT OTO 0032
PROJECT NO. 7573 BLO 05C 105
ELEVATION
FIELD GEOLOGIST

LOCATION E-BUILDING 103
BORING 103-GS-B2
DATE 08/14/98

DRILLER PRECISION
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING. —
STICK - UP RISER PIPE: —

TYPE OF SURFACE SEAL: —

I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING: —

RISER PIPE I.D. 1" PVC
TYPE OF RISER PIPE: PVC Sched 40

BOREHOLE DIAMETER: 2"

TYPE OF BACKFILL: [redacted]

ELEVATION / DEPTH TOP OF SEAL: — /

TYPE OF SEAL:

DEPTH TOP OF SAND PACK: 4'

ELEVATION / DEPTH TOP OF SCREEN: 8' /

TYPE OF SCREEN: 5'

SLOT SIZE x LENGTH:

I.D. OF SCREEN:

TYPE OF SAND PACK: SAND

ELEVATION / DEPTH BOTTOM OF SCREEN: 13' /

ELEVATION / DEPTH BOTTOM OF SAND PACK: 12 /

TYPE OF BACKFILL BELOW OBSERVATION WELL:

ELEVATION / DEPTH OF HOLE: 13' /

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: EP07-GS-20 Project: NAS Key West BRAC SI Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: GEL

Total Depth (ft):	14.85
Stickup Height (ft):	-0-
Casing Diameter (ID-inches):	1
Static Water Level (ft below top of casing):	6.25
One Casing Volume (gal):	.688
Start Purge (hrs.):	1350
End Purge (hrs.):	1420
Total Purge Time (min.):	30
Total Amount Purged (gal):	3
Purge Method:	PERISTALTIC PUMP
Sample Method:	PERISTALTIC PUMP VOC GRAVITY FEED.
Depth Sampled:	14.70
Sample Date:	8/15/98
Sample Time:	1420

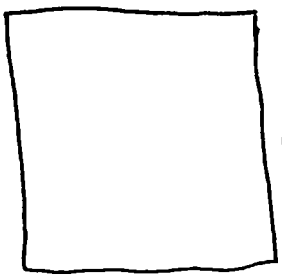
Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)



SW CORNER OUT SIDE BUILDING

RINSED OUT

ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	N/A
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [ ]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1350	1	28.6	7.95	1.41	1.43	352	CLOUDY	.06
1400	2.0	28.7	7.90	1.43	1.44	-10	CLEAR	.06
1415	2.5	28.4	7.91	1.44	1.45	-10	CLEAR	.06
1420	3	28.4	7.93	1.45	1.48	-10	CLEAR	.06

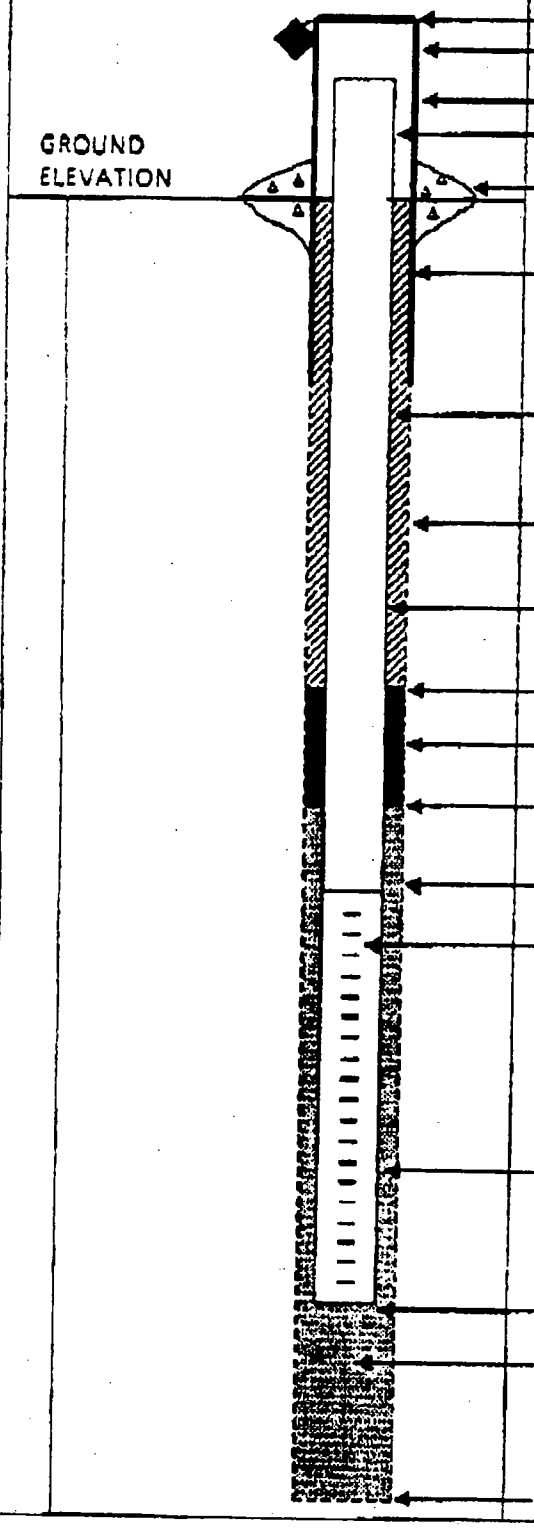
Sampled By: P. HALVERSON Signature(s): [signature]

OVERBURDEN MONITORING WELL SHEET

PROJECT: CTO 0032
PROJECT NO.: 7593 BW 05C145
ELEVATION:
FIELD GEOLOGIST:

LOCATION: BUILDING 103
BORING: 103-GS-CZB
DATE: 09/1498

DRILLER: PRECISION
DRILLING METHOD: DPT
DEVELOPMENT METHOD:



ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING: —
STICK - UP RISER PIPE: —

TYPE OF SURFACE SEAL: —

I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING: —

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40

BOREHOLE DIAMETER: 2"

TYPE OF BACKFILL: [redacted]

ELEVATION / DEPTH TOP OF SEAL: 0 /

TYPE OF SEAL: —

DEPTH TOP OF SAND PACK: 4

ELEVATION / DEPTH TOP OF SCREEN: 8 /

TYPE OF SCREEN: PVC Sched 40

SLOT SIZE x LENGTH: 0.010 x 5

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: SAND

ELEVATION / DEPTH BOTTOM OF SCREEN: 13 /

ELEVATION / DEPTH BOTTOM OF SAND PACK: 13 /

TYPE OF BACKFILL BELOW OBSERVATION WELL:

ELEVATION / DEPTH OF HOLE: /

11.2
3.2
2.8

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE LOG SHEET

Sample Name: E07-GS-21 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E Subzone:

Airbill No: Laboratory: GEL

Total Depth (ft):	8.75
Stickup Height (ft):	.62
Casing Diameter (ID-inches):	1
Static Water Level (ft below top of casing):	4.91
One Casing Volume (gal):	.3072
Start Purge (hrs.):	1020
End Purge (hrs.):	1040
Total Purge Time (min.):	20
Total Amount Purged (gal):	1.0
Purge Method:	PERISTALTIC PUMP
Sample Method:	PERISTALTIC PUMP VOC GRAVITY FEED
Depth Sampled:	8.70
Sample Date:	8/16/98
Sample Time:	1040

Type of Screening Sample:
- [x] DPT Borehole
- [ ] Existing Monitoring Well
- [ ] HSA Temporary Well

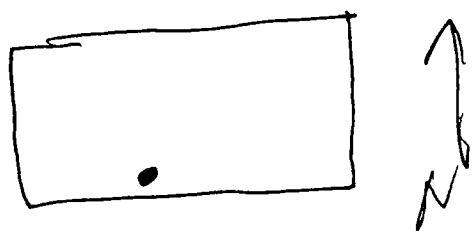
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)

SUMP #2



ANALYSES:

			Bottle Lot Number:
TCL VOCs (~~HCL Preservative~~ REMOVED):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	N/A
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

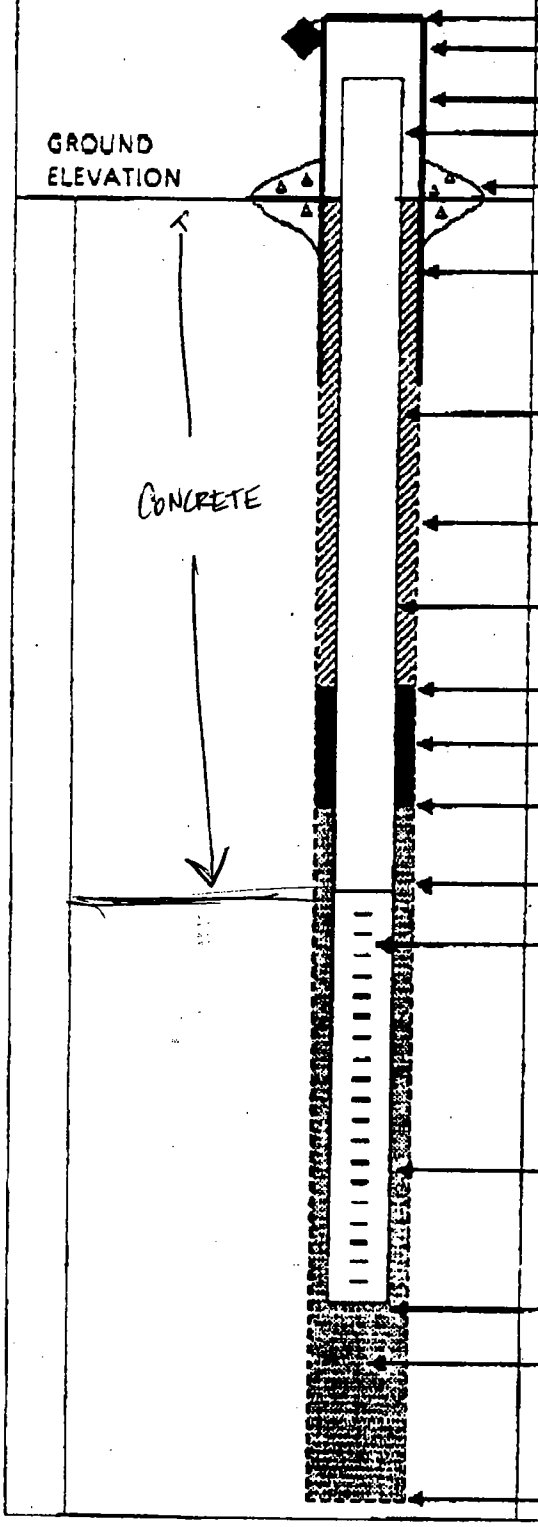
Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	
1020	.25	28.2	8.42	3.85	~~233~~ .88	233	CLOUDY	.22
1030	.50	28.2	8.43	3.88	.86	-10	CLEAR	.19
1035	.75	28.2	8.44	3.90	.85	-10	CLEAR	.19
1040	1.0	28.2	8.46	3.93	.80	-10		.26

Sampled By: [signature] Signature(s): [signature]

OVERBURDEN MONITORING WELL SHEET

PROJECT: CTO 0032 BRAC SSI
PROJECT NO.: 7593 BLD DEC 105
ELEVATION:
FIELD GEOLOGIST:
LOCATION: BUILDING 103
BORING: E09-SS-12
DATE: 081598

DRILLER: PRECISION
DRILLING METHOD: DPT
DEVELOPMENT METHOD:



ELEVATION OF TOP OF SURFACE CASING: —
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING: —
STICK - UP RISER PIPE: —
TYPE OF SURFACE SEAL: —
I.D. OF SURFACE CASING: —
TYPE OF SURFACE CASING:
RISER PIPE I.D.: 1"
TYPE OF RISER PIPE: PVC Sch 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: BENTONITE
ELEVATION / DEPTH TOP OF SEAL: — /
TYPE OF SEAL: —
DEPTH TOP OF SAND PACK: 4'
ELEVATION / DEPTH TOP OF SCREEN: 8' /
TYPE OF SCREEN: PVC Sch 40
SLOT SIZE x LENGTH: 0.010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: SAND
ELEVATION / DEPTH BOTTOM OF SCREEN: 12' /
ELEVATION / DEPTH BOTTOM OF SAND PACK: 12' /
TYPE OF BACKFILL BELOW OBSERVATION WELL:
ELEVATION / DEPTH OF HOLE: 12' /

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: (ID) ~~7593~~ / E07-GS-22 / ~~072498~~

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height: 0.94 ft above/below grade

Total Depth of ~~Borehole:~~ WELL: 13.33 ft below top of casing

Static Water Level: 8.29 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: 0.21 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample: V=0.0408h

For 2 inch ID Sample: V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES FLO RATE = 900 ml/min

Date: 07-24-98 Time Begun: 11:25 Developed by: SKIP VALLANCOURT / GLENN CALVIN

Method(s) Used: (B+R) PERISTALTIC PUMP / GEO / FLOW RATE = 900 ml/min

COLOR CLEAR / SULFER ODOR

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1455	.70	27.1	6.81	1.41	1.49	65	CLEAR	.06
1510	1.25	27.0	6.72	1.37	1.06	+0	CLEAR	.06
1525	1.85	27.0	6.75	1.37	1.01	0	CLEAR	.06
1540	2.40	27.0	6.74	1.35	1.02	0	CLEAR	.06
1540	7593 / E07-GS-22 / 072498						SAMPLED	

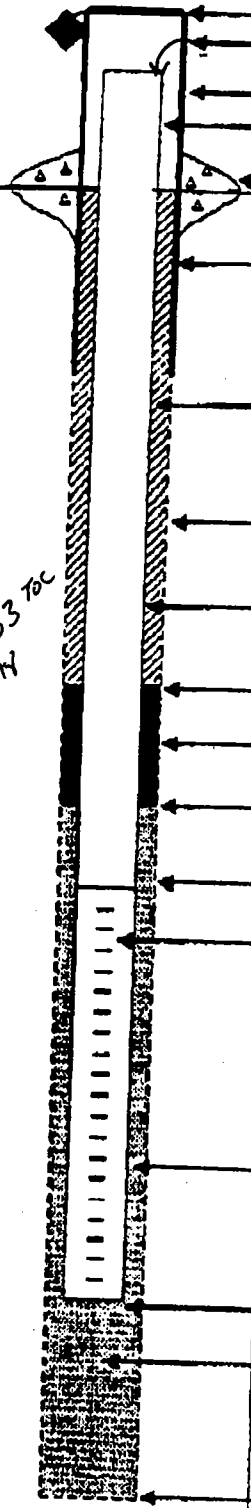
Casing Volumes Removed: 24 (5 GAL) Time Development Completed: 11:42

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS - Key West
PROJECT NO. CTO 1032
ELEVATION
FIELD GEOLOGIST John G Webster II

LOCATION ~~E03 SS-0~~ E
BORING E03-SS-07
DATE 7/22/99

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD



Temporary well
Water at 8.63 toc
1647 - 7/22/99
(SS)

ELEVATION OF TOP OF SURFACE CASING: ~~.94'~~ NA
ELEVATION OF TOP OF RISER PIPE: .94'
STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE:
TYPE OF SURFACE SEAL: N/A
I.D. OF SURFACE CASING:
TYPE OF SURFACE CASING:
RISER PIPE I.D. PVC Sched 40
TYPE OF RISER PIPE:
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: N/A Natural Collapse
ELEVATION / DEPTH TOP OF SEAL: NA
TYPE OF SEAL: N/A
DEPTH TOP OF SAND PACK:
ELEVATION / DEPTH TOP OF SCREEN: 7'
TYPE OF SCREEN: PVC Sched 40
SLOT SIZE x LENGTH: .010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: N/A Natural Collapse
ELEVATION / DEPTH BOTTOM OF SCREEN: 12'
ELEVATION / DEPTH BOTTOM OF SAND PACK: N/A
TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A
ELEVATION / DEPTH OF HOLE: 12

7/22/99

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E03-65-23

Zone: E

Subzone: 7

Date of Screening Sample Installation: 072398

Time of Screening Sample Installation:

Stickup Height: 1.16 ft above/below grade

Total Depth of Borehole: 13.12 ft below top of casing

Static Water Level: 8.30 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: .148 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 072498 Time Begun: 1250 Developed by: SVHallmount & Colvin

Method(s) Used: RBE GEO Peristaltic Pump

Flow 900 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color

Casing Volumes Removed: 33 (5gal) Time Development Completed: 13.12

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E03-GS-23 * should be E07-GS-23

Zone: E

Subzone: 7

Date of Screening Sample Installation: 7/22/98

Time of Screening Sample Installation:

Stickup Height 1.16 ft above/below grade

Total Depth of Borehole: 13.12 ft below top of casing

Static Water Level: 8.30 ft below top of casing

Inside Diameter of Borehole: 1 inches

One Casing Volume: .148 gallons

Method of Installation: HSA ☐ DPT ☒

Piezometer Installed: YES ☐ NO ☒

NOTE:
For 1 inch Inner Diameter (ID) Sample: V=0.0408h

For 2 inch ID Sample: V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 7/24/98 Time Begun: 1620 Developed by: PAUL HALLIDAY

Method(s) Used: PERISTALTIC PUMP

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1625		27.1	6.83	.883	2.05	18	CLEAR	.03
1640		27.2	6.81	.866	1.92	0	CLEAR	.03
1655		27.1	6.83	.865	2.01	1	CLEAR	.03
1705		27.1	6.83	.867	2.04	0	CLEAR	.03
17:10		7593/	E03-GS	-23/	012498	SAMPLED		

Casing Volumes Removed: _____ Time Development Completed: 1705

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE ~~DEVELOPMENT~~ PURGE FORM

Screening Sample Number: E03-GS-23

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height 1.16 ft above/below grade

Total Depth of Borehole: 13.12 ft below top of casing

Static Water Level: 8.31 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: 0.15 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL ~~DEVELOPMENT~~ PURGE NOTES

Date: 07 27 98 Time Begun: 13:50 Developed by: GC PH

Method(s) Used: BRE PERISTALTIC PUMP
FLOW RATE 300ml/min / GREY

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
13:50	0.15	27.7	7.23	1.15	1.95	234	GREY	0.05
13:55	0.35	27.1	7.24	1.15	1.70	64	CLOUDY WHITE	0.05
14:00	0.45	27.0	7.22	0.99	1.19	21	CLEAR	0.04
14:10	7593/E03-GS-23/072798							
		RESAMPLE VOC's						

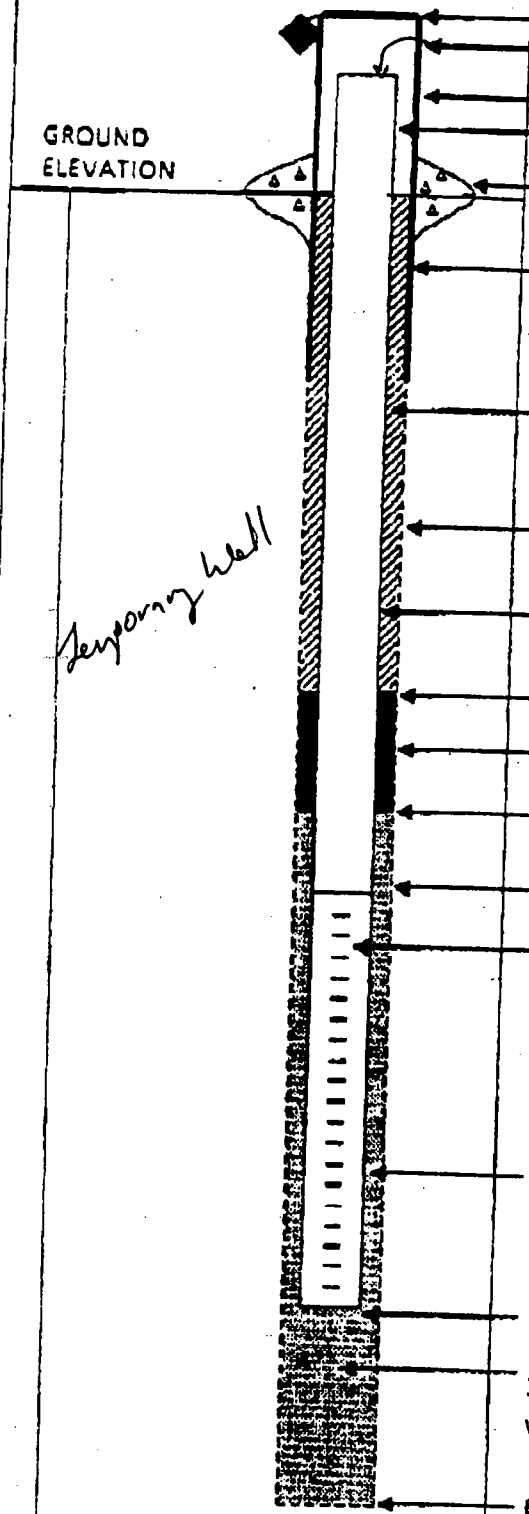
Casing Volumes Removed: 4 (.60 GAL) Time ~~Development~~ PURGE Completed: 14:00

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS Keywest
PROJECT NO. CTO 032
ELEVATION —
FIELD GEOLOGIST John G Webster

LOCATION Old 102
BORING E03-SS-08
DATE 7/27/96

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD —



ELEVATION OF TOP OF SURFACE CASING: N/A
ELEVATION OF TOP OF RISER PIPE:
STICK - UP TOP OF SURFACE CASING.
STICK - UP RISER PIPE:
TYPE OF SURFACE SEAL: NA
I.D. OF SURFACE CASING: NA
TYPE OF SURFACE CASING:
RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sch 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: Natural Collapse
ELEVATION / DEPTH TOP OF SEAL: N/A
TYPE OF SEAL: N/A
DEPTH TOP OF SAND PACK: NA
ELEVATION / DEPTH TOP OF SCREEN: 7'
TYPE OF SCREEN: PVC Sch 40
SLOT SIZE x LENGTH: .010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: Natural Collapse
ELEVATION / DEPTH BOTTOM OF SCREEN: 12'
ELEVATION / DEPTH BOTTOM OF SAND PACK: N/A
TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A
ELEVATION / DEPTH OF HOLE: 12

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-24

Zone: E

Subzone: 7

Date of Screening Sample Installation: 7/22/98

Time of Screening Sample Installation:

Stickup Height 1.17 ft above/below grade

Total Depth of ~~Borehole~~: WELL 13.15 ft below top of casing

Static Water Level: 8.53 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: .0.19 gallons

Method of Installation: HSA ☐ DPT ☒

Piezometer Installed: YES ☐ NO ☒

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 7/24/98 Time Begun: 12:00 Developed by: SV GC

Method(s) Used: BRE - GEO PERISTALTIC PUMP
FLOW RATE 900 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color
13:00	0.19	27.4	6.74	1.29	1.66	0	CLEAR
13:13	2.2	27.5	6.75	1.20	1.57	-1	CLEAR
15:24	3.8	27.4	6.70	1.19	1.51	-1	CLEAR
15:35	5	27.4	6.70	1.19	1.47	-1	CLEAR
15:45	7593	E07-GS-24	072498				

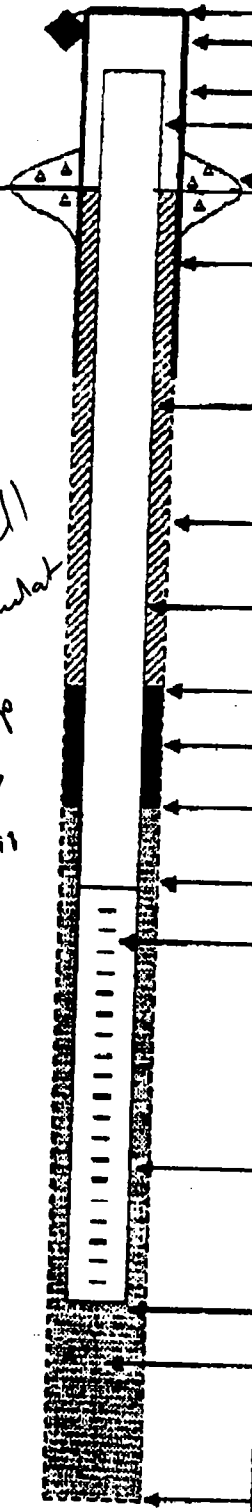
Casing Volumes Removed: 27.5 GAL Time Development Completed: 12:20

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS Key West
PROJECT NO. CTO 032
ELEVATION —
FIELD GEOLOGIST John G Webster

LOCATION E
BORING E03-SS-09
DATE 7/22/97

DRILLER Bob
DRILLING METHOD
DEVELOPMENT METHOD DPT



GROUND ELEVATION

Temporary Well
Water measurement
8.74 TOC
-1.21 Stickup
7.53' bgs
1700 7/22/97

ELEVATION OF TOP OF SURFACE CASING:
ELEVATION OF TOP OF RISER PIPE: 1.21'

STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE:

TYPE OF SURFACE SEAL:

I.D. OF SURFACE CASING: N/A
TYPE OF SURFACE CASING:

RISER PIPE I.D. 1" PVC
TYPE OF RISER PIPE: Sched 40

BOREHOLE DIAMETER: 2"

TYPE OF BACKFILL: Natural Collaspe

ELEVATION / DEPTH TOP OF SEAL: N/A /

TYPE OF SEAL: N/A

DEPTH TOP OF SAND PACK: N/A

ELEVATION / DEPTH TOP OF SCREEN: 7' 8" /

TYPE OF SCREEN: PVC Sched 40

SLOT SIZE x LENGTH: .010 x 5

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: Natural Collaspe

ELEVATION / DEPTH BOTTOM OF SCREEN: 12 /

ELEVATION / DEPTH BOTTOM OF SAND PACK: N/A
TYPE OF BACKFILL BELOW OBSERVATION WELL:

ELEVATION / DEPTH OF HOLE: 12 /

7/22/97

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-65-25

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height: 0.70 ft above/below grade

Total Depth of ~~Borehole:~~ WELL: 12.85 ft below top of casing

Static Water Level: 7.59 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: .16 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample: V=0.0408h

For 2 inch ID Sample: V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 7-24-98 Time Begun: 1225 Developed by: S. Vallance & G. Galvis

Method(s) Used: B&B GEO Peristalic Pump Flow 900 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color
16:05		28.0	6.63	1.09	1.05	1	CLEAR
16:15		28.0	6.64	1.06	1.10	1	CLEAR
16:26		28.0	6.65	1.01	1.15	0	CLEAR
16:37	5	28.0	6.64	1.02	1.18	0	CLEAR
16:57	1593/E07-65-25/0724				SAMPLED		

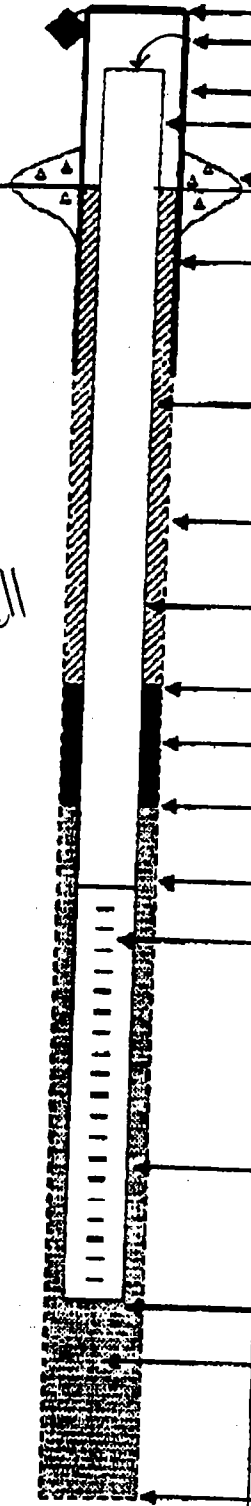
Casing Volumes Removed: 31 (5 gal) Time Development Completed: 1244

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS Key West
PROJECT NO. GB032
ELEVATION —
FIELD GEOLOGIST Jim Gulosh

LOCATION ~~NAS~~ B11 102
BORING B03-SS-10-TW
DATE 7/22/91

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING: NA
ELEVATION OF TOP OF RISER PIPE: .85'
STICK - UP TOP OF SURFACE CASING.
STICK - UP RISER PIPE:
TYPE OF SURFACE SEAL: NA
I.D. OF SURFACE CASING: N/A
TYPE OF SURFACE CASING: ~~PVC Sched 40~~
RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: N/A
ELEVATION / DEPTH TOP OF SEAL: N/A /
TYPE OF SEAL: NA
DEPTH TOP OF SAND PACK:
ELEVATION / DEPTH TOP OF SCREEN: 7' /
TYPE OF SCREEN: PVC Sched 40
SLOT SIZE x LENGTH: .010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: Natural Collespa
ELEVATION / DEPTH BOTTOM OF SCREEN: 12' /
ELEVATION / DEPTH BOTTOM OF SAND PACK: NA
TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A
ELEVATION / DEPTH OF HOLE: 12' /

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-65-26

Zone: E

Subzone: 7

Date of Screening Sample Installation: 072398

Time of Screening Sample Installation:

Stickup Height: 0.27 ft above/below grade

Total Depth of Borehole: 11.85 ft below top of casing

Static Water Level: 8.00 ft below top of casing

Inside Diameter of Borehole: 1½ inches

One Casing Volume: .146 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 072498 Time Begun: 1320 Developed by: S Vallancourt G Colon

Method(s) Used: BRE GEO Peristaltic Pump

Flow 900 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
09:00	0.146	27.2	6.71	.720	1.60	2	CLEAR	0.03
09:15	2.5	27.3	6.75	.717	1.63	1	CLEAR	0.03
09:30	5	27.2	6.71	.707	1.55	0	CLEAR	0.03
09:45	7593 / E07-65-26 / 072598						SAMPLED	

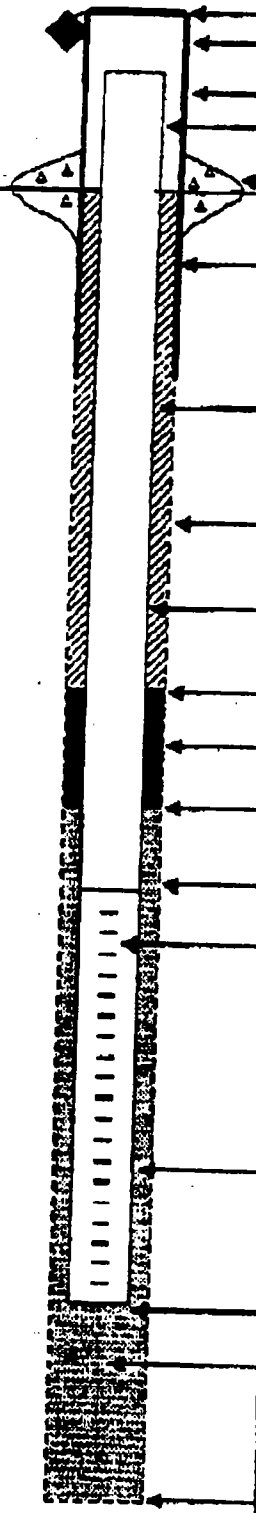
Casing Volumes Removed: 34 (5 gal) Time Development Completed: 1344

OVERBURDEN MONITORING WELL SHEET

PROJECT NAS Key West
PROJECT NO. CTO 032
ELEVATION —
FIELD GEOLOGIST John G Webster

LOCATION Nd 104
BORING E03-SS-11
DATE 7/22/91

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING:
ELEVATION OF TOP OF RISER PIPE: 0
STICK - UP TOP OF SURFACE CASING.
STICK - UP RISER PIPE:
TYPE OF SURFACE SEAL: N/A
I.D. OF SURFACE CASING:
TYPE OF SURFACE CASING:
RISER PIPE I.D. 2"
TYPE OF RISER PIPE: PVC Sched 40
BOREHOLE DIAMETER: 2"
TYPE OF BACKFILL: Natural Collapse
ELEVATION / DEPTH TOP OF SEAL: N/A /
TYPE OF SEAL: N/A
DEPTH TOP OF SAND PACK:
ELEVATION / DEPTH TOP OF SCREEN: 7' /
TYPE OF SCREEN: PVC Sched 40
SLOT SIZE x LENGTH: .010 x 5
I.D. OF SCREEN: 1"
TYPE OF SAND PACK: Natural Collapse
ELEVATION / DEPTH BOTTOM OF SCREEN: 12 /
ELEVATION / DEPTH BOTTOM OF SAND PACK: /
TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A
ELEVATION / DEPTH OF HOLE: 12 /

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-27
Zone: E
Subzone: 7
Date of Screening Sample Installation: 7/23/98
Time of Screening Sample Installation:
Stickup Height: FLUSH ft above/below grade
Total Depth of ~~Borehole:~~ WELL: 12.00 ft below top of casing
Static Water Level: 7.62 ft below top of casing
Inside Diameter of Borehole: 1" inches
One Casing Volume: .178 gallons
Method of Installation: HSA ☐ DPT ☒
Piezometer Installed: YES ☐ NO ☒

NOTE:
For 1 inch Inner Diameter (ID) Sample: V=0.0408h
For 2 inch ID Sample: V=0.1632h
(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:
DUP. SAMPLE TAKEN E07-GS-D1

WELL DEVELOPMENT NOTES

Date: 7/25/98 Time Begun: Developed by:
Method(s) Used: PERISTALTIC PUMP

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
0800	1.0	26.9	6.34	1.16	~~286~~ 1.35	286	MILKY	.05
0815	1.5	26.9	6.36	.995	1.61	225	MILKY	.04
0830	2.0	26.8	6.47	1.16	1.48	5	CLEAR	.04
0845	2.5	26.7	6.57	1.17	1.50	2	CLEAR	.05
0900	3	26.8	6.57	1.17	1.52	1	CLEAR	.05
09:00		E07-GS-27/072598					SAMPLED	
09:45		E07-GS-27 DUP/072598						

Casing Volumes Removed: Time ~~Development~~ PURGE Completed: 0900

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-G5-27

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height: 0 ft above/below grade

Total Depth of ~~Borehole:~~ WELL: 12.0' ft below top of casing

Static Water Level: 7.80 ft below top of casing

Inside Diameter of ~~Borehole:~~ WELL: ~~7.80~~ 1" inches

One Casing Volume: 0.18 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 07-24-98 Time Begun: 13:50 Developed by: SV GC

Method(s) Used: BRE PERESTALTIC PUMP
FLOW RATE = 900 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
10:30	0.18	27.1	6.72	1.13	1.49	920	LIGHT GREY	0.05
10:35	0.36	27.1	6.72	1.14	1.42	44	CLEARING	0.05
10:40	0.54	27.1	6.70	1.15	1.40	13	CLEAR	0.05
10:45	7593/		E07-G5-27/			072798		
			RESAMPLE					

Casing Volumes Removed: 28 (5GAL) Time Development Completed: 14:11

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-65-27

Zone: E

Subzone: 7

Date of Screening Sample Installation: 072398

Time of Screening Sample Installation:

Stickup Height: Flush ft above/below grade

Total Depth of ~~Borehole~~: WELL 12.00 ft below top of casing

Static Water Level: 7.62 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: .178 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

CORI

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 072498 Time Begun: 1350 Developed by: Stillwaggon & Colvin

Method(s) Used: BRE GBO Peristaltic Pump

Flow 500 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
1300	0.18	27.1	6.82	1.17	1.49	734	LIGHT GREY	0.05
1305	0.36	27.0	6.82	1.15	1.75	47	CLOUDY CLEARING	0.05
1310	0.54	27.0	6.79	1.16	1.63	11	CLEAR	0.05
0.75 gal	13:15	7593/E07-65-27/072998						
		RESAMPLE						

Casing Volumes Removed: 28 gal Time Development Completed: 1411

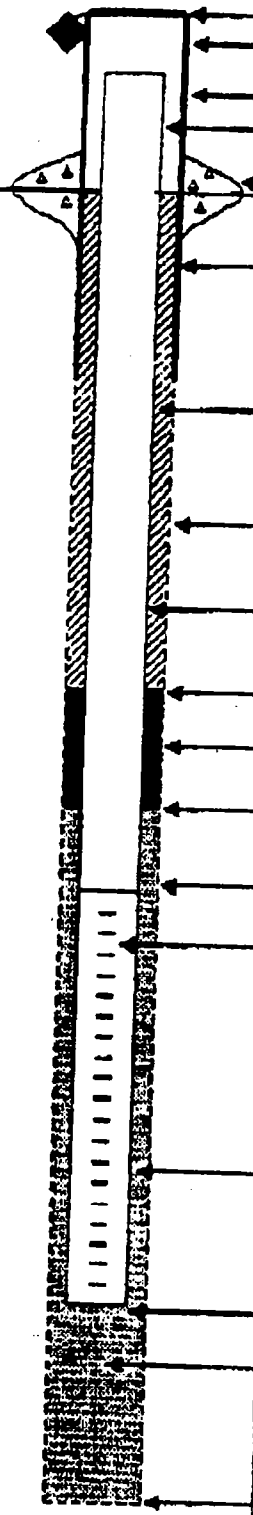
SVOCs
VOC
TAL Metals + Tin

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS Key West
PROJECT NO. CTO 032
ELEVATION
FIELD GEOLOGIST John Albright

LOCATION Bld 104
BORING E03-SB-12-1
DATE 7/23/91

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING: N/A
ELEVATION OF TOP OF RISER PIPE: 0

STICK - UP TOP OF SURFACE CASING:
STICK - UP RISER PIPE:

TYPE OF SURFACE SEAL: N/A

I.D. OF SURFACE CASING: N/A
TYPE OF SURFACE CASING:

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40

BOREHOLE DIAMETER: 2"

TYPE OF BACKFILL: Natural Collapse

ELEVATION / DEPTH TOP OF SEAL: 1

TYPE OF SEAL: N/A

DEPTH TOP OF SAND PACK:

ELEVATION / DEPTH TOP OF SCREEN: 7 1

TYPE OF SCREEN: PVC Sched 40

SLOT SIZE x LENGTH: .010 x 5

I.D. OF SCREEN: 1

TYPE OF SAND PACK: Natural Collapse

ELEVATION / DEPTH BOTTOM OF SCREEN: 12 1

ELEVATION / DEPTH BOTTOM OF SAND PACK: ~~12~~ NA 1

TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A

ELEVATION / DEPTH OF HOLE: 12 1

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-28

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height: 0.97 ft above/below grade

Total Depth of Borehole: 13.05 ft below top of casing

Static Water Level: 8.61 ft below top of casing

Inside Diameter of ~~Borehole~~: WELL 1" inches

One Casing Volume: 0.18 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 07-24-98 Time Begun: 14:20 Developed by: S. VALLANCOURT G. COLVIN

Method(s) Used: BRE GEO PARASTALTIC PUMP
FLOW 900 ml/min

07/25 Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color
08:00	0.97	26.7	6.38	1.09	1.33	4	CLEAR
0815	3	26.8	6.40	.997	1.65	0	CLEAR
0830	5	26.8	6.68	.990	1.69	0	CLEAR
0845	7593/E07-GS-28/072598						SAMPLED
		RESAMPLE					

Casing Volumes Removed: 28 5 GAL Time Development Completed: 14:42

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-28

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height: 0.97 ft above/below grade

Total Depth of Borehole: 13.05 ft below top of casing

Static Water Level: 8.85 ft below top of casing

Inside Diameter of ~~Borehole~~: WELL 1" inches

One Casing Volume: 0.18 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 07-24-98 Time Begun: 14:20 Developed by: S.V. G.C.

Method(s) Used: BRE GEO PARASTALTIC PUMP
FLOW RATE 900 ml/min

DATE 07-27-98 Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
09:50	0.18	27.2	6.84	1.08	1.15	136	LIGHT GREY	0.04
09:55	0.36	27.3	6.88	1.07	1.18	44	LIGHT GREY	0.04
10:00	0.54	27.3	6.88	1.08	1.20	17		0.04
10:10	7593/E07-GS-28/072798						SAMPLE	

Casing Volumes Removed: 28 (5 GAL) Time Development Completed: 14:42

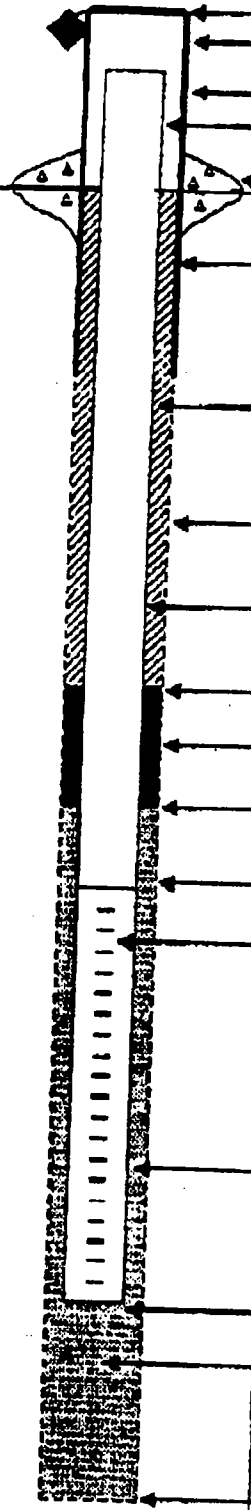
DEVELOPMENT
07-27-98 BEGIN @ 09:30 FLOW RATE = 950 ml/min
LIGHT GREY DIESEL ODOR
END @ 09:50 1.5 GAL

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS Key West
PROJECT NO. CTO 032
ELEVATION —
FIELD GEOLOGIST John G Webster

LOCATION ~~F03-SS-14~~ OU10
BORING F03-SS-14
DATE 7/23/98

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING:
ELEVATION OF TOP OF RISER PIPE: 0

STICK - UP TOP OF SURFACE CASING.
STICK - UP RISER PIPE :

TYPE OF SURFACE SEAL: NA

I.D. OF SURFACE CASING:
TYPE OF SURFACE CASING:

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40

BOREHOLE DIAMETER: 2"

TYPE OF BACKFILL: Natural Collapse

ELEVATION / DEPTH TOP OF SEAL: N/A /

TYPE OF SEAL: N/A

DEPTH TOP OF SAND PACK:

ELEVATION / DEPTH TOP OF SCREEN: 7' /

TYPE OF SCREEN: PVC Sched 40

SLOT SIZE x LENGTH: .010 x 5

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: Natural Collapse

ELEVATION / DEPTH BOTTOM OF SCREEN: 12' /

ELEVATION / DEPTH BOTTOM OF SAND PACK: N/A /

TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A

ELEVATION / DEPTH OF HOLE: 12' /

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-29

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07·26·98

Time of Screening Sample Installation:

Stickup Height: 1.0' ft above/below grade

Total Depth of Borehole: 13.04 ft below top of casing

Static Water Level: 8.68 ft below top of casing

Inside Diameter of Borehole: ____ inches

One Casing Volume: 0.18 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 07 26 98 Time Begun: 13:45 Developed by: PAUL HALVERSON/GLENN COLVIN

Method(s) Used: PERISTALTIC PUMP @ 900 ml/min UNTILL CLEAR 10 GAL / GREY DIESEL ODOR

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
14:45	0.18	27.7	6.57	2.96	1.24	14	CLEAR	0.14
14:50	0.36	27.6	6.52	3.00	0.99	15	CLEAR	0.14
15:00	0.52	27.5	6.53	2.96	1.00	8	CLEAR	0.14
15:10	0.70	27.4	6.52	2.96	1.60	5	CLEAR	0.14
15:15	0.88	27.5	6.52	2.96	0.99	4	CLEAR	0.14
15:25	1593/E07-GS-29/072698							

Casing Volumes Removed: 110 (10 GAL) Time Development Completed: 14:45

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-29

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-23-98

Time of Screening Sample Installation:

Stickup Height: 1.0' ft above/below grade

Total Depth of Borehole: 13.04 ft below top of casing

Static Water Level: 8.80 ft below top of casing

Inside Diameter of Borehole: 1" inches

One Casing Volume: 0.18 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL DEVELOPMENT NOTES

Date: 07-27-98 Time Begun: 11:10 Developed by: PAUL H. GLENN C.

Method(s) Used: BRE PERISTALTIC PUMP
FLOW RATE = 900 ml/min / DARK GREY @ SHEEN

07/27 Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
11:20	0.18	27.4	6.57	3.08	1.22	O/S	GREY	0.15
11:25	0.36	27.3	6.59	3.10	0.99	287	LIGHT GREY	0.15
11:30	0.54	27.4	6.61	3.08		165	SLIGHTLY CLOUDY	0.15
11:35	7593/E07-GS-29/072798							
	RESAMPLE VOC'S							

Casing Volumes Removed: 7 (1.2 GAL) Time Development Completed: 11:20

Brown & Root Environmental

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GROUNDWATER SCREENING SAMPLE DEVELOPMENT FORM

Screening Sample Number: E07-GS-29

Zone: E

Subzone: 7

Date of Screening Sample Installation: 07-26-98

Time of Screening Sample Installation:

Stickup Height: 1.0' ft above/below grade

Total Depth of Borehole: 13.04 ft below top of casing

Static Water Level: 8.68 ft below top of casing

Inside Diameter of Borehole: inches

One Casing Volume: 0.18 gallons

Method of Installation: HSA ☐ DPT ☑

Piezometer Installed: YES ☐ NO ☑

NOTE:
For 1 inch Inner Diameter (ID) Sample:
V=0.0408h

For 2 inch ID Sample:
V=0.1632h

(Where h is height of water column in feet)

If Sample Moved from Location Shown In Workplan, Use This Space to Note Reason for Movement and Specify New Location:

WELL ~~DEVELOPMENT~~ PURGE NOTES

Date: 07-29-98 Time Begun: 12:30 ~~Developed~~ PURGED by: GC PH

Method(s) Used: BRE PERESTALTIC PUMP

FLOW @ 350 ml/min

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color	SAL
12:30	0.18	27.0°	6.59	3.11	1.15	452	GREY	0.15
12:35	0.36	27.1	6.60	3.11	1.15	174	LIGHT GREY	0.15
12:40	0.54	27.1	6.62	3.10	1.10	178	LIGHT GREY	0.15
12:45		7593/E07-GS-29/07-29-98						
		II RESAMPLE						

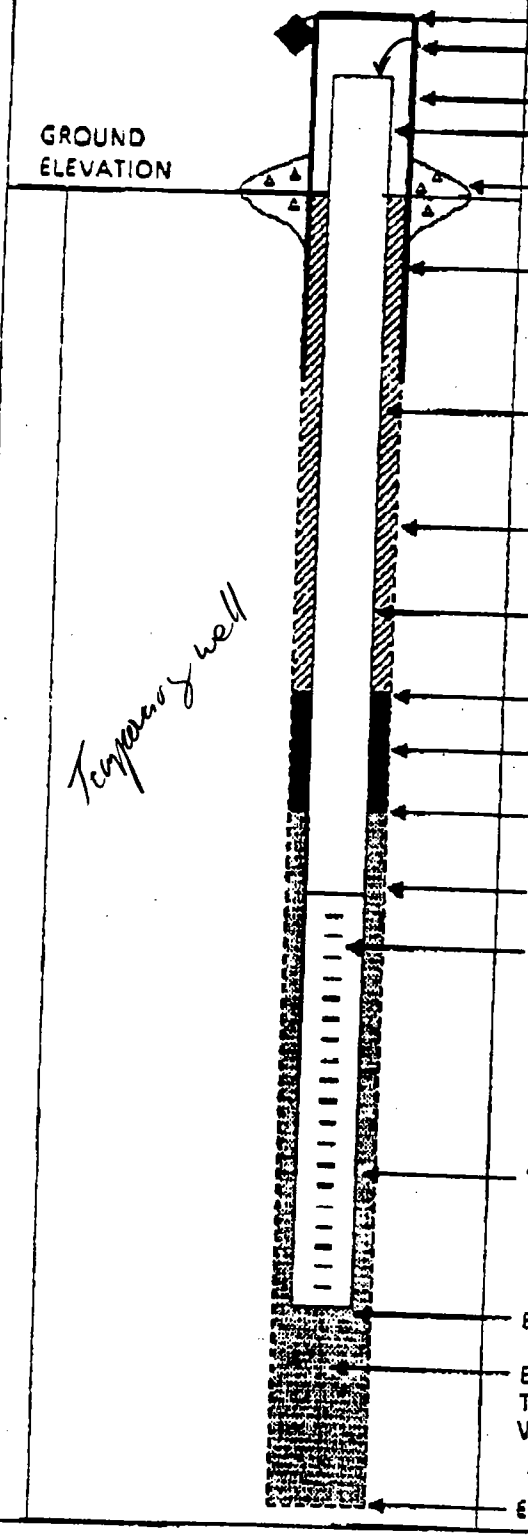
Casing Volumes Removed: 4 (.756AL) Time ~~Development~~ PURGE Completed: 12:40

OVERBURDEN
MONITORING WELL SHEET

PROJECT NAS Key west
PROJECT NO. C70 032
ELEVATION
FIELD GEOLOGIST John G Webster

LOCATION ~~E0~~ Bld 104
BORING E03-SS-13
DATE 7/26/91

DRILLER Bob
DRILLING METHOD DPT
DEVELOPMENT METHOD



ELEVATION OF TOP OF SURFACE CASING: N/A
ELEVATION OF TOP OF RISER PIPE: .85'

STICK - UP TOP OF SURFACE CASING: N/A
STICK - UP RISER PIPE: N/A

TYPE OF SURFACE SEAL: N/A

I.D. OF SURFACE CASING: N/A
TYPE OF SURFACE CASING:

RISER PIPE I.D. 1"
TYPE OF RISER PIPE: PVC Sched 40

BOREHOLE DIAMETER: 2"

TYPE OF BACKFILL: Natural Collapse

ELEVATION / DEPTH TOP OF SEAL: N/A /

TYPE OF SEAL: N/A

DEPTH TOP OF SAND PACK:

ELEVATION / DEPTH TOP OF SCREEN: 7 /

TYPE OF SCREEN: PVC Sched 40

SLOT SIZE x LENGTH: .010 x 5

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: Natural Collapse

ELEVATION / DEPTH BOTTOM OF SCREEN: 12' /

ELEVATION / DEPTH BOTTOM OF SAND PACK: /

TYPE OF BACKFILL BELOW OBSERVATION WELL: N/A

ELEVATION / DEPTH OF HOLE: 12 /

BUILDING 102, 103, AND 104

SWIPE SAMPLES

800 Trail Ridge Road Aiken, SC 29803 (803) 649-7903 Fax: (803) 642-8454

Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 104-SWP-01 Project: NAS Key West BRAC SI

Zone: E - BUILDING 104 Project Number: 7583

Airbill No.: Laboratory: GEL Subzone:

Sample Date:	081698
Sample Time:	0929
Sample Depth (ft):	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- ☐ DPT
- ☐ Hand Auger
- ☐ HSA

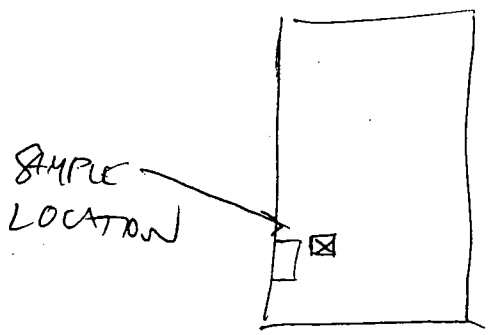
Duplicate ID:

Type of Sample:
- ☐ Low Concentration
- ☐ High Concentration
- ☐ Grab
- ☐ Composite
- ☐ Grab-Composite

MS/MSD: YES ☐ NO ☐

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES ☒	NO ☒	Bottle Lot Number:
TCL SVOCs:	YES ☒	NO ☐	Bottle Lot Number:
TCL PESTs:	YES ☐	NO ☒	Bottle Lot Number:
TCL PCBs:	YES ☐	NO ☒	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES ☒	NO ☐	Bottle Lot Number:

Sampled By: MR/FH Signature(s): [illegible]

[illegible] Trail Ridge Road
Aiken, SC 29803
(803) 649-7983
Fax: (803) 642-8454

Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 104 - SWP - 02 Project: NAS Key West BRAC SI

Zone: ZONE E - BUILDING 104

Project Number: 7593

Airbill No: _____ Laboratory: GEL

Subzone: _____

EXD3
SS-02-SP

Sample Date:	081698
Sample Time:	0930
Sample Depth (ft):	
FID Reading:	
Sample Color:	Black
Sample Description:	

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

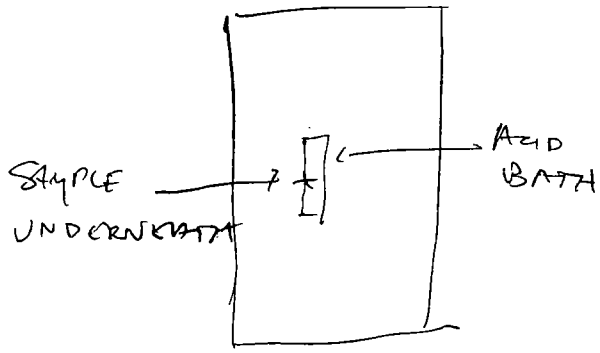
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR / EH Signature(s): [signature]

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 104-SCVP-03 Project: NAS Key West BRAC SI

Zone: Project Number: 7593

Airbill No: Laboratory: GEL Subzone:

Sample Date:	081698
Sample Time:	0950
Sample Depth (ft):	
FID Reading:	
Sample Color:	Black
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

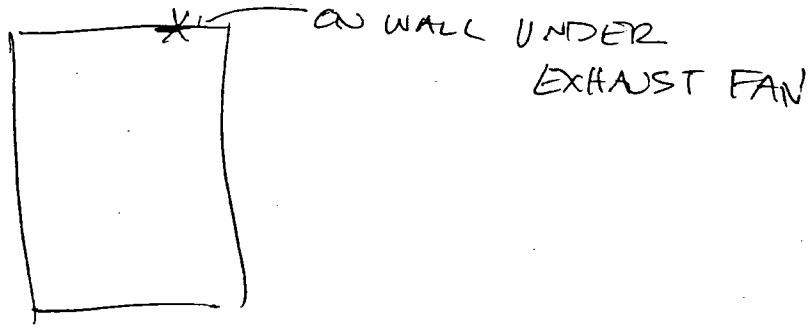
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: Mark Kay / EH Signature(s): Mark Kay

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 103-SWP-01 Project: NAS Key West BRAC SI

Zone: E-BUILDING 103 Project Number: 7593

Airbill No: _____ Laboratory: GEL Subzone: _____

Sample Date:	08/6/98
Sample Time:	0957
Sample Depth (ft):	
FID Reading:	
Sample Color:	Black
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

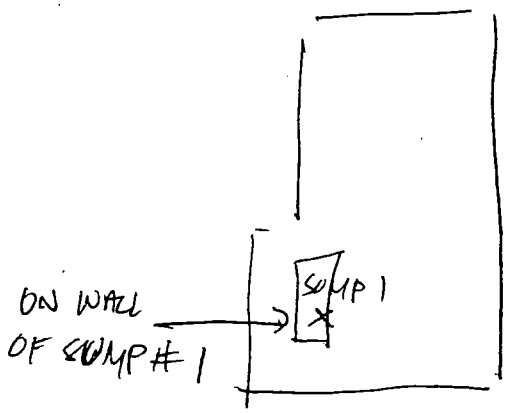
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: MR/EH Signature(s): [signature]

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Building ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name: 103-SWP-02 Project: NAS Key West BRAC 91

Zone: E-BUILDING 103 Project Number: 7593

Airbill No: Laboratory: GEL Subzone:

Sample Date:	081698
Sample Time:	1011
Sample Depth (ft):	
FID Reading:	
Sample Color:	BLACK
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

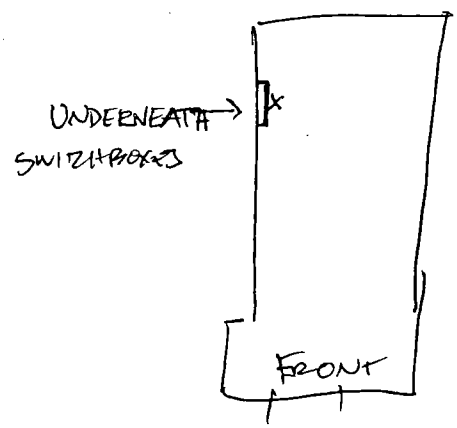
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [X]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: MR/EH Signature(s): Mark Ray Eric J. Hamm

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 103-SUP-03 Project: NAS Key West BRAC SI

Zone: E-BUILDING 103 Project Number: 7583

Airbill No: Laboratory: GEL Subzone:

Sample Date:	081698
Sample Time:	1802
Sample Depth (ft):	
PID Reading:	
Sample Color:	BLACK
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

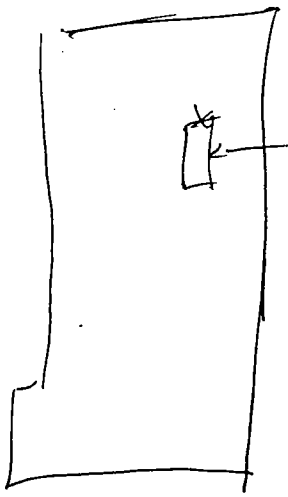
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

Duplicate ID:

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



SUMP - BS-20 ORIGINAL LOCATION
TOOK SAMPLE ON INSIDE WALLS OF SUMP

ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR/EH Signature(s): Murphy Eric J. Hamm

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 105-SWP-04 Project: NAS Key West BRAC SI

Zone: Project Number: 7593

Airbill No.: Laboratory: GEL Subzone:

Sample Date:	081698
Sample Time:	1618
Sample Depth (ft):	
PID Reading:	
Sample Color:	BLACK
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

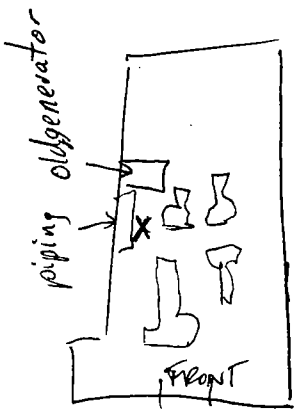
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [X]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: MR/EH Signature(s): [signature]

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 102-SWP-01 Project: NAS Key West BRAC SI Project Number: 7593
Zone: E Building 102 Subzone:
Airbill No: Laboratory: GEL

Sample Date:	8/15/98
Sample Time:	15:50
Sample Depth (ft):	surface (wall)
FID Reading:	0.0
Sample Color:	
Sample Description:	

Sample Method:
- [x] ~~SWP~~ swipe
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

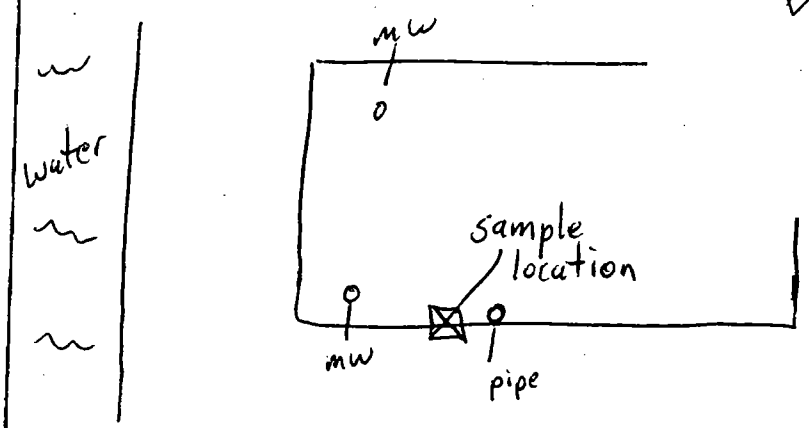
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Wor ... of the New Location:

Entered location as E03-SS-01-SPW

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mark Ray

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Building ~~SURFACE~~ SOIL SAMPLE LOG SHEET

Sample Name: 102-SWP-02 Project: NAS Key West BRAC SI Project Number: 7593
Zone: E Building 102 Subzone:
Airbill No: Laboratory: GEL

Sample Date:	8/15/98
Sample Time:	16:05
Sample Depth (ft):	—
FID Reading:	0.0
Sample Color:	

Sample Method:
- [x] ~~BPT~~ Swipe
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

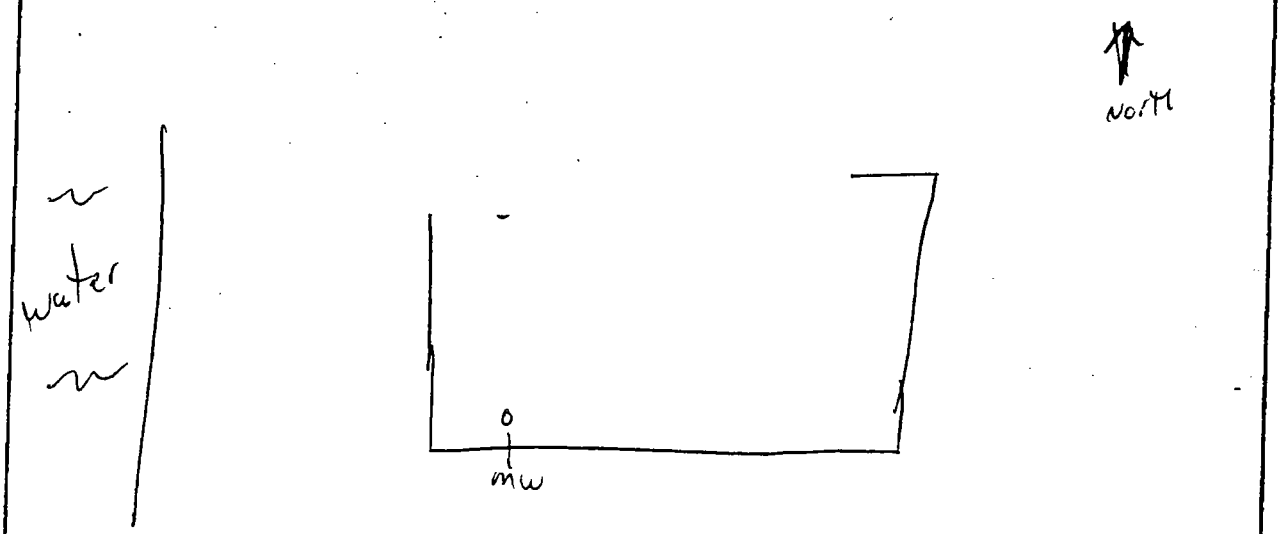
Sample Description:

YES [ ] NO [ ]

If Sample Location was C Provided Here, along with a Description of the New Location:

Entered location as E03-SS-02-SPW

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 102-SWP-03 Project: NAS Key West BRAC SI Project Number: 7593
Zone: E Building 102 Subzone:
Airbill No.: Laboratory: GEL

Sample Date:	8/15/98
Sample Time:	16:15
Sample Depth (ft):	surface
FID Reading:	0.0
Sample Color:	
Sample Description:	

Sample Method:
- [x] ~~DPT~~ swipe
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

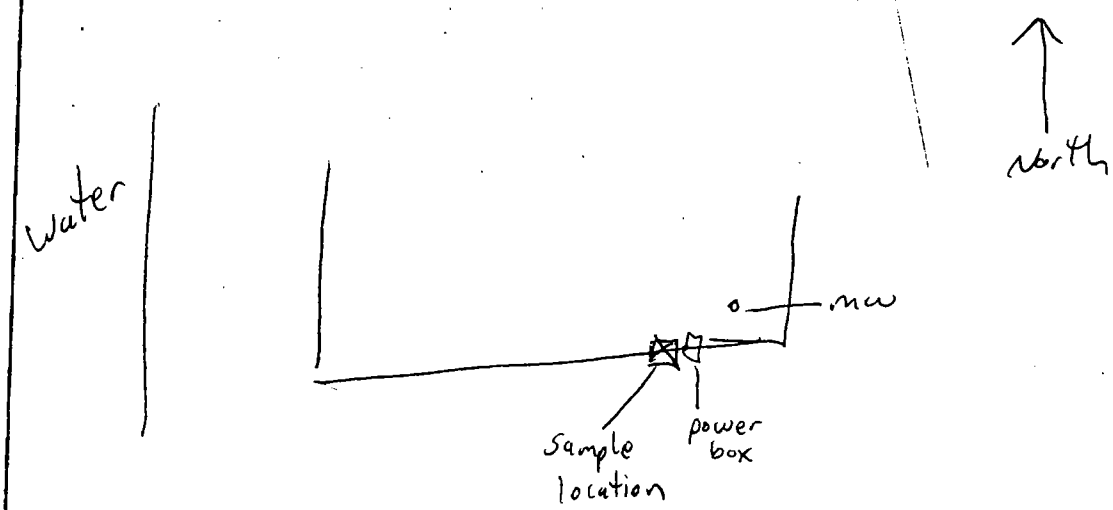
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

: YES [ ] NO [ ]

If Sample Location was ... is Provided Here, along with a Description of the New Location:

Entered location as ED3-SS-03-SPW

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mark Ray

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 102-SWP-04 Project: NAS Key West BRAC SI

Zone: E 102 Project Number: 7593

Airbill No.: Laboratory: GEL Subzone:

Sample Date:	8/16/98
Sample Time:	0920
Sample Depth (ft):	Surface
PID Reading:	
Sample Color:	Black
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

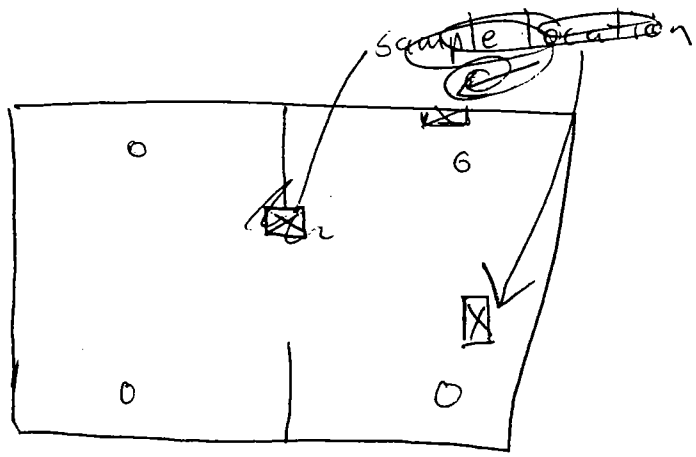
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR/EH Signature(s): Matthew Eustavion

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Building SURFACE ~~SOIL~~ SAMPLE LOG SHEET

Sample Name: 102-SWP-05 Project: NAS Key West BRAC 91

Zone: E 102 Project Number: 7593

Airbill No: Laboratory: GEL Subzone:

Sample Date:	8/16/98
Sample Time:	0923
Sample Depth (ft):	Surface
PID Reading:	
Sample Color:	Black
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

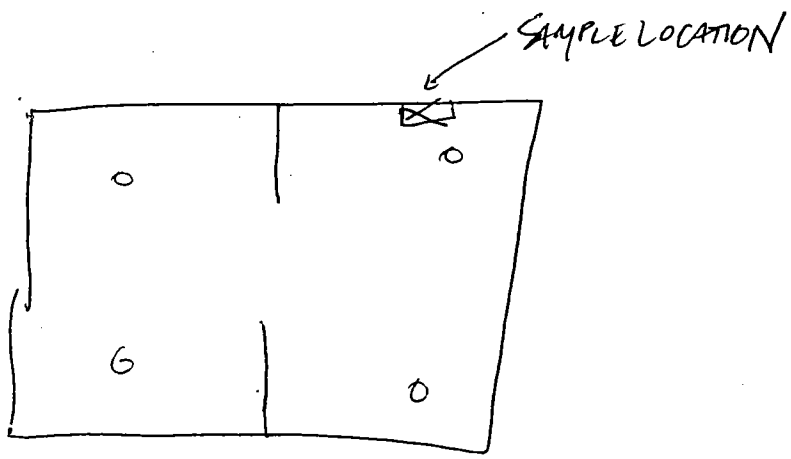
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [x]	
TCL PCBs:	YES [ ]	NO [x]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Sampled By: MR/EH Signature(s): [signature]

IDW DRUM SAMPLES

Brown & Root Environmental

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~~GROUNDWATER~~ IDW DRUM SCREENING SAMPLE LOG SHEET

Sample Name: SS12-DRES-081398 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E - FROM SUMPS 1-4 IN BUILDING 103 Subzone:

Airbill No: 8075506955 49 Laboratory: ~~GEL~~ ACCUTEST

Total Depth (ft):	
Stickup Height (ft):	
Casing Diameter (ID-inches):	
Static Water Level (ft below top of casing):	
One Casing Volume (gal):	
Start Purge (hrs.):	
End Purge (hrs.):	
Total Purge Time (min.):	
Total Amount Purged (gal):	
Purge Method:	
Sample Method:	
Depth Sampled:	
Sample Date:	081398
Sample Time:	0945

Type of Screening Sample:
- [ ] ~~DPT Borehole~~ DRUM
- [ ] ~~Existing Monitoring Well~~
- [ ] ~~HSA Temporary Well~~

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

Observations/Notes: (Any change in sample location from that designated in the Workplan should be explained and described here.)

- BLACK, STRONG ODOR
- PID READING - 2.9 ppm

ANALYSES:

			Bottle Lot Number:
TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	
TCL SVOCs:	YES [x]	NO [ ]	
TCL PESTs:	YES [ ]	NO [ ]	
TCL PCBs:	YES [x]	NO [ ]	
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	

Time	Total Volume Removed (gals)	Temperature (Deg C)	pH	Conductivity (mS/cm)	DO	Turbidity (NTU)	Color

Sampled By: EJH Signature(s): Eric J. Hanson

Brown & Root Environmental

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: ~~SS11-SSDRH~~ SS11-SSDR-081698 Project: NAS Key West BRAC SI Project Number: 7593

Zone: E. Floor Scrapings from Sumps 1-6 building 103 Subzone:

Airbill No.: Laboratory: GEL

Sample Date:	8/16/98
Sample Time:	13:30
Sample Depth (ft):	Drum
FID Reading:	
Sample Color:	black
Sample Description:	sling black oily grit.

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [x] ~~HSA~~ Hand sampled

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Sample from SS-11. Drum which contained floor scrapings from sumps 1-6

ANALYSES:

TCL VOCs (HCL Preservative):	YES [x]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR / EH Signature(s): Matthew E. J. Harrison

FIELD TASK MODIFICATION REQUEST FORM

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-1
Client Identification	Project Number	TMR Number

To D.Patrick Location NAS KEY WEST Date 8/12/98

Description

Sample E07-GS-18 and E09-SS-09 located in the small sump at the east end of the building 103 will not be sampled.

Reason for Change

The sump is too small to allow safe operation of coring/drilling equipment while in such tight quarters.

Recommended Disposition

DPT sampling will not be conducted at this locations. These samples will be collected outside the building as close to the structure as possible.

Field Operations Leader(Signature, if applicable) Date

Disposition

Sited/cleared new sample location at the east end of the building slightly north of the entrance.

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-2
Client Identification	Project Number	TMR Number

To D. Patrick Location NAS KEY WEST Date _____

Description

Aqueous VOC samples will not be preserved with HCl.

Reason for Change

Calcium in the groundwater reacts with the HCl preservative producing calcium carbonate which effervesces and creates a head space within the sample bottle. This could cause a loss of volatiles in the sample.

Recommended Disposition

Rinse HCl preservative from VOC groundwater sample bottles, using purge water at each location prior to sampling. This does cause the hold time of the sample to shorten to 7 days, however no impacts are expected.

Mark Ray _____

Field Operations Leader(Signature, if applicable) Date

Disposition

(same as recommended)

_____ _____

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-3
Client Identification	Project Number	TMR Number

To D. Patrick Location NAS KEY WEST Date 8/13/98

Description

Building 103 sample E09-SS-12 could not be collected.

Reason for Change

As the concrete coring was completed at this sample location a portion of the core became stuck and was not retrievable.

Recommended Disposition

DPT was able push the core and install a temporary well, however no soil was recovered for sampling. Therefore no soil sample will be collected at this location.

Matt Ry

Field Operations Leader (Signature, if applicable) Date

Disposition

(same as recommended)

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-4
Client Identification	Project Number	TMR Number

To D. Patrick Location NAS KEY WEST Date 8/14/98

Description

Received EPA guidance and clarification on method SW-846 update. This guidance described that freezing soil VOC samples may extend the recommended hold time of 48 hours.

Reason for Change

Make necessary adjustments in sampling and sample handling procedures. This will allow for collection of soil VOC samples on Saturday.

Recommended Disposition

VOC soil samples while onsite will be stored in the freezer to better preserve volatiles. This may extend the holdtime if necessary while sampling on the weekend.

Field Operations Leader(Signature, if applicable) Date

Disposition

(same as recommended)

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-5
Client Identification	Project Number	TMR Number

To D. Patrick Location NAS KEY WEST Date 8/14/98

Description

Building 103 - stop coring in the building (complete ongoing work) and collect two sets of soil samples and install temporary wells in the immediate area outside of the building.

Reason for Change

Due to difficulties encountered during concrete coring in building 103 causing a significant increase in time and effort to complete corings, additional corings will not be initiated at this time.

Recommended Disposition

Collect two sets of soil samples and install temporary wells at the locations of BRAC SI samples SS-01 and SS-02 instead of inside the building.

Field Operations Leader(Signature, if applicable) Date

Disposition

(same as recommended)

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-6
Client Identification	Project Number	TMR Number

To D. Patrick Location NAS KEY WEST Date 8/14/98

Description

Building 103 sample locations E09-SS-07 and E07-GS-16 could not be sampled.

Reason for Change

The concrete core in E09-SS-07/E07-GS-16 dropped downhole approximately 16" due to a void beneath the sump. This core became irretrievable blocking the core hole. Due to the small area in which the DPT rig can be placed within the sump, any recoring would need to be very close to the original core. Therefore, the same conditions are likely to be present which would not allow sampling.

Recommended Disposition

The location for E09-SS-07 will not be re-cored and therefore no sample will be collected.

Field Operations Leader (Signature, if applicable) Date

Disposition

(same as recommended)

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

TETRA TECH NUS, INC.
FIELD TASK MODIFICATION REQUEST FORM

SouthDiv	CTO 0032	SSI-7
Client Identification	Project Number	TMR Number

To D. Patrick Location NAS KEY WEST Date 8/16/98

Description

Swipe sampling in Buildings 102, 103, and 104

Reason for Change

Preservatives on swipes evaporated quickly. The highly volatile properties of the solvent preservatives and the need to prepare each sample swipe outside to ensure adequate ventilation caused a shortage in the supply of the solvents. Based on field observation, adequate characterization could be obtained with fewer than 5 samples in buildings 103 and 104 due to homogeneity.

Recommended Disposition

Five swipe sample were collected in Building 102. With realization of problem, four samples were collected in Building 103 and three in Building 104.

Field Operations Leader(Signature, if applicable) Date

Disposition

(same as recommended)

Task Order Manager (Signature, if required) Date

Distribution:
Program Manager
Quality Assurance Officer:
Task Order Manager:
Field Operations Leader

Other distribution required

Tetra Tech NUS

900 Trail Ridge Road Aiken, SC 29803 (803) 649-7963 Fax: (803) 642-8454

SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A4-CONF-01 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1430
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	FINE TO MED SAND W/ROCKS

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

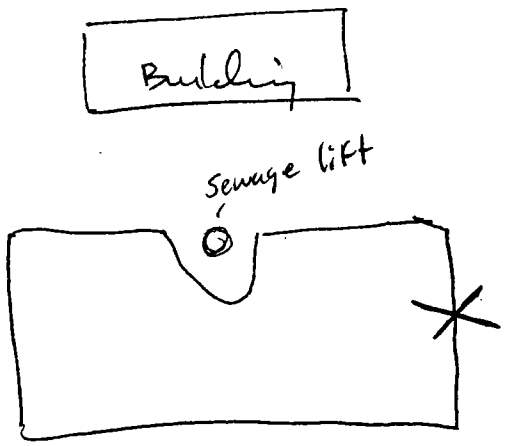
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Harvin

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A4-CONF-02 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: _____ Subzone: _____

Airbill No: _____ Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1440
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	FINE TO MED SAND W/ ROCKS

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

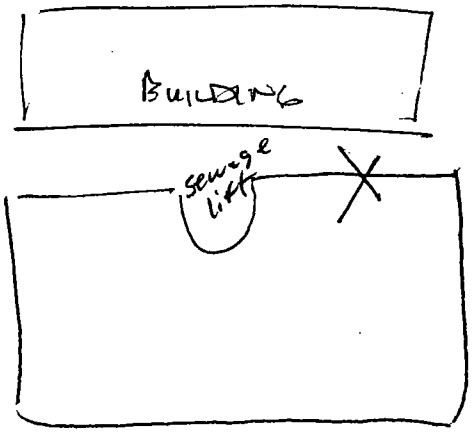
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Earl J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: NAX CONF. 03 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/20/99
Sample Time:	1045
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	FINE TO MED SAND W/ ROCKS

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

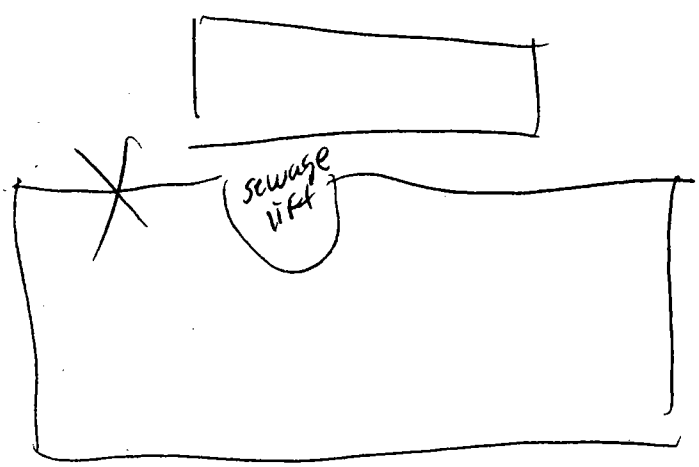
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Emily J. Hanion

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A4-CONF-09 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1450
Sample Depth (ft):	6"
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

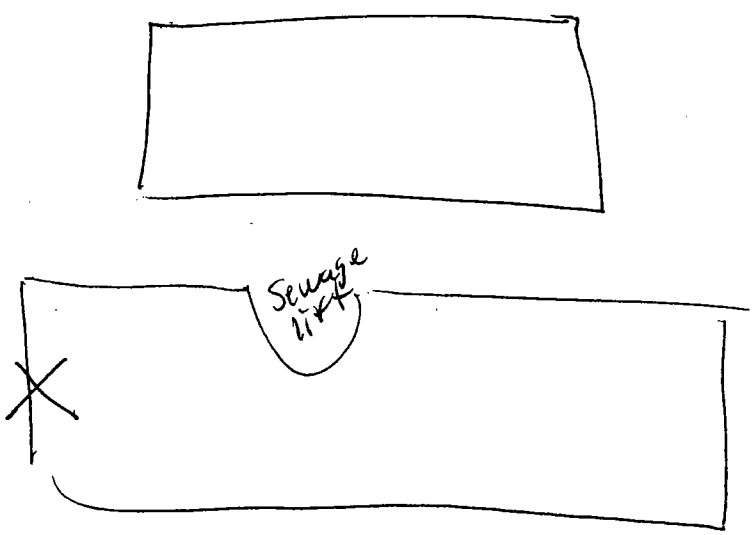
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: EOH Signature(s): Emily J. Hamm

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A4-CONF-08 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: _____ Subzone: _____

Airbill No: 811289339187 Laboratory: Accutest

Sample Date:	4-7-99
Sample Time:	1115
Sample Depth (ft):	
FID Reading:	
Sample Color:	Lt tan
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

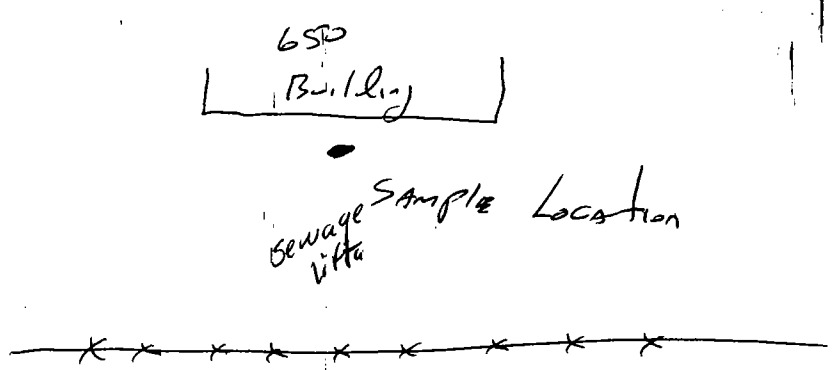
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number: _____
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number: _____
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number: _____
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number: _____
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number: _____

Sampled By: S. Williams Signature(s): _____

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A4-CONP-09 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	
Sample Time:	
Sample Depth (ft):	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

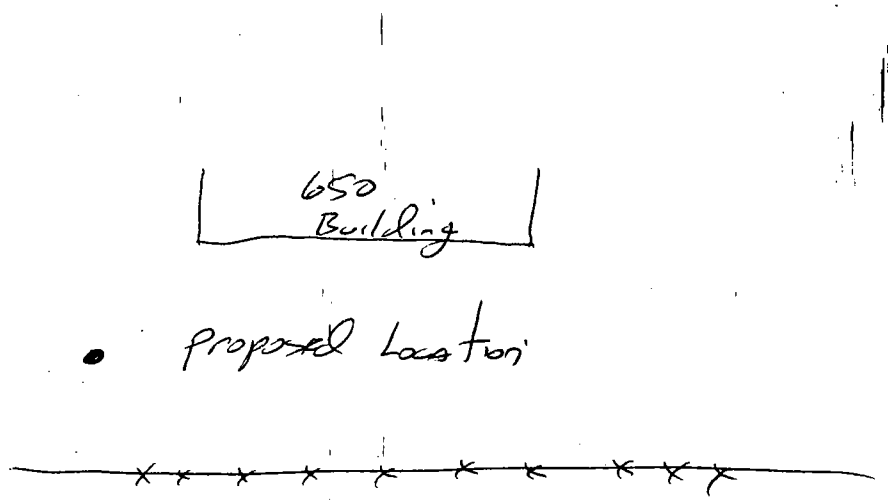
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Sample Could not Be obtained
this is a Low Area, So there was no Subsoil

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: S Vallancourt Signature(s):

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: AA-CONF-05 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1410
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	LIGHT TO MED BROWN
Sample Description:	MED SAND W/ ROCKS

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

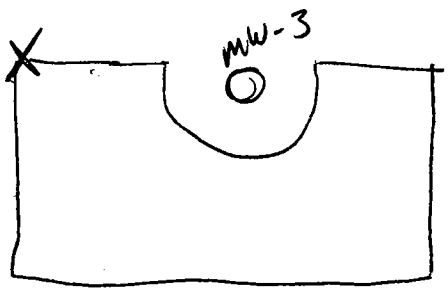
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Earl J. Hamon

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: AF-CONF-06 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: _____ Subzone: _____

Airbill No: _____ Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1415
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	MOD SAND, EXTREMELY ROCKY

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

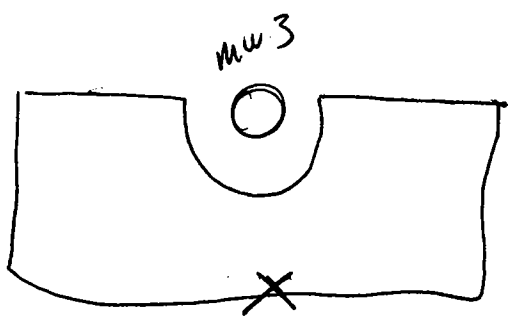
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: EOH Signature(s): Eugene J. Harrison

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A4 CONF-07 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: _____ Subzone: _____

Airbill No: _____ Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	
Sample Depth (ft):	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- ☐ DPT
- ☐ Hand Auger
- ☐ HSA

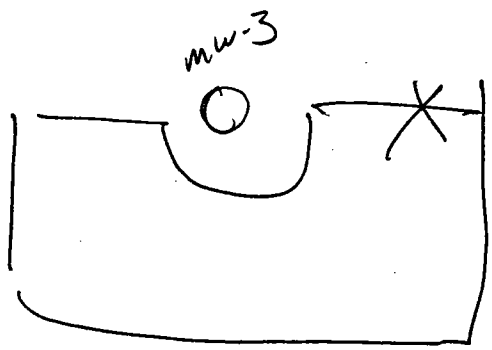
Duplicate ID:

Type of Sample:
- ☐ Low Concentration
- ☐ High Concentration
- ☐ Grab
- ☐ Composite
- ☐ Grab-Composite

MS/MSD: YES ☐ NO ☐

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative)	YES ☐	NO ☐	Bottle Lot Number: _____
TCL SVOCs:	YES ☐	NO ☐	Bottle Lot Number: _____
TCL PESTs:	YES ☐	NO ☐	Bottle Lot Number: _____
TCL PCBs:	YES ☐	NO ☐	Bottle Lot Number: _____
TAL Metals + Tin (HNO3 Preservative)	YES ☐	NO ☐	Bottle Lot Number: _____

Sampled By: EGH Signature(s): Earl J. Hamm

Tetra Tech NUS

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A9-CONE-01 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: A9 Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1035
Sample Depth (ft):	2'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	MOD SAND, EXTREMELY ROCKY

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

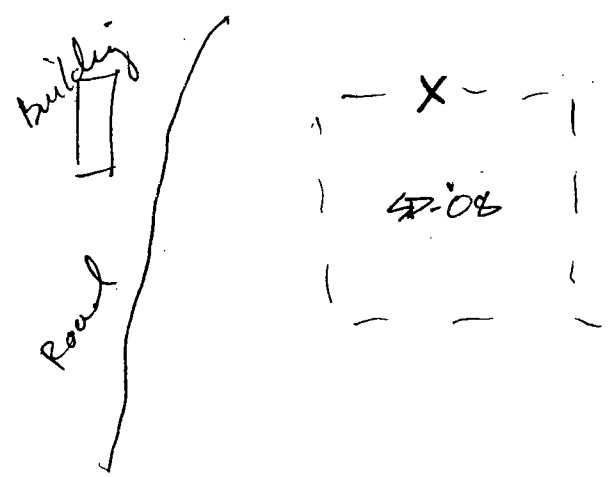
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: BJH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A9-CONF-02 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: A Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1045
Sample Depth (ft):	21
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	MUD SAND, EXTREMELY ROCKY

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

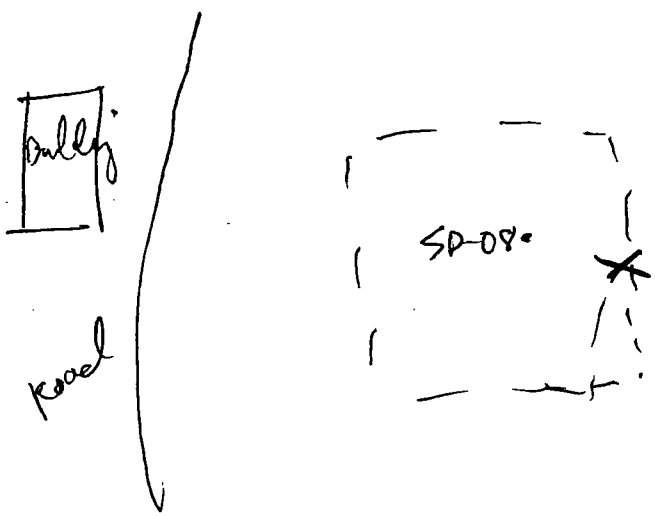
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eff J. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A9-CONF-03 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: A Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1055
Sample Depth (ft):	2'
FID Reading:	
Sample Color:	LIGHT BROWN w/ DARKER SPOTS
Sample Description:	MOD SAND, EXTREMELY ROCKY

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

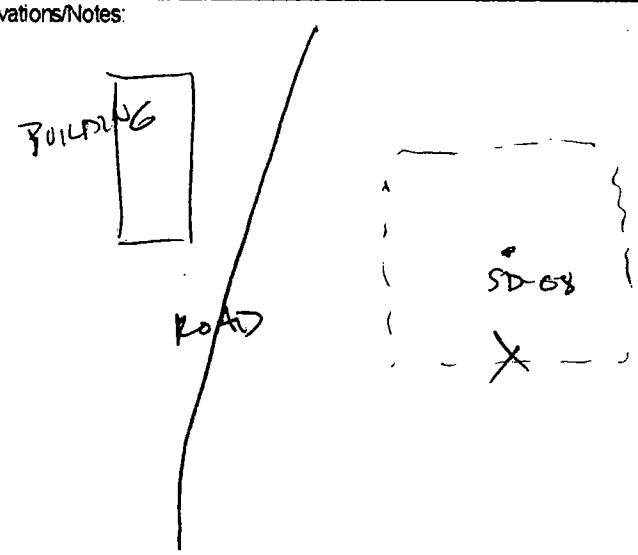
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [✓]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [✓]	Bottle Lot Number:
TCL PESTs:	YES [✓]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [✓]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [✓]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: A9-CONF-04 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: A9 Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3/30/99
Sample Time:	1100
Sample Depth (ft):	2'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	MOD SAND, EXTREMELY KARY

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

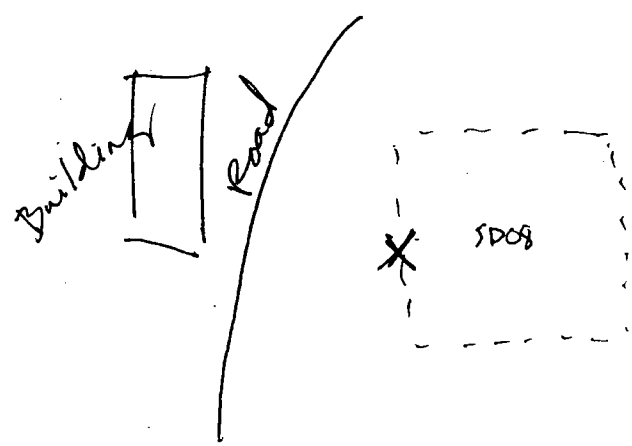
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: RJK Signature(s): Eugene J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: _____ Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	12:50
Sample Depth (ft):	1'
FID Reading:	Tan
Sample Color:	fine to medium sand
Sample Description:	

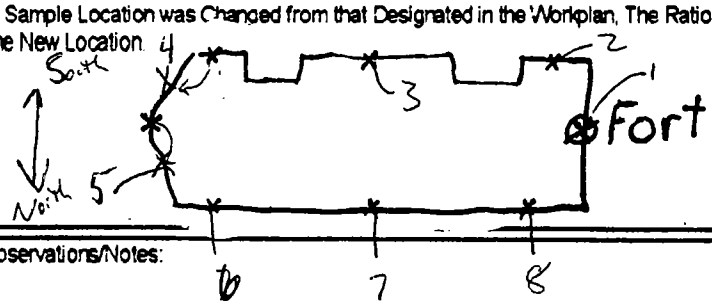
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

C1-CONF-01 thru 08

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mathy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	1245
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	brown
Sample Description:	fine to medium sand

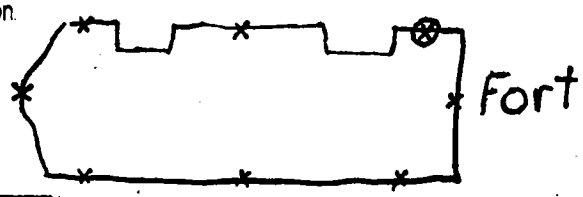
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Muthy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-03 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	12:40
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	brown
Sample Description:	fine to medium sand

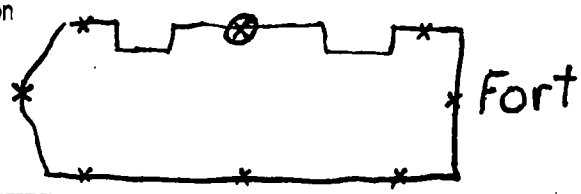
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mutky

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-1

Airbill No: Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1542
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	~~med~~ tan - dark tan
Sample Description:	medium sand

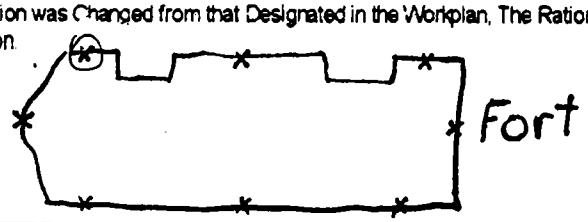
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-Ø5 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-~~F~~ 1'
Airbill No: _____ Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1537
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	Tan - dark tan
Sample Description:	medium sand

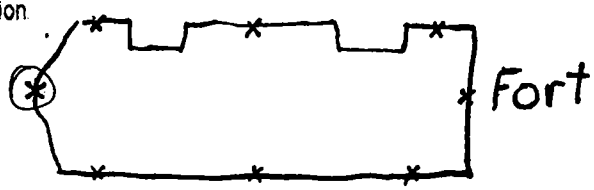
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number: _____
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number: _____
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number: _____
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number: _____
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number: _____

Sampled By: ~~MR~~ RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: _____ Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	13:01
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	tan to greyish brown
Sample Description:	fine to medium sand

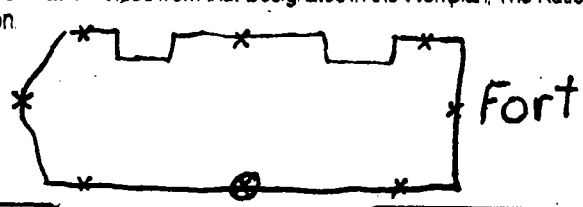
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C1-CONF-08 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	12:55
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	grey to tan
Sample Description:	fine to medium sand

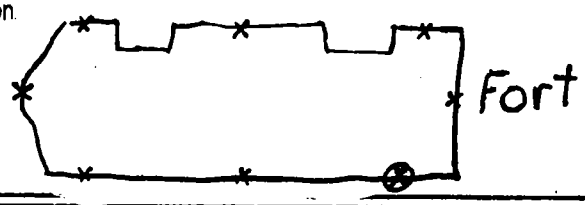
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mr Ry

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-10NF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2/20/99
Sample Time	15:32
Sample Depth (ft)	2.4'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	MED GRADE SAND W/ MOTTLES

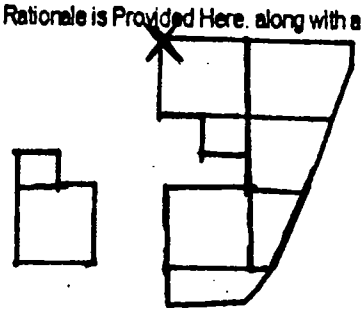
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2/24/99
Sample Time	15:25
Sample Depth (ft)	2-4'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	LARGE ROCKS MEDIUM GRADE LIMESTONE FILL

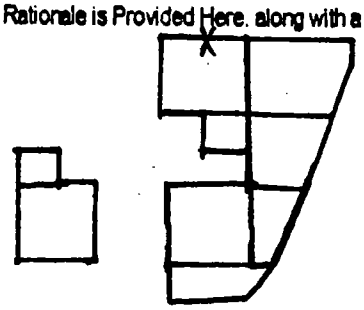
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR DH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONE-03 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/22/99
Sample Time	13:45
Sample Depth (ft)	21
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	CRUSHED LIMESTONE FILL

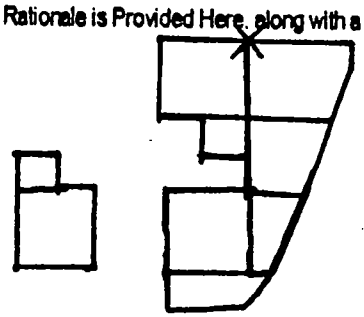
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eg J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: G-LONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2/22/99
Sample Time	13:40
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	MOD GRADE LIMESTONE FILL-MOD ROCKS

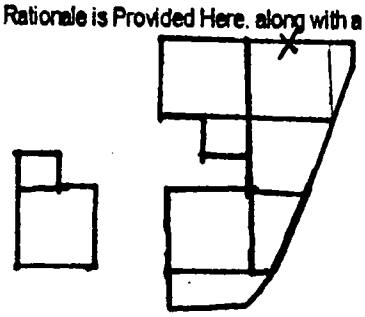
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eugene J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-WNF-05 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2/22/99
Sample Time	13:35
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	LIMESTONE FILL W/ MOD ROOTS

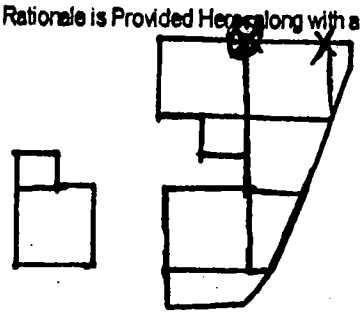
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [✓]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [✓]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eugene J. Hamon

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-LONF-06 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/22/99
Sample Time	13:30
Sample Depth (ft)	2'
FID Reading	
Sample Color:	LIGHT BROWN
Sample Description:	MOD GRADE LIMESTONE FILL W/ MOD ROCKS

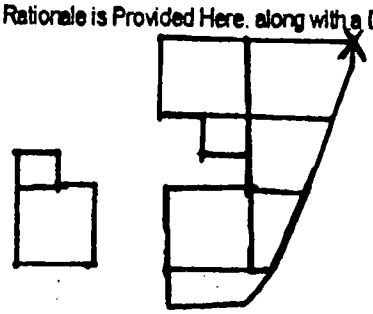
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [/]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [/]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Earl J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-LONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/16/99
Sample Time	09:10
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description	MED GRADE SAND W/ MEDROOTS

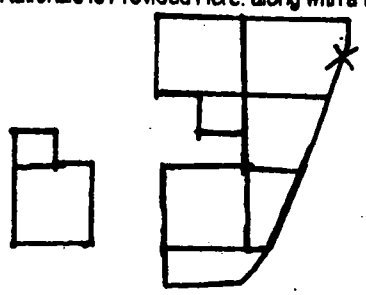
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [/]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [/]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-08 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/18/99
Sample Time	09:00
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT TO MED BROWN, MED ROCKS
Sample Description	MED GRADE SAND W/ MED ROCKS

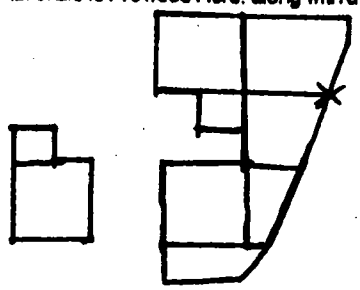
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Hain

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-09 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/18/99
Sample Time	08:50
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description	FINE W/MOD ROOTS

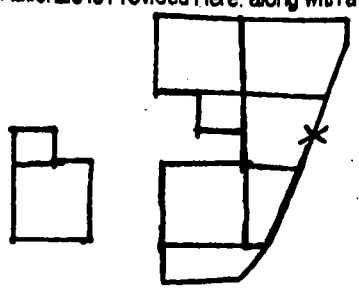
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-10 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/16/99
Sample Time	14:40
Sample Depth (ft)	2'
FID Reading	
Sample Color	MED BROWN
Sample Description	MED GRADE

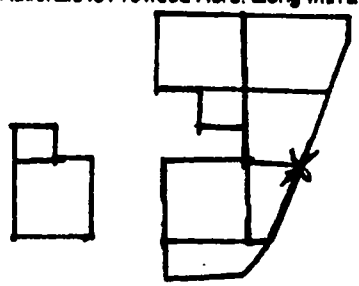
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C3-CONF-DA

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: FJK Signature(s): Eric J. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-10B Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-25-99
Sample Time	09:35
Sample Depth (ft)	0-1'
FID Reading	
Sample Color	grey
Sample Description	medium sand

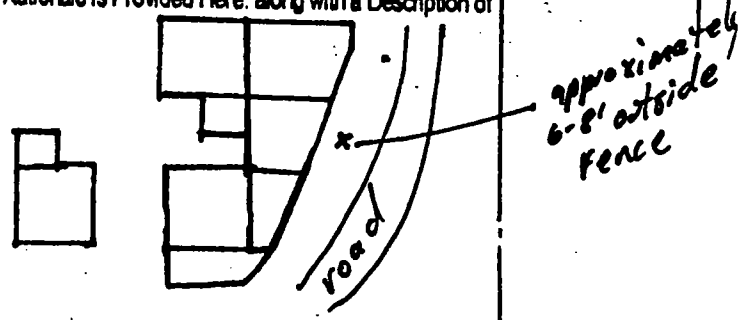
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mark Ray

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 13-CONF-11 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/16/99
Sample Time	14:30
Sample Depth (ft)	2'
FID Reading	0
Sample Color	DARK BROWN
Sample Description	MED GRADE

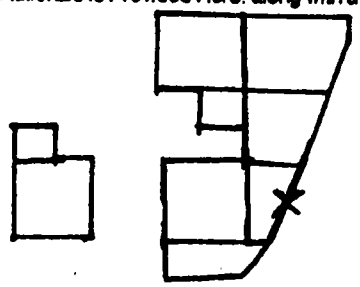
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: —

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-11B Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-25-99
Sample Time	0945
Sample Depth (ft)	0-1'
FID Reading	
Sample Color	grey to black
Sample Description	medium to fine sand

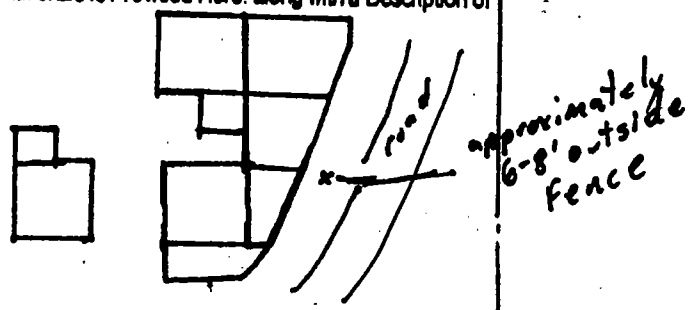
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-12 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-12-99
Sample Time	1550
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Black
Sample Description	Black soil moist mixed oolitic limestone

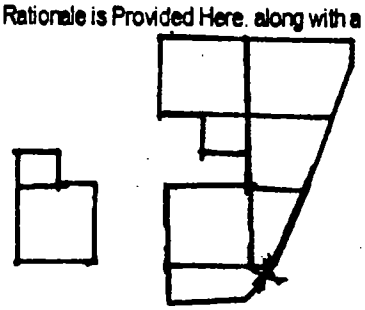
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-13 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2-12-99
Sample Time	1537
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color:	Black
Sample Description:	Black soil - moist Some oolitic limestone

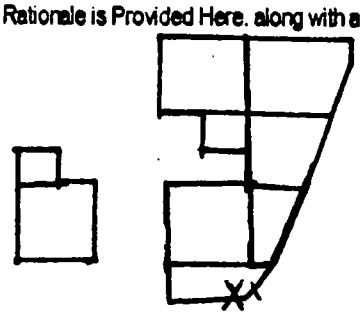
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-13B Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/17/99
Sample Time	1510
Sample Depth (ft)	
FID Reading	
Sample Color	LIGHT TO MOD BROWN
Sample Description	SAND FILL W/ MOD ROCKS

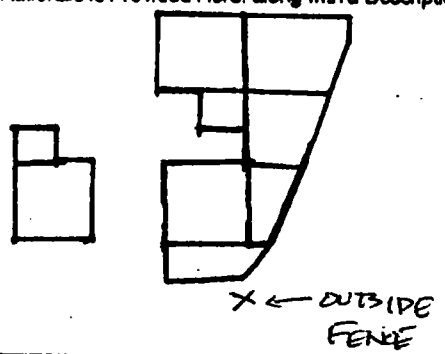
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

- 8' FROM CORNER
- 4' FROM FENCE

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eugene J. Hanon

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-14 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-10-99
Sample Time	1707
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Dark brown
Sample Description	Rocky fill dirt medium sand

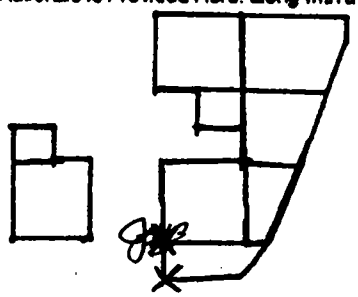
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-19B Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/17/99
Sample Time	15:00
Sample Depth (ft)	6" - 18"
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description	SAND FILL W/ MED ROCKS

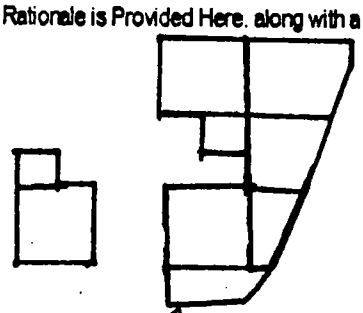
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



EJH

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Hain

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-15 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/10/99
Sample Time	1654
Sample Depth (ft)	2
FID Reading	
Sample Color	tan to light tan
Sample Description	sandy soil oolitic limestone

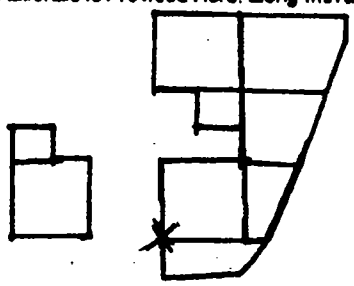
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bakwright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-15R Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/10/99
Sample Time	1656
Sample Depth (ft)	2
FID Reading	
Sample Color	tan to light tan
Sample Description	sandy soil oolitic limestone

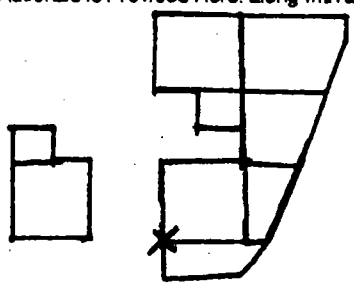
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bakwright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-16 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-10-99
Sample Time	1654
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Tan to light Tan
Sample Description	medium to fine sand - moist to dry

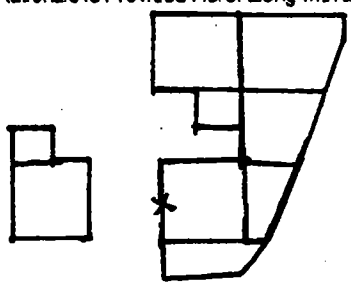
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): RDavis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-17 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/10/97
Sample Time	1635
Sample Depth (ft)	2
FID Reading	
Sample Color	tan
Sample Description	oolitic limestone sandy soil

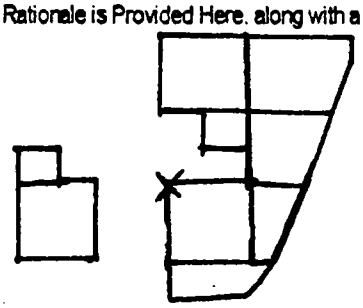
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bakhright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-18 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2/11/99
Sample Time	1651
Sample Depth (ft)	2
FID Reading	
Sample Color	tan to light tan
Sample Description	sandy soil oolitic limestone

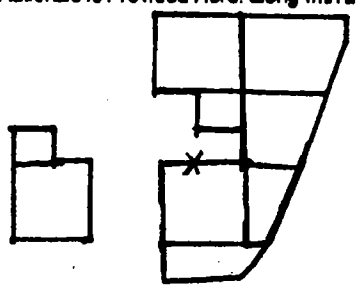
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet W. Barkley

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-19 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/18/99
Sample Time	15:00
Sample Depth (ft)	0-2'
FID Reading	
Sample Color:	LIGHT TO MED BROWN
Sample Description:	LIMESTONE FILL, MOD GRAIN W/ MOD ROOTS

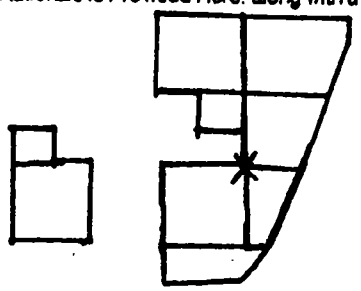
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eg J. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-20 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: 806504135716 Laboratory: Accutest

Sample Date	2/18/99
Sample Time	15:10
Sample Depth (ft)	0-21
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description	LIMESTONE FILL (MED ROCKS, SAND)

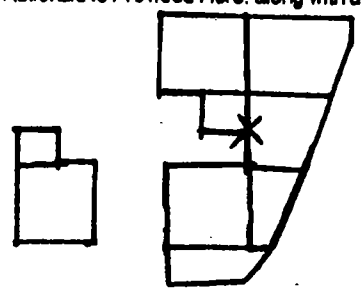
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C3-CONF-D5

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [x] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): EJ Hoffman

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-21 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-2-99
Sample Time	0840
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan to brown
Sample Description	fine to medium sand

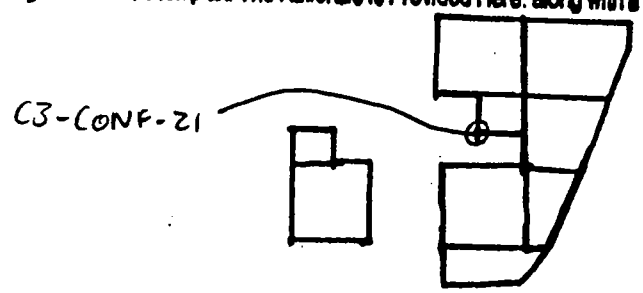
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mathy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-22 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-2-99
Sample Time	0830
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan
Sample Description	medium sand with small gravel

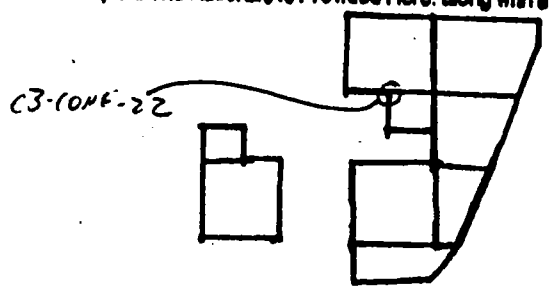
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-322R Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-2-99
Sample Time	0830
Sample Depth (ft)	1'
FID Reading	
Sample Color:	
Sample Description:	

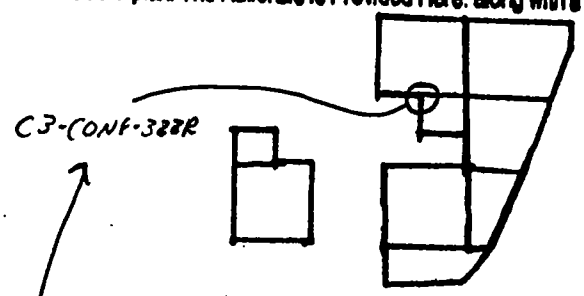
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

CLP sample deliverable

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-23 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/24/99
Sample Time	15:45
Sample Depth (ft)	2-4'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	MED GRAYE SAND FILL, MED ROCKS

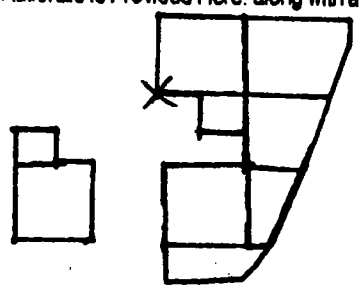
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [/]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [/]	NO [ ]	Bottle Lot Number:

Sampled By: MK DK Signature(s): Emily J. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-24 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/24/99
Sample Time	15:40
Sample Depth (ft)	2-4'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	MOD GRADE SAND W/ MOD IG PEBBLES

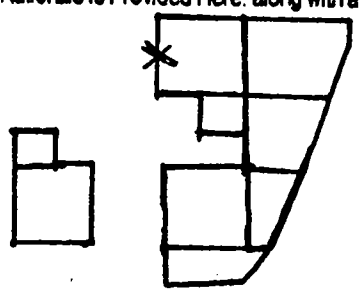
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK EH Signature(s): Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-2b Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2-11-99
Sample Time	1026
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Tan to light tan
Sample Description	oolitic limestone medium sand

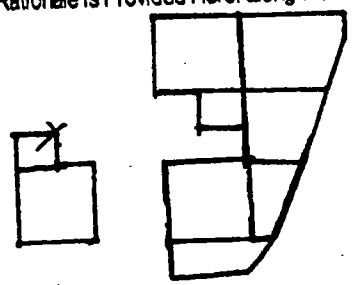
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-26R Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2-11-99
Sample Time	1029
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Tan to light tan
Sample Description	oolitic limestone medium sand

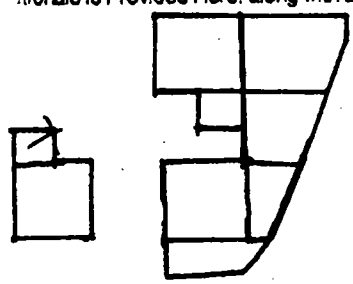
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [x]

If Sample Location was Changed from that Designated on the plan, Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

CLP Analysis

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2-9-99
Sample Time	1555
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	grey to tan
Sample Description	silt clay & sand

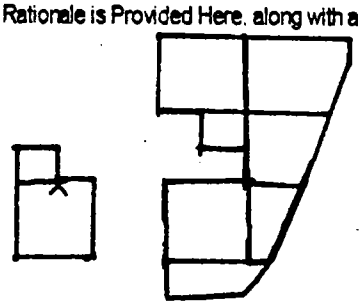
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bonkowski

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-28 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: _____ Laboratory: Accutest

Sample Date	2-9-99
Sample Time	1543
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	tan to light tan
Sample Description	sandy soil oolic limestone

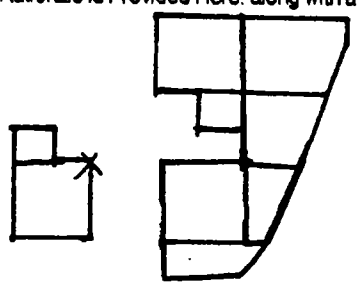
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C3-CONF-D6

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Barkwright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-D6 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/9/99
Sample Time	1547
Sample Depth (ft)	4
FID Reading	
Sample Color	tan to light tan
Sample Description	sandy soil oolic limestone

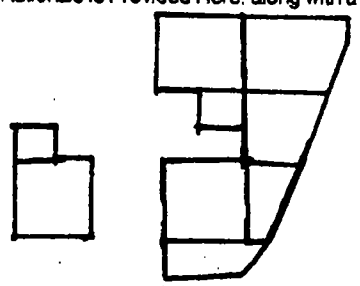
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bontright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-29 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-9-99
Sample Time	1547
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	Tan to light gray
Sample Description	medium sand to silt moist

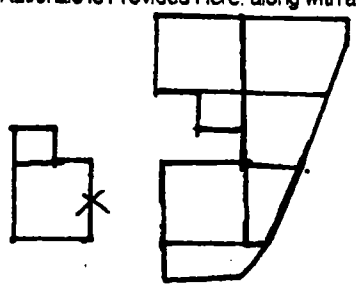
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-2PR Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-9-99
Sample Time	1545
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	Tan to light gray
Sample Description	medium sand to silt moist

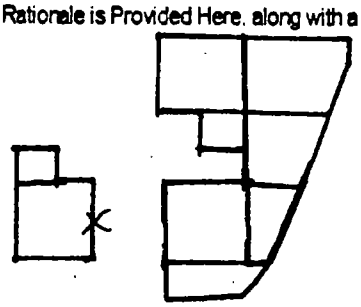
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample for CLP Analysis

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Da.

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-~~36~~ 30 QAQC Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: _____ Laboratory: Accutest

Sample Date	2-3-99
Sample Time	1820
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	lighttan to tan
Sample Description	medium to fine sands dry to moist

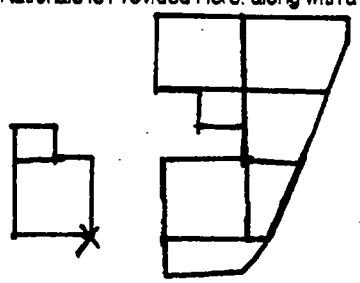
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-~~35~~ 31 Rev0 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2-3-99
Sample Time	1828
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	gray to tan
Sample Description	half silt, half sand

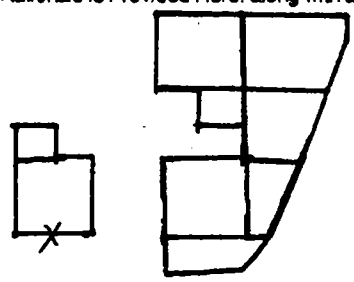
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bonknight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-32 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/3/99
Sample Time	1801
Sample Depth (ft)	4
FID Reading	
Sample Color	tan to light tan
Sample Description	Sandy, slit, clay soil

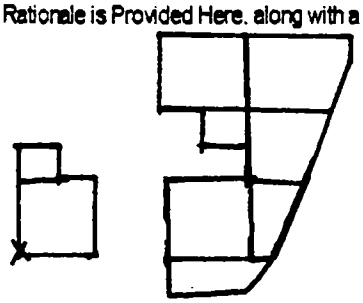
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Barkright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-33 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2/5/99
Sample Time	1637
Sample Depth (ft)	4
FID Reading	
Sample Color	tan
Sample Description	sandy soil

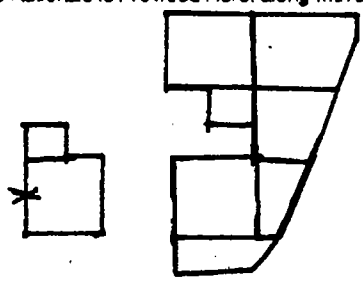
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bonknight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-34 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: _____ Laboratory: Accutest

Sample Date	2-5-99
Sample Time	1640
Sample Depth (ft)	4'
FID Reading	N/A
Sample Color	tan
Sample Description	medium to fine sand dry to moist

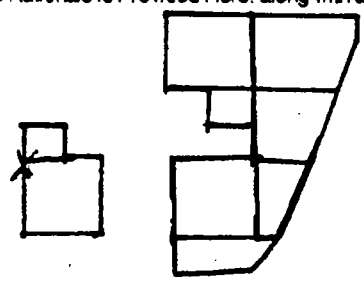
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-35 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2-10-99
Sample Time	1635
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Tan to light tan
Sample Description	medium sand - dry oolitic limestone

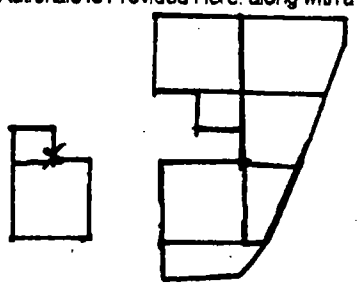
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF36 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-25-99
Sample Time	10:00
Sample Depth (ft)	0-1'
FID Reading	0
Sample Color	grey fine sand
Sample Description	fine sand

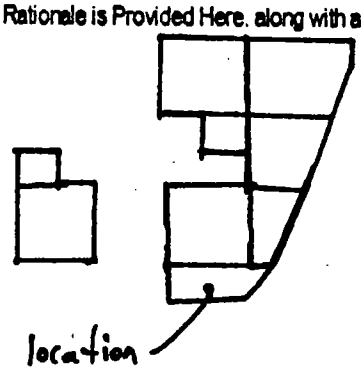
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

TCLP for lead need to be run.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Mark Ray Signature(s): Mark Ray

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-37 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-25-99
Sample Time	0930
Sample Depth (ft)	0-1'
FID Reading	
Sample Color	light grey
Sample Description	medium sand

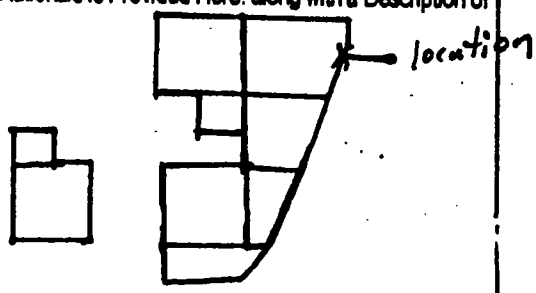
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK Signature(s): Mart Kay

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-38 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/25/99
Sample Time	1425
Sample Depth (ft)	1'
FID Reading	
Sample Color	SAND TAN - Beige
Sample Description	

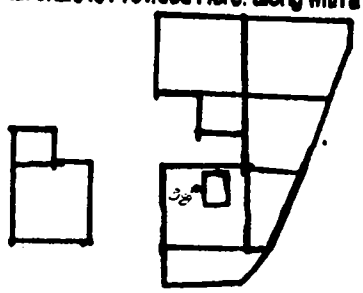
Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID: NA

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [✓]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [X]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [X]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-39 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	2/25/99
Sample Time	1420
Sample Depth (ft)	1'
FID Reading	
Sample Color	SAND. Beige
Sample Description	

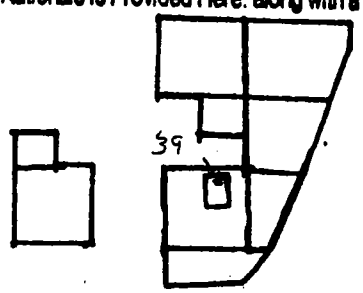
Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-40 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/25/99
Sample Time	1425
Sample Depth (ft)	1'
FID Reading	
Sample Color	Sand Beige
Sample Description	

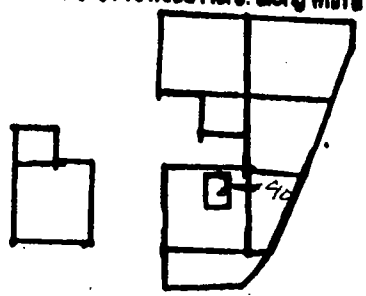
Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-41 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2/25/99
Sample Time	
Sample Depth (ft)	1'
PID Reading	1430
Sample Color	SAND Beige
Sample Description	SS

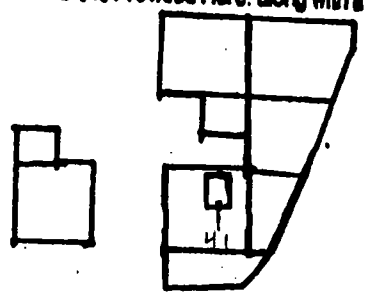
Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID: N/A

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-42T Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C3 Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-10-99
Sample Time	1041
Sample Depth (ft)	0-1'
FID Reading	
Sample Color	black to tan
Sample Description	soil - medium sand oolitic limestone mix

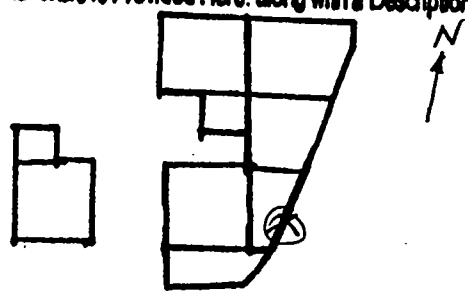
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

sample collected outside fence area approx. 25' South of sample C3-CONF-11B

ANALYSES: TCLP lead

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: R Davis Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-43T Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-10-99
Sample Time	1102
Sample Depth (ft)	0-1'
FID Reading	
Sample Color	Tan-brown
Sample Description	mixed soil - medium sand - oolitic limestone mix

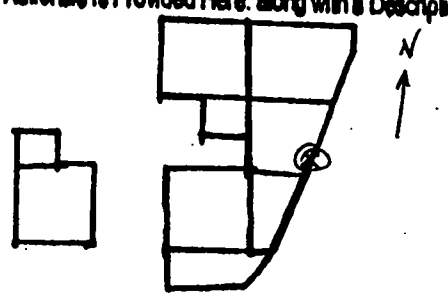
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected outside fence area approx. 25' North of Sample C3-CONF-10B

ANALYSES: TCLP Lead

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-44T Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-10-99
Sample Time	1130
Sample Depth (ft)	0-1'
FID Reading	
Sample Color	Tan - brown
Sample Description	mixed soil - medium sand - oolitic limestone mix

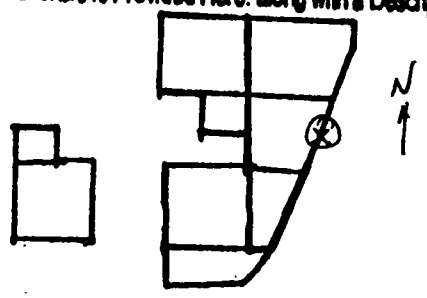
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected outside fence area approx. 50' North of sample C3-CONF-10B

ANALYSES: TCLP Lead

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-45T Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-10-99
Sample Time	1204
Sample Depth (ft)	0-1'
PID Reading	
Sample Color	tan - brown
Sample Description	mixed soil - medium sand - oolitic limestone mix

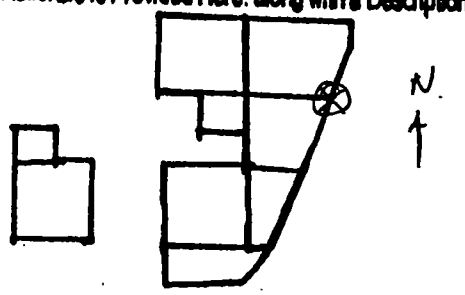
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected outside fence area approx. 100' North of Sample C3-CONF-10B

ANALYSES: TCLP Lead

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-46T Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3-10-99
Sample Time	1230
Sample Depth (ft)	0-1'
PID Reading	
Sample Color	Tan-brown
Sample Description	mixed soil-medium sand - oolitic limestone mix

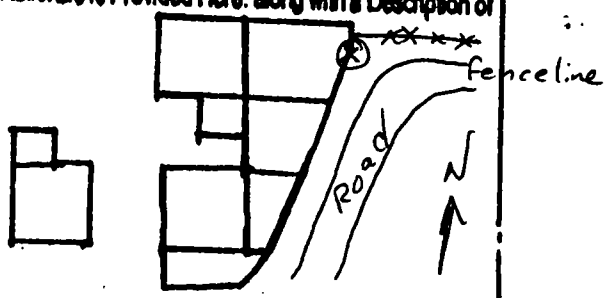
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected outside fence area approx. 140' NORTH of sample C3-CONF-10B
fenceline of DRMO intersects with fenceline separating the state Rd from the NAVAL Property. This sample was collected 4-5' from that corner (South)

ANALYSES: TCLP Lead

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: R. Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-47t Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3-23-99
Sample Time:	07:10
Sample Depth (ft):	0-1'
FID Reading:	
Sample Color:	dark brown
Sample Description:	medium sand with trace organics

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Palintest YES [x]

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MK & EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-48t Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory: Accutest

Sample Date:	3-23-99
Sample Time:	0715
Sample Depth (ft):	0-1'
FID Reading:	
Sample Color:	dark brown
Sample Description:	medium to fine sand with trace organics

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:

Palintest YES [x]

ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MK + CH Signature(s): Mark Ray

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-50 Project: NAS Key West BRAC SI/SSI IRA
Zone: GRY2N-C Project Number: 7593
Airbill No: Laboratory: Accutest Subzone: S2N-3

Sample Date	3/25/99
Sample Time	1630
Sample Depth (ft)	
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description	MED SAND W/GRAVEL

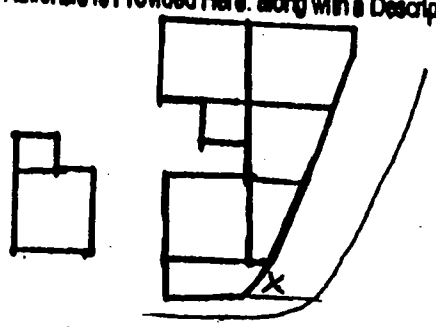
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Emily J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-LONF-51 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/23/99
Sample Time	1500
Sample Depth (ft)	2'
FID Reading	
Sample Color	DARK BROWN
Sample Description	MED SAND, SMALL GRAVEL

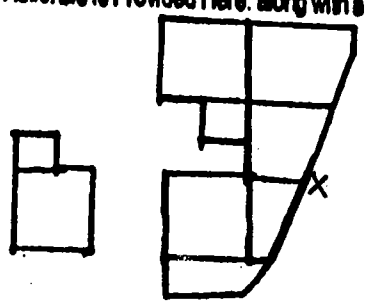
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EH MR Signature(s): Eric A. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-59 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/23/99
Sample Time	1505
Sample Depth (ft)	2'
FID Reading	0.0
Sample Color	MED GRAY GREY W/GRAVEL
Sample Description	

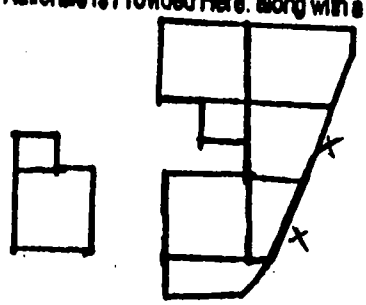
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-LONF-58 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-C Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	3/23/99
Sample Time	1510
Sample Depth (ft)	2'
FID Reading	0
Sample Color:	GREY
Sample Description:	MOD SAND W/ GRAVEL

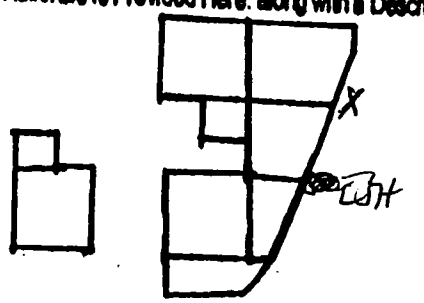
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [✓]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [✓]	Bottle Lot Number:
TCL SVOCs:	YES [✓]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [✓]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [✓]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [✓]	NO [ ]	Bottle Lot Number:

Sampled By: EJH MK Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-54 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/23/99
Sample Time	1615
Sample Depth (ft)	2'
FID Reading	
Sample Color	GREY
Sample Description	MED SAND W/ SMALL - MED GRAVEL

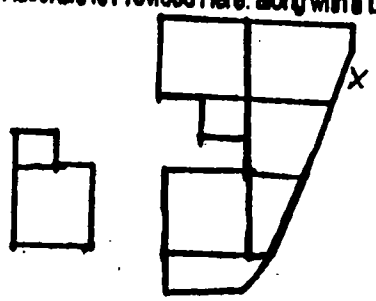
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: DA MK Signature(s): Eugene J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-55 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/25/99
Sample Time	0930
Sample Depth (ft)	2'
FID Reading	
Sample Color	MED BROWN
Sample Description	MED SAND W GRAVEL

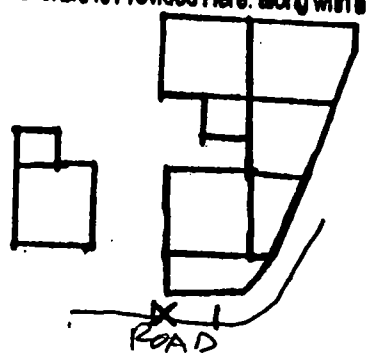
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eugene J. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3CONF5A6 Project: NAS Key West BRAC SI/SSI IRA
Zone: GRY2N-C Project Number: 7593
Airbill No: Laboratory: Accutest Subzone: S2N-3

Sample Date	3/25/99
Sample Time	0940
Sample Depth (ft)	21
PID Reading	
Sample Color	MED BROWN
Sample Description	MED SAND W/ GRAVEL

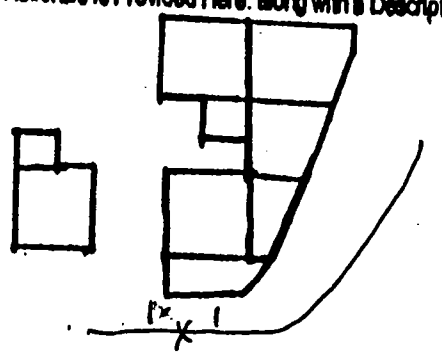
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: ESH Signature(s): Eugene J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: _____ Project: NAS Key West BRAC SI/SSI IRA

Zone: GRY2N-C Project Number: 7593

Airbill No: _____ Laboratory: Accutest Subzone: S2N-3

Sample Date	C3-CONF-57
Sample Time	0945
Sample Depth (ft)	2'
FID Reading	
Sample Color	MED BROWN
Sample Description	MED SAND W/GRAVEL

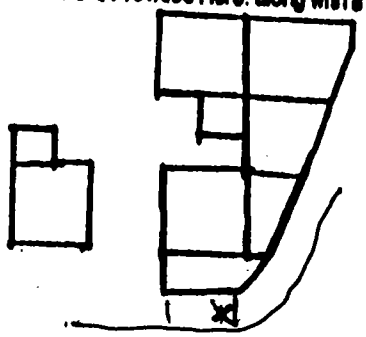
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ESH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 63-CONF-58 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/26/99
Sample Time	0900
Sample Depth (ft)	2'
FID Reading	
Sample Color	MED BROWN
Sample Description	FINE TO MED SAND W/ SMALL ROCKS

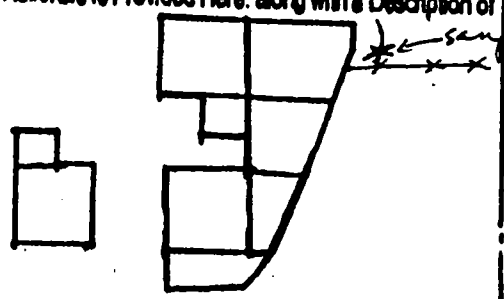
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: 63-CONF-59 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/26/99
Sample Time	0905
Sample Depth (ft)	2'
PID Reading	
Sample Color	MED BROWN
Sample Description	FINE TO MED SAND W/SMALL PORE

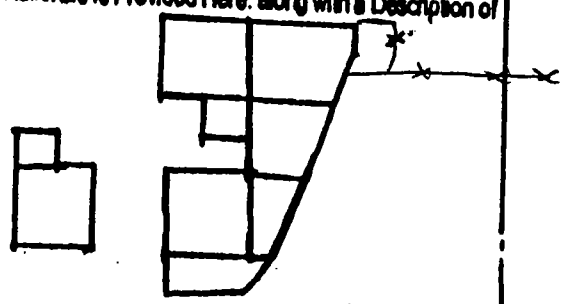
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: L3-CONF-60 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/26/99
Sample Time	0915
Sample Depth (ft)	2'
FID Reading	
Sample Color	MED BROWN
Sample Description	FINE TO MED SAND W/SMALL ROCKS

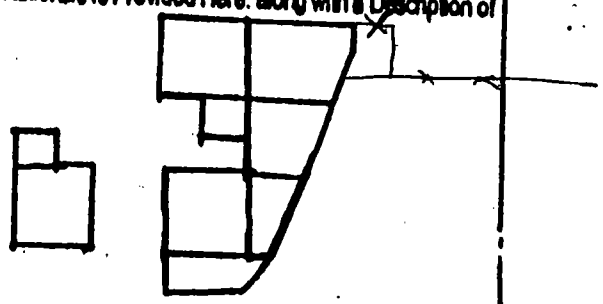
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Emily J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C - Subzone 3 Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	3-28-99
Sample Time	~~#~~ 0850
Sample Depth (ft)	1'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	MED TO COURSE SAND W/GRAVEL

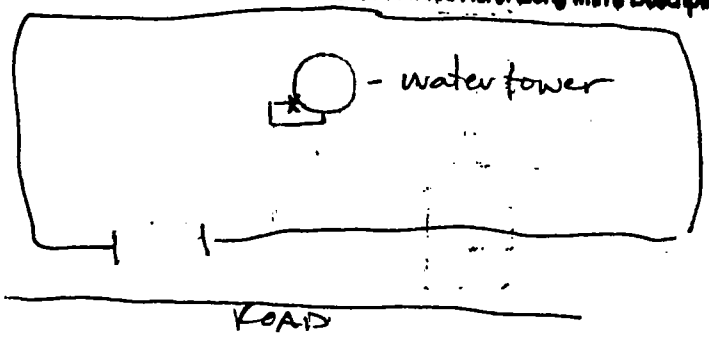
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

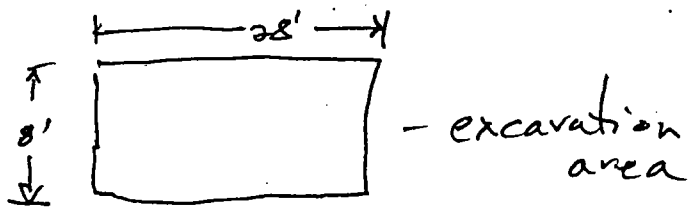
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MR EH Signature(s): Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-62 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN
Airbill No: Laboratory: Accutest

Sample Date	3/29/99
Sample Time	0855
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	FINE TO MED SAND, TRACE ORGANICS

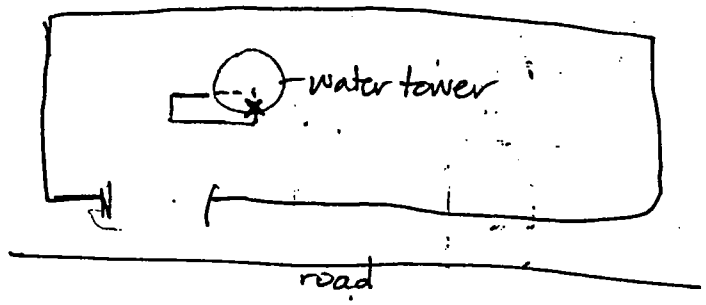
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MR EH Signature(s): Eric J. Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-63 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	3/29/99
Sample Time	0900
Sample Depth (ft)	2'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	FINE TO MED SAND W/SOME GRAVEL

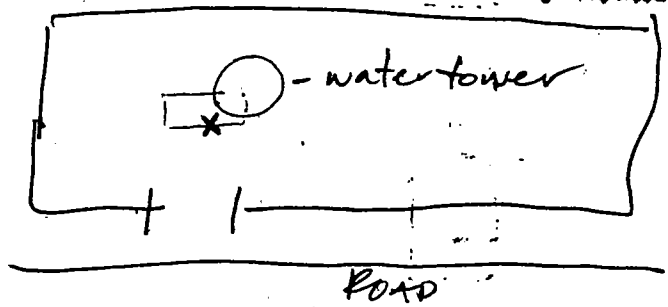
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

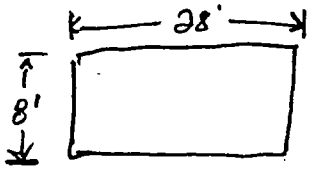
Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:



- EXCAVATION AREA

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MK EH Signature(s): Eric J. Hamrin

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONF-64 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: 811289329158 Laboratory: Accutest

Sample Date:	4-8-99
Sample Time:	1530
Sample Depth (ft):	
FID Reading:	
Sample Color:	Lt tan
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

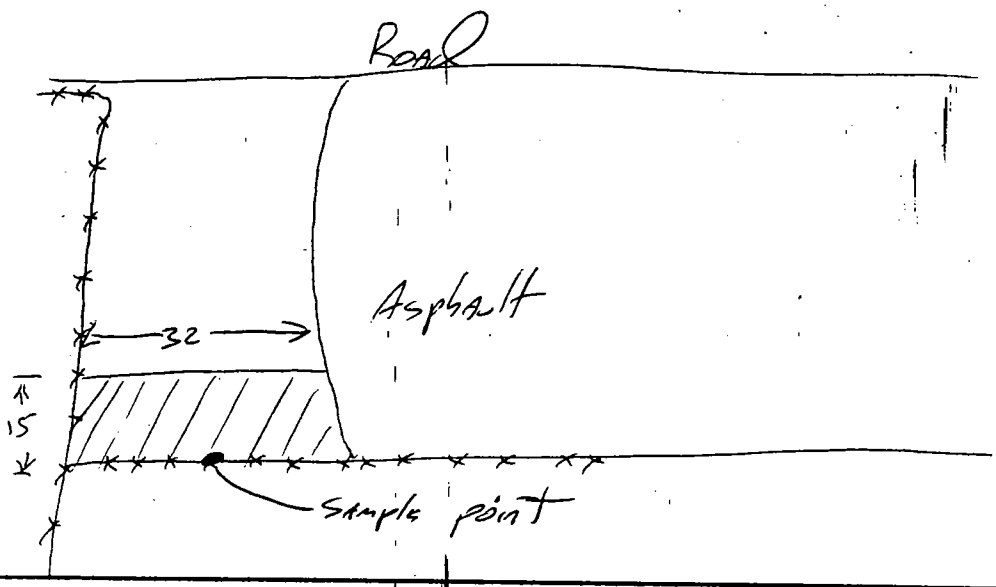
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: S. Vallancourt Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3 CONF 65 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: 811 289 325 198 Laboratory: Accutest

Sample Date:	4-8-99
Sample Time:	1600
Sample Depth (ft):	
FID Reading:	
Sample Color:	Lt tan
Sample Description:	

Sample Method:
- ☐ DPT
- ☐ Hand Auger
- ☐ HSA

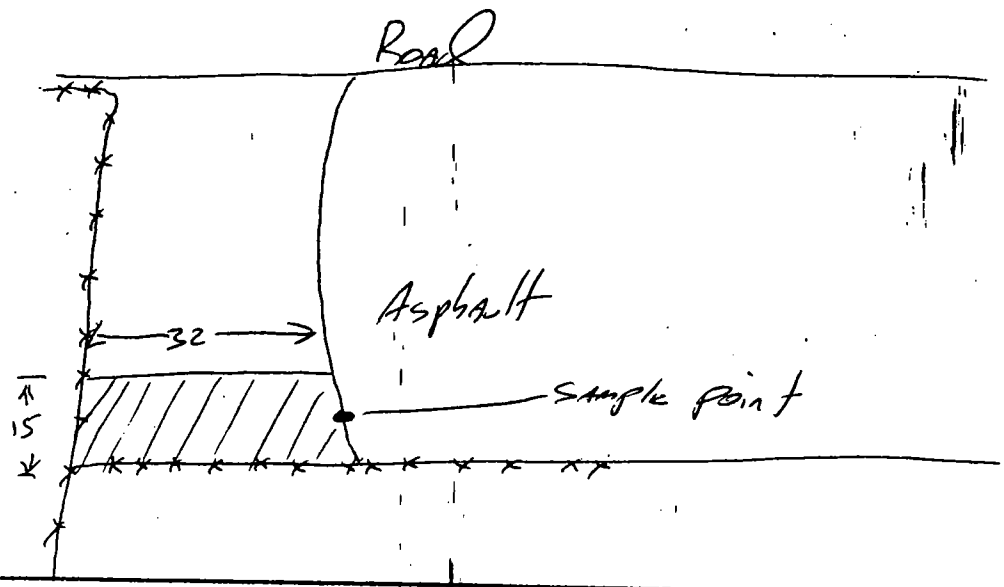
Duplicate ID:

Type of Sample:
- ☐ Low Concentration
- ☐ High Concentration
- ☐ Grab
- ☐ Composite
- ☐ Grab-Composite

MS/MSD: YES ☐ NO ☐

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES ☐	NO ☐	Bottle Lot Number:
TCL SVOCs:	YES ☐	NO ☐	Bottle Lot Number:
TCL PESTs:	YES ☐	NO ☐	Bottle Lot Number:
TCL PCBs:	YES ☐	NO ☐	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES ☐	NO ☐	Bottle Lot Number:

Sampled By: [illegible] Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C3-CONE-66 Project: NAS Key West BRAC IRA Project Number: 7593

Zone: Subzone:

Airbill No: 811285329198 Laboratory: Accutest

Sample Date:	4-8-99
Sample Time:	1620
Sample Depth (ft):	
FID Reading:	
Sample Color:	Lt tan
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

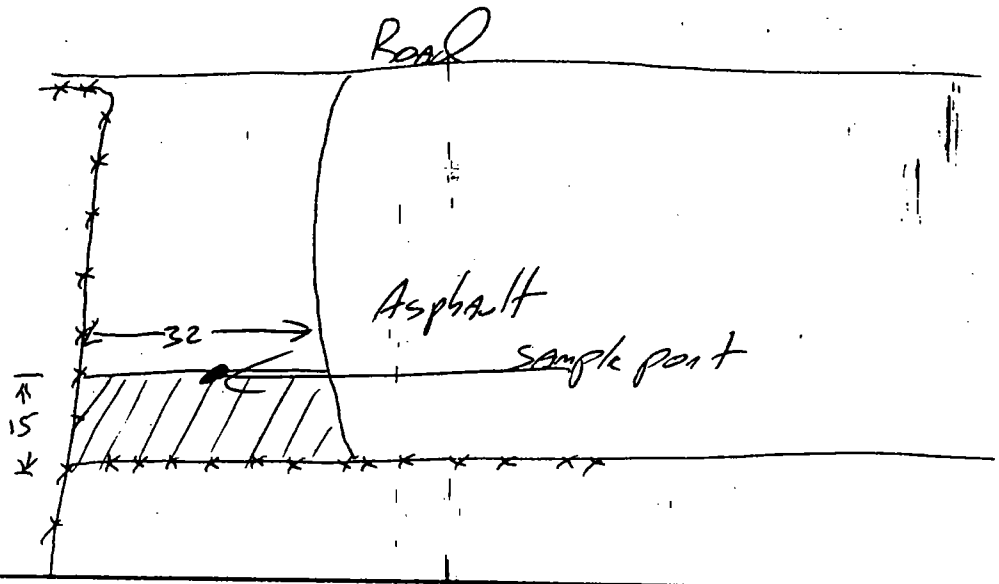
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: S. Gallagher Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date	01-19-99
Sample Time	15:30
Sample Depth (ft)	1.0'
FID Reading	
Sample Color	WHITE TO LIGHT GRAY
Sample Description	FINE TO MED SAND W/ FINE TO MED GRAVEL

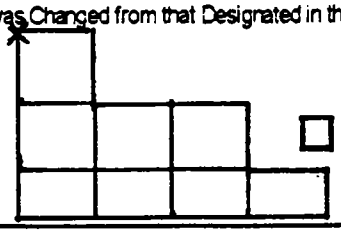
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EH + MR Signature(s): Martha Eric J. Hain

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date	1-19-99
Sample Time	15:20
Sample Depth (ft)	1.0'
FID Reading	
Sample Color	white to light grey
Sample Description	Fine to medium sand with medium gravel

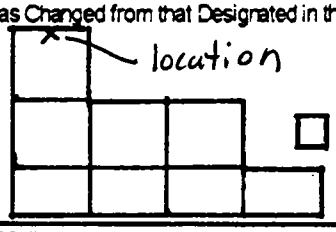
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK + EH Signature(s): Marty Kay Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-03 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date	1-19-99
Sample Time	15:15
Sample Depth (ft)	1.0'
FID Reading	0
Sample Color	light Grey
Sample Description	fine to medium sand

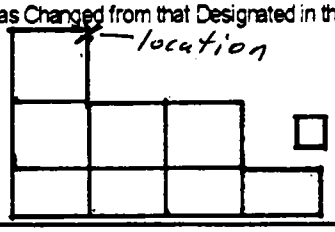
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK + CH Signature(s): Martha Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	1-19-99
Sample Time:	15:05
Sample Depth (ft):	1.0'
FID Reading:	0
Sample Color	grey
Sample Description:	medium sand to Fine sand

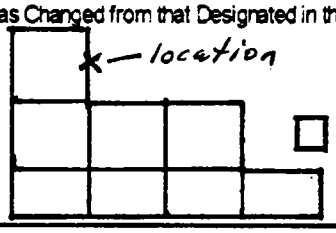
Sample Method
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): Matthew Eric J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-05 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	1-20-99
Sample Time:	16:07
Sample Depth (ft):	1.0'
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description:	SOME SILT, SAND W/ SMALL ROCKS

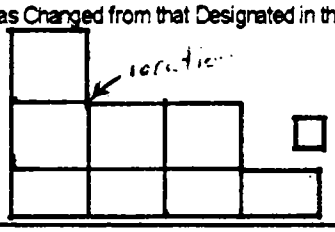
Sample Method:
- [ ] DPT
- [x] ~~Hand Auger~~ bowl & spoon
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK+DH Signature(s): Marty Ray Eric J. Hain

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-06 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	1-23-99
Sample Time:	09:50
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color:	MED BROWN
Sample Description:	FINE TO MED SAND W/SMALL-MED ROCKS

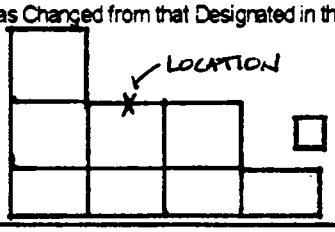
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-D1

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ME+EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	1-23-99
Sample Time:	09:45
Sample Depth (ft):	1.0'
FID Reading	
Sample Color	LIGHT TO MED BROWN
Sample Description:	FINE TO MED SAND W/ SMALL TO MED ROCKS

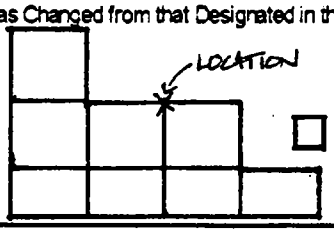
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR+EH Signature(s): Marty Eigenheim

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CH-CONF-08 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	01/29/99
Sample Time:	1435
Sample Depth (ft):	ft
FID Reading:	
Sample Color:	Light brown
Sample Description:	fine to medium grade sand with small to medium rocks

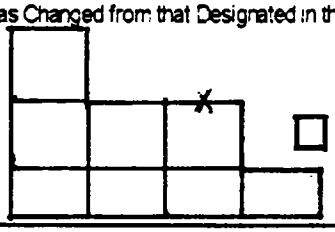
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EJH Signature(s): Eric J. Hamin

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-09 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date: 2/2/99

Sample Time: 16:48

Sample Depth (ft): 2 ft

FID Reading: -

Sample Color: ~~oolitic limestone~~ ~~sandy soil~~ tan to light tan

Sample Description: oolitic limestone sandy soil

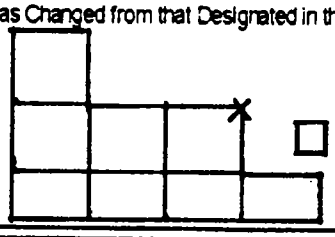
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bakhnight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-10 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date:	8/2/99
Sample Time:	16:58
Sample Depth (ft):	2
FID Reading:	
Sample Color:	~~oolic limestone~~ light tan to white
Sample Description:	oolitic limestone sandy soil

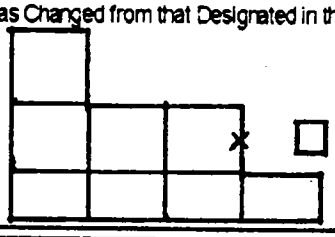
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [X]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-10 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date:	2-2-99
Sample Time:	1645
Sample Depth (ft):	2'
FID Reading:	N/A
Sample Color:	light tan - white
Sample Description:	oolitic limestone sandy soil

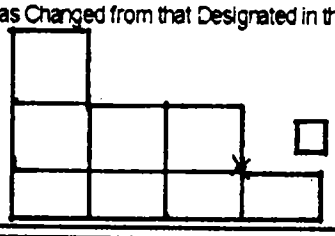
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-12 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date: ~~2/5/99~~ MB 2/5/99	
Sample Time: 1622	
Sample Depth (ft): 2	
FID Reading:	
Sample Color: tan	
Sample Description: sandy soil	

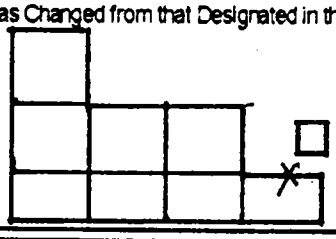
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bonknight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-12R Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date	2/5/99
Sample Time	1625
Sample Depth (ft)	2
FID Reading	
Sample Color	tan
Sample Description	sandy soil

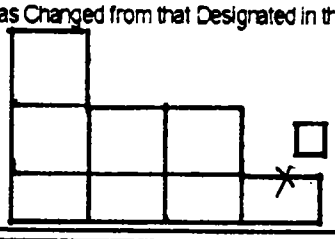
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

Sample designated for CLP analysis

ANALYSES

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: SHB Signature(s): Janet M. Bourkright

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-13 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	2/3/99
Sample Time:	1625
Sample Depth (ft):	2'
FID Reading:	N/A
Sample Color:	tan to light tan
Sample Description:	oolitic limestone medium-sand

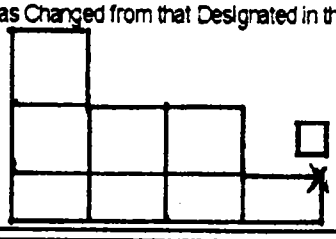
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-D2

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-13R Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date	2-5-99
Sample Time	1625
Sample Depth (ft)	2'
FID Reading	N/A
Sample Color	Tan to light tan
Sample Description	Oolitic limestone medium sand

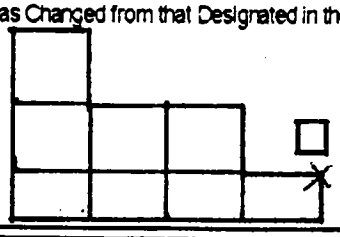
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-D2

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

Sample designated for CLP analysis

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-D2 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	2/3/99
Sample Time:	1629
Sample Depth (ft):	2'
FID Reading:	N/A
Sample Color:	tan to light tan
Sample Description:	oolitic limestone medium sand

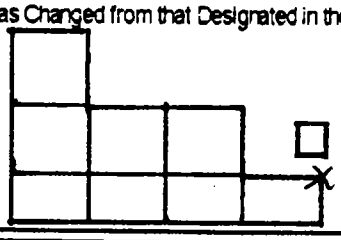
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-13

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-15 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date	2-1-1999
Sample Time	1645
Sample Depth (ft):	1-2'
FID Reading	N/A
Sample Color	Tan - to light tan
Sample Description:	Sandy soil to fine sand

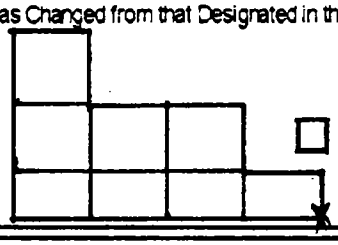
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

light tan - Sandy soil to fine sand

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (~~HNO3 Preservative~~)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bonkwight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-16 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date	2/1/99
Sample Time	1703
Sample Depth (ft)	2 ft
FID Reading	
Sample Color	light tan to dark brown
Sample Description	sandy soil to fine sand

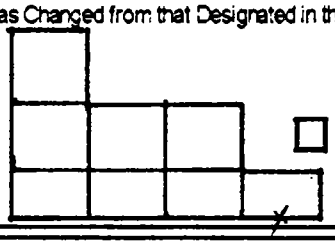
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: Rich Davis Signature(s): Rich Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-T1 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date	8/1/99
Sample Time	1700
Sample Depth (ft)	2ft
FID Reading	
Sample Color	tan to light tan
Sample Description	slit & fine sand

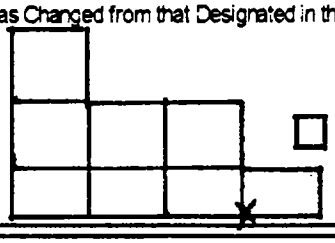
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bookwight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CINF-1 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	1/28/99
Sample Time:	17:50
Sample Depth (ft):	2.0'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	SAND W/CLAY

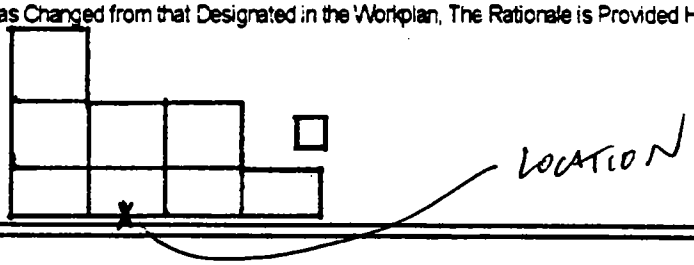
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ML + EH Signature(s): Eg J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-#19 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date	1/28/99
Sample Time	17:45
Sample Depth (ft)	2.0'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	FINE SAND W/ SILT, TRACE CLAY

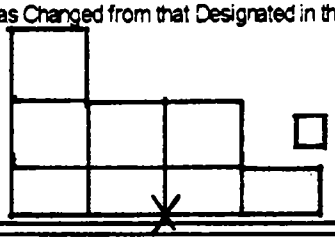
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): Eff Harris

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-20 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	1-22-99
Sample Time:	08:53
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color	LIGHT GRAYISH BROWN
Sample Description:	TRACE ORGANICS FINE TO MED SAND W/ SILT

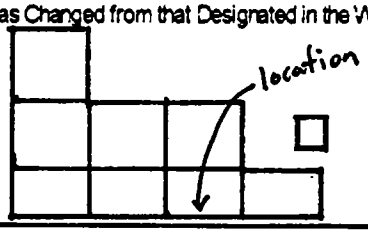
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): Matthew Eugene Hairston

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-21 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1-22-99
Sample Time:	08:47
Sample Depth (ft):	1.01
FID Reading:	
Sample Color:	LIGHT GRAY
Sample Description:	FINE TO MED SAND

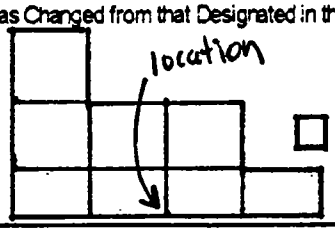
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [x] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [ ]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): Matthew Eric Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-22 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1-22-99
Sample Time:	08:40
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color:	LIGHT GRAY
Sample Description:	FINE TO MED SAND

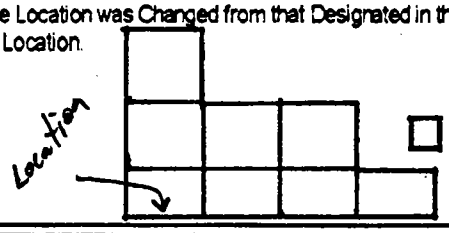
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

NOTE: A SUNKEN CREOSOTE POST WAS LOCATED APPROXIMATELY 1.0' AWAY FROM SAMPLE LOCATION

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): Martha Eric J. Hamner

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-23 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1-22-98
Sample Time:	08:35
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color:	LIGHT GRAY
Sample Description:	FINE TO MED SAND W/ SOME SILT

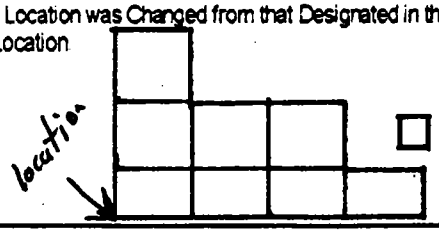
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-24 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1-20-99
Sample Time:	16:25
Sample Depth (ft):	1.01
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	FINE TO MOD GRADE SAND w/ SMALL TO MOD ROCKS

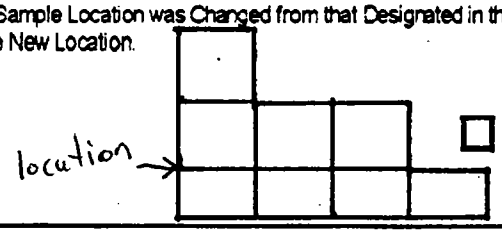
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: CA-CONF-D3

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [x] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

collected Dup & MS/MSD

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-25 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1-20-99
Sample Time:	16:20
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color:	LIGHT TO MED BROWN
Sample Description:	MED SAND W/ SMALL TO MED ROCKS

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

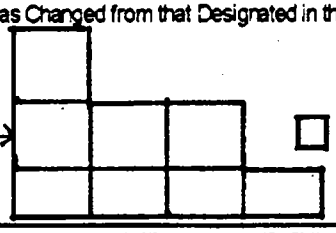
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.

location →



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR & EH Signature(s): Mark Ley Eric Harrison

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-26 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	1-20-99
Sample Time:	16:12
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color:	LIGHT TO MED BROWN
Sample Description:	FINE TO MED SAND W/SMALL TO MED ROCKS

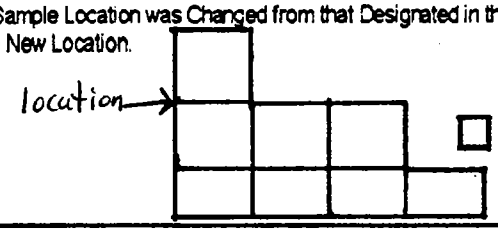
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR & EH Signature(s): Matt Ry Eric J. Hairin

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-27 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-C Subzone: SZN-4

Airbill No: _____ Laboratory: Accutest

Sample Date:	01-19-99
Sample Time:	15:37
Sample Depth (ft):	1.0'
FID Reading:	
Sample Color:	WHITE TO LIGHT GRAY
Sample Description:	MED TO COURSE SAND W/SMALL-MED GRAVEL

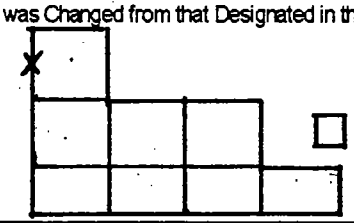
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: EH + MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-28 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	2-8-99
Sample Time:	1518
Sample Depth (ft):	2'
FID Reading:	N/A
Sample Color	Tan to light tan
Sample Description:	oolitic limestone medium sand - moist to dry

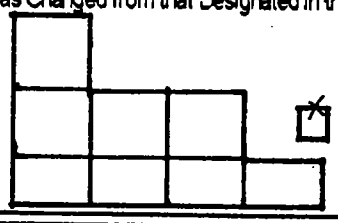
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-29 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	2/8/99
Sample Time:	1534
Sample Depth (ft):	2
FID Reading:	
Sample Color	black to tan
Sample Description:	sandy soil, oolite limestone diesel ~~and~~ odor

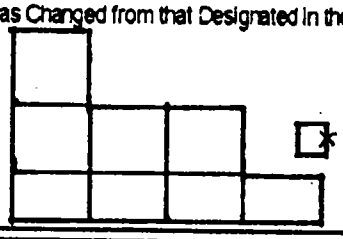
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Jamal A. Bonknight

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CH-CONF-3D Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	2-8-99
Sample Time:	1532
Sample Depth (ft):	2'
FID Reading:	N/A
Sample Color	Tan to light tan
Sample Description:	oolitic limestone medium sand moist to dry

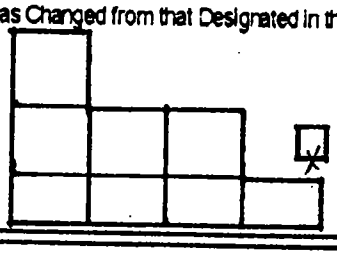
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: R Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CH-CONF-31 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	2/8/99
Sample Time:	1518
Sample Depth (ft):	0
FID Reading:	
Sample Color	tan to light tan
Sample Description:	oolitic limestone & sandy soil

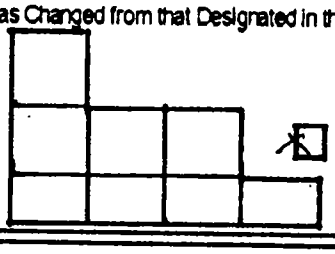
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [x]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: JMB Signature(s): Janet M. Bartkowski

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-32 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	11/25/99
Sample Time:	16:22
Sample Depth (ft):	4.0'
FID Reading:	
Sample Color:	GREY
Sample Description:	GRAY W/ FINE SAND

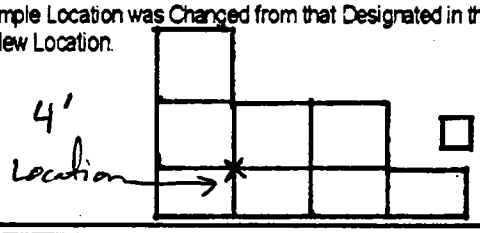
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK + EH Signature(s): [signature] [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-33 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	1/25/99
Sample Time:	16:20
Sample Depth (ft):	4.0'
FID Reading:	
Sample Color:	WHITE TO LIGHT BROWN
Sample Description:	FINE SAND

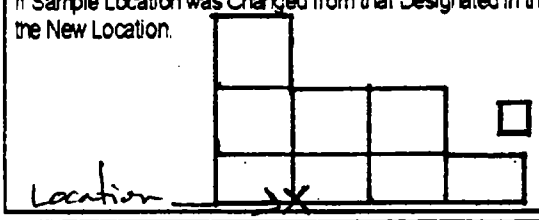
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK + EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-34 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1/25/99
Sample Time:	16:15
Sample Depth (ft):	4.0'
FID Reading:	
Sample Color:	WHITE TO LIGHT BROWN
Sample Description:	FINE SAND

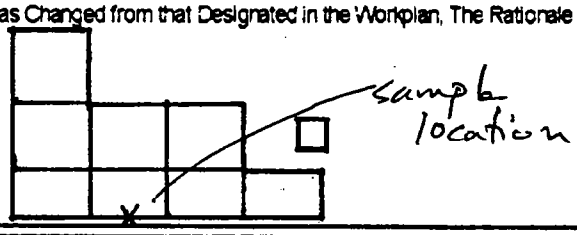
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: CA-CONF-35 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1/28/99
Sample Time:	1:40
Sample Depth (ft):	4.0'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	FINE SAND W/ SILT - TRACE CLAY

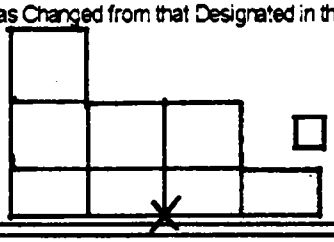
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Raticnale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EA Signature(s): Guy J Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-36 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	1/28/99
Sample Time:	17:35
Sample Depth (ft):	4.0'
FID Reading:	
Sample Color:	LIGHT BROWN
Sample Description:	MED SAND W/ SMALL TO MED ROCKS

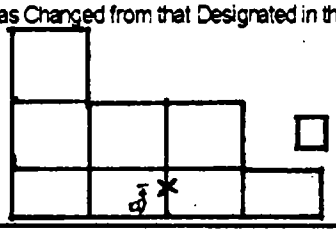
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

- Sample taken 50' from outside wall

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MEEK Signature(s): Eugene J. Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-037 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1636
Sample Depth (ft):	1'
FID Reading:	
Sample Color	Tan - light tan
Sample Description:	medium sand loose oolitic limestone

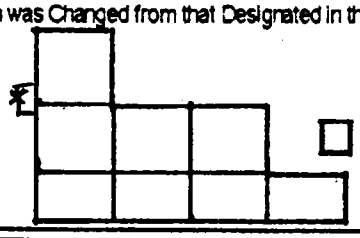
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-038 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1627
Sample Depth (ft):	1'
FID Reading:	
Sample Color	Tan - light tan
Sample Description:	medium sand, loose oolitic limestone

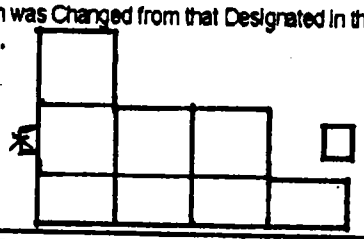
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E4-CONF-39 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1555
Sample Depth (ft):	1'
FID Reading:	
Sample Color	light tan
Sample Description:	medium sand loose oolitic limestone

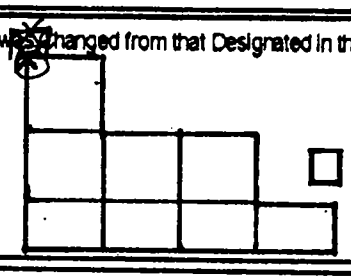
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:
sample collected @ approx 5' from fence @ PRMO
& sample E4-CONF-01

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-41 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1613
Sample Depth (ft):	1'
FID Reading:	
Sample Color	Tan to light tan
Sample Description:	medium sand loose oolitic limestone

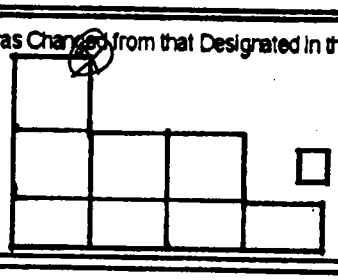
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:
Sample collected @ approx. 5' from DRMO fence
! sample C4-CONF-03

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-4D Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1605
Sample Depth (ft):	1'
FID Reading:	
Sample Color	Tan - light tan
Sample Description:	medium sand loose oolitic limestone

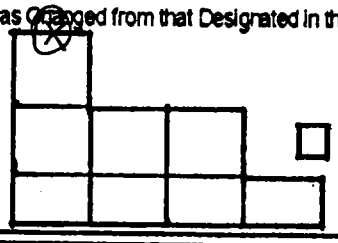
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

Sample collected @ approx. 5' from DRMO fence & sample C4-CON4-Ø2

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-42 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No. Laboratory: Accutest

Sample Date:	3/19/99
Sample Time:	1649
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	light brown. tan
Sample Description:	medium sand loose oolitic limestone

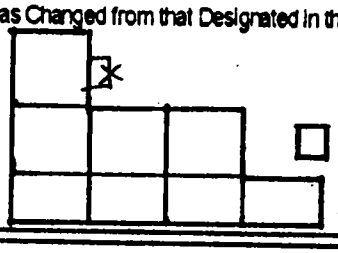
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-D11

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-D11 Project: NAS Key West BRAC SI/SSI IRA
Zone: GRYZN-C Project Number: 7693
Airbill No: Laboratory: Accutest Subzone: SZM4

Sample Date	3/9/99
Sample Time	1649
Sample Depth (ft)	1'
FID Reading	
Sample Color	light brown - tan
Sample Description	light brown - tan medium sand - loose oolitic limestone

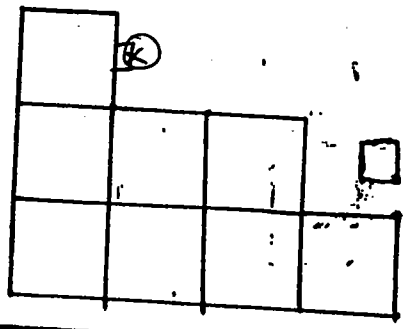
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-42

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-43 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date	3/20/99
Sample Time	Ø917
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - light Tan
Sample Description	medium sand loose oolitic limestone

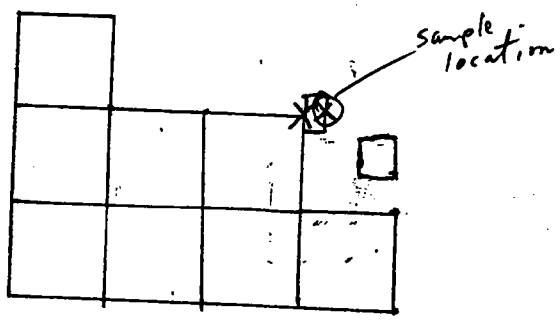
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

sample collected approx. 5' from C4-Conf-Ø9

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-44 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-C Subzone: S2N-4
Airbill No: Laboratory: Accutest

Sample Date	3/20/99
Sample Time	0931
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - light Tan
Sample Description	medium sand loose oolitic limestone

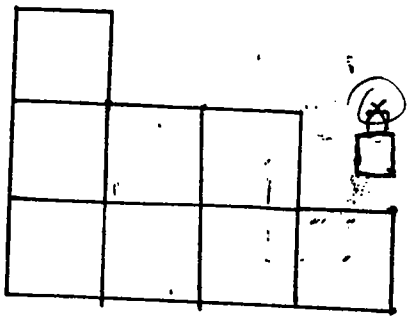
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-D12

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected approx. 5 ft from C4-CONF-28

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-CONF-D12 Project: NAS Key West BRAC SI/SSI IRA
Zone: GRY2N-C Project Number: 7593
Airbill No: Laboratory: Accutest Subzone: S2N-4

Sample Date	3/20/99
Sample Time	0931
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - light Tan
Sample Description	medium sand loose oolitic limestone

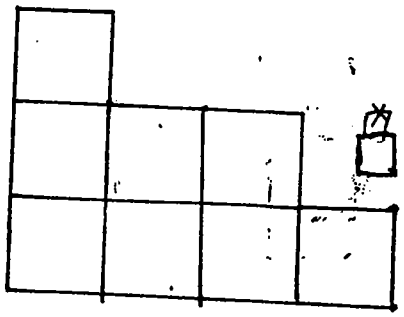
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: C4-CONF-44

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: C4-ConF 45 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date	3/20/99
Sample Time	0946
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - light Tan
Sample Description	medium sand loose oolitic limestone

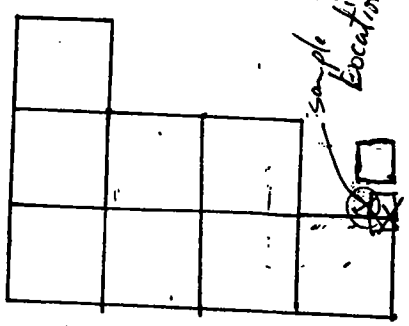
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample Collected approx. 5' from C4-Conf-13

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: D1-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-D1 Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2-27-99
Sample Time	11:12
Sample Depth (ft)	1'
FID Reading	
Sample Color	light grey
Sample Description	fine sand with some medium sand

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

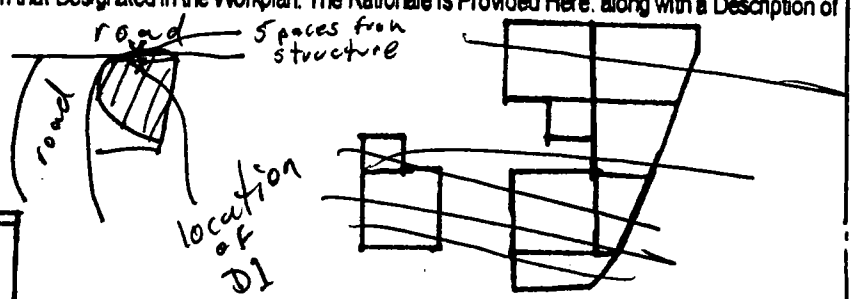
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:

Seminole Battery



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR, NR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: D1-CONF-D2 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-D Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-27-99
Sample Time	11:16
Sample Depth (ft)	1'
FID Reading	
Sample Color	grey with trace black
Sample Description	Fine to medium sand

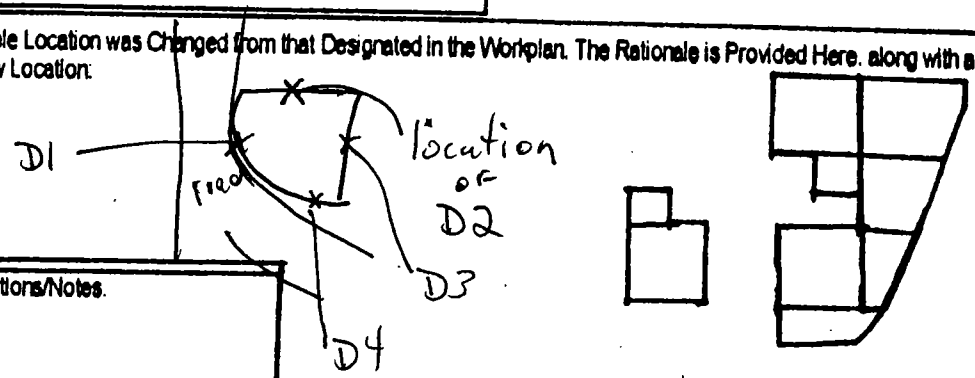
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: D1-CONF-D3 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-D Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-27-99
Sample Time	11:25
Sample Depth (ft)	1'
FID Reading	
Sample Color	grey
Sample Description	Fine to medium sand

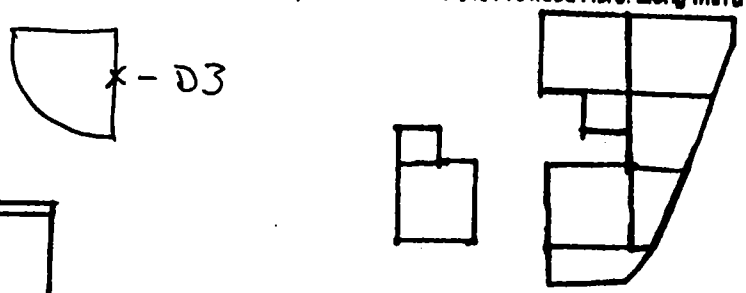
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MK Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: D1-CONF-D4 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-D Subzone: SZN-3
Airbill No: ~~2-27-99~~ Laboratory: Accutest

Sample Date	2-27-99
Sample Time	11:35
Sample Depth (ft)	1'
FID Reading	
Sample Color	grey
Sample Description	fine to medium sand

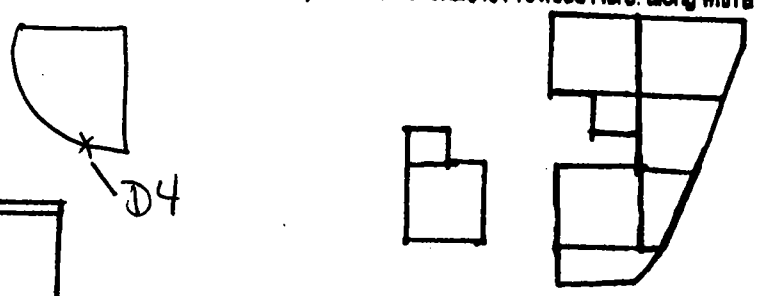
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1426
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	tan - light tan
Sample Description:	coarse to fine sand oolitic limestone dry to moist

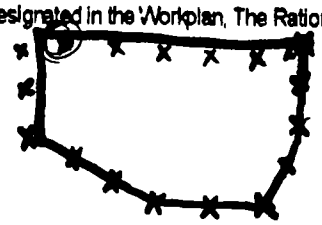
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1420
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	Tan
Sample Description:	Coarse sand-oolitic limestone - dry

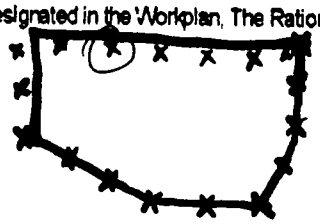
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location.



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ GRD R. Davis Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-03 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/12/99
Sample Time:	1605
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	Brown - tan
Sample Description:	medium sand oolitic limestone

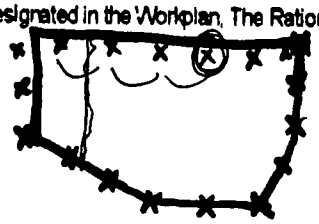
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:
Sample locations shifted due to excavation area size alteration.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R Da

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/12/99
Sample Time:	1615
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	brown to tan
Sample Description:	medium sand oolitic limestone

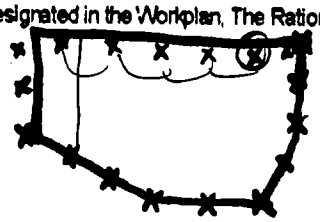
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

Sample location adjusted to fit actual Excavation area. Sample E2-CONF-05 eliminated

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-06 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/ /99
Sample Time:	1228
Sample Depth (ft):	1'
FID Reading:	
Sample Color	tan - brown - dark brown
Sample Description:	medium grain soil/sand

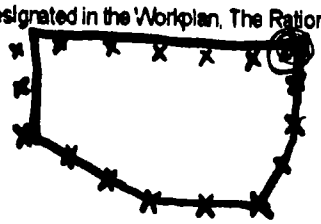
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~DAR~~ R.Davis Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-4

Airbill No. _____ Laboratory: Accutest

Sample Date:	3/ /99
Sample Time:	1215
Sample Depth (ft):	1'
FID Reading:	
Sample Color	dark brown -black
Sample Description:	medium grain soil

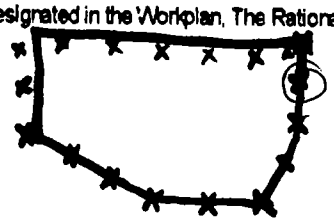
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR RDavis Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-08 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/12/99
Sample Time:	1539
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	light tan - tan
Sample Description:	medium sand oolitic limestone

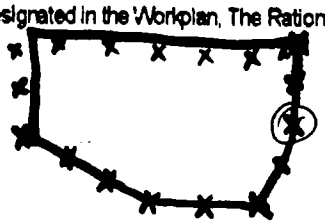
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: E2-CONF-08

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale Is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

Marked fence post @ proposed location - due to sample area had to shift over approx 3'-5' towards sample # 9

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-D8 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No. Laboratory: Accutest

Sample Date:	3/12/99
Sample Time:	1539
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	light tan to tan
Sample Description:	oolitic limestone medium sand

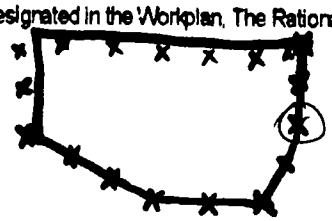
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: EZ-CONF-Ø8

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-09 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1547
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	Tan - lite tan
Sample Description:	medium to fine sand

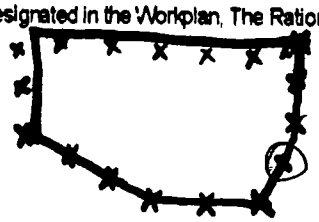
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

sample location was not excavated 2' due to utilities - probably about 1'

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR R. Davis Signature(s): R. Da

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-10 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/5/99
Sample Time:	13:40
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	grey / brown
Sample Description:	medium sand

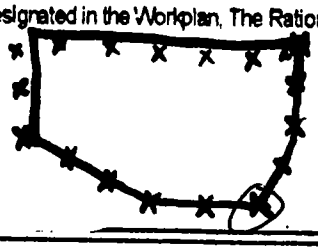
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

E2-CONF-10

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-11 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/5/99
Sample Time:	13:50
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	brown/grey
Sample Description:	medium sand with small gravel

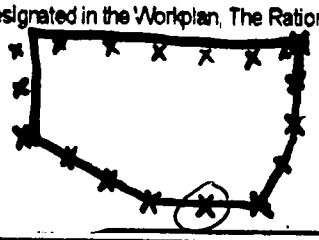
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

E2-CONF-11

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s):

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-12 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/6/99
Sample Time:	0932
Sample Depth (ft):	1'
FID Reading:	
Sample Color	tan with some white
Sample Description:	medium sand with some small gravel

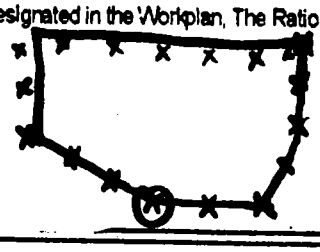
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:
alot of building material in the excavated soils.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-13 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	3/6/99
Sample Time:	0920
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	tan to light brown
Sample Description:	medium sand with small gravel

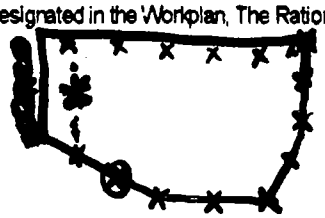
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-14 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/8/99
Sample Time:	1150
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	tan to brown
Sample Description:	medium sand with some small gravel

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-16 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/ /99
Sample Time:	12:03
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	brown
Sample Description:	course sand with considerable small gravel

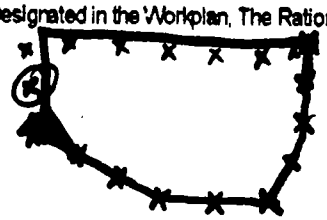
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Murphy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-17 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1455
Sample Depth (ft):	1'
FID Reading:	
Sample Color	Tan to light tan
Sample Description:	medium to fine sand/silt oolitic limestone

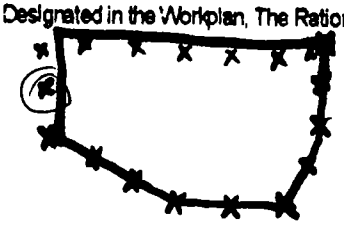
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: E2-CONF-D9

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location

⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-D9 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1455
Sample Depth (ft):	1'
FID Reading:	
Sample Color	Tan to light tan
Sample Description:	medium to fine sand/silt oolitic limestone

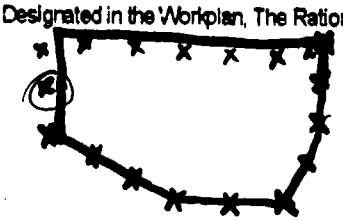
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: E2-CONF-17

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR R. Davis Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-18 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No. _____ Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1441
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	Tan - Light tan
Sample Description:	~~coarse~~ medium to fine sand politic limestone dry to moist

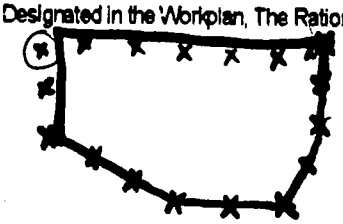
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: ~~MR~~ R. Davis Signature(s): R. Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-19 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	10:15
Sample Depth (ft):	0-.5'
FID Reading:	-
Sample Color:	grey
Sample Description:	medium sand with small gravel

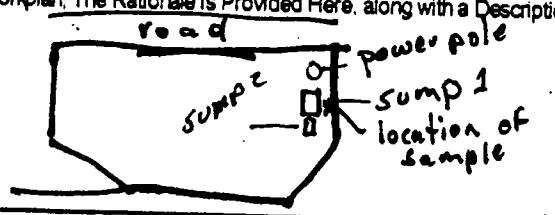
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

boat ramp

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MR + KD Signature(s): Mat Ray KD Ryan

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-20 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: S2N-4

Airbill No: Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	10:30
Sample Depth (ft):	0-5'
FID Reading:	
Sample Color:	gray to brown
Sample Description:	medium sand

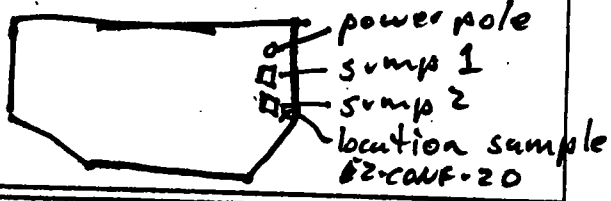
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MK Signature(s): Mathy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-21 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-4

Airbill No: Laboratory: Accutest

Sample Date:	3/4/99
Sample Time:	11:15 MR
Sample Depth (ft):	0-1'
FID Reading:	
Sample Color:	light brown
Sample Description:	medium sand

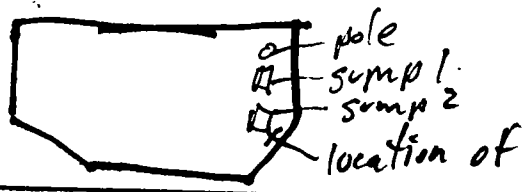
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

EZ-CONF-21

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-22 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No: Laboratory: Accutest

Sample Date:	3/10/99
Sample Time:	1534
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	Tan
Sample Description:	sandy - medium to fine - oolitic limestone mix

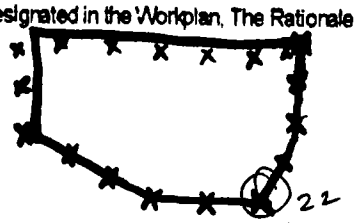
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

sample E2-CONF-10 was taken 2' away.
Did not anticipate excavation to go this far.
2nd sample needed for sidewall.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR R.Davis Signature(s): R Davis

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-23 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-E Subzone: S2N-2
Airbill No: Laboratory: Accutest

Sample Date	3/19/99
Sample Time	1140
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - brown
Sample Description	medium sand/soil loose oolitic limestone

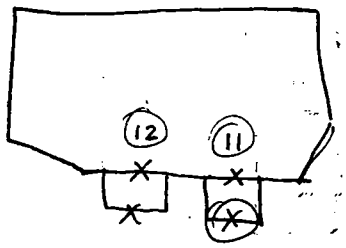
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E2-CONF-24 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-2
Airbill No: Laboratory: Accutest

Sample Date	3/19/99
Sample Time	1149
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

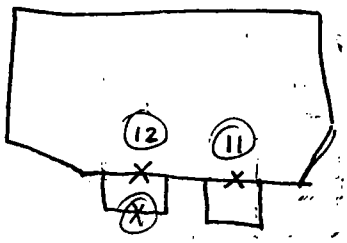
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EZ-CONF-15 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-4
Airbill No. Laboratory: Accutest

Sample Date:	3/6/99
Sample Time:	
Sample Depth (ft):	1'
FID Reading:	
Sample Color:	
Sample Description:	

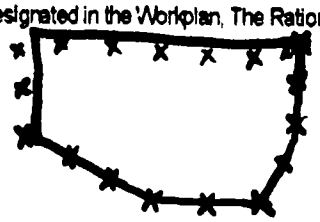
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale Is Provided Here, along with a Description of the New Location:



X = proposed sample location
⊗ = Actual sample location

Observations/Notes:

Not taken as the demisions of the excavation a smaller than Drawing. dipicited on this was an error in the grid size actually detected

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Murphy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-3

Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1121
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan
Sample Description	medium sand

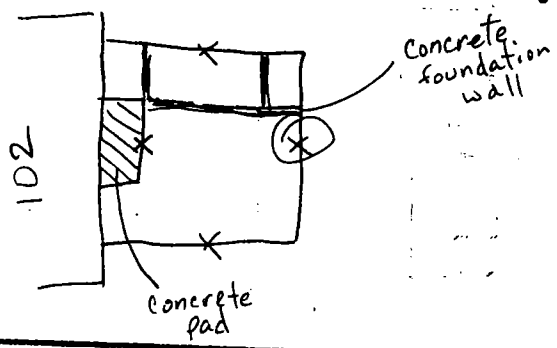
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1129
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand

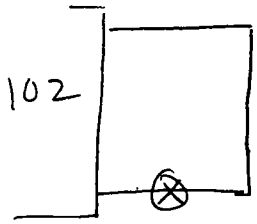
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-Ø3 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-3

Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1124
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand

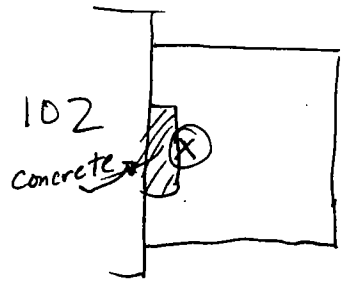
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-E Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1132
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium Sand

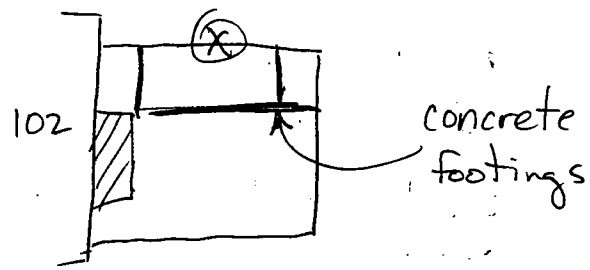
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-05 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	3/17/99
Sample Time	1540
Sample Depth (ft)	1'
FID Reading	
Sample Color	Brown - Black
Sample Description	medium soil

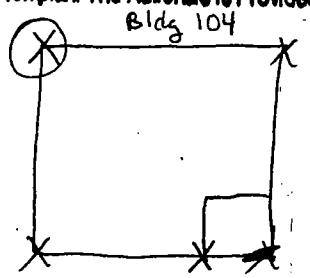
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-Ø6 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	3/17/99
Sample Time	1550
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

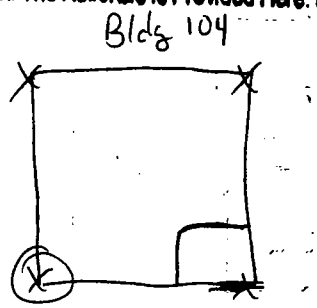
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: E3-CONF-DIØ

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-D10 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N Subzone: S2N
Airbill No: Laboratory: Accutest

Sample Date	3/17/99
Sample Time	1550
Sample Depth (ft)	
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

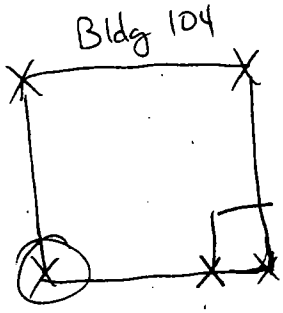
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: E3-CONF-06

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): [illegible]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	3/17/99
Sample Time	1605
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

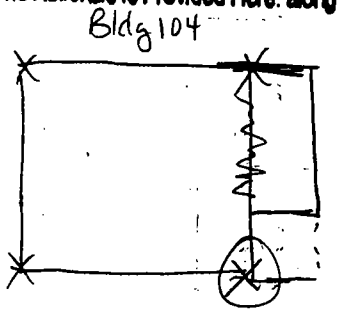
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E3-CONF-Ø8 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	3/18/99
Sample Time	1242
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - light tan
Sample Description	medium-fine sand loose oolitic limestone

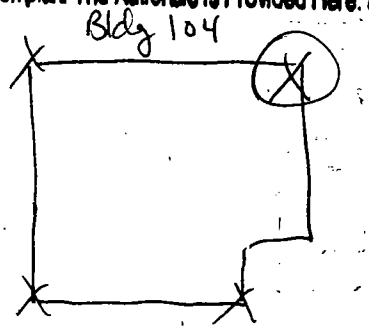
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EG-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1205
Sample Depth (ft)	1'
FID Reading	
Sample Color	light tan - tan
Sample Description	medium sand oolitic limestone, shells fill

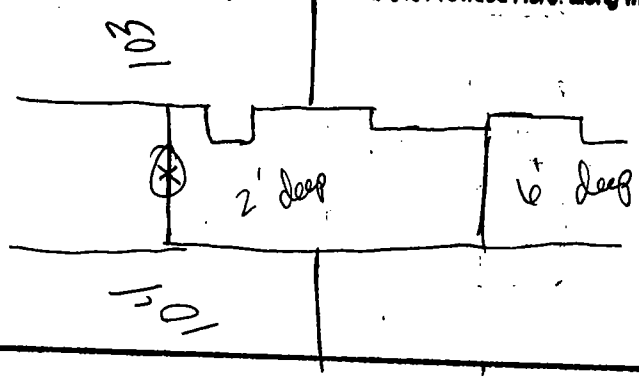
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-Ø2 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-9

Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1212
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan - brown
Sample Description	medium sand oolitic limestone

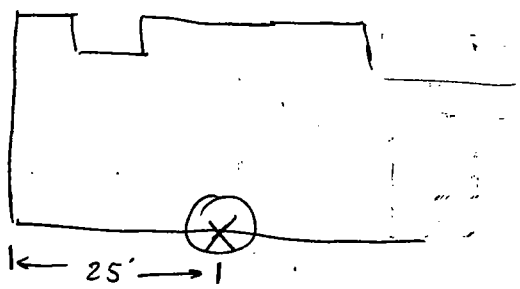
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EQ-CONF-Ø3 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-9

Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1421
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand

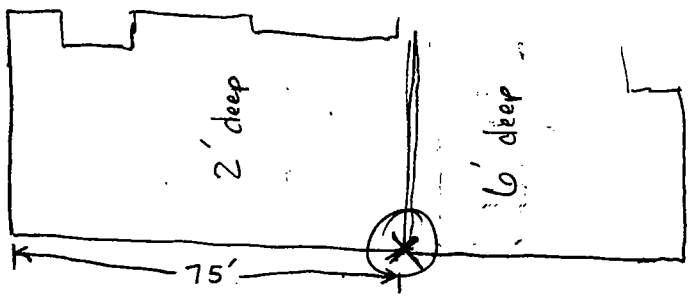
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1431
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan
Sample Description	medium sand

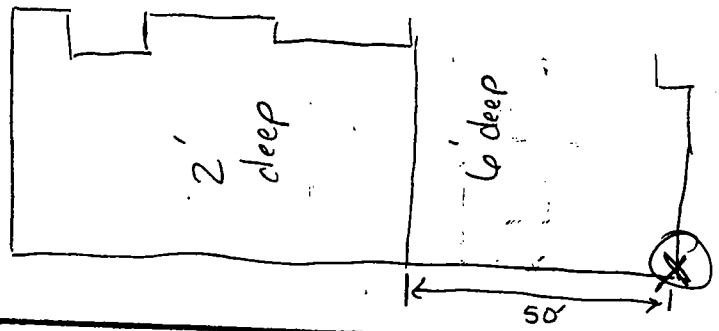
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-Ø5 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	16Ø1
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan - dark tan
Sample Description	medium sand loose oolitic limestone

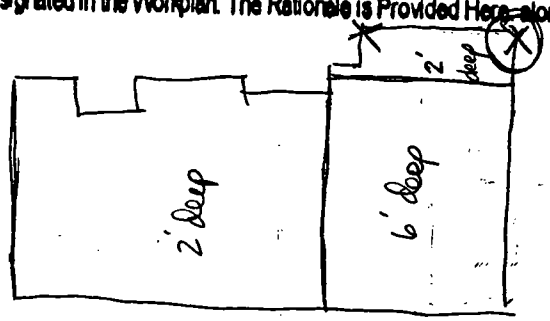
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here along with a Description of the New Location:



Observations/Notes:

Area contained footing for bldg 103 and duct bank for electrical - excavation only to 2'

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-06 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1612
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan - dark tan
Sample Description	medium sand loose oolitic limestone fine silt

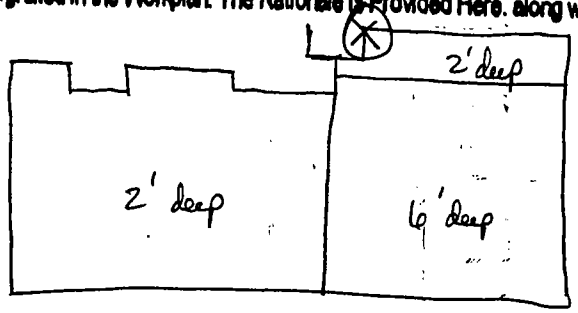
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected at corner of concrete entrance slab to Bldg 103 and wall of bldg 103.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: EQ-CONF-~~03~~07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-E Subzone: S2N-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1225
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan - brown
Sample Description	medium sand oolitic limestone

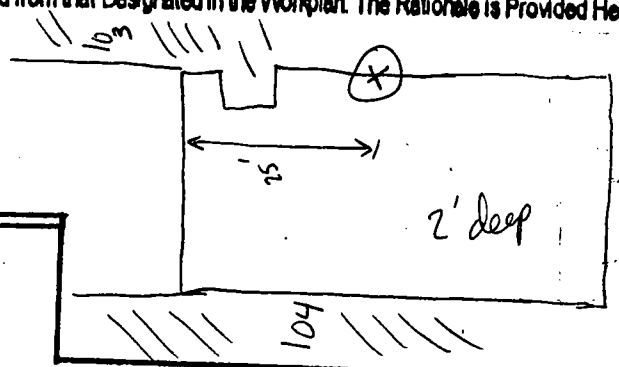
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-Ø8 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1505
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

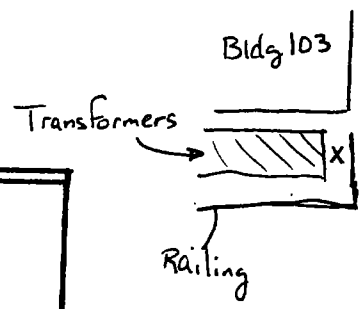
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-Ø9 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-E Subzone: S2N-9
Airbill No: Laboratory: Accutest

Sample Date	3/16/99
Sample Time	1520
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

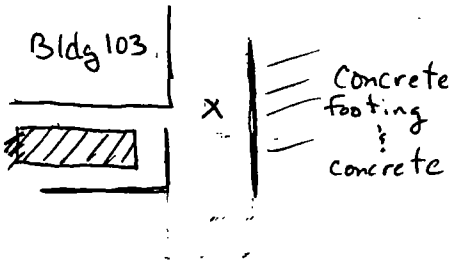
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-10B Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/15/99
Sample Time	1700
Sample Depth (ft)	6'
FID Reading	
Sample Color	gray - brown
Sample Description	clayey - fine silt

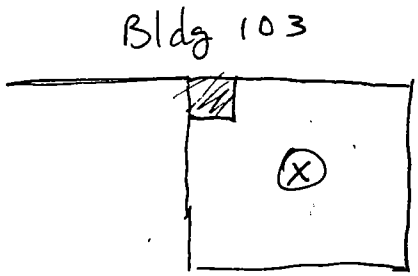
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

Sample collected at bottom of 6' excavation for PCB analysis for determination of type of shipment for excavated soil.

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-11P Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/15/99
Sample Time	1700
Sample Depth (ft)	~~0~~ NA
FID Reading	
Sample Color	gray - brown
Sample Description	clay - fine silt - sand

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:

Sample collected from excavated soil pile from 6' excavation area.

Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-12 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN-E Subzone: SZN-9

Airbill No: Laboratory: Accutest

Sample Date	3/19/99
Sample Time	1028
Sample Depth (ft)	1'
FID Reading	
Sample Color	~~Medium~~ Tan to light brown
Sample Description	medium sand loose oolitic limestone

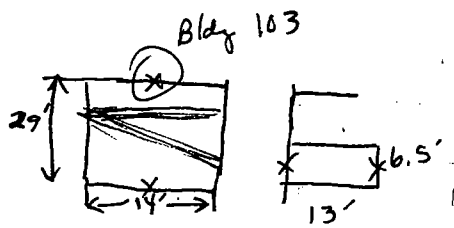
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-13 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/19/99
Sample Time	1039
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

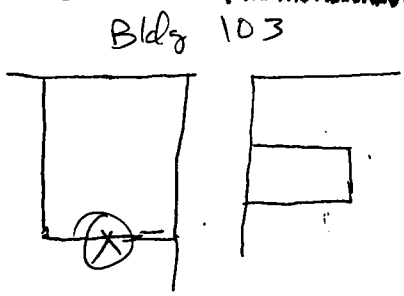
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-14 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/19/99
Sample Time	1051
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

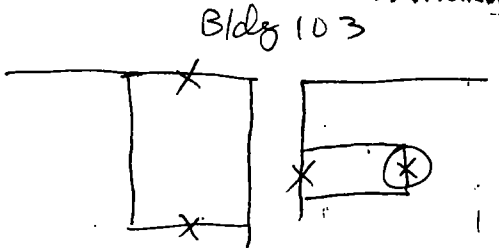
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: E9-CONF-15 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-E Subzone: SZN-9
Airbill No: Laboratory: Accutest

Sample Date	3/19/99
Sample Time	1101
Sample Depth (ft)	1'
FID Reading	
Sample Color	Tan
Sample Description	medium sand loose oolitic limestone

Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

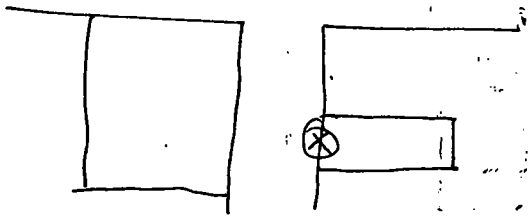
Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:

Bldg 103



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs	YES [x]	NO [ ]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs	YES [x]	NO [ ]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [ ]	NO [x]	Bottle Lot Number:

Sampled By: RD Signature(s): RD

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: FI-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-F Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2/27/99
Sample Time	14:30
Sample Depth (ft)	1'
FID Reading	
Sample Color	light tan
Sample Description	medium sand some gravel

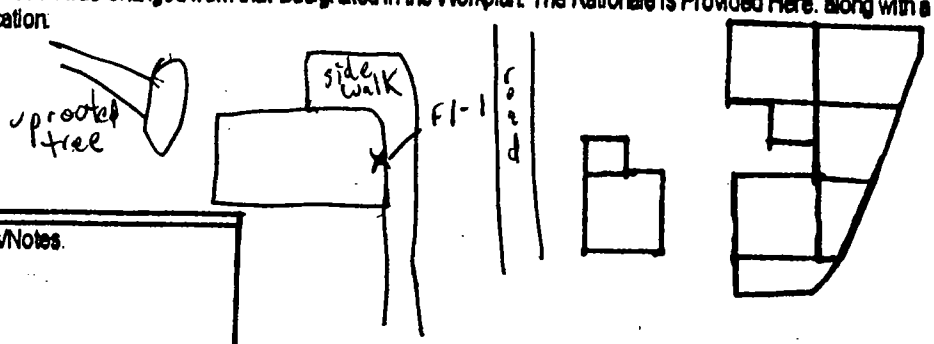
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: FI-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: 52N-3
Airbill No: Laboratory: Accutest

Sample Date	2-27-99
Sample Time	14:40
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan
Sample Description	medium sand

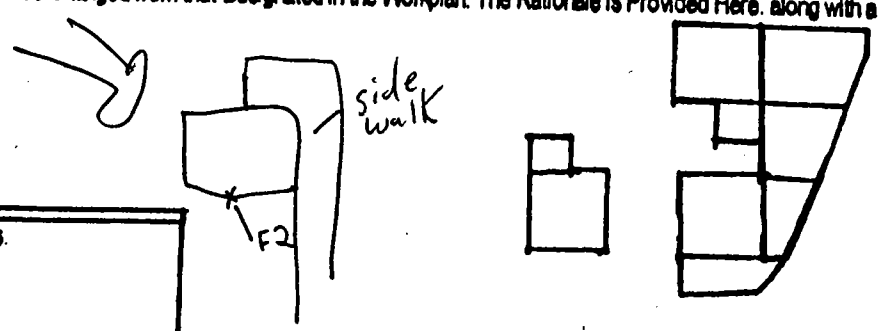
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Mark Ky

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F1-CONF-03 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: SZN-3
Airbill No: Laboratory: Accutest

Sample Date	2-27-99
Sample Time	14:45
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan
Sample Description	medium sand

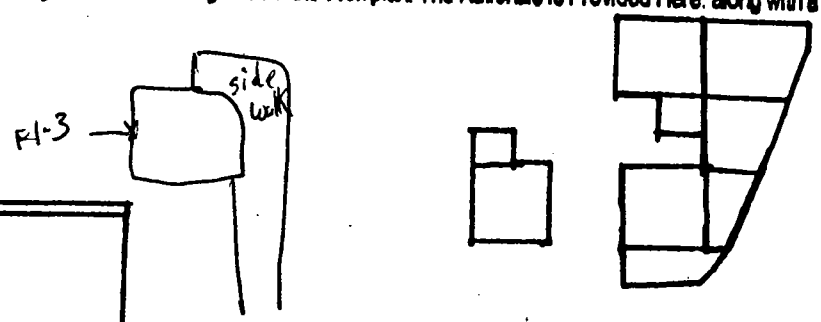
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Marty

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: FI-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN-C Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	2-27-99
Sample Time	14:49
Sample Depth (ft)	1'
FID Reading	
Sample Color	tan with brown
Sample Description	medium sand

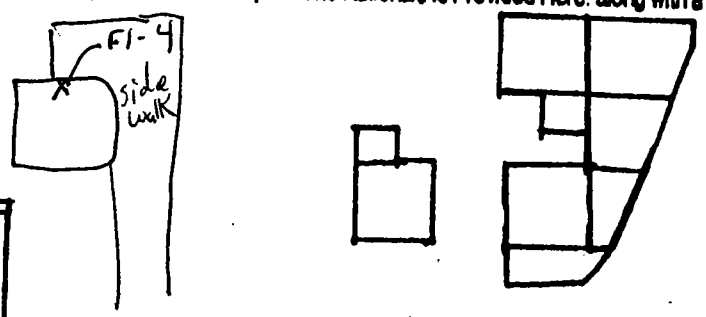
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: MR Signature(s): Martky

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONF-01 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-F Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	~~[illegible]~~ 5/1/99
Sample Time	0905
Sample Depth (ft)	1'
FID Reading	
Sample Color	grey to brown
Sample Description	medium sand

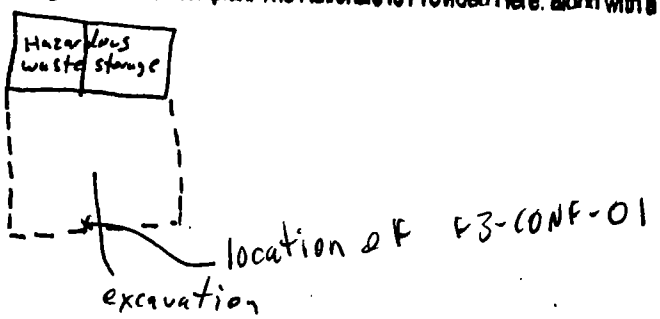
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: M.R. Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONF-02 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-F Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	~~2/26/99~~ 3/1/99
Sample Time	09:15
Sample Depth (ft)	1'
FID Reading	
Sample Color	white
Sample Description	medium sand with small gravel

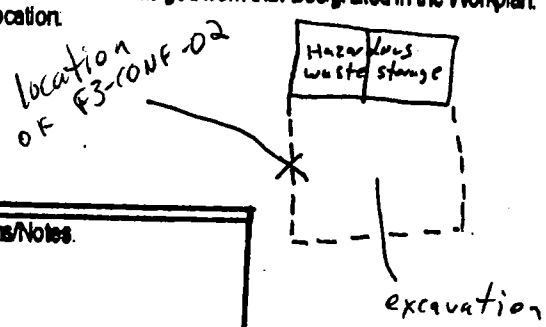
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: M.R. Signature(s): Mathy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONF-03 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2N-F Subzone: S2N-3
Airbill No: Laboratory: Accutest

Sample Date	~~2/26/99~~ 5/1/99
Sample Time	0922
Sample Depth (ft)	1'
FID Reading	
Sample Color	grey
Sample Description	medium sand with small gravel

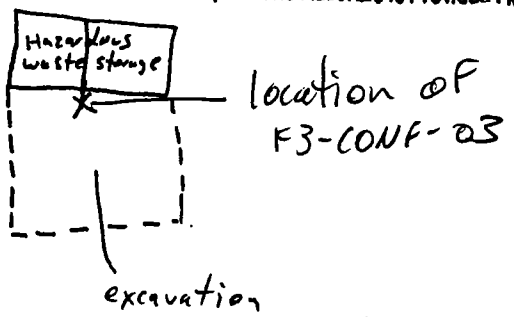
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: M.R. Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONF-04 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRY2N-F Subzone: S2N-3

Airbill No: Laboratory: Accutest

Sample Date	~~2/26/99~~ 3/1/99
Sample Time	0930
Sample Depth (ft)	1'
FID Reading	
Sample Color	white with some brown
Sample Description	small to medium sand with small gravel

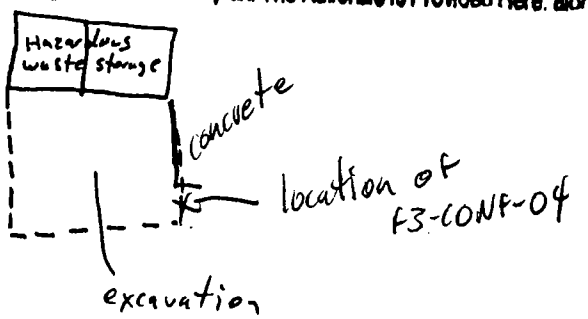
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By: M.R. Signature(s): Marthy

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONF-05 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRY2NF Subzone: S2N
Airbill No: Laboratory: Accutest

Sample Date	3-26-99
Sample Time	1525
Sample Depth (ft)	1'
FID Reading	
Sample Color	MED BROWN
Sample Description	MED SAND

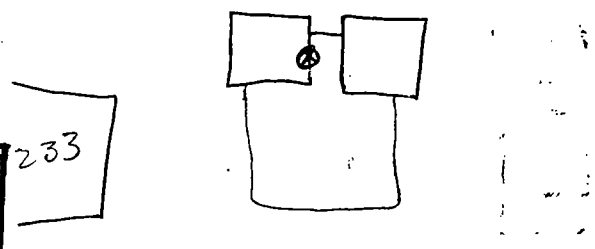
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONT-06 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593

Zone: GRYZN Subzone: SZN

Airbill No: Laboratory: Accutest

Sample Date	3-26-99
Sample Time	1520
Sample Depth (ft)	11
PID Reading	
Sample Color	LIGHT BROWN
Sample Description	FINE TO MED SAND W/GRAVEL

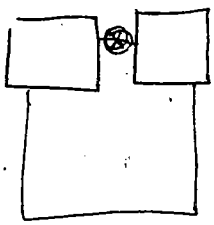
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID:

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: MR & EH Signature(s): [signature]

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name: F3-CONF-07 Project: NAS Key West BRAC SI/SSI IRA Project Number: 7593
Zone: GRYZN Subzone: SZN
Airbill No: Laboratory: Accutest

Sample Date	3-26-99
Sample Time	1515
Sample Depth (ft)	1'
FID Reading	
Sample Color	LIGHT BROWN
Sample Description	MED SAND W/ GRAVEL

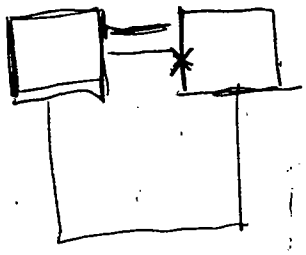
Sample Method:
- [ ] DPT
- [x] Hand Auger
- [ ] HSA

Duplicate ID: F3-CONF-D13

Type of Sample:
- [ ] Low Concentration
- [ ] High Concentration
- [x] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD: YES [ ] NO [X]

If Sample Location was Changed from that Designated in the Workplan. The Rationale is Provided Here, along with a Description of the New Location:



Observations/Notes:

ANALYSES:

TCL VOCs (HCL Preservative)	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative)	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By: MR + EH Signature(s): [signature] [signature]

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SWIPE ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name E3-SWIPE-D11 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: BUILDINGS 102, 103, 104 Subzone:

Airbill No: Laboratory Accutest

Sample Date	3/24/99
Sample Time:	1305
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- ☐ DPT
- ☐ Hand Auger
- ☐ HSA

Duplicate ID:

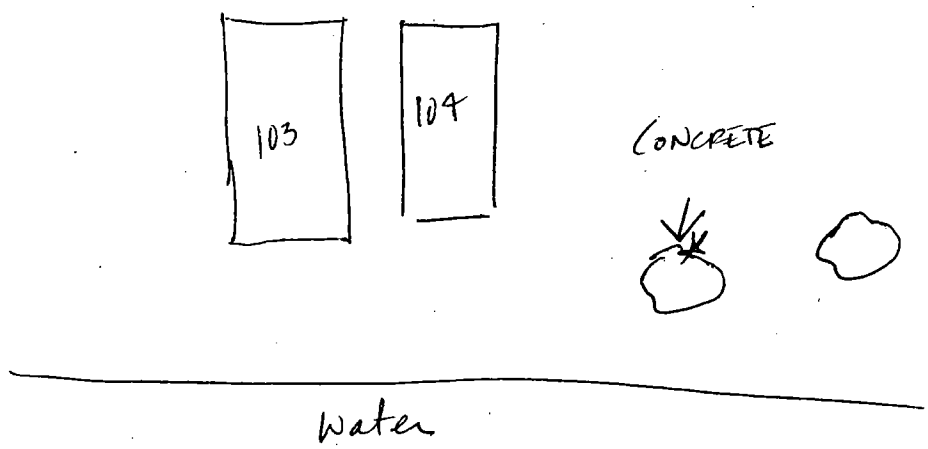
Type of Sample
- ☐ Low Concentration
- ☐ High Concentratio
- ☐ Grab
- ☐ Composite
- ☐ Grab-Composite

MS/MSD YES ☐ NO ☐

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

- taken from concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES ☐	NO ☑	Bottle Lot Number:
TCL SVOCs:	YES ☐	NO ☑	Bottle Lot Number:
TCL PESTs:	YES ☐	NO ☑	Bottle Lot Number:
TCL PCBs:	YES ☐	NO ☑	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES ☑	NO ☐	Bottle Lot Number:

Sampled By EJH Signature(s): Emily J. Harrison

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SWIPE ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name E3-SWIPE-D12 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: BUILDINGS 102, 103, 104 Subzone:

Airbill No: Laboratory Accutest

Sample Date	3/24/99
Sample Time:	1307
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

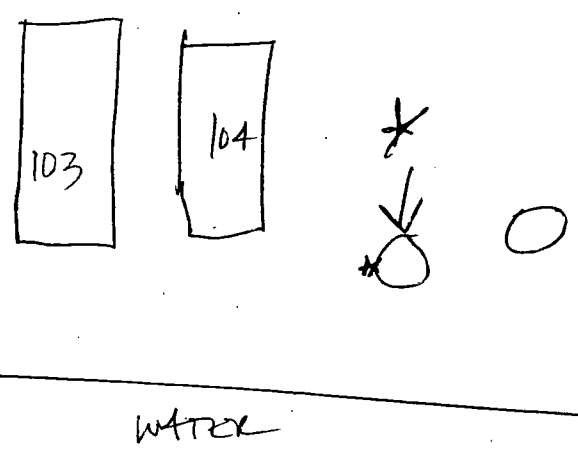
Type of Sample
- [ ] Low Concentration
- [ ] High Concentratio
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Taken from Concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [X]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [X]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [X]	Bottle Lot Number:
AL Metals + Tin (HNO3 Preservative):	YES [X]	NO [ ]	Bottle Lot Number:

Sampled By EJH Signature(s): Emily J. Harrison

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SWIPE

~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name E3-SWIPE-D13 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: Subzone:

Airbill No: Laboratory Accutest

Sample Date	3/24/99
Sample Time:	1310
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- ☐ DPT
- ☐ Hand Auger
- ☐ HSA

Duplicate ID:

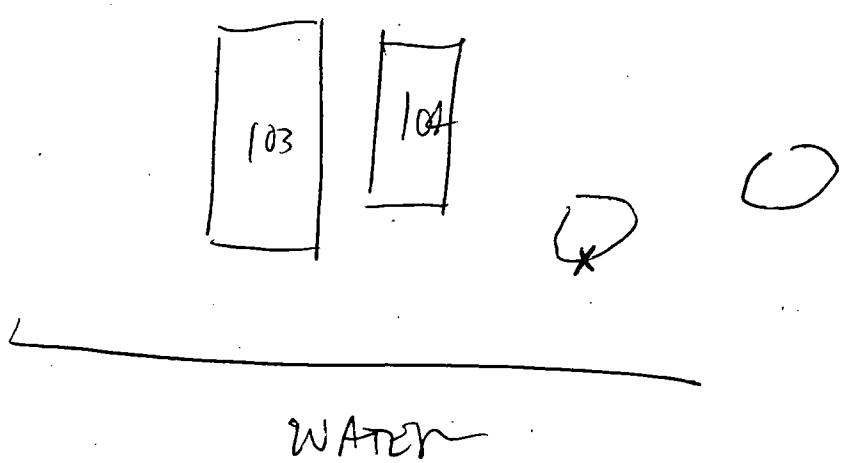
Type of Sample
- ☐ Low Concentration
- ☐ High Concentratio
- ☐ Grab
- ☐ Composite
- ☐ Grab-Composite

MS/MSD YES ☐ NO ☐

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

- taken from concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES ☐	NO ☑	Bottle Lot Number:
TCL SVOCs:	YES ☐	NO ☑	Bottle Lot Number:
TCL PESTs:	YES ☐	NO ☑	Bottle Lot Number:
TCL PCBs:	YES ☐	NO ☑	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES ☑	NO ☐	Bottle Lot Number:

Sampled By EJH Signature(s): Eugene J. Harrison

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SWIPE ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name E3-SWIPE-D14 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: BUILDINGS 102, 103, 104 Subzone:

Airbill No: Laboratory Accutest

Sample Date	5/24/99
Sample Time:	13/2
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

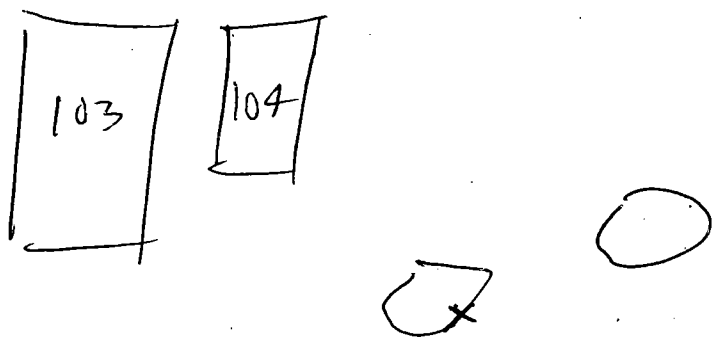
Type of Sample
- [ ] Low Concentration
- [ ] High Concentratio
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

- taken from concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By EJH Signature(s): Earl J. Harrison

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SWIPE ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name E3-SWIPE-E15 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: BUILDINGS 102, 105, 104 Subzone:

Airbill No: Laboratory Accutest

Sample Date	3/29/99
Sample Time:	1315
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

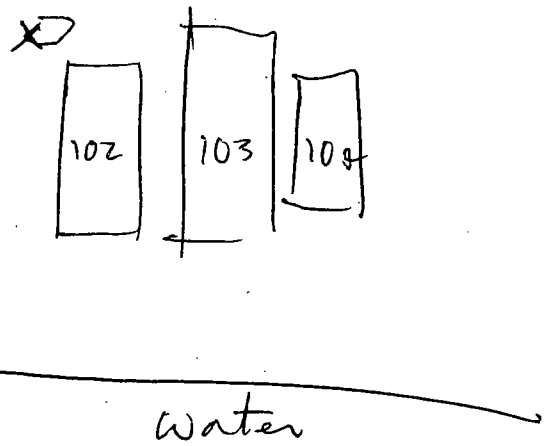
Duplicate ID:

Type of Sample
- [ ] Low Concentration
- [ ] High Concentratio
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By EJH Signature(s): Eric J. Hanson

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~~SURFACE SOIL~~ SWIPE SAMPLE LOG SHEET

Sample Name E3-SWIPE-E16 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: BUILDINGS 102, 103, 104 Subzone:

Airbill No: Laboratory Accutest

Sample Date	3/24/99
Sample Time:	1320
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

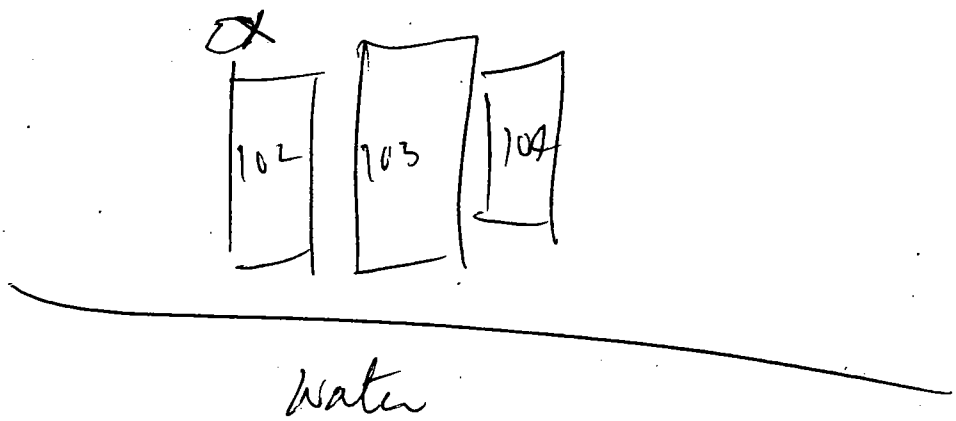
Type of Sample
- [ ] Low Concentration
- [ ] High Concentratio
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

- taken from Concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By EJH Signature(s): Eg J. Harris

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SWIPE ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name C3-SWIPE-F17 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: WATER TOWER Subzone:

Airbill No: Laboratory Accutest

Sample Date	3/24/99
Sample Time:	1325
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

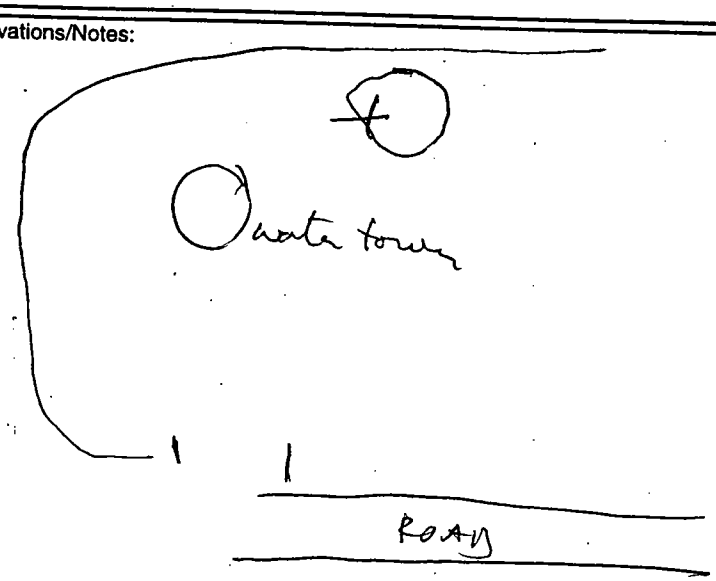
Type of Sample
- [ ] Low Concentration
- [ ] High Concentratio
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

- taken from concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By EJH Signature(s): Emily J. Hanna

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SWIPE ~~SURFACE SOIL~~ SAMPLE LOG SHEET

Sample Name C3-SWIPE-F18 Project: NAS Key West IRA Confirmation Project Number: 7593

Zone: WATER TOWER Subzone:

Airbill No: Laboratory Accutest

Sample Date	7/24/99
Sample Time:	1330
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- ☐ DPT
- ☐ Hand Auger
- ☐ HSA

Duplicate ID:

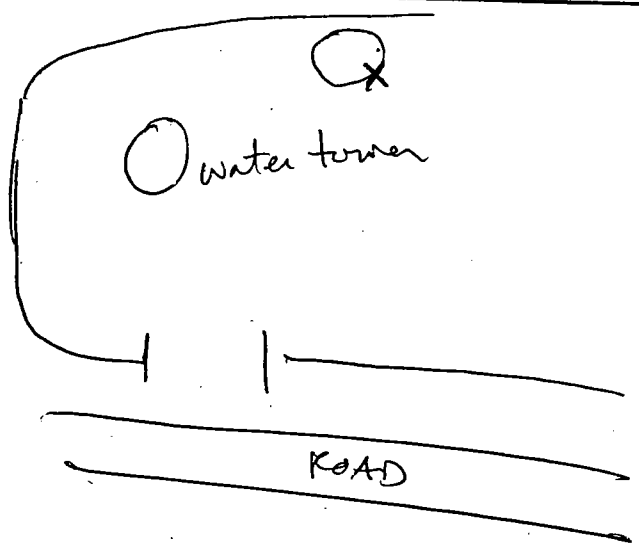
Type of Sample
- ☐ Low Concentration
- ☐ High Concentratio
- ☐ Grab
- ☐ Composite
- ☐ Grab-Composite

MS/MSD YES ☐ NO ☐

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

– taken from concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES ☐	NO ☐	Bottle Lot Number:
TCL SVOCs:	YES ☐	NO ☐	Bottle Lot Number:
TCL PESTs:	YES ☐	NO ☐	Bottle Lot Number:
TCL PCBs:	YES ☐	NO ☐	Bottle Lot Number:
TAL Metals + Tin (HNO3 Preservative):	YES ☐	NO ☐	Bottle Lot Number:

Sampled By EJH Signature(s): Eric J Hamm

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SURFACE SOIL SAMPLE LOG SHEET

Sample Name C3-SWIPE-F19 Project: NAS Key West IRA Confirmation Project Number: 7593
Zone: WATER TOWER Subzone:
Airbill No: Laboratory Accutest

Sample Date	3/24/99
Sample Time:	1335
Sample Depth (ft)	
FID Reading:	
Sample Color:	
Sample Description:	

Sample Method:
- [ ] DPT
- [ ] Hand Auger
- [ ] HSA

Duplicate ID:

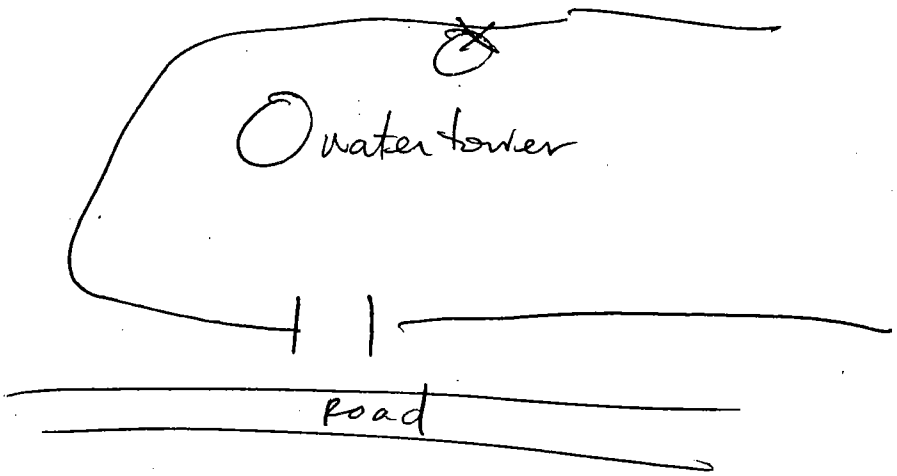
Type of Sample
- [ ] Low Concentration
- [ ] High Concentratio
- [ ] Grab
- [ ] Composite
- [ ] Grab-Composite

MS/MSD YES [ ] NO [ ]

If Sample Location was Changed from that Designated in the Workplan, The Rationale is Provided Here, along with a Description of the New Location:

taken from Concrete pile

Observations/Notes:



ANALYSES:

TCL VOCs (HCL Preservative):	YES [ ]	NO [x]	Bottle Lot Number:
TCL SVOCs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PESTs:	YES [ ]	NO [x]	Bottle Lot Number:
TCL PCBs:	YES [ ]	NO [x]	Bottle Lot Number:
AL Metals + Tin (HNO3 Preservative):	YES [x]	NO [ ]	Bottle Lot Number:

Sampled By EJH Signature(s): Eric J. Hanin

APPENDIX C

ESTIMATED RISK PROCESS

APPENDIX C. ESTIMATED RISK PROCESS

C.1 HUMAN HEALTH ESTIMATED RISK PROCESS

Human health risk estimates were calculated for chemicals detected in excess of their action levels at the following sites: DRMO Waste Storage Area (made up of Parcel C subzones 3 and 4), Former Building 136 (made up of Parcel E subzone 2), Buildings 102, 103, 104 (made up of Parcel E subzones 3 and 9), and Parcel E subzone 7. Surface soil samples were taken at the DRMO, Former Building 136, and Buildings 102, 103, 104 sites. Groundwater was sampled at Parcel E. These estimates were based on human health risk assessments in the Supplemental RCRA Facility Investigation and Remedial Investigation Report for Eight Sites at NAS Key West (B&R Environmental, 1998a) where risk values for one or more of the 8 sites were available for compounds in question. Where one or two risk values were available for a given compound, estimates were based on a ratio of detected concentrations to risk values. Where two ratios were available for a single chemical, the more conservative resulting estimated risk was used. Where three or more risk values were available for a given compound, estimates were calculated from a trend analysis. Representative concentrations from the Supplemental RCRA Facility Investigation and Remedial Investigation Report for Eight Sites at NAS Key West (B&R Environmental, 1998a) were used for the x-axis, corresponding risk values were used for the y-axis and a trend line was fitted to these values. The line was used to estimate risk values for detected concentrations at sites DRMO Waste Storage Area, Former Building 136, and Buildings 102, 103, 104. In instances where risk values were not available from the Supplemental RFI/RI for a given compound, action levels from the site workplan were used as benchmarks. Benchmarks were concentrations representative of a carcinogenic risk of 1.0E-06 or a noncarcinogenic risk of 1.0. Maximum concentrations from the SI analytical results were used in the SI risk estimation process.

Based on proposed future uses and potential receptors, surface soil and groundwater subzones were analyzed using the following three exposure scenarios: residential, adolescent trespasser, and occupational worker. Tables C-1 through C-6 contain risk values from the Supplemental RFI/RI Investigation, and the estimated risks for SI chemicals detected in excess of their action levels in surface soil and groundwater subzones by future use category.

C.2 ECOLOGICAL ESTIMATED RISK PROCESS

In the surface soil data, there were a total of 30 samples from the DRMO Waste Storage Area, 6 samples from Former Building 136, and 10 samples from Buildings 102, 103, and 104. A total of 16 groundwater samples were taken in Parcel E. For each site, results were compared to a specific action level. Those

detections that exceeded the action levels were then compared to ecological screening values (ESVs). The samples that are discussed below are the number of detections that exceeded the action levels compared to the total number of detections for a specific chemical.

C.2.1 Surface Soil

Surface soil samples were collected from three sites: DRMO Waste Storage Area; Former Building 136; and Buildings 102, 103, and 104. Concentrations of chemicals detected in surface soil samples were initially compared to project-specific action levels, as discussed in Section 1.8.1.4.1. Chemicals whose maximum concentrations were less than action levels were dropped from further consideration. Chemicals whose maximum concentrations exceeded action levels are shown in Table C-7. The potential ecological risks of these chemicals are discussed below.

Since EPA Region 4 has not determined ecological screening levels for soil, ESVs used by the U.S. Fish and Wildlife Service, Oak Ridge National Laboratory, and Dutch Ministry Standards were utilized. Following recent EPA Region 4 guidance, the ESV for benzo(a)pyrene was used as a surrogate for high molecular weight polycyclic aromatic compounds (PAHs) when ESVs were not available for those compounds.

C.2.2 DRMO Waste Storage Area

Concentrations of three metals and five organics in the DRMO Waste Storage Area exceeded the site investigation action levels. Antimony and lead were the only metals that exceeded ESVs. Antimony exceeded the action levels in 2 of 3 detections with both samples exceeding the ESV, and its maximum concentration was more than five times greater than the ESV. Lead exceeded the action level and ESV in 7 of 30 detections, and its maximum concentration (2,080 mg/kg) was 42 times greater than the ESV.

Organic compounds that exceeded action levels were limited to PAHs. Benzo(a)pyrene exceeded action levels in 15 of 18 detections with 8 of those samples exceeding the ESV. Benzo(a)anthracene exceeded its action level and ESV in 1 of 16 detections. Dibenzo(a,h)anthracene exceeded action levels in 4 of 5 detections, but only three of those samples exceeded the ESV. Benzo(b)fluoranthene exceeded its ESV and action levels in 1 of 17 detections, while indeno(1,2,3-cd) pyrene exceeded its ESV and action level in 1 of 13 detections. These five PAHs were not detected in background soil samples.

Since antimony and lead had values much higher than their respective ESVs, these metals could pose ecological risks to terrestrial receptors because all samples that exceeded the action levels also exceeded ESVs. In addition, some PAHs, particularly those that frequently exceeded ESVs, may pose potential ecological risks.

C.2.3 Former Building 136

Two metals and four PAHs from this location were detected at concentrations greater than action levels. Arsenic exceeded action levels in 6 of 6 detections but did not exceed ESVs. Iron exceeded its action level in 1 of 6 detections, and the concentration in this sample was 75 times greater than the ESV.

Benzo(a)pyrene exceeded the action level and ESV in all of the detected samples. The other three PAHs exceeded their respective action levels and ESVs in 1 of 5 detections.

Although arsenic exceeded the action levels in all of the detected samples, it does not pose an ecological risk because no detected samples exceeded the ESV. Benzo(a)pyrene may pose more of an ecological risk since all five of the detected samples exceeded both the action level and ESV. Iron may pose potential risks, but since it exceeded the ESV in only one sample, the risk may be minimal.

C.2.4 Buildings 102, 103, 104

Although a portion of the 10 samples taken at this area include samples from under the buildings, all of the samples are applicable for this ecological risk estimate if the buildings are later torn down.

Two metals and three PAHs exceeded their action levels at this location. Arsenic exceeded the action level in two samples but did not exceed the ESV. Cadmium greatly exceeded the ESV with 1 of 10 detections.

Benzo(a)pyrene exceeded both action levels and ESVs in 2 of 3 detections, and its maximum was 26 times higher than the ESV. Benzo(a)anthracene exceeded the action level and ESV in 1 of 4 detections, while benzo(b)fluoranthene had 1 of 2 detections that exceeded both the action level and ESV.

Considering cadmium had values much greater than its ESV, this metal could potentially pose ecological risks. However, this risk may be minimal since the number of cadmium samples that were in exceedence was low. Benzo(a)pyrene could also pose a risk because it exceeded the action level and ESV in 2 of 3 detections and was much higher than its screening value. However, since benzo(a)pyrene exceeded the ESV in only 2 of 39 detections, potential risks posed by this PAH may be insignificant. The remaining PAHs probably pose minimal ecological risks since each had only one sample that was greater than both the action levels and ESVs.

Terrestrial habitat is essentially absent in the vicinity of Buildings 102, 103, and 104. Specifically, almost the entire area is composed of either buildings or concrete. Most soil samples were actually collected from underneath existing concrete. Non-paved portions of the site are miniscule in areal extent. As long as these conditions exist, the terrestrial exposure pathway is not complete, and therefore, soil contaminants do not pose ecological risks.

C.2.5 Groundwater

Groundwater chemical concentrations were compared to surface water ESVs in accordance with EPA Region 4 policy (EPA, 1995). Parcel E was the only groundwater sampling location. Within this location, three metals and seven organics exceeded their action levels. Chemicals whose maximum concentrations exceeded action levels are shown in Table C-8, and the potential ecological risks are discussed below.

Maximum concentrations of cadmium and lead were approximately twice as high as their respective ESVs. Cadmium exceeded its action level and ESV in 2 of 6 detections, while lead exceeded both its action level and ESV in 1 of 10 detections.

Ecological screening values for 2-methylnapthalene, carbazole, and dibenzofuran were not available. The frequency of exceedence was 7 of 8, 1 of 1,and 1 of 1, respectively. Phenanthrene, tetrachloroethene, and trichloroethene had values that were much greater than their respective ecological screening values. Both action level and ESV were exceeded by phenanthrene in 3 of 4 detections. Tetrachloroethene and trichloroethene exceeded their action levels and ESVs in all of their detections.

Since cadmium and lead had values much higher than the screening values, they may pose ecological risks. While it is difficult to conclude whether the organics that did not have screening values will pose risks, phenanthrene, tetrachloroethene, and trichloroethene could pose potential ecological risks because their maximum concentrations are much greater than their screening values. However, risks from these chemicals would probably be slight since they were detected in only 1 of 16 samples.

In addition, the groundwater exposure pathway at this site does not appear to exist. Based on discussions with the NAS Key West Partnering Team and Navy personnel at NAS Key West, the concrete sea wall along the shoreline is believed to extend at least 15 feet below the ground surface, thereby preventing any flow of groundwater into marine water. This conclusion is supported by results of the groundwater monitoring at the site when it was observed that there were no tidal effects on groundwater flow. Therefore, because groundwater at the site does not migrate into surface water, the exposure pathway is not complete, and ecological receptors are not exposed to groundwater contaminants from this site.

TABLE C-1
HUMAN HEALTH RISK ESTIMATES FOR RESIDENTIAL SCENARIO SUBZONES SURFACE SOIL
PAGE 1 OF 2

Location	Maximum Concentration[5]	Carcinogenic Risk*	Noncarcinogenic Risk*	Risk Intersect[4]
ANTIMONY				
RFI/RI Risk Values[1]				
SWMU 4	2.5	NA	8.4E-02	-
SWMU 5	4.2	NA	1.4E-01	-
SWMU 7	4.51	NA	1.5E-01	-
IR 3	1.64	NA	5.5E-02	-
IR 7	4.8	NA	1.6E-01	-
SSI Risk Estimates				
DRMO	19.6	NA	0.65	-
ARSENIC				
RFI/RI Risk Values[1]				
SWMU 5	13	1.50E-04	1.4	-
SWMU 7	4.52	5.10E-05	0.49	-
IR 1	3.32	3.80E-05	0.36	-
IR 3	3.46	3.90E-05	0.37	-
SSI Risk Estimates				
DRMO	2.7	**2.6E-05**	0.29	-
Former Building 136	3.8	**3.7E-05**	0.41	-
Buildings 102, 103, 104	3.3	**3.2E-05**	0.36	-
CADMIUM				
RFI/RI Risk Values[1]				
SWMU 4	5.9	NA	0.11	-
SWMU 5	12.6	5.3E-13	0.24	-
SSI Risk Estimates				
Buildings 102, 103, 104	509	**0.21**	**9.7**	-
IRON				
RFI/RI Risk Estimates[1]				
SWMU 7	3790	NA	1.7E-01	-
IR 1	32100	NA	2.8E-01	-
IR 3	4120	NA	1.8E-01	-
SSI Risk Estimates				
Former Building 136	15000	NA	0.22	-
LEAD				
RFI/RI Risk Values				
-	-	-	-	-
SSI Risk Estimates				
DRMO	2080	-	-	**86.23**
BENZO(A)ANTHRACENE				
RFI/RI Risk Values[1]				
SWMU 7	1640	1.9E-06	NA	-
SSI Risk Estimates				
DRMO	1870	**2.2E-06**	NA	-
Former Building 136	894	**1.0E-06**	NA	-
Buildings 102, 103, 104	3940	**4.6E-06**	NA	-
BENZO(A)PYRENE				
RFI/RI Risk Values[1]				
SWMU 7	2040	2.3E-05	NA	-

TABLE C-1
HUMAN HEALTH RISK ESTIMATES FOR RESIDENTIAL SCENARIO SUBZONES SURFACE SOIL
PAGE 2 OF 2

Location	Maximum Concentration[5]	Carcinogenic Risk*	Noncarcinogenic Risk*	Risk ntersect[4]
SSI Risk Estimates				
DRMO	1220	**1.4E-05**	NA	-
Former Building 136	765	**8.6E-06**	NA	-
Buildings 102, 103, 104	2610	**3.0E-05**	NA	-
BENZO(B)FLUORANTHENE				
RFI/RI Risk Values[1]				
SWMU 7	3340	3.8E-06	NA	-
SSI Risk Estimates				
DRMO	1480	**1.7E-06**	NA	-
Former Building 136	726	8.3E-07	NA	-
Buildings 102, 103, 104	4540	**5.2E-06**	NA	-
DIBENZO(A,H)ANTHRACENE				
Residential RGO[2]	100	1.0E-06	1.0	-
SSI Risk Estimates				
DRMO	387	**>1.0E-06**	**>1.0**	-
INDENO(1,2,3-CD)PYRENE				
RFI/RI Risk Values[1]				
SWMU 7	1480	1.7E-06	NA	-
SSI Risk Estimates				
DRMO	702	8.1E-07	NA	-
Former Building 136	760	8.7E-07	NA	-

*Bold location and risk values indicate carcinogenic risk in excess of 1.0E-06, noncarcinogenic risk in excess of 1.0, or risk intersect in excess of 5% of residential children's blood lead concentration is above EPA guidelines, and therefore indicative of potential health risks.
NA = Not applicable

1 B&R Environmental, 1998a.
2 B&R Environmental, 1998b.
3 Value came from Parcel C Subzone 3 action levels.
4 Human health risk posed by lead were based on integrated exposure and uptake biokinetic lead modeling.
5 Units are mg/kg for inorganics and µg/kg for organics.

TABLE C-2
HUMAN HEALTH RISK ESTIMATES FOR RESIDENTIAL SCENARIO SUBZONES GROUNDWATER

Location	Maximum Concentration[4]	Carcinogenic Risk*	Noncarcinogenic Risk*	Risk Intersect[3]
ANTIMONY				
RFI/RI Risk Values[1]				
SWMU 4	90.2	NA	0.89	-
SWMU 7	220	NA	2.2	-
IR 7	229	NA	2.3	-
IR 8	220	NA	2.2	-
SSI Risk Estimates				
Parcel E Subzone 7	7.1	NA	0.05	-
CADMIUM				
RFI/RI Risk Values[1]				
IR 8	6.51	NA	0.05	-
SSI Risk Estimates				
Parcel E Subzone 7	18.3	NA	0.14	-
LEAD				
RFI/RI Risk Values[1]				
-	-	-	-	-
SSI Risk Estimates				
PARCEL E SUBZONE 7	20.7	-	-	**6.03**
2-METHYLNAPTHALENE				
EPA Region III	300	1.0E-06	1.0	-
SSI Risk Estimates				
PARCEL E SUBZONE 7	301	**>1.0E-06**	**>1.0**	-
CARBAZOLE				
Tap water RBCs[2]	3.4	1.0E-06	1.0	-
SSI Risk Estimates				
Parcel E Subzone 7	103	**>1.0E-06**	**>1.0**	-
DIBENZOFURAN				
Tap Water RBCs[2]	150	1.0E-06	1.0	-
SSI Risk Estimates				
Parcel E Subzone 7	175	**>1.0E-06**	**>1.0**	-
PHENANTHRENE				
AWQC- Marine	4.6	1.0E-06	1.0	-
SSI Risk Estimates				
Parcel E Subzone 7	189	**>1.0E-06**	**>1.0**	-
BENZENE				
FI MCL[2]	1	1.0E-06	1.0	-
SSI Risk Estimates				
Parcel E Subzone 7	4.4	**>1.0E-06**	**>1.0**	-
TETRACHLOROETHENE				
FI MCL[2]	3	1.0E-06	1.0	-
SSI Risk Estimates				
Parcel E Subzone 7	81.9	**>1.0E-06**	**>1.0**	-
TRICHLOROETHENE				
FI MCL[2]	3	1.0E-06	1.0	-
SSI Risk Estimates				
Parcel E Subzone 7	175	**>1.0E-06**	**>1.0**	-

*Bold location and risk values indicate carcinogenic risk in excess of 1.0E-06, noncarcinogenic risk in excess of 1.0, or risk intersect in excess of 5% of residential children's blood lead concentration is above EPA guidelines, and therefore indicative of potential health risks.
NA = Not applicable

1 B&R Environmental, 1998a.
2 B&R Environmental, 1998b.
3 Human health risk posed by lead were based on integrated exposure and uptake biokinetic lead modeling.
4 Units are µg/L for inorganics and organics.

TABLE C-3
HUMAN HEALTH RISK ESTIMATES FOR TRESPASSER SCENARIO SUBZONES SURFACE SOIL
PAGE 1 OF 2

Location	Maximum Concentration[4]	Carcinogenic Risk*	Noncarcinogenic Risk*
ANTIMONY			
RFI/RI Risk Values[1]			
SWMU 4	2.5	NA	1.6E-03
SWMU 5	4.2	NA	2.6E-03
SWMU 7	4.51	NA	2.8E-03
IR 3	1.64	NA	1.0E-03
IR 7	4.8	NA	3.0E-03
SSI Risk Estimates			
DRMO	19.6	NA	0.01
ARSENIC			
RFI/RI Risk Values[1]			
SWMU 5	13	4.8E-06	6.8E-02
SWMU 7	4.52	1.7E-06	2.4E-02
IR 1	3.32	2.5E-06	3.6E-02
IR 3	3.46	1.3E-06	1.8E-02
SSI Risk Estimates			
DRMO	2.7	**1.5E-06**	0.02
Former Building 136	3.8	**1.8E-06**	0.03
Buildings 102, 103, 104	3.3	**1.7E-06**	0.02
CADMIUM			
RFI/RI Risk Values[1]			
SWMU 4	5.9	NA	3.7E-03
SWMU 5	12.6	2.4E-15	7.9E-03
SSI Risk Estimates			
Buildings 102, 103, 104	509	9.7E-14	0.32
IRON			
RFI/RI Risk Estimates[1]			
SWMU 7	3790	NA	3.1E-03
IR 1	32100	NA	1.3E-02
IR 3	4120	NA	3.4E-03
SSI Risk Estimates			
Former Building 136	15000	NA	0.006
BENZO(A)ANTHRACENE			
RFI/RI Risk Values[1]			
SWMU 7	1640	3.9E-08	NA
SSI Risk Estimates			
DRMO	1870	4.4E-08	NA
Former Builing 136	894	2.1E-08	NA
BUILDINGS 102, 103, 104	3940	9.4E-08	NA
BENZO(A)PYRENE			
RFI/RI Risk Values[1]			
SWMU 7	2040	4.8E-07	NA
SSI Risk Estimates			
DRMO	1220	2.9E-07	NA
Former Building 136	765	1.8E-07	NA
BUILDINGS 102, 103, 104	2610	6.1E-07	NA
BENZO(B)FLUORANTHENE			
RFI/RI Risk Values[1]			
SWMU 7	3340	7.9E-08	NA

TABLE C-3
HUMAN HEALTH RISK ESTIMATES FOR TRESPASSER
SCENARIO SUBZONES SURFACE SOIL
PAGE 2 OF 2

Location	Maximum Concentration[4]	Carcinogenic Risk*	Noncarcinogenic Risk*
SSI Risk Estimates			
DRMO	1480	3.5E-08	NA
Former Building 136	726	1.7E-08	NA
BUILDINGS 102, 103, 104	4540	1.1E-07	NA
DIBENZO(A,H)ANTHRACENE			
Residential RGO[2]	100	1.0E-06	1.0
SSI Risk Estimates			
DRMO	387	**>1.0E-06**	**>1.0**
INDENO(1,2,3-CD)PYRENE			
RFI/RI Risk Values[1]			
SWMU 7	1480	3.5E-08	NA
SSI Risk Estimates			
DRMO	702	1.7E-08	NA
Former Building 136	760	1.8E-08	NA

*Bold location and risk values indicate carcinogenic risk in excess of 1.0E-06 or noncarcinogenic risk in excess of 1.0, and therefore indicative of potential health risks.
NA = Not applicable

1 B&R Environmental, 1998a.
2 B&R Environmental, 1998b.
3 Value came from Parcel C Subzone 3 action levels.
4 Units are mg/kg for inorganics and µg/kg for organics.

TABLE C-4
HUMAN HEALTH RISK ESTIMATES FOR TRESPASSER SCENARIO SUBZONES GROUNDWATER

Location	Maximum Concentration[3]	Carcinogenic Risk*	Noncarcinogenic Risk*
ANTIMONY			
RFI/RI Risk Values[1]			
SWMU 4	90.2	NA	8.5E-02
SWMU 7	220	NA	0.21
IR 7	229	NA	0.22
IR 8	220	NA	0.21
SSI Risk Estimates			
Parcel E Subzone 7	7.1	NA	4.8E-03
CADMIUM			
RFI/RI Risk Values[1]			
IR 8	6.51	NA	4.9E-03
SSI Risk Estimates			
Parcel E Subzone 7	18.3	NA	0.01
2-METHYLNAPTHALENE			
EPA Region III	300	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	301	**>1.0E-06**	**>1.0**
CARBAZOLE			
Tap Water RBCs[2]	3.4	1.0E-06	1.0
SSI Risk Estimates			
Parcel E Subzone 7	103	**>1.0E-06**	**>1.0**
DIBENZOFURAN			
Tap Water RBCs[2]	150	1.0E-06	1.0
SSI Risk Estimates			
Parcel E Subzone 7	175	**>1.0E-06**	**>1.0**
PHENANTHRENE			
AWQC- Marine	4.6	1.0E-06	1.0
SSI Risk Estimates			
Parcel E Subzone 7	189	**>1.0E-06**	**>1.0**
BENZENE			
FI MCL[2]	1	1.0E-06	1.0
SSI Risk Estimates			
Parcel E Subzone 7	4.4	**>1.0E-06**	**>1.0**
TETRACHLOROETHENE			
FI MCL[2]	3	1.0E-06	1.0
SSI Risk Estimates			
Parcel E Subzone 7	81.9	**>1.0E-06**	**>1.0**
TRICHLOROETHENE			
FI MCL[2]	3	1.0E-06	1.0
SSI Risk Estimates			
Parcel E Subzone 7	175	**>1.0E-06**	**>1.0**

*Bold location and risk values indicate carcinogenic risk in excess of 1.0E-06 or noncarcinogenic risk in excess of 1.0, and therefore indicative of potential health risks.
NA = Not applicable

1 B&R Environmental, 1998a.
2 B&R Environmental, 1998b.
3 Units are µg/L for inorganics and organics.

TABLE C-5
HUMAN HEALTH RISK ESTIMATES FOR OCCUPATIONAL WORKER SCENARIO SUBZONES SURFACE SOIL
PAGE 1 OF 2

Location	Maximum Concentration[4]	Carcinogenic Risk*	Noncarcinogenic Risk*
ANTIMONY			
RFI/RI Risk Values[1]			
SWMU 4	2.5	NA	3.8E-03
SWMU 5	4.2	NA	6.3E-03
SWMU 7	4.51	NA	6.8E-03
IR 3	1.64	NA	2.5E-03
IR 7	4.8	NA	7.2E-03
SSI Risk Estimates			
DRMO	19.6	NA	0.03
ARSENIC			
RFI/RI Risk Values[1]			
SWMU 5	13	2.8E-05	1.8E-01
SWMU 7	4.52	9.9E-06	6.2E-02
IR 1	3.32	7.3E-06	4.5E-02
IR 3	3.46	7.6E-06	4.7E-02
SSI Risk Estimates			
DRMO	2.7	**5.6E-06**	0.02
Former Building 136	3.8	**7.8E-06**	0.04
Buildings 102, 103, 104	3.3	**6.8E-06**	0.03
CADMIUM			
RFI/RI Risk Values[1]			
SWMU 4	5.9	NA	9.5E-03
SWMU 5	12.6	9.1E-14	2.0E-02
SSI Risk Estimates			
Buildings 102, 103, 104	509	3.7E-12	0.82
IRON			
RFI/RI Risk Estimates[1]			
SWMU 7	3790	NA	7.6E-03
IR 1	32100	NA	1.3E-02
IR 3	4120	NA	8.3E-03
SSI Risk Estimates			
Former Building 136	15000	NA	0.01
BENZO(A)ANTHRACENE			
RFI/RI Risk Values[1]			
SWMU 7	1640	2.1E-07	NA
SSI Risk Estimates			
DRMO	1870	2.4E-07	NA
Former Building 136	894	1.1E-07	NA
BLDINGS 102, 103, 104	3940	5.0E-07	NA
BENZO(A)PYRENE			
RFI/RI Risk Values[1]			
SWMU 7	2040	2.6E-06	NA
SSI Risk Estimates			
DRMO	1220	**1.6E-06**	NA
Former Building 136	765	9.8E-07	NA
Buildings 102, 103, 104	2610	**3.3E-06**	NA
BENZO(B)FLUORANTHENE			
RFI/RI Risk Values[1]			
SWMU 7	3340	4.3E-07	NA

TABLE C-5
HUMAN HEALTH RISK ESTIMATES FOR OCCUPATIONAL WORKER SCENARIO SUBZONES SURFACE SOIL
PAGE 2 OF 2

Location	Maximum Concentration[4]	Carcinogenic Risk*	Noncarcinogenic Risk*
SSI Risk Estimates			
DRMO	1480	1.9E-07	NA
Former Building 136	726	9.3E-08	NA
BUILDINGS 102, 103, 104	4540	5.8E-07	NA
DIBENZO(A,H)ANTHRACENE			
Residential RGO[2]	100	1.0E-06	1.0
SSI Risk Estimates			
DRMO	387	**>1.0E-06**	**>1.0**
INDENO(1,2,3-CD)PYRENE			
RFI/RI Risk Values[1]			
SWMU 7	1480	1.9E-07	NA
SSI Risk Estimates			
DRMO	702	9.0E-08	NA
Former Building 136	760	9.8E-08	NA

*Bold location and risk values for SSI sites indicate carcinogenic risk in excess of 1.0E-06 or noncarcinogenic risk in excess of 1.0, and therefore indicative of potential health risks.
NA = Not applicable

1 B&R Environmental, 1998a.
2 B&R Environmental, 1998b.
3 Value came from Parcel C Subzone 3 action levels.
4 Units are mg/kg for inorganics and µg/kg for organics.

TABLE C-6
HUMAN HEALTH RISK ESTIMATES FOR OCCUPATIONAL WORKER SCENARIO SUBZONES GROUNDWATER

Location	Maximum Concentration[3]	Carcinogenic Risk*	Noncarcinogenic Risk*
ANTIMONY			
RFI/RI Risk Values[1]			
SWMU 4	90.2	NA	NA
SWMU 7	220	NA	NA
IR 7	229	NA	NA
IR 8	220	NA	NA
SSI Risk Estimates			
Parcel E Subzone 7	7.1	NA	NA
CADMIUM			
RFI/RI Risk Values[1]			
IR 8	6.51	NA	NA
SSI Risk Estimates			
Parcel E Subzone 7	18.3	NA	NA
2-METHYLNAPTHALENE			
EPA Region III	300	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	301	**>1.0E-06**	**>1.0**
CARBAZOLE			
Tap Water RBCs[2]	3.4	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	103	**>1.0E-06**	**>1.0**
DIBENZOFURAN			
Tap Water RBCs[2]	150	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	175	**>1.0E-06**	**>1.0**
PHENANTHRENE			
AWQC- Marine	4.6	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	189	**>1.0E-06**	**>1.0**
BENZENE			
FI MCL[2]	1	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	4.4	**>1.0E-06**	**>1.0**
TETRACHLOROETHENE			
FI MCL[2]	3	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	81.9	**>1.0E-06**	**>1.0**
TRICHLOROETHENE			
FI MCL[2]	3	1.0E-06	1.0
SSI Risk Estimates			
PARCEL E SUBZONE 7	175	**>1.0E-06**	**>1.0**

*Bold location and risk values indicate carcinogenic risk in excess of 1.0E-06 or noncarcinogenic risk in excess of 1.0, and therefore indicative of potential health risks.
NA = Not applicable

1 B&R Environmental, 1998a.
2 B&R Environmental, 1998b.
3 Units are µg/L for inorganics and organics.

TABLE C-7
ECOLOGICAL SCREENING
SURFACE SOIL

Chemical	Frequency of Action Level Exceedence*	Maximum Concentration (mg/kg)	Ecological Screening Value (mg/kg)	Source of Ecological Screening Value
DRMO				
Antimony	2/3	19.6	3.5	Crommentuijn et al.,1997
Arsenic	7/27	2.7	10	Efroymson et al., 1997b
Lead	7/30	2080	50	Beyer, 1990
Benzo(a)anthracene	1/16	1.87	0.1	Value for high MW PAHs (Beyer, 1990)
Benzo(a)pyrene	15/18	1.22	0.1	Beyer, 1990
Benzo(b)fluoranthene	1/17	1.48	0.1	Value for high MW PAHs (Beyer, 1990)
Dibenzo(a,h)anthracene	4/5	0.387	0.1	Value for high MW PAHs (Beyer, 1990)
Indeno(1,2,3-cd)pyrene	1/13	0.702	0.1	Value for high MW PAHs (Beyer, 1990)
Former Building 136				
Arsenic	6/6	3.8	10	Efroymson et al., 1997b
Iron	1/6	15000	200	Efroymson et al., 1997a
Benzo(a)anthracene	1/5	0.894	0.1	Value for high MW PAHs (Beyer, 1990)
Benzo(a)pyrene	5/5	0.765	0.1	Beyer, 1990
Benzo(b)fluoranthene	1/5	0.726	0.1	Value for high MW PAHs (Beyer, 1990)
Indeno(1,2,3-cd)pyrene	1/5	0.760	0.1	Value for high MW PAHs (Beyer, 1990)
Buildings 102, 103, 104				
Arsenic	2/7	3.3	10	Efroymson et al., 1997b
Cadmium	1/10	509	0.8	MHSPE, 1994
Benzo(a)anthracene	1/4	3.94	0.1	Value for high MW PAHs (Beyer, 1990)
Benzo(a)pyrene	2/3	2.61	0.1	Beyer, 1990
Benzo(b)fluoranthene	1/2	4.54	0.1	Value for high MW PAHs (Beyer, 1990)

*There were a total of 30 samples from the DRMO Waste Storage Area, 6 samples from Former Building 136, and 10 samples from Buildings 102, 103, 104. In this column, the numerator represents the number of samples that exceeded the action levels, and the denominator represents the number of detections for the specific chemical.

TABLE C-8
ECOLOGICAL SCREENING
GROUNDWATER
PARCEL E

Chemical	Frequency of Action Level Exceedence*	Maximum Concentration (mg/kg)	Ecological Screening Value (mg/kg)	Source of Ecological Screening Value
Antimony	2/6	7.1	4300	FDEP, 1996
Cadmium	2/6	18.3	9.3	EPA, 1995
Lead	1/10	20.7	8.5	EPA, 1995
2-methylnapthalene	7/8	301	-	
Carbazole	1/1	103	-	
Dibenzofuran	1/1	175	-	
Phenanthrene	3/4	189	8.3	EPA, 1996
Benzene	5/7	4.4	109	EPA, 1995
Tetrachloroethene	1/1	81.9	8.85	FDEP, 1996
Trichloroethene	1/1	175	80.7	FDEP, 1996

*There were a total of 16 samples from Parcel E. In this column, the numerator represents the number of samples that exceeded the action levels, and the denominator represents the number of detections for the specific chemical.

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APPENDIX D

SUPPLEMENTAL SITE INSPECTION ELECTRONIC DATA

APPENDIX D. SUPPLEMENTAL SITE INSPECTION ELECTRONIC DATA

There are three sets of electronic data included on the compact disk (CD) included with Revision 1 of this document. The first set in folder labeled IRA data set are PDF files containing all analytical and data validation results for the confirmation sampling. Viewing these files requires Adobe® Acrobat® Reader for viewing, which is available as freeware at http://www.adobe.com. The first set of data also includes the analytical results in a dbf file, which can be viewed by using most commonly-available database and spreadsheet software programs. The second set in folder labeled "SSI Full Data Set Tables" are PDF files containing all analytical results for the SSI. The second set of data also includes all analytical results in DBF files. The third set of data located in the folder labeled "SSI Raw and Validated Data" can be viewed using Pagis Viewer©. While the set does not include any analytical data not included in the first set, it does include information generated during the data review process.

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APPENDIX E

ANALYSIS OF SSI COMPOSITE SAMPLES USING EPA GUIDANCE

APPENDIX E. ANALYSIS OF SSI COMPOSITE SAMPLES USING EPA GUIDANCE

Composite sampling methods are used in the Former DRMO Waste Storage and Former Building 136 Areas in an effort to reduce costs and still maintain efficient and accurate sampling results. To present evidence of accurate sampling, the guidance and recommendations found in the EPA's Soil Screening Guidance: User's Guide (July 1996) and the supporting Technical Basis Document (TBD) were reviewed regarding the analysis of soil composite samples.

As described in the SSI Report, the Former DRMO Waste Storage and Former Building 136 Areas were divided into 100-foot-square gridblocks where possible, with three composite samples taken at three separate depths within each gridblock. The three depths were 0'-2' labeled with an "A", 2'-5' labeled with a "B," and 5'-7' labeled with a "C." Due to the orientation of the Former DRMO Waste Storage and Former Building 136 Areas, some gridblocks were irregular in size and not the intended 100 square foot size. Five discrete samples were taken per composite within each 100-square-foot gridblock. For the irregular gridblocks, the number of discrete samples ranged from five to two samples per composite. The EPA's *Soil Screening Guidance* recommended dividing a site up into exposure areas (EAs) of approximately 0.5 acre that have been subdivided into sectors (gridblocks). It also recommends at least four composite samples per EA, all of which contain equal numbers of discrete samples.

The EPA's *Soil Screening Guidance* provides a simple approach to determine the effectiveness of our composite sampling method based on comparing the maximum contaminate concentrations of composite samples with surface soil screening levels using the Max test. The basic guidelines described in the Piazza Road simulations were followed by compositing within sectors and using the Max test to determine whether one sector of an EA is more contaminated than another. Using the Max test when compositing within sectors allows one to draw conclusions about the mean contaminant concentration in that specific sector.

The sampling areas were already divided into sectors (gridblocks), and for the Max test analysis, divided into corresponding EAs (Table E-1). As mentioned before some of the sectors were irregular, and for statistical reasons, could not accurately be analyzed using the Max test. Therefore, they were not included in an EA.

TABLE E-1

Exposure Area (EA)	Sectors/Gridblocks in EA	Comments
E-A, E-B, E-C	E-1, E-2, E-4, E-5	Located within Former Building 136 Area
1-A, 1-B, 1-C	C-1, C-2, C-4, C-5	Located within Former DRMO Waste Storage Area
2-A, 2-B, 2-C	C-7, C-8, C-10, C-11	Located within Former DRMO Waste Storage Area
3-A, 3-B, 3-C	C-8, C-9, C-11, C-12	Located within Former DRMO Waste Storage Area
4-A, 4-B, 4-C	C-13, C-14, C-16, C-17	Located within Former DRMO Waste Storage Area
5-A, 5-B, 5-C	C-14, C-15, C-17, C-18	Located within Former DRMO Waste Storage Area
6-A, 6-B, 6-C	C-17, C-18, C-20, C-21, C-30	Located within Former DRMO Waste Storage Area 5 Sectors were included due to the irregular shape of C-30. C-30 contains 5 discrete samples and has an area that is similar in size to the 100-foot-square sectors.
7-A, 7-B, 7-C	C-19, C-20, C-22, C-23	Located within Former DRMO Waste Storage Area
8-A, 8-B, 8-C	C-22, C-23, C-25, C-26	Located within Former DRMO Waste Storage Area

The EPA's *Soil Screening Guidance* provided the following statistical analysis equations to compare the maximum contaminate concentrations of composite samples with surface soil screening levels as a guidance for the data quality assessment (DQA) for the Max Test.

The sample mean of an EA was calculated by taking the sum of the contaminant concentration measurements for an EA and dividing it by the number of composite samples taken within that EA. For results denoted as a non-detectable value by the data validators, only half the value was used to calculate the mean. Only the results of contaminants with 2 or more detectable values per EA were used in our calculations.

$$\bar{x} = \left[\sum_{i=1}^{N} x_i\right]\frac{1}{N}$$

N = number of composite samples within an EA

The sample standard deviation of an EA was calculated second using the previously calculated sample mean.

$$s = \sqrt{\frac{1}{N-1}\sum_{i=1}^{N}\left(x_i - \bar{x}\right)^2}$$

Using the previously calculated sample mean and standard deviation of an EA, calculate the sample estimate of the coefficient of variation (CV) for individual concentration measurements across the EA.

$$CV = \frac{\sqrt{C}\, s}{\bar{x}}$$

C = Number of specimens or discrete samples per composite.

The results of the above calculations are presented in Table E-2 at the end of this appendix. The next step is to compare the contaminant results per EA (Max (x_1, x_2, ..., x_n)) against the following equation using the contaminants soil screening level (SSL).

$$Max(x_1, x_2, ..., x_N) < \frac{SSL}{\sqrt{C}}$$

The EPA TBD regarding the above equation states that if the maximum composite sample concentration is below the value given by the equation, then the sample size may be assumed to be adequate and no further DQA is necessary. The composite results were compared to this equation, and can be found in Tables 3-2 through 3-31 for the Former DRMO Waste Storage Area and Tables 3-33 through 3-38 for the Former Building 136 Area. EAs 4-A and 4-B were the only areas where no further DQA was necessary. For the remaining EAs, the EPA TBD directs us to compare the CVs calculated to *Table 23, Probability of Decision Error at 0.5 SSL and 2 SSL Using Max Test* (EPA, 1996). However, the tables provided in the EPA TBD were based on four or six discrete samples. Table E-3 was created from the EPA's *Table 23* to represent our application of 5 discrete samples per composite.

TABLE E-3 – PROBABILITY OF DECISION ERROR AT 0.5 SSL AND 2.0 SSL USING MAX TEST

Sample Size	C = 5 Specimens (discrete) per composite													
	CV = 1.0		CV = 1.5		CV = 2.0		CV = 2.5		CV = 3.0		CV = 3.5		CV = 4.0	
	E- 0.5	E- 2.0	E- 0.5	E- 2.0	E- 0.5	E- 2.0	E- 0.5	E- 2.0	E- 0.5	E- 2.0	E- 0.5	E- 2.0	E- 0.5	E- 2.0
4	<.01	0.08	0.015	0.11	0.06	0.125	0.11	0.175	0.17	0.185	0.25	0.23	0.24	0.285
5	<.01	0.05	0.015	0.06	0.075	0.095	0.13	0.095	0.215	0.15	0.24	0.165	0.28	0.225

CV - Coefficient of Variation
Sample Size - (N) = number of composite samples
E - 0.5 = Probability of requiring further investigation when the EA mean is 0.5 SSL
E - 2.0 = Probability of not requiring further investigation when the EA mean is 2.0 SSL
C = Number of specimens per composite sample

By comparing the CVs calculated and presented in Table E-2, the following probability of confidence can be assumed for the Former DRMO Waste Storage and Former Building 136 Areas.

Overall results for the Former DRMO Waste Storage Area:

CV-Value	Number of Results	Percentage
1.0	225	60.2
1.5	75	20.1
2.0	39	10.4
2.5	19	5.1
3.0	14	3.7
3.5	2	0.5

Range of Probability of Confidence in the Upper Limit: **95% - 77%**

Range of Probability of Confidence in the Lower Limit: **>99% - 75%**

Two parameters resulted in the lowest probability of confidence (Upper Limit – 77%, Lower Limit – 75%); nickel and lead. The lead result was due to the high result of lead in the C-8 grid of the DRMO Area, and the surrounding grids had relatively lower results.

Eighty percent of the results analyzed are within a confidence level of 98.5% in the Lower Limit and 89% in the Upper Limit.

99.5% of the results are at or above confidence level of 83% in the Lower Limit and 81.5% in the Upper Limit.

Overall results for the Former Building 136 Area:

CV-Value	Number of Results	Percentage
1.0	49	86.0
1.5	5	8.8
2.0	3	5.2
2.5	0	0
3.0	0	0
3.5	0	0

Range of Probability of Confidence in the Upper Limit: **92% - 87.5%**

Range of Probability of Confidence in the Lower Limit: **>99% - 94%**

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
FORMER BUILDING 136 AREA - E-A			
Aluminum	2005	900.0	1.0
Arsenic	2.7	0.9	0.8
Barium	57.675	12.7	0.5
Benzo(a)anthracene	576.5	232.1	0.9
Benzo(a)pyrene	538.5	170.8	0.7
Benzo(b)fluoranthene	547.5	158.3	0.6
Benzo(g,h,i)perylene	668	233.6	0.8
Benzo(k)fluoranthene	374	97.1	0.6
Cadmium	0.43	0.2	1.3
Chromium	13.175	5.6	1.0
Chrysene	604.25	224.8	0.8
Cobalt	1.125	0.3	0.6
Copper	39.2	19.4	1.1
Fluoranthene	1138	555.0	1.1
Indeno(1,2,3-cd)pyrene	526	187.5	0.8
Iron	8017.5	4286.9	1.2
Lead	**68.725**	**38.1**	**1.2**
Magnesium	3322.5	656.2	0.4
Manganese	95.35	14.7	0.3
Mercury	0.05125	0.0	0.7
Nickel	7.625	4.1	1.2
Phenanthrene	547	238.4	1.0
Pyrene	858.75	366.3	1.0
Selenium	0.46	0.1	0.4
Tin	3.29125	2.2	1.5
Vanadium	6.75	2.2	0.7
Zinc	145.175	74.6	1.1
FORMER BUILDING 136 AREA - E-B			
Aluminum	1111	210.3	0.4
Arsenic	2.125	0.6	0.7
Barium	37.35	7.7	0.5
Benzo(a)anthracene	219.75	37.5	0.4
Cadmium	0.21	0.1	0.8
Chromium	5.775	1.7	0.7
Cobalt	0.4875	0.2	1.1
Copper	10.8	3.9	0.8
Fluoranthene	326	181.4	1.2
Iron	1987.5	1003.8	1.1
Lead	**48.15**	**26.7**	**1.2**
Magnesium	4970	2224.3	1.0
Manganese	30.475	10.0	0.7
Nickel	2.475	0.7	0.6
Pyrene	275.5	117.0	0.9
Selenium	0.8425	0.2	0.4
Tin	3.56	2.4	1.5
Vanadium	2.51875	1.5	1.3
Zinc	69	27.4	0.9
FORMER BUILDING 136 AREA - E-C			
Aluminum	540.75	302.6	1.3
Arsenic	6.85	6.0	2.0
Barium	24.025	5.8	0.5
Cadmium	0.555	0.4	1.8
Chromium	4.825	1.9	0.9
Cobalt	0.2425	0.1	1.2
Copper	11.75	5.8	1.1
Iron	1044.75	496.4	1.1
Lead	**23.25**	**20.9**	**2.0**
Magnesium	4002.5	3335.4	1.9
Manganese	17.85	8.4	1.1
Nickel	2.0475	0.6	0.7
Selenium	1.275	0.4	0.8
Zinc	50.825	24.7	1.1
FORMER DRMO WASTE STORAGE AREA - 1-A			
Aluminum	498.0	273.88	1.2
Arsenic	1.3	0.51	0.9

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
Barium	49.3	44.62	2.0
Cadmium	0.4	0.30	1.6
Chromium	6.1	4.42	1.6
Cobalt	0.3	0.22	1.6
Copper	30.5	44.23	3.2
Iron	1477.5	1241.98	1.9
Lead	**58.1**	**37.12**	**1.4**
Magnesium	2957.5	2401.48	1.8
Manganese	18.1	11.21	1.4
Nickel	1.7	0.87	1.2
Vanadium	2.3	0.85	0.8
Zinc	73.9	50.97	1.5
FORMER DRMO WASTE STORAGE AREA - 1-B			
Aluminum	546.8	447.90	1.8
Arsenic	1.0	0.17	0.4
Barium	19.0	5.24	0.6
Cadmium	0.2	0.13	1.2
Chromium	3.2	0.58	0.4
Copper	4.9	2.38	1.1
Iron	551.3	299.78	1.2
Lead	**31.6**	**25.13**	**1.8**
Magnesium	2460.0	1639.80	1.5
Manganese	23.6	30.20	2.9
Nickel	0.9	0.40	1.0
Tin	2.5	1.46	1.3
Vanadium	2.0	0.46	0.5
Zinc	25.9	12.72	1.1
FORMER DRMO WASTE STORAGE AREA - 1-C			
Aluminum	474.5	303.21	1.4
Arsenic	1.8	0.96	1.2
Barium	27.5	8.12	0.7
Benzo(a)anthracene	176.8	152.35	1.9
Benzo(a)pyrene	186.5	123.27	1.5

Parameter	Mean	Standard Deviation	Coefficient of Variation
Benzo(b)fluoranthene	194.8	131.19	1.5
Benzo(k)fluoranthene	153.8	82.26	1.2
Cadmium	0.2	0.05	0.5
Chromium	4.9	1.30	0.6
Chrysene	211.4	157.40	1.7
Copper	11.1	3.86	0.8
Fluoranthene	331.8	370.48	2.5
Iron	4830.5	6463.59	3.0
Lead	**166.8**	**160.02**	**2.1**
Magnesium	4440.0	2164.68	1.1
Manganese	48.1	56.44	2.6
Nickel	1.2	0.69	1.3
Phenanthrene	254.3	200.88	1.8
Pyrene	351.5	382.43	2.4
Tin	3.6	2.25	1.4
Vanadium	2.2	0.48	0.5
Zinc	59.5	21.99	0.8
FORMER DRMO WASTE STORAGE AREA - 2-A			
Aluminum	480.8	470.66	2.2
Arsenic	0.7	0.33	1.1
Barium	19.1	8.84	1.0
Cadmium	0.1	0.13	1.9
Chromium	6.2	6.40	2.3
Copper	6.9	4.47	1.5
Iron	607.0	597.67	2.2
Lead	**77.2**	**84.92**	**2.5**
Magnesium	2465.0	2101.78	1.9
Manganese	29.9	43.36	3.2
Nickel	7.3	11.76	3.6
Tin	3.7	1.82	1.1
Vanadium	1.9	0.68	0.8
Zinc	25.7	12.81	1.1

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
FORMER DRMO WASTE STORAGE AREA - 2-B			
Aluminum	200.75	43.8	0.5
Arsenic	0.6225	0.3	1.0
Barium	15.2	2.2	0.3
Cadmium	0.095	0.1	1.2
Chromium	3.025	0.3	0.2
Copper	3.55	1.3	0.8
Iron	291.25	126.3	1.0
Lead	**89.875**	**139.3**	**3.5**
Magnesium	1515	319.5	0.5
Manganese	5.225	1.3	0.6
Nickel	0.65875	0.3	0.9
Tin	2.225	1.2	1.2
Vanadium	1.6	0.3	0.4
Zinc	15.2	5.3	0.8
FORMER BUILDING 136 AREA - E-C			
Aluminum	540.75	302.6	1.3
Arsenic	6.85	6.0	2.0
Barium	24.025	5.8	0.5
Cadmium	0.555	0.4	1.8
Chromium	4.825	1.9	0.9
Cobalt	0.2425	0.1	1.2
Copper	11.75	5.8	1.1
Iron	1044.75	496.4	1.1
Lead	**23.25**	**20.9**	**2.0**
Magnesium	4002.5	3335.4	1.9
Manganese	17.85	8.4	1.1
Nickel	2.0475	0.6	0.7
Selenium	1.275	0.4	0.8
Zinc	50.825	24.7	1.1
FORMER DRMO WASTE STORAGE AREA - 1-A			
Aluminum	498.0	273.88	1.2
Arsenic	1.3	0.51	0.9
Barium	49.3	44.62	2.0
Cadmium	0.4	0.30	1.6
Chromium	6.1	4.42	1.6
Cobalt	0.3	0.22	1.6
Copper	30.5	44.23	3.2
Iron	1477.5	1241.98	1.9
Lead	**58.1**	**37.12**	**1.4**
Magnesium	2957.5	2401.48	1.8
Manganese	18.1	11.21	1.4
Nickel	1.7	0.87	1.2
Vanadium	2.3	0.85	0.8
Zinc	73.9	50.97	1.5
FORMER DRMO WASTE STORAGE AREA - 1-B			
Aluminum	546.8	447.90	1.8
Arsenic	1.0	0.17	0.4
Barium	19.0	5.24	0.6
Cadmium	0.2	0.13	1.2
Chromium	3.2	0.58	0.4
Copper	4.9	2.38	1.1
Iron	551.3	299.78	1.2
Lead	**31.6**	**25.13**	**1.8**
Magnesium	2460.0	1639.80	1.5
Manganese	23.6	30.20	2.9
Nickel	0.9	0.40	1.0
Tin	2.5	1.46	1.3
Vanadium	2.0	0.46	0.5
Zinc	25.9	12.72	1.1
FORMER DRMO WASTE STORAGE AREA - 2-C			
Aluminum	497	233.6	1.1
Arsenic	1.925	0.5	0.6
Barium	51.5	47.3	2.1
Benzo(k)fluoranthene	180.8	70.7	0.9
Cadmium	0.1775	0.1	0.9

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
Chromium	5.2	1.5	0.7
Copper	14	8.0	1.3
Fluoranthene	94.825	70.0	1.6
Iron	1228.75	579.1	1.1
Lead	**211.08**	**246.6**	**2.6**
Magnesium	4865	861.6	0.4
Manganese	12.45	5.4	1.0
Mercury	1.625	0.3	0.4
Nickel	146.25	43.9	0.7
Pyrene	5.525	0.6	0.2
Tin	3.5	1.1	0.7
Vanadium	72.225	54.8	1.7
Zinc	72.225	56.2	1.7
FORMER DRMO WASTE STORAGE AREA - 3-A			
Aluminum	212.375	90.6	1.0
Arsenic	0.6625	0.4	1.2
Barium	14.85	3.4	0.5
Benzo(b)fluoranthene	133.4	87.7	1.5
Benzo(k)fluoranthene	96.6	63.3	1.5
Chromium	2.975	0.7	0.5
Copper	6.375	4.0	1.4
Iron	1026.25	1339.5	2.9
Lead	**114.05**	**93.0**	**1.8**
Magnesium	1378.75	252.1	0.4
Manganese	6.025	3.1	1.2
Nickel	0.9075	0.9	2.3
Tin	3.6125	1.6	1.0
Vanadium	1.7	0.2	0.3
Zinc	26.075	19.3	1.7
FORMER DRMO WASTE STORAGE AREA - 3-B			
Aluminum	311.9	151.1	1.1
Arsenic	0.7	0.4	1.2
Barium	15.8	2.6	0.4

Parameter	Mean	Standard Deviation	Coefficient of Variation
Chromium	3.6	0.5	0.3
Copper	5.6	3.1	1.2
Iron	545.4	346.1	1.4
Lead	**104.1**	**132.1**	**2.8**
Magnesium	2978.8	1230.0	0.9
Manganese	7.5	2.8	0.8
Tin	2.7	1.3	1.1
Vanadium	2.5	0.8	0.7
Zinc	24.2	13.5	1.2
FORMER DRMO WASTE STORAGE AREA - 3-C			
Aluminum	817.1	352.9	1.0
Arsenic	2.2	0.8	0.8
Barium	29.1	8.1	0.6
Benzo(a)anthracene	58.3	24.9	1.0
Benzo(a)pyrene	226.9	101.9	1.0
Benzo(b)fluoranthene	245.2	104.3	1.0
Benzo(g,h,i)perylene	131.2	96.5	1.6
Benzo(k)fluoranthene	193.7	69.6	0.8
Cadmium	0.3	0.4	2.3
Chromium	6.0	1.9	0.7
Chrysene	122.1	54.3	1.0
Copper	16.7	9.6	1.3
Dibenzo(a,h)anthracene	55.7	34.2	1.4
Fluoranthene	61.3	33.6	1.2
Indeno(1,2,3-cd)pyrene	119.3	83.5	1.6
Iron	1718.8	724.1	0.9
Lead	**207.3**	**245.7**	**2.7**
Magnesium	7010.0	2661.6	0.8
Manganese	38.8	43.7	2.5
Nickel	2.1	0.8	0.8
Pyrene	142.3	89.2	1.4
Tin	6.6	1.2	0.4
Vanadium	4.8	1.4	0.6

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
Zinc	64.9	27.7	1.0
FORMER DRMO WASTE STORAGE AREA - 4-A			
Aluminum	192.5	52.60	0.6
Arsenic	0.6	0.09	0.4
Barium	15.1	0.93	0.1
Cadmium	0.4	0.22	1.1
Chromium	3.6	0.93	0.6
Cobalt	0.2	0.05	0.7
Copper	33.5	24.92	1.7
Iron	458.8	227.32	1.1
Lead	**32.9**	**10.87**	**0.7**
Magnesium	1166.0	144.08	0.3
Manganese	6.7	1.06	0.4
Nickel	1.8	1.41	1.8
Selenium	0.8	0.08	0.2
Tin	2.8	2.80	2.2
Vanadium	1.4	0.78	1.2
Zinc	56.2	16.33	0.7
FORMER DRMO WASTE STORAGE AREA - 4-B			
Aluminum	200.5	143.87	1.6
Arsenic	0.6	0.41	**1.6**
Barium	14.2	2.64	0.4
Cadmium	0.1	0.03	0.6
Chromium	2.6	0.40	0.4
Cobalt	0.1	0.07	1.5
Copper	4.2	2.18	1.2
Iron	356.5	314.79	2.0
Lead	**23.4**	**21.50**	**2.1**
Magnesium	2350.0	2036.27	1.9
Manganese	14.1	18.15	2.9
Nickel	0.4	0.21	1.1
Selenium	0.8	0.05	0.1
Tin	2.0	1.55	1.7

Parameter	Mean	Standard Deviation	Coefficient of Variation
FORMER DRMO WASTE STORAGE AREA - 4-C			
Aluminum	281.75	133.4	1.1
Arsenic	1.48	0.6	0.9
Barium	24.13	7.6	0.7
Cadmium	0.21	0.1	1.5
Chromium	4.03	0.5	0.3
Cobalt	0.17	0.0	0.5
Copper	10.60	5.6	1.2
Fluoranthene	96.08	72.3	1.7
Iron	707.50	228.0	0.7
Lead	**61.25**	**57.9**	**2.1**
Magnesium	6262.50	696.6	0.2
Manganese	10.48	2.0	0.4
Nickel	0.95	0.2	0.6
Selenium	1.10	0.1	0.1
Tin	2.83	1.2	1.0
Vanadium	2.93	0.8	0.6
Zinc	47.10	42.9	2.0
FORMER DRMO WASTE STORAGE AREA - 5-A			
Aluminum	161.75	42.1	0.6
Arsenic	0.52	0.2	1.0
Barium	14.53	0.6	0.1
Benzo(a)pyrene	81.13	62.0	1.7
Benzo(b)fluoranthene	85.95	59.6	1.6
Benzo(g,h,i)perylene	77.53	62.3	1.8
Benzo(k)fluoranthene	82.60	61.4	1.7
Cadmium	0.37	0.3	1.6
Chromium	4.00	1.3	0.7
Cobalt	0.14	0.0	0.8
Copper	22.75	27.1	2.7
Iron	606.00	512.7	1.9
Lead	**28.70**	**13.5**	**1.1**
Magnesium	1152.75	126.7	0.2

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
Manganese	7.18	4.1	1.3
Nickel	0.87	0.4	1.0
Selenium	0.76	0.1	0.2
Tin	3.99	3.0	1.7
Vanadium	1.73	0.2	0.2
Zinc	39.35	19.4	1.1
FORMER DRMO WASTE STORAGE AREA - 5-B			
Aluminum	114.85	34.9	0.7
Arsenic	0.40	0.3	1.5
Barium	14.25	1.8	0.3
Cadmium	0.08	0.0	1.0
Chromium	2.43	0.4	0.4
Copper	4.58	2.2	1.1
Iron	277.75	143.3	1.2
Lead	**15.38**	**5.4**	**0.8**
Magnesium	1917.50	819.1	1.0
Manganese	5.03	1.9	0.8
Nickel	0.46	0.1	0.6
Phenanthrene	221.90	140.9	1.4
Pyrene	232.25	123.0	1.2
Selenium	0.76	0.1	0.2
Tin	1.95	1.0	1.2
Vanadium	1.85	0.6	0.7
Zinc	21.80	10.0	1.0
FORMER DRMO WASTE STORAGE AREA - 5-C			
Aluminum	378.3	238.25	1.4
Arsenic	1.7	0.35	0.5
Barium	24.2	3.39	0.3
Benzo(a)anthracene	108.9	79.23	1.6
Benzo(a)pyrene	251.3	147.27	1.3
Benzo(b)fluoranthene	303.3	212.48	1.6
Benzo(g,h,i)perylene	149.1	57.27	0.9
Benzo(k)fluoranthene	201.2	109.33	1.2

Parameter	Mean	Standard Deviation	Coefficient of Variation
Cadmium	0.1	0.09	1.4
Chromium	4.2	0.91	0.5
Chrysene	158.3	81.35	1.1
Cobalt	0.1	0.06	1.0
Copper	8.1	4.00	1.1
Fluoranthene	86.0	61.13	1.6
Indeno(1,2,3-cd)pyrene	140.0	62.97	1.0
Iron	899.3	463.05	1.2
Lead	**36.9**	**18.88**	**1.1**
Magnesium	6152.5	390.66	0.1
Manganese	18.6	16.02	1.9
Nickel	1.2	0.59	1.1
Phenanthrene	140.7	97.22	1.5
Pyrene	142.4	118.64	1.9
Selenium	1.0	0.11	0.3
Tin	3.3	1.64	1.1
Vanadium	3.3	1.09	0.8
Zinc	35.4	19.79	1.2
FORMER DRMO WASTE STORAGE AREA - 6-A			
Aluminum	152.0	38.80	0.6
Arsenic	0.5	0.20	0.8
Barium	15.0	1.88	0.3
Benzo(a)pyrene	101.3	74.85	1.7
Benzo(b)fluoranthene	107.1	70.74	1.5
Benzo(g,h,i)perylene	113.7	67.62	1.3
Benzo(k)fluoranthene	99.5	76.02	1.7
Cadmium	0.2	0.13	1.5
Chromium	3.4	1.18	0.8
Cobalt	0.1	0.07	1.2
Copper	20.8	24.86	2.7
Iron	400.8	185.91	1.0
Lead	**119.3**	**102.32**	**1.9**
Magnesium	1666.2	816.81	1.1

Parameter	Mean	Standard Deviation	Coefficient of Variation
Manganese	5.3	1.40	0.6
Nickel	0.7	0.24	0.8
Selenium	0.9	0.12	0.3
Tin	3.4	2.20	1.5
Vanadium	1.6	0.24	0.3
Zinc	24.6	10.44	1.0
FORMER DRMO WASTE STORAGE AREA - 6-B			
Aluminum	156.9	66.98	1.0
Arsenic	0.8	0.36	1.0
Barium	16.6	2.32	0.3
Cadmium	0.1	0.03	0.9
Chromium	2.8	0.50	0.4
Cobalt	0.1	0.04	1.0
Copper	4.6	2.38	1.2
Iron	338.2	222.94	1.5
Lead	**28.8**	**26.83**	**2.1**
Magnesium	3104.0	2203.78	1.6
Manganese	6.3	3.22	1.1
Nickel	0.8	0.57	1.7
Selenium	0.9	0.11	0.3
Tin	2.4	1.31	1.2
Vanadium	1.8	0.50	0.6
Zinc	20.1	9.42	1.0
FORMER DRMO WASTE STORAGE AREA - 6-C			
Aluminum	221.00	84.9	0.9
Arsenic	1.40	0.3	0.4
Barium	20.66	3.8	0.4
Cadmium	0.14	0.1	1.0
Chromium	3.38	0.4	0.3
Cobalt	0.11	0.1	1.3
Copper	6.72	3.2	1.1
Fluoranthene	96.50	80.4	1.9
Iron	704.60	297.2	0.9

Parameter	Mean	Standard Deviation	Coefficient of Variation
Lead	**42.04**	**26.5**	**1.4**
Magnesium	6508.00	602.4	0.2
Manganese	13.50	6.4	1.1
Nickel	0.72	0.3	1.0
Pyrene	109.00	76.1	1.6
Selenium	0.95	0.1	0.3
Tin	3.30	1.4	1.0
Vanadium	2.34	0.5	0.5
Zinc	40.58	22.5	1.2
FORMER DRMO WASTE STORAGE AREA - 7-A			
Aluminum	160.50	39.4	0.5
Arsenic	1.25	0.6	1.1
Barium	17.75	5.6	0.7
Cadmium	0.44	0.2	1.0
Chromium	6.03	3.1	1.2
Cobalt	0.51	0.4	1.6
Copper	77.10	109.7	3.2
Iron	4384.25	3719.3	1.9
Lead	**200.25**	**77.0**	**0.9**
Magnesium	926.00	96.0	0.2
Manganese	25.00	19.9	1.8
Nickel	3.45	3.1	2.0
Selenium	0.72	0.2	0.6
Tin	5.35	3.9	1.6
Vanadium	1.42	0.4	0.6
Zinc	54.98	38.2	1.6
FORMER DRMO WASTE STORAGE AREA - 7-B			
Aluminum	167.75	75.9	1.0
Arsenic	0.89	0.5	1.2
Barium	15.50	2.7	0.4
Cadmium	0.29	0.2	1.3
Chromium	3.38	1.8	1.2
Cobalt	0.26	0.2	1.8

TABLE E-2

Parameter	Mean	Standard Deviation	Coefficient of Variation
Copper	13.63	15.2	2.5
Iron	1512.00	1488.2	2.2
Lead	**50.58**	**33.9**	**1.5**
Magnesium	1637.50	536.8	0.7
Manganese	12.60	11.3	2.0
Nickel	1.62	1.8	2.5
Selenium	0.89	0.0	0.1
Tin	1.01	0.6	1.2
Vanadium	1.85	0.9	1.0
Zinc	42.80	41.8	2.2
FORMER DRMO WASTE STORAGE AREA - 7-C			
Aluminum	306.75	142.6	1.0
Arsenic	1.75	0.9	1.2
Barium	24.68	5.6	0.5
Cadmium	0.40	0.2	0.9
Chromium	4.30	1.1	0.6
Cobalt	0.26	0.2	1.6
Copper	19.43	11.8	1.4
Fluoranthene	51.15	13.5	0.6
Iron	1443.25	973.5	1.5
Lead	**62.55**	**27.3**	**1.0**
Magnesium	4642.50	1880.9	0.9
Manganese	14.95	5.8	0.9
Nickel	1.32	1.5	2.6
Pyrene	56.75	18.5	0.7
Selenium	1.24	0.9	1.6
Tin	3.17	2.0	1.4
Vanadium	1.57	0.9	1.3
Zinc	63.83	15.5	0.5
FORMER DRMO WASTE STORAGE AREA - 8-A			
Aluminum	242.3	109.84	1.0
Anthracene	119.7	94.57	1.8
Arsenic	1.6	0.48	0.7

Parameter	Mean	Standard Deviation	Coefficient of Variation
Barium	41.7	20.01	1.1
Benzo(a)anthracene	557.2	758.88	3.0
Benzo(a)pyrene	384.3	484.73	2.8
Benzo(b)fluoranthene	452.1	595.07	2.9
Benzo(g,h,i)perylene	303.8	345.02	2.5
Benzo(k)fluoranthene	292.4	344.52	2.6
Cadmium	1.0	0.48	1.1
Chromium	8.9	3.57	0.9
Chrysene	596.5	817.01	3.1
Cobalt	0.6	0.32	1.2
Copper	176.9	99.89	1.3
Fluoranthene	751.0	1027.23	3.1
Iron	6000.0	2597.89	1.0
Lead	**386.5**	**231.70**	**1.3**
Magnesium	1196.8	370.61	0.7
Manganese	36.0	15.09	0.9
Nickel	4.5	2.59	1.3
Phenanthrene	289.2	256.32	2.0
Pyrene	1047.3	1456.65	3.1
Selenium	0.7	0.19	0.6
Tin	12.8	9.49	1.7
Vanadium	1.7	0.55	0.7
Zinc	193.7	128.54	1.5
FORMER DRMO WASTE STORAGE AREA - 8-B			
Aluminum	201.3	59.45	0.7
Arsenic	1.0	0.43	1.0
Barium	18.7	2.79	0.3
Benzo(a)pyrene	445.4	425.65	2.1
Benzo(b)fluoranthene	715.6	848.11	2.7
Benzo(g,h,i)perylene	278.3	231.46	1.9
Benzo(k)fluoranthene	410.3	427.73	2.3
Cadmium	0.3	0.15	1.2
Chromium	5.0	1.72	0.8

Parameter	Mean	Standard Deviation	Coefficient of Variation
Chrysene	991.6	1246.08	2.8
Cobalt	0.2	0.22	2.0
Copper	21.7	12.06	1.2
Indeno(1,2,3-cd)pyrene	243.9	198.43	1.8
Iron	1637.3	1380.24	1.9
Lead	**70.1**	**31.45**	**1.0**
Magnesium	2370.0	428.14	0.4
Manganese	13.8	10.41	1.7
Nickel	1.7	1.71	2.2
Selenium	1.0	0.14	0.3
Vanadium	1.9	0.85	1.0
Zinc	55.4	34.38	1.4
FORMER DRMO WASTE STORAGE AREA - 8-C			
Aluminum	570.3	470.50	1.8
Arsenic	2.1	0.86	0.9
Barium	32.8	6.69	0.5
Cadmium	0.4	0.12	0.7
Chromium	5.6	1.27	0.5
Cobalt	0.5	0.27	1.2
Copper	30.8	9.86	0.7
Fluoranthene	228.1	180.68	1.8
Iron	1950.0	727.84	0.8
Lead	**83.3**	**38.51**	**1.0**
Magnesium	4132.5	1410.02	0.8
Manganese	20.3	5.78	0.6
Nickel	2.1	1.17	1.3
Pyrene	274.8	227.98	1.9
Selenium	1.6	0.61	0.9
Tin	5.5	0.89	0.4
Vanadium	2.8	0.42	0.3
Zinc	93.3	35.23	0.8

APPENDIX F

PALINTEST DATA AND COMPARISON

APPENDIX F. PALINTEST DATA AND COMPARISON

Lead is considered a contamination of concern within the Former DRMO Waste Storage Area. Compositing of discrete samples within the thirty sectioned gridblocks of the Former DRMO Waste Storage Area was performed for soil analysis. All of the discrete samples used for compositing, as well as some of the composite samples, were taken and analyzed for lead on site using the Palintest Scanning Analyzer. To save on analysis costs, only the composite samples taken were analyzed offsite at a contracted laboratory. To compare the Palintest data results for discrete samples with the lab results for composite samples, the arithmetic mean (or average) of the Palintest data (D Avg.) within each composite gridblock was calculated. The average of the discrete samples and the corresponding composite sample (C Data) taken for Lead (Table F-1) was compared using the Relative Percent Difference (RPD) formula:

$$RPD = \frac{Sample\ Data - Duplicate\ Data}{0.5(Sample\ Data + Duplicate\ Data)} \times 100\%$$

Using the RPD formula, the (D Avg) for a gridblock was entered as the sample data, and the composite sample (C Data) for the same gridblock was entered as the duplicate data.

$$RPD = \frac{D\ Avg\ Data - C\ Data}{0.5(D\ Avg\ Data + C\ Data)} \times 100\%$$

TABLE F-1 (MG/KG)

Gridblock	**C-1**	**C-2**	**C-3**	**C-4**	**C-5**	**C-6**	**C-7**	**C-8**	**C-9**	**C-10**	**C-11**	**C-12**	**C-13**	**C-14**	**C-15**
D Avg	119.3	64.5	63.6	216.0	60.6	76.5	51.3	160.5	57.6	60.9	120.2	65.3	54.6	180.6	97.6
C Data	57.4	19.4	12.5	118.0	37.5	28.9	42.4	223.0	189.0	11.1	32.4	11.8	26.5	21.7	28.4
Gridblock	**C-16**	**C-17**	**C-18**	**C-19**	**C-20**	**C-21**	**C-22**	**C-23**	**C-24**	**C-25**	**C-26**	**C-27**	**C-28**	**C-29**	**C-30**
D Avg	52.5	55.6	54.0	57.3	229.3	58.6	59.9	493.4	287.6	232.6	1,212.7	244.6	667.1	ND	56.7
C Data	33.0	50.4	14.3	168.0	1,89.0	286.0	326.0	118.0	115.0	345.0	757.0	376.0	668.0	2,080	56.6

ND – No Data

Result Analysis

Field duplicate results for solid matrix samples are considered to be precise if the RPD is less than or equal to 50 percent. The RPD comparison using the average of the discrete samples, resulted in 11 out of 29 data points within the desired 50 percent range (Table F-2, Figure F-1). There was no Palintest data for gridblock C-29.

TABLE F-2

Location	C-1	C-2	C-3	C-4	C-5	C-6	C-7	C-8	C-9	C-10	C-11	C-12	C-13	C-14	C-15
RPD	70%	107%	134%	59%	*47%*	90%	*19%*	*33%*	107%	138%	115%	139%	69%	157%	110%
Location	**C-16**	**C-17**	**C-18**	**C-19**	**C-20**	**C-21**	**C-22**	**C-23**	**C-24**	**C-25**	**C-26**	**C-27**	**C-28**	**C-29**	**C-30**
RPD	46%	10%	116%	98%	19%	132%	138%	123%	86%	39%	46%	42%	0.1	ND	0.1

ND – No Data

The data results used in the comparison ranged from 12 mg/kg to 1200 mg/kg (Table 1). The concern with the Lead analysis centers on its action level of 500 mg/kg based on FDEP Residential Goals. However, this action level was lowered based the EPA's *Soil Screening Guidance: User's Guide* and *Technical Basis Document*, to 223.61 mg/kg based on the number of discrete samples used for a composite sample. The data in Table 1 was filtered to omit an RPD data point if either the lab result for a composite sample or the average of the Palintest discrete samples for the same composite sample were below 150 mg/kg. This resulted in all the remaining RPD data points falling within the desired 50% range (Table F-3, Figure F-2).

TABLE F-3

Gridblock	C-8	C-20	C-25	C-26	C-27	C-28
D Avg	160.5	229.3	232.8	1212.7	244.6	667.1
C Data	223.0	189.0	345.0	757.0	376.0	668.0
RPD	32.6%	19.3%	38.9%	46.3%	42.4%	0.1%

For confirmation sampling, the Palintest Scanning Analyzer was utilized for lead analysis at DRMO Storage Area and Hamaca Hawk Missile Site around SD-08. Samples taken were analyzed three times and these results were averaged to produce a mean result, which was compared to the lead action level of 500 mg/kg. A percent standard deviation was calculated for the three results produced for a sample. A 20% standard deviation criteria was used to determine if an average lead result for a location was reliable. Tables F-4, F-5, and F-6 present the three lead results for each sample, the average result, and the percent standard deviation for samples analyzed from DRMO Storage Area and Hamaca Hawk Missile Site around SD-08.

TABLE F-4

PALINTEST DATA FOR SUBZONE C3
NAS KEY WEST
PAGE 1 OF 5

Sample ID	Lab ID	Lead (µg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C3-CONF-01	030101	81	59.6			
C3-CONF-01	030102	85	59.9			
C3-CONF-01	030103	79	57.2		58.9	2.0%
C3-CONF-02	030201	55	39.3			
C3-CONF-02	030202	57	38.8			
C3-CONF-02	030203	49	33.3		37.1	7.3%
C3-CONF-03	030301	110	75.3			
C3-CONF-03	030302	150	107.1			
C3-CONF-03	030303	71	50.4		77.6	29.9%
C3-CONF-04	030401	155	113.1			
C3-CONF-04	030402	112	82.4			
C3-CONF-04	030403	269	213.5		136.3	41.1%
C3-CONF-05	030501	426	291.8			
C3-CONF-05	030502	459	308.1			
C3-CONF-05	030503	478	331.9		310.6	5.3%
C3-CONF-06	030601	215	160.4			
C3-CONF-06	030602	163	123.5			
C3-CONF-06	030603	450	326.1		203.3	43.3%
C3-CONF-07	030701	196	140.0			
C3-CONF-07	030702	110	82.7			
C3-CONF-07	030703	100	73.5		98.7	29.8%
C3-CONF-08	030801	601	465.9			
C3-CONF-08	030802	433	335.7			
C3-CONF-08	030803	494	401.6		401.1	13.3%
C3-CONF-09	030901	679	518.3			
C3-CONF-09	030902	786	561.4			
C3-CONF-09	030903	644	499.2		526.3	4.9%
C3-CONF-10	031001	1206	814.9			
C3-CONF-10	031002	699	495.7			
C3-CONF-10	031003	1044	767.6		692.8	20.3%
C3-CONF-D4	031004	929	693.3			
C3-CONF-D4	031005	1014	729.5			
C3-CONF-D4	031006	1023	736.0		719.6	2.6%
C3-CONF-10B	031007	438	331.8			
C3-CONF-10B	031008	769	600.8			
C3-CONF-10B	031009	398	313.4		415.3	31.6%
C3-CONF-11	031101	607	474.2			
C3-CONF-11	031102	463	348.1			
C3-CONF-11	031103	845	630.6		484.3	23.9%
C3-CONF-11B	031104	1110	765.5			

TABLE F-4

PALINTEST DATA FOR SUBZONE C3
NAS KEY WEST
PAGE 2 OF 5

Sample ID	Lab ID	Lead (µg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C3-CONF-11B	031104	994	795.2			
C3-CONF-11B	031106	557	425.2		662.0	25.4%
C3-CONF-12	031201	155	120.2			
C3-CONF-12	031201	97	81.5			
C3-CONF-12	031203	157	117.2		106.3	16.5%
C3-CONF-13	031301	792	665.5			
C3-CONF-13	031302	735	617.6			
C3-CONF-13	031303	3000	2290.1	ADL	1191.1	65.3%
C3-CONF-13B	031307	45	34.1			
C3-CONF-13B	031308	63	45.0			
C3-CONF-13B	031309	55	42.6		40.6	11.5%
C3-CONF-14	031401	792	604.6			
C3-CONF-14	031402	740	587.3			
C3-CONF-14	031403	763	600.8		597.6	1.2%
C3-CONF-14B	031306	51	33.8		28.3	21.7%
C3-CONF-14B	031404	26	19.7			
C3-CONF-14B	031405	42	31.3			
C3-CONF-15	031501	69	53.1			
C3-CONF-15	031502	57	43.8			
C3-CONF-15	031503	49	38.9		45.3	13.0%
C3-CONF-16	031601	<25	18.5	BDL		
C3-CONF-16	031602	<25	20.0	BDL		
C3-CONF-16	031603	<25	19.7	BDL	19.4	3.3%
C3-CONF-17	031701	35	26.1			
C3-CONF-17	031702	51	38.9			
C3-CONF-17	031703	59	45.7		36.9	22.0%
C3-CONF-18	031801	<25	17.2	BDL		
C3-CONF-18	031802	<25	17.9	BDL		
C3-CONF-18	031803	<25	18.2	BDL	17.8	2.3%
C3-CONF-19	031901	368	276.7			
C3-CONF-19	031902	371	265.0			
C3-CONF-19	031903	267	193.5		245.1	15.0%
C3-CONF-20	032001	3000	2189.8	ADL		
C3-CONF-20	032002	586	440.6			
C3-CONF-20	032003	401	303.8		978.1	87.8%
C3-CONF-D5	032004	1141	871.0			
C3-CONF-D5	032005	1137	795.1			
C3-CONF-D5	032006	624	436.4		700.8	27.0%
C3-CONF-21	032101	200	149.3			
C3-CONF-21	032102	431	319.3			

TABLE F-4

PALINTEST DATA FOR SUBZONE C3
NAS KEY WEST
PAGE 3 OF 5

Sample ID	Lab ID	Lead (µg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C3-CONF-21	032103	181	124.8		197.8	43.7%
C3-CONF-22	032201	<25	16.3	BDL		
C3-CONF-22	032202	55	40.1			
C3-CONF-22	032203	<25	17.0	BDL	24.5	45.2%
C3-CONF-23	032301	<25	18.7	BDL		
C3-CONF-23	032302	<25	17.9	BDL		
C3-CONF-23	032303	<25	16.9	BDL	17.8	4.1%
C3-CONF-24	032401	<25	18.5	BDL		
C3-CONF-24	032402	<25	17.6	BDL		
C3-CONF-24	032403	<25	17.7	BDL	18.0	2.3%
C3-CONF-26	032601	<25	16.9	BDL		
C3-CONF-26	032602	<25	20.2	BDL		
C3-CONF-26	032603	<25	19.7	BDL	18.9	7.6%
C3-CONF-27	032701	<25	20.2	BDL		
C3-CONF-27	032702	<25	20.3	BDL		
C3-CONF-27	032703	<25	19.7	BDL	20.1	1.4%
C3-CONF-28	032801	<25	19.5	BDL		
C3-CONF-28	032802	<25	19.2	BDL		
C3-CONF-28	032803	<25	19.5	BDL	19.4	0.7%
C3-CONF-D6	032804	<25	19.5	BDL		
C3-CONF-D6	032805	<25	19.2	BDL		
C3-CONF-D6	032806	<25	19.5	BDL	19.4	0.7%
C3-CONF-29	032901	<25	19.7	BDL		
C3-CONF-29	032902	<25	20.3	BDL		
C3-CONF-29	032903	<25	20.3	BDL	20.1	1.5%
C3-CONF-30	033001	<25	19.8	BDL		
C3-CONF-30	033002	<25	20.3	BDL		
C3-CONF-30	033003	<25	20.5	BDL	20.2	1.4%
C3-CONF-31	033101	<25	19.8	BDL		
C3-CONF-31	033102	<25	21.0	BDL		
C3-CONF-31	033103	<25	20.7	BDL	20.5	2.4%
C3-CONF-32	033201	<25	19.7	BDL		
C3-CONF-32	033202	<25	20.2	BDL		
C3-CONF-32	033203	<25	19.1	BDL	19.6	2.2%
C3-CONF-33	033301	<25	20.3	BDL		
C3-CONF-33	033302	<25	19.8	BDL		
C3-CONF-33	033303	<25	19.4	BDL	19.8	1.9%
C3-CONF-34	033401	<25	19.5	BDL		
C3-CONF-34	033402	<25	20.0	BDL		
C3-CONF-34	033403	<25	19.2	BDL	19.6	1.6%

TABLE F-4

PALINTEST DATA FOR SUBZONE C3
NAS KEY WEST
PAGE 4 OF 5

Sample ID	Lab ID	Lead (µg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C3-CONF-35	033501	<25	19.4	BDL		
C3-CONF-35	033502	<25	18.2	BDL		
C3-CONF-35	033503	<25	18.9	BDL	18.9	2.5%
C3-CONF-36	033601	1094	816.4			
C3-CONF-36	033602	859	641.0			
C3-CONF-36	033603	910	700.0		719.2	10.1%
C3-CONF-37	033701	200	138.9			
C3-CONF-37	033702	181	123.1			
C3-CONF-37	033703	246	189.2		150.4	18.7%
C3-CONF-47T	034701	954	711.9			
C3-CONF-47T	034702	1018	716.9			
C3-CONF-47T	034703	1194	812.2		747.0	6.2%
C3-CONF-48T	034801	1061	803.8			
C3-CONF-48T	034802	3000	2142.9	ADL		
C3-CONF-48T	034803	3000	2222.2	ADL	1723.0	37.8%
C3-CONF-50	035001	44	30.8			
C3-CONF-50	035002	34	26.4			
C3-CONF-50	035003	30	23.6		26.9	10.9%
C3-CONF-51	03-51-01	235	176.7			
C3-CONF-51	03-51-02	165	119.6			
C3-CONF-51	03-51-03	132	88.6		128.3	28.4%
C3-CONF-52	03-52-01	49	36.0			
C3-CONF-52	03-52-02	35	23.3			
C3-CONF-52	03-52-03	41	26.6		28.7	18.8%
C3-CONF-53	03-53-01	<25	20.0			
C3-CONF-53	03-53-02	<25	16.3			
C3-CONF-53	03-53-03	<25	17.5		17.9	8.5%
C3-CONF-54	03-54-01	35	23.0			
C3-CONF-54	03-54-02	61	44.9			
C3-CONF-54	03-54-03	28	19.9		29.2	38.0%
C3-CONF-55	03-55-01	71	52.2			
C3-CONF-55	03-55-02	86	59.3			
C3-CONF-55	03-55-03	57	44.5		52.0	11.6%
C3-CONF-56	03-56-01	42	31.1			
C3-CONF-56	03-56-02	57	39.3			
C3-CONF-56	03-56-03	36	27.1		32.5	15.7%
C3-CONF-57	03-57-01	<25	19.1			
C3-CONF-57	03-57-02	26	17.4			
C3-CONF-57	03-57-03	<25	18.5		18.4	3.7%
C3-CONF-58	035801	219	164.7			
C3-CONF-58	035802	372	253.1			

TABLE F-4

PALINTEST DATA FOR SUBZONE C3
NAS KEY WEST
PAGE 5 OF 5

Sample ID	Lab ID	Lead (µg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C3-CONF-58	035803	172	134.4		184.0	27.4%
C3-CONF-59	035901	349	260.4			
C3-CONF-59	035902	334	242.0			
C3-CONF-59	035903	311	239.2		247.2	3.8%
C3-CONF-60	036001	3000	2307.7	ADL		
C3-CONF-60	036002	1268	967.9			
C3-CONF-60	036003	3000	2173.9	ADL	1816.5	33.2%

TABLE F-5

PALINTEST DATA FOR SUBZONE A9
NAS KEY WEST

Sample ID	Lab ID	Lead (µg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
A9-CONF-01	090101	<25	18.8	BDL		
A9-CONF-01	090102	<25	19.2	BDL		
A9-CONF-01	090103	<25	20.0	BDL	19.3	2.6%
A9-CONF-02	090201	<25	19.4	BDL		
A9-CONF-02	090202	<25	20.0	BDL		
A9-CONF-02	090203	<25	19.1	BDL	19.5	2.0%
A9-CONF-03	090301	<25	20.0	BDL		
A9-CONF-03	090302	<25	18.5	BDL		
A9-CONF-03	090303	<25	19.8	BDL	19.5	3.4%
A9-CONF-04	090401	<25	20.5	BDL		
A9-CONF-04	090402	<25	20.3	BDL		
A9-CONF-04	090403	<25	19.5	BDL	20.1	2.1%

TABLE F-6

PALINTEST DATA FOR SUBZONE C4
NAS KEY WEST
PAGE 1 OF 3

Sample ID	Lab ID	Lead (mg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C4-CONF-01	40101	65	158.5			
C4-CONF-01	40102	45	125.0			
C4-CONF-01	40103	34	79.1		120.9	26.9%
C4-CONF-02	40201	44	107.3			
C4-CONF-02	40202	<25	64.1	BDL		
C4-CONF-02	40203	26	61.9		77.8	26.9%
C4-CONF-03	40301	49	128.9			
C4-CONF-03	40302	69	153.3			
C4-CONF-03	40303	44	146.7		143.0	7.2%
C4-CONF-04	40401	<25	75.8	BDL		
C4-CONF-04	40402	26	72.2			
C4-CONF-04	40403	<25	65.8	BDL	71.3	5.8%
C4-CONF-05	40501	<25	92.6	BDL		
C4-CONF-05	40502	65	166.7			
C4-CONF-05	40503	86	209.8		156.3	30.9%
C4-CONF-06	40601	29	70.7			
C4-CONF-06	40602	29	78.4			
C4-CONF-06	40603	27	73.0		74.0	4.3%
C4-CONF-D1	40604	31	96.9			
C4-CONF-D1	40605	35	89.7			
C4-CONF-D1	40606	31	66.0		84.2	15.7%
C4-CONF-07	40701	<25	64.1	BDL		
C4-CONF-07	40702	<25	71.4	BDL		
C4-CONF-07	40703	<25	59.5	BDL	65.0	7.5%
C4-CONF-08	40801	<25	83.3	BDL		
C4-CONF-08	40802	<25	83.3	BDL		
C4-CONF-08	40803	<25	92.6	BDL	86.4	5.1%
C4-CONF-09	40901	42	123.5			
C4-CONF-09	40902	<25	83.3	BDL		
C4-CONF-09	40903	<25	83.3	BDL	96.7	19.6%
C4-CONF-10	41001	<25	73.5	BDL		
C4-CONF-10	41002	<25	83.3	BDL		
C4-CONF-10	41003	<25	89.3	BDL	82.0	7.9%
C4-CONF-11	41101	<25	86.2	BDL		
C4-CONF-11	41102	<25	83.3	BDL		
C4-CONF-11	41103	<25	75.8	BDL	81.8	5.4%
C4-CONF-12	41201	<25	92.6	BDL		
C4-CONF-12	41202	<25	89.3	BDL		
C4-CONF-12	41203	<25	92.6	BDL	91.5	1.7%
C4-CONF-13	41301	<25	80.6	BDL		
C4-CONF-13	41302	<25	75.8	BDL		

TABLE F-6

PALINTEST DATA FOR SUBZONE C4
NAS KEY WEST
PAGE 2 OF 3

Sample ID	Lab ID	Lead (mg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C4-CONF-13	41303	<25	92.6	BDL	83.0	8.5%
C4-CONF-15	41501	43	148.3			
C4-CONF-15	41502	27	112.5			
C4-CONF-15	41503	29	100.0		120.3	17.0%
C4-CONF-16	41601	45	173.1			
C4-CONF-16	41602	47	174.1			
C4-CONF-16	41603	45	166.7		171.3	1.9%
C4-CONF-17	41701	31	106.9			
C4-CONF-17	41702	33	103.1			
C4-CONF-17	41703	33	117.9		109.3	5.7%
C4-CONF-18	41801	<25	86.2	BDL		
C4-CONF-18	41802	<25	89.3	BDL		
C4-CONF-18	41803	<25	83.3	BDL	86.3	2.8%
C4-CONF-19	41901	<25	53.2	BDL		
C4-CONF-19	41902	<25	80.6	BDL		
C4-CONF-19	41903	<25	65.8	BDL	66.5	16.9%
C4-CONF-20	42001	90	230.8			
C4-CONF-20	42002	110	255.8			
C4-CONF-20	42003	69	209.1		231.9	8.2%
C4-CONF-21	42101	<25	67.6	BDL		
C4-CONF-21	42102	<25	89.3	BDL		
C4-CONF-21	42103	<25	71.4	BDL	76.1	12.4%
C4-CONF-22	42201	<25	89.3	BDL		
C4-CONF-22	42202	<25	96.2	BDL		
C4-CONF-22	42203	<25	83.3	BDL	89.6	5.8%
C4-CONF-23	42301	<25	73.5	BDL		
C4-CONF-23	42302	<25	62.5	BDL		
C4-CONF-23	42303	<25	71.4	BDL	69.2	6.9%
C4-CONF-24	42401	<25	45.5	BDL		
C4-CONF-24	42402	<25	69.4	BDL		
C4-CONF-24	42403	<25	69.4	BDL	61.4	18.4%
C4-CONF-D3	42404	<25	48.1	BDL		
C4-CONF-D3	42405	<25	78.1	BDL		
C4-CONF-D3	42406	<25	75.8	BDL	67.3	20.3%
C4-CONF-25	42501	206	515.0			
C4-CONF-25	42502	157	436.1			
C4-CONF-25	42503	169	497.1		482.7	7.0%
C4-CONF-26	42601	<25	92.6	BDL		
C4-CONF-26	42602	<25	86.2	BDL		
C4-CONF-26	42603	<25	75.8	BDL	84.9	8.2%
C4-CONF-27	42701	<25	92.6	BDL		

TABLE F-6

PALINTEST DATA FOR SUBZONE C4
NAS KEY WEST
PAGE 3 OF 3

Sample ID	Lab ID	Lead (mg/sample)	Lead (mg/kg)	Below/Above Detection Limits (BDL/ADL)	Mean Result (mg/kg)	Percent Standard Deviation
C4-CONF-27	42702	<25	73.5	BDL		
C4-CONF-27	42703	45	140.6		102.2	27.6%
C4-CONF-28	42801	<25	92.6	BDL		
C4-CONF-28	42802	<25	78.1	BDL		
C4-CONF-28	42803	<25	86.2	BDL	85.6	6.9%
C4-CONF-29	42901	25	73.5			
C4-CONF-29	42902	35	116.7			
C4-CONF-29	42903	25	78.1		89.4	21.6%
C4-CONF-30	43001	<25	80.6	BDL		
C4-CONF-30	43002	<25	71.4	BDL		
C4-CONF-30	43003	<25	71.4	BDL	74.5	5.8%
C4-CONF-31	43101	<25	71.4	BDL		
C4-CONF-31	43102	<25	78.1	BDL		
C4-CONF-31	43103	<25	73.5	BDL	74.4	3.8%
C4-CONF-32	43201	33	113.8			
C4-CONF-32	43202	37	115.6			
C4-CONF-32	43203	33	122.2		117.2	3.1%
C4-CONF-33	43301	<25	83.3	BDL		
C4-CONF-33	43302	<25	61.0	BDL		
C4-CONF-33	43303	<25	78.1	BDL	74.1	12.9%
C4-CONF-34	43401	<25	58.1	BDL		
C4-CONF-34	43402	<25	65.8	BDL		
C4-CONF-34	43403	<25	58.1	BDL	60.7	5.9%
C4-CONF-35	43501	<25	80.6	BDL		
C4-CONF-35	43502	<25	67.6	BDL		
C4-CONF-35	43503	<25	83.3	BDL	77.2	8.9%
C4-CONF-36	43601	<25	64.1	BDL		
C4-CONF-36	43602	<25	55.6	BDL		
C4-CONF-36	43603	<25	89.3	BDL	69.6	20.6%
BKFL-RNKR-01	40001	<25	78.1			
BKFL-RNKR-01	40002	<25	71.4			
BKFL-RNKR-01	40003	<25	50.0		66.5	18.0%

APPENDIX G

COMPARISON OF CONTRACT LABORATORY PROGRAM DATA TO CERTIFICATE OF ANALYSIS DATA

APPENDIX G. COMPARISON OF CONTRACT LABORATORY PROGRAM DATA TO CERTIFICATE OF ANALYSIS DATA

OBJECTIVE

Contract Laboratory Program (CLP) data was delivered by Accutest Laboratories for 10 percent of the samples taken during the BRAC SSI in order to provide a comparison of the Certificate of Analysis (CofA) data set to a fully validated CLP data set. The SSI data contained in the CLP data set was compared with the corresponding data in CofA data set. The comparison uses the relative percent difference equation for data accuracy and also reviews the data qualifiers for any possible changes that could impact data quality. Table G-1 lists the samples that were delivered CLP and used in this comparison of data.

COMPARISON RESULTS

In the comparison of the data accuracy, there were zero changes in the 999 numerical results from the CofA data set and the CLP data set. This demonstrates a high degree of agreement between the CLP and CofA data sets. Table G-2 presents the numerical results for each data set and the relative percent difference between the two data sets. However, while comparing the data qualifiers, there were some changes from the CofA data set to the CLP data set. Results for two chemicals of concern (2-butanone and acetone) were rejected during the CLP validation process based on initial and continuing calibrations not meeting the quality control requirements. Several other chemicals of concern were qualified "J" acceptable data with estimated concentrations. Of the 128 results changed to estimated concentrations during the CLP validation, 123 were nondetects and only 5 were detected parameters. Four of the five affected detections were detects of zinc in rinsate blanks and the other was a detected value for methylene chloride in soil from grid C29. Table G-3 and G-4 presents the samples and chemical compounds whose data qualifiers were affected. No significant differences were found between the two data sets. The CofA data set is considered as acceptable and accurate for use in this SSI report.

TABLE G-1

SAMPLES WITH CLP AND COFA DATA SETS
NAS KEY WEST

Sample Name	Comments
AQUEOUS	
SSI-RB-04	Rinseate Blank
SSI-RB-05	Rinseate Blank
SSI-RB-06	Rinseate Blank
E07-GS-RB	Rinseate Blank
TB01-0728	Trip Blank
E07-GS-29	Volatiles Only
E07-GS-27	Volatiles Only
SOIL	
C16-5BV	Volatiles Only
C17-5BV	Volatiles Only
C18-5BV	Volatiles Only
C21-5BV	Volatiles Only
C22-5BV	Volatiles Only
C23-5BV	Volatiles Only
C24-1BV	Volatiles Only
C25-5BV	Volatiles Only
C27-2BV	Volatiles Only, Duplicate sample
C27-2BV-D	Volatiles Only, Duplicate sample
C29-1BV	Volatiles Only
C30-2BV	Volatiles Only

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
(PAGE 1 OF 39)

Parameter	Sample	Result	Qualifier	Units	RPD Result
SOIL RESULTS					
1,1,1-trichloroethane	C27-2BV-D	2.5	U	µg/kg	
1,1,1-trichloroethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
1,1,1-trichloroethane	C24-1BV	2.7	U	µg/kg	
1,1,1-trichloroethane	C24-1BV-CLP	2.7	U	µg/kg	0%
1,1,1-trichloroethane	C17-5BV	2.3	U	µg/kg	
1,1,1-trichloroethane	C17-5BV-CLP	2.3	U	µg/kg	0%
1,1,1-trichloroethane	C27-2BV	2.1	U	µg/kg	
1,1,1-trichloroethane	C27-2BV-CLP	2.1	UJ	µg/kg	0%
1,1,1-trichloroethane	C25-5BV	2.8	U	µg/kg	
1,1,1-trichloroethane	C25-5BV-CLP	2.8	U	µg/kg	0%
1,1,1-trichloroethane	C22-5BV	2.4	U	µg/kg	
1,1,1-trichloroethane	C22-5BV-CLP	2.4	U	µg/kg	0%
1,1,1-trichloroethane	C21-5BV	2.3	U	µg/kg	
1,1,1-trichloroethane	C21-5BV-CLP	2.3	U	µg/kg	0%
1,1,1-trichloroethane	C23-5BV	2.3	U	µg/kg	
1,1,1-trichloroethane	C23-5BV-CLP	2.3	U	µg/kg	0%
1,1,1-trichloroethane	C16-5BV	2.8	U	µg/kg	
1,1,1-trichloroethane	C16-5BV-CLP	2.8	U	µg/kg	0%
1,1,1-trichloroethane	C30-2BV	3.7	U	µg/kg	
1,1,1-trichloroethane	C30-2BV-CLP	3.7	UJ	µg/kg	0%
1,1,1-trichloroethane	C29-1BV	2.9	U	µg/kg	
1,1,1-trichloroethane	C29-1BV-CLP	2.9	U	µg/kg	0%
1,1,1-trichloroethane	C18-5BV	2	U	µg/kg	
1,1,1-trichloroethane	C18-5BV-CLP	2	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C27-2BV-D	2.5	U	µg/kg	
1,1,2,2-tetrachloroethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C24-1BV	2.7	U	µg/kg	
1,1,2,2-tetrachloroethane	C24-1BV-CLP	2.7	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C17-5BV	2.3	U	µg/kg	
1,1,2,2-tetrachloroethane	C17-5BV-CLP	2.3	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C27-2BV	2.1	U	µg/kg	
1,1,2,2-tetrachloroethane	C27-2BV-CLP	2.1	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C25-5BV	2.8	U	µg/kg	
1,1,2,2-tetrachloroethane	C25-5BV-CLP	2.8	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C22-5BV	2.4	U	µg/kg	
1,1,2,2-tetrachloroethane	C22-5BV-CLP	2.4	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C21-5BV	2.3	U	µg/kg	
1,1,2,2-tetrachloroethane	C21-5BV-CLP	2.3	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C23-5BV	2.3	U	µg/kg	
1,1,2,2-tetrachloroethane	C23-5BV-CLP	2.3	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C16-5BV	2.8	U	µg/kg	
1,1,2,2-tetrachloroethane	C16-5BV-CLP	2.8	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C30-2BV	3.7	U	µg/kg	
1,1,2,2-tetrachloroethane	C30-2BV-CLP	3.7	U	µg/kg	0%
1,1,2,2-tetrachloroethane	C29-1BV	2.9	U	µg/kg	
1,1,2,2-tetrachloroethane	C29-1BV-CLP	2.9	U	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
1,1,2,2-tetrachloroethane	C18-5BV	2		µg/kg	
1,1,2,2-tetrachloroethane	C18-5BV-CLP	2	U	µg/kg	0%
1,1,2-trichloroethane	C27-2BV-D	2.5	U	µg/kg	
1,1,2-trichloroethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
1,1,2-trichloroethane	C24-1BV	2.7	U	µg/kg	
1,1,2-trichloroethane	C24-1BV-CLP	2.7	U	µg/kg	0%
1,1,2-trichloroethane	C17-5BV	2.3	U	µg/kg	
1,1,2-trichloroethane	C17-5BV-CLP	2.3	U	µg/kg	0%
1,1,2-trichloroethane	C27-2BV	2.1	U	µg/kg	
1,1,2-trichloroethane	C27-2BV-CLP	2.1	U	µg/kg	0%
1,1,2-trichloroethane	C25-5BV	2.8	U	µg/kg	
1,1,2-trichloroethane	C25-5BV-CLP	2.8	U	µg/kg	0%
1,1,2-trichloroethane	C22-5BV	2.4	U	µg/kg	
1,1,2-trichloroethane	C22-5BV-CLP	2.4	U	µg/kg	0%
1,1,2-trichloroethane	C21-5BV	2.3	U	µg/kg	
1,1,2-trichloroethane	C21-5BV-CLP	2.3	U	µg/kg	0%
1,1,2-trichloroethane	C23-5BV	2.3	U	µg/kg	
1,1,2-trichloroethane	C23-5BV-CLP	2.3	U	µg/kg	0%
1,1,2-trichloroethane	C16-5BV	2.8	U	µg/kg	
1,1,2-trichloroethane	C16-5BV-CLP	2.8	U	µg/kg	0%
1,1,2-trichloroethane	C30-2BV	3.7	U	µg/kg	
1,1,2-trichloroethane	C30-2BV-CLP	3.7	U	µg/kg	0%
1,1,2-trichloroethane	C29-1BV	2.9	U	µg/kg	
1,1,2-trichloroethane	C29-1BV-CLP	2.9	U	µg/kg	0%
1,1,2-trichloroethane	C18-5BV	2	U	µg/kg	
1,1,2-trichloroethane	C18-5BV-CLP	2	U	µg/kg	0%
1,1-dichloroethane	C27-2BV-D	2.5	U	µg/kg	
1,1-dichloroethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
1,1-dichloroethane	C24-1BV	2.7	U	µg/kg	
1,1-dichloroethane	C24-1BV-CLP	2.7	U	µg/kg	0%
1,1-dichloroethane	C17-5BV	2.3	U	µg/kg	
1,1-dichloroethane	C17-5BV-CLP	2.3	U	µg/kg	0%
1,1-dichloroethane	C27-2BV	2.1	U	µg/kg	
1,1-dichloroethane	C27-2BV-CLP	2.1	U	µg/kg	0%
1,1-dichloroethane	C25-5BV	2.8	U	µg/kg	
1,1-dichloroethane	C25-5BV-CLP	2.8	U	µg/kg	0%
1,1-dichloroethane	C22-5BV	2.4	U	µg/kg	
1,1-dichloroethane	C22-5BV-CLP	2.4	U	µg/kg	0%
1,1-dichloroethane	C21-5BV	2.3	U	µg/kg	
1,1-dichloroethane	C21-5BV-CLP	2.3	U	µg/kg	0%
1,1-dichloroethane	C23-5BV	2.3	U	µg/kg	
1,1-dichloroethane	C23-5BV-CLP	2.3	U	µg/kg	0%
1,1-dichloroethane	C16-5BV	2.8	U	µg/kg	
1,1-dichloroethane	C16-5BV-CLP	2.8	U	µg/kg	0%
1,1-dichloroethane	C30-2BV	3.7	U	µg/kg	
1,1-dichloroethane	C30-2BV-CLP	3.7	U	µg/kg	0%
1,1-dichloroethane	C29-1BV	2.9	U	µg/kg	
1,1-dichloroethane	C29-1BV-CLP	2.9	U	µg/kg	0%
1,1-dichloroethane	C18-5BV	2	U	µg/kg	
1,1-dichloroethane	C18-5BV-CLP	2	U	µg/kg	0%
1,1-dichloroethene	C27-2BV-D	2.5	U	µg/kg	
1,1-dichloroethene	C27-2BV-D-CLP	2.5	U	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
1,1-dichloroethene	C24-1BV	2.7	U	µg/kg	
1,1-dichloroethene	C24-1BV-CLP	2.7	U	µg/kg	0%
1,1-dichloroethene	C17-5BV	2.3	U	µg/kg	
1,1-dichloroethene	C17-5BV-CLP	2.3	U	µg/kg	0%
1,1-dichloroethene	C27-2BV	2.1	U	µg/kg	
1,1-dichloroethene	C27-2BV-CLP	2.1	U	µg/kg	0%
1,1-dichloroethene	C25-5BV	2.8	U	µg/kg	
1,1-dichloroethene	C25-5BV-CLP	2.8	U	µg/kg	0%
1,1-dichloroethene	C22-5BV	2.4	U	µg/kg	
1,1-dichloroethene	C22-5BV-CLP	2.4	U	µg/kg	0%
1,1-dichloroethene	C21-5BV	2.3	U	µg/kg	
1,1-dichloroethene	C21-5BV-CLP	2.3	U	µg/kg	0%
1,1-dichloroethene	C23-5BV	2.3	U	µg/kg	
1,1-dichloroethene	C23-5BV-CLP	2.3	U	µg/kg	0%
1,1-dichloroethene	C16-5BV	2.8	U	µg/kg	
1,1-dichloroethene	C16-5BV-CLP	2.8	U	µg/kg	0%
1,1-dichloroethene	C30-2BV	3.7	U	µg/kg	
1,1-dichloroethene	C30-2BV-CLP	3.7	U	µg/kg	0%
1,1-dichloroethene	C29-1BV	2.9	U	µg/kg	
1,1-dichloroethene	C29-1BV-CLP	2.9	U	µg/kg	0%
1,1-dichloroethene	C18-5BV	2	U	µg/kg	
1,1-dichloroethene	C18-5BV-CLP	2	U	µg/kg	0%
1,2-dichloroethane	C27-2BV-D	2.5	U	µg/kg	
1,2-dichloroethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
1,2-dichloroethane	C24-1BV	2.7	U	µg/kg	
1,2-dichloroethane	C24-1BV-CLP	2.7	U	µg/kg	0%
1,2-dichloroethane	C17-5BV	2.3	U	µg/kg	
1,2-dichloroethane	C17-5BV-CLP	2.3	U	µg/kg	0%
1,2-dichloroethane	C27-2BV	2.1	U	µg/kg	
1,2-dichloroethane	C27-2BV-CLP	2.1	U	µg/kg	0%
1,2-dichloroethane	C25-5BV	2.8	U	µg/kg	
1,2-dichloroethane	C25-5BV-CLP	2.8	U	µg/kg	0%
1,2-dichloroethane	C22-5BV	2.4	U	µg/kg	
1,2-dichloroethane	C22-5BV-CLP	2.4	U	µg/kg	0%
1,2-dichloroethane	C21-5BV	2.3	U	µg/kg	
1,2-dichloroethane	C21-5BV-CLP	2.3	U	µg/kg	0%
1,2-dichloroethane	C23-5BV	2.3	U	µg/kg	
1,2-dichloroethane	C23-5BV-CLP	2.3	U	µg/kg	0%
1,2-dichloroethane	C16-5BV	2.8	U	µg/kg	
1,2-dichloroethane	C16-5BV-CLP	2.8	U	µg/kg	0%
1,2-dichloroethane	C30-2BV	3.7	U	µg/kg	
1,2-dichloroethane	C30-2BV-CLP	3.7	U	µg/kg	0%
1,2-dichloroethane	C29-1BV	2.9	U	µg/kg	
1,2-dichloroethane	C29-1BV-CLP	2.9	U	µg/kg	0%
1,2-dichloroethane	C18-5BV	2	U	µg/kg	
1,2-dichloroethane	C18-5BV-CLP	2	U	µg/kg	0%
1,2-dichloropropane	C27-2BV-D	2.5	U	µg/kg	
1,2-dichloropropane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
1,2-dichloropropane	C24-1BV	2.7	U	µg/kg	
1,2-dichloropropane	C24-1BV-CLP	2.7	U	µg/kg	0%
1,2-dichloropropane	C17-5BV	2.3	U	µg/kg	
1,2-dichloropropane	C17-5BV-CLP	2.3	U	µg/kg	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
1,2-dichloropropane	C27-2BV	2.1	U	µg/kg	
1,2-dichloropropane	C27-2BV-CLP	2.1	U	µg/kg	0%
1,2-dichloropropane	C25-5BV	2.8	U	µg/kg	
1,2-dichloropropane	C25-5BV-CLP	2.8	U	µg/kg	0%
1,2-dichloropropane	C22-5BV	2.4	U	µg/kg	
1,2-dichloropropane	C22-5BV-CLP	2.4	U	µg/kg	0%
1,2-dichloropropane	C21-5BV	2.3	U	µg/kg	
1,2-dichloropropane	C21-5BV-CLP	2.3	U	µg/kg	0%
1,2-dichloropropane	C23-5BV	2.3	U	µg/kg	
1,2-dichloropropane	C23-5BV-CLP	2.3	U	µg/kg	0%
1,2-dichloropropane	C16-5BV	2.8	U	µg/kg	
1,2-dichloropropane	C16-5BV-CLP	2.8	U	µg/kg	0%
1,2-dichloropropane	C30-2BV	3.7	U	µg/kg	
1,2-dichloropropane	C30-2BV-CLP	3.7	U	µg/kg	0%
1,2-dichloropropane	C29-1BV	2.9	U	µg/kg	
1,2-dichloropropane	C29-1BV-CLP	2.9	U	µg/kg	0%
1,2-dichloropropane	C18-5BV	2	U	µg/kg	
1,2-dichloropropane	C18-5BV-CLP	2	U	µg/kg	0%
2-butanone	C27-2BV-D	12	U	µg/kg	
2-butanone	C27-2BV-D-CLP	12	UR	µg/kg	0%
2-butanone	C24-1BV	13	U	µg/kg	
2-butanone	C24-1BV-CLP	13	UR	µg/kg	0%
2-butanone	C17-5BV	12	U	µg/kg	
2-butanone	C17-5BV-CLP	12	UR	µg/kg	0%
2-butanone	C27-2BV	10	U	µg/kg	
2-butanone	C27-2BV-CLP	10	UR	µg/kg	0%
2-butanone	C25-5BV	14	U	µg/kg	
2-butanone	C25-5BV-CLP	14	UR	µg/kg	0%
2-butanone	C22-5BV	12	U	µg/kg	
2-butanone	C22-5BV-CLP	12	UR	µg/kg	0%
2-butanone	C21-5BV	11	U	µg/kg	
2-butanone	C21-5BV-CLP	11	UR	µg/kg	0%
2-butanone	C23-5BV	12	U	µg/kg	
2-butanone	C23-5BV-CLP	12	UR	µg/kg	0%
2-butanone	C16-5BV	14	U	µg/kg	
2-butanone	C16-5BV-CLP	14	UR	µg/kg	0%
2-butanone	C30-2BV	19	U	µg/kg	
2-butanone	C30-2BV-CLP	19	UR	µg/kg	0%
2-butanone	C29-1BV	15	U	µg/kg	
2-butanone	C29-1BV-CLP	15	UR	µg/kg	0%
2-butanone	C18-5BV	10	U	µg/kg	
2-butanone	C18-5BV-CLP	10	UR	µg/kg	0%
2-hexanone	C27-2BV-D	12	U	µg/kg	
2-hexanone	C27-2BV-D-CLP	12	U	µg/kg	0%
2-hexanone	C24-1BV	13	U	µg/kg	
2-hexanone	C24-1BV-CLP	13	U	µg/kg	0%
2-hexanone	C17-5BV	12	U	µg/kg	
2-hexanone	C17-5BV-CLP	12	U	µg/kg	0%
2-hexanone	C27-2BV	10	U	µg/kg	
2-hexanone	C27-2BV-CLP	10	UJ	µg/kg	0%
2-hexanone	C25-5BV	14	U	µg/kg	
2-hexanone	C25-5BV-CLP	14	U	µg/kg	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
2-hexanone	C22-5BV	12	U	µg/kg	
2-hexanone	C22-5BV-CLP	12	U	µg/kg	0%
2-hexanone	C21-5BV	11	U	µg/kg	
2-hexanone	C21-5BV-CLP	11	U	µg/kg	0%
2-hexanone	C23-5BV	12	U	µg/kg	
2-hexanone	C23-5BV-CLP	12	U	µg/kg	0%
2-hexanone	C16-5BV	14	U	µg/kg	
2-hexanone	C16-5BV-CLP	14	U	µg/kg	0%
2-hexanone	C30-2BV	19	U	µg/kg	
2-hexanone	C30-2BV-CLP	19	UJ	µg/kg	0%
2-hexanone	C29-1BV	15	U	µg/kg	
2-hexanone	C29-1BV-CLP	15	U	µg/kg	0%
2-hexanone	C18-5BV	10	U	µg/kg	
2-hexanone	C18-5BV-CLP	10	U	µg/kg	0%
4-methyl-2-pentanone	C27-2BV-D	12	U	µg/kg	
4-methyl-2-pentanone	C27-2BV-D-CLP	12	U	µg/kg	0%
4-methyl-2-pentanone	C24-1BV	13	U	µg/kg	
4-methyl-2-pentanone	C24-1BV-CLP	13	U	µg/kg	0%
4-methyl-2-pentanone	C17-5BV	12	U	µg/kg	
4-methyl-2-pentanone	C17-5BV-CLP	12	U	µg/kg	0%
4-methyl-2-pentanone	C27-2BV	10	U	µg/kg	
4-methyl-2-pentanone	C27-2BV-CLP	10	UJ	µg/kg	0%
4-methyl-2-pentanone	C25-5BV	14	U	µg/kg	
4-methyl-2-pentanone	C25-5BV-CLP	14	U	µg/kg	0%
4-methyl-2-pentanone	C22-5BV	12	U	µg/kg	
4-methyl-2-pentanone	C22-5BV-CLP	12	U	µg/kg	0%
4-methyl-2-pentanone	C21-5BV	11	U	µg/kg	
4-methyl-2-pentanone	C21-5BV-CLP	11	U	µg/kg	0%
4-methyl-2-pentanone	C23-5BV	12	U	µg/kg	
4-methyl-2-pentanone	C23-5BV-CLP	12	U	µg/kg	0%
4-methyl-2-pentanone	C16-5BV	14	U	µg/kg	
4-methyl-2-pentanone	C16-5BV-CLP	14	U	µg/kg	0%
4-methyl-2-pentanone	C30-2BV	19	U	µg/kg	
4-methyl-2-pentanone	C30-2BV-CLP	19	UJ	µg/kg	0%
4-methyl-2-pentanone	C29-1BV	15	U	µg/kg	
4-methyl-2-pentanone	C29-1BV-CLP	15	U	µg/kg	0%
4-methyl-2-pentanone	C18-5BV	10	U	µg/kg	
4-methyl-2-pentanone	C18-5BV-CLP	10	U	µg/kg	0%
Acetone	C27-2BV-D	62	U	µg/kg	
Acetone	C27-2BV-D-CLP	62	UR	µg/kg	0%
Acetone	C24-1BV	66	U	µg/kg	
Acetone	C24-1BV-CLP	66	UR	µg/kg	0%
Acetone	C17-5BV	58	U	µg/kg	
Acetone	C17-5BV-CLP	58	UR	µg/kg	0%
Acetone	C27-2BV	52	U	µg/kg	
Acetone	C27-2BV-CLP	52	UR	µg/kg	0%
Acetone	C25-5BV	69	U	µg/kg	
Acetone	C25-5BV-CLP	69	UR	µg/kg	0%
Acetone	C22-5BV	60	U	µg/kg	
Acetone	C22-5BV-CLP	60	UR	µg/kg	0%
Acetone	C21-5BV	57	U	µg/kg	
Acetone	C21-5BV-CLP	57	UR	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Acetone	C23-5BV	58	U	µg/kg	
Acetone	C23-5BV-CLP	58	UR	µg/kg	0%
Acetone	C16-5BV	70	U	µg/kg	
Acetone	C16-5BV-CLP	70	UR	µg/kg	0%
Acetone	C30-2BV	93	U	µg/kg	
Acetone	C30-2BV-CLP	93	UR	µg/kg	0%
Acetone	C29-1BV	74	U	µg/kg	
Acetone	C29-1BV-CLP	74	UR	µg/kg	0%
Acetone	C18-5BV	51	U	µg/kg	
Acetone	C18-5BV-CLP	51	UR	µg/kg	0%
Benzene	C27-2BV-D	1.3	J	µg/kg	
Benzene	C27-2BV-D-CLP	1.3	J	µg/kg	0%
Benzene	C24-1BV	1.4	J	µg/kg	
Benzene	C24-1BV-CLP	1.4	J	µg/kg	0%
Benzene	C17-5BV	2.3	U	µg/kg	
Benzene	C17-5BV-CLP	2.3	U	µg/kg	0%
Benzene	C27-2BV	2.1	U	µg/kg	
Benzene	C27-2BV-CLP	2.1	U	µg/kg	0%
Benzene	C25-5BV	2.8	U	µg/kg	
Benzene	C25-5BV-CLP	2.8	U	µg/kg	0%
Benzene	C22-5BV	2.4	U	µg/kg	
Benzene	C22-5BV-CLP	2.4	U	µg/kg	0%
Benzene	C21-5BV	2.3	U	µg/kg	
Benzene	C21-5BV-CLP	2.3	U	µg/kg	0%
Benzene	C23-5BV	2.3	U	µg/kg	
Benzene	C23-5BV-CLP	2.3	U	µg/kg	0%
Benzene	C16-5BV	2.8	U	µg/kg	
Benzene	C16-5BV-CLP	2.8	U	µg/kg	0%
Benzene	C30-2BV	3.7	U	µg/kg	
Benzene	C30-2BV-CLP	3.7	U	µg/kg	0%
Benzene	C29-1BV	2.2	J	µg/kg	
Benzene	C29-1BV-CLP	2.2	J	µg/kg	0%
Benzene	C18-5BV	2	U	µg/kg	
Benzene	C18-5BV-CLP	2	U	µg/kg	0%
Bromodichloromethane	C27-2BV-D	2.5	U	µg/kg	
Bromodichloromethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Bromodichloromethane	C24-1BV	2.7	U	µg/kg	
Bromodichloromethane	C24-1BV-CLP	2.7	U	µg/kg	0%
Bromodichloromethane	C17-5BV	2.3	U	µg/kg	
Bromodichloromethane	C17-5BV-CLP	2.3	U	µg/kg	0%
Bromodichloromethane	C27-2BV	2.1	U	µg/kg	
Bromodichloromethane	C27-2BV-CLP	2.1	U	µg/kg	0%
Bromodichloromethane	C25-5BV	2.8	U	µg/kg	
Bromodichloromethane	C25-5BV-CLP	2.8	U	µg/kg	0%
Bromodichloromethane	C22-5BV	2.4	U	µg/kg	
Bromodichloromethane	C22-5BV-CLP	2.4	U	µg/kg	0%
Bromodichloromethane	C21-5BV	2.3	U	µg/kg	
Bromodichloromethane	C21-5BV-CLP	2.3	U	µg/kg	0%
Bromodichloromethane	C23-5BV	2.3	U	µg/kg	
Bromodichloromethane	C23-5BV-CLP	2.3	U	µg/kg	0%
Bromodichloromethane	C16-5BV	2.8	U	µg/kg	
Bromodichloromethane	C16-5BV-CLP	2.8	U	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Bromodichloromethane	C30-2BV	3.7	U	µg/kg	
Bromodichloromethane	C30-2BV-CLP	3.7	U	µg/kg	0%
Bromodichloromethane	C29-1BV	2.9	U	µg/kg	
Bromodichloromethane	C29-1BV-CLP	2.9	U	µg/kg	0%
Bromodichloromethane	C18-5BV	2	U	µg/kg	
Bromodichloromethane	C18-5BV-CLP	2	U	µg/kg	0%
Bromoform	C27-2BV-D	2.5	U	µg/kg	
Bromoform	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Bromoform	C24-1BV	2.7	U	µg/kg	
Bromoform	C24-1BV-CLP	2.7	U	µg/kg	0%
Bromoform	C17-5BV	2.3	U	µg/kg	
Bromoform	C17-5BV-CLP	2.3	U	µg/kg	0%
Bromoform	C27-2BV	2.1	U	µg/kg	
Bromoform	C27-2BV-CLP	2.1	U	µg/kg	0%
Bromoform	C25-5BV	2.8	U	µg/kg	
Bromoform	C25-5BV-CLP	2.8	U	µg/kg	0%
Bromoform	C22-5BV	2.4	U	µg/kg	
Bromoform	C22-5BV-CLP	2.4	U	µg/kg	0%
Bromoform	C21-5BV	2.3	U	µg/kg	
Bromoform	C21-5BV-CLP	2.3	U	µg/kg	0%
Bromoform	C23-5BV	2.3	U	µg/kg	
Bromoform	C23-5BV-CLP	2.3	U	µg/kg	0%
Bromoform	C16-5BV	2.8	U	µg/kg	
Bromoform	C16-5BV-CLP	2.8	U	µg/kg	0%
Bromoform	C30-2BV	3.7	U	µg/kg	
Bromoform	C30-2BV-CLP	3.7	U	µg/kg	0%
Bromoform	C29-1BV	2.9	U	µg/kg	
Bromoform	C29-1BV-CLP	2.9	U	µg/kg	0%
Bromoform	C18-5BV	2	U	µg/kg	
Bromoform	C18-5BV-CLP	2	U	µg/kg	0%
Bromomethane	C27-2BV-D	6.2	U	µg/kg	
Bromomethane	C27-2BV-D-CLP	6.2	UJ	µg/kg	0%
Bromomethane	C24-1BV	6.6	U	µg/kg	
Bromomethane	C24-1BV-CLP	6.6	UJ	µg/kg	0%
Bromomethane	C17-5BV	5.8	U	µg/kg	
Bromomethane	C17-5BV-CLP	5.8	UJ	µg/kg	0%
Bromomethane	C27-2BV	5.2	U	µg/kg	
Bromomethane	C27-2BV-CLP	5.2	UJ	µg/kg	0%
Bromomethane	C25-5BV	6.9	U	µg/kg	
Bromomethane	C25-5BV-CLP	6.9	UJ	µg/kg	0%
Bromomethane	C22-5BV	6	U	µg/kg	
Bromomethane	C22-5BV-CLP	6	UJ	µg/kg	0%
Bromomethane	C21-5BV	5.7	U	µg/kg	
Bromomethane	C21-5BV-CLP	5.7	UJ	µg/kg	0%
Bromomethane	C23-5BV	5.8	U	µg/kg	
Bromomethane	C23-5BV-CLP	5.8	UJ	µg/kg	0%
Bromomethane	C16-5BV	7	U	µg/kg	
Bromomethane	C16-5BV-CLP	7	UJ	µg/kg	0%
Bromomethane	C30-2BV	9.3	U	µg/kg	
Bromomethane	C30-2BV-CLP	9.3	UJ	µg/kg	0%
Bromomethane	C29-1BV	7.4	U	µg/kg	
Bromomethane	C29-1BV-CLP	7.4	UJ	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Bromomethane	C18-5BV	5.1	U	µg/kg	
Bromomethane	C18-5BV-CLP	5.1	UJ	µg/kg	0%
Carbon disulfide	C27-2BV-D	12	U	µg/kg	
Carbon disulfide	C27-2BV-D-CLP	12	U	µg/kg	0%
Carbon disulfide	C24-1BV	13	U	µg/kg	
Carbon disulfide	C24-1BV-CLP	13	U	µg/kg	0%
Carbon disulfide	C17-5BV	12	U	µg/kg	
Carbon disulfide	C17-5BV-CLP	12	U	µg/kg	0%
Carbon disulfide	C27-2BV	10	U	µg/kg	
Carbon disulfide	C27-2BV-CLP	10	U	µg/kg	0%
Carbon disulfide	C25-5BV	14	U	µg/kg	
Carbon disulfide	C25-5BV-CLP	14	U	µg/kg	0%
Carbon disulfide	C22-5BV	12	U	µg/kg	
Carbon disulfide	C22-5BV-CLP	12	U	µg/kg	0%
Carbon disulfide	C21-5BV	11	U	µg/kg	
Carbon disulfide	C21-5BV-CLP	11	U	µg/kg	0%
Carbon disulfide	C23-5BV	12	U	µg/kg	
Carbon disulfide	C23-5BV-CLP	12	U	µg/kg	0%
Carbon disulfide	C16-5BV	14	U	µg/kg	
Carbon disulfide	C16-5BV-CLP	14	U	µg/kg	0%
Carbon disulfide	C30-2BV	19	U	µg/kg	
Carbon disulfide	C30-2BV-CLP	19	U	µg/kg	0%
Carbon disulfide	C29-1BV	15	U	µg/kg	
Carbon disulfide	C29-1BV-CLP	15	U	µg/kg	0%
Carbon disulfide	C18-5BV	10	U	µg/kg	
Carbon disulfide	C18-5BV-CLP	10	U	µg/kg	0%
Carbon tetrachloride	C27-2BV-D	2.5	U	µg/kg	
Carbon tetrachloride	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Carbon tetrachloride	C24-1BV	2.7	U	µg/kg	
Carbon tetrachloride	C24-1BV-CLP	2.7	U	µg/kg	0%
Carbon tetrachloride	C17-5BV	2.3	U	µg/kg	
Carbon tetrachloride	C17-5BV-CLP	2.3	U	µg/kg	0%
Carbon tetrachloride	C27-2BV	2.1	U	µg/kg	
Carbon tetrachloride	C27-2BV-CLP	2.1	U	µg/kg	0%
Carbon tetrachloride	C25-5BV	2.8	U	µg/kg	
Carbon tetrachloride	C25-5BV-CLP	2.8	U	µg/kg	0%
Carbon tetrachloride	C22-5BV	2.4	U	µg/kg	
Carbon tetrachloride	C22-5BV-CLP	2.4	U	µg/kg	0%
Carbon tetrachloride	C21-5BV	2.3	U	µg/kg	
Carbon tetrachloride	C21-5BV-CLP	2.3	U	µg/kg	0%
Carbon tetrachloride	C23-5BV	2.3	U	µg/kg	
Carbon tetrachloride	C23-5BV-CLP	2.3	U	µg/kg	0%
Carbon tetrachloride	C16-5BV	2.8	U	µg/kg	
Carbon tetrachloride	C16-5BV-CLP	2.8	U	µg/kg	0%
Carbon tetrachloride	C30-2BV	3.7	U	µg/kg	
Carbon tetrachloride	C30-2BV-CLP	3.7	U	µg/kg	0%
Carbon tetrachloride	C29-1BV	2.9	U	µg/kg	
Carbon tetrachloride	C29-1BV-CLP	2.9	U	µg/kg	0%
Carbon tetrachloride	C18-5BV	2	U	µg/kg	
Carbon tetrachloride	C18-5BV-CLP	2	U	µg/kg	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Chlorobenzene	C27-2BV-D	2.5	U	µg/kg	
Chlorobenzene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Chlorobenzene	C24-1BV	2.7	U	µg/kg	
Chlorobenzene	C24-1BV-CLP	2.7	U	µg/kg	0%
Chlorobenzene	C17-5BV	2.3	U	µg/kg	
Chlorobenzene	C17-5BV-CLP	2.3	U	µg/kg	0%
Chlorobenzene	C27-2BV	2.1	U	µg/kg	
Chlorobenzene	C27-2BV-CLP	2.1	UJ	µg/kg	0%
Chlorobenzene	C25-5BV	2.8	U	µg/kg	
Chlorobenzene	C25-5BV-CLP	2.8	U	µg/kg	0%
Chlorobenzene	C22-5BV	2.4	U	µg/kg	
Chlorobenzene	C22-5BV-CLP	2.4	U	µg/kg	0%
Chlorobenzene	C21-5BV	2.3	U	µg/kg	
Chlorobenzene	C21-5BV-CLP	2.3	U	µg/kg	0%
Chlorobenzene	C23-5BV	2.3	U	µg/kg	
Chlorobenzene	C23-5BV-CLP	2.3	U	µg/kg	0%
Chlorobenzene	C16-5BV	2.8	U	µg/kg	
Chlorobenzene	C16-5BV-CLP	2.8	U	µg/kg	0%
Chlorobenzene	C30-2BV	3.7	U	µg/kg	
Chlorobenzene	C30-2BV-CLP	3.7	UJ	µg/kg	0%
Chlorobenzene	C29-1BV	2.9	U	µg/kg	
Chlorobenzene	C29-1BV-CLP	2.9	U	µg/kg	0%
Chlorobenzene	C18-5BV	2	U	µg/kg	
Chlorobenzene	C18-5BV-CLP	2	U	µg/kg	0%
Chloroethane	C27-2BV-D-CLP	2.5	U	µg/kg	
Chloroethane	C27-2BV-D	2.5	U	µg/kg	0%
Chloroethane	C24-1BV	2.7	U	µg/kg	
Chloroethane	C24-1BV-CLP	2.7	U	µg/kg	0%
Chloroethane	C17-5BV	2.3	U	µg/kg	
Chloroethane	C17-5BV-CLP	2.3	U	µg/kg	0%
Chloroethane	C27-2BV	2.1	U	µg/kg	
Chloroethane	C27-2BV-CLP	2.1	U	µg/kg	0%
Chloroethane	C25-5BV	2.8	U	µg/kg	
Chloroethane	C25-5BV-CLP	2.8	U	µg/kg	0%
Chloroethane	C22-5BV	2.4	U	µg/kg	
Chloroethane	C22-5BV-CLP	2.4	U	µg/kg	0%
Chloroethane	C21-5BV	2.3	U	µg/kg	
Chloroethane	C21-5BV-CLP	2.3	U	µg/kg	0%
Chloroethane	C23-5BV	2.3	U	µg/kg	
Chloroethane	C23-5BV-CLP	2.3	U	µg/kg	0%
Chloroethane	C16-5BV	2.8	U	µg/kg	
Chloroethane	C16-5BV-CLP	2.8	U	µg/kg	0%
Chloroethane	C30-2BV	3.7	U	µg/kg	
Chloroethane	C30-2BV-CLP	3.7	U	µg/kg	0%
Chloroethane	C29-1BV	2.9	U	µg/kg	
Chloroethane	C29-1BV-CLP	2.9	U	µg/kg	0%
Chloroethane	C18-5BV	2	U	µg/kg	
Chloroethane	C18-5BV-CLP	2	U	µg/kg	0%
Chloroform	C27-2BV-D	2.5	U	µg/kg	
Chloroform	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Chloroform	C24-1BV	2.7	U	µg/kg	
Chloroform	C24-1BV-CLP	2.7	U	µg/kg	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Chloroform	C17-5BV	2.3	U	µg/kg	
Chloroform	C17-5BV-CLP	2.3	U	µg/kg	0%
Chloroform	C27-2BV	2.1	U	µg/kg	
Chloroform	C27-2BV-CLP	2.1	U	µg/kg	0%
Chloroform	C25-5BV	2.8	U	µg/kg	
Chloroform	C25-5BV-CLP	2.8	U	µg/kg	0%
Chloroform	C22-5BV	2.4	U	µg/kg	
Chloroform	C22-5BV-CLP	2.4	U	µg/kg	0%
Chloroform	C21-5BV	2.3	U	µg/kg	
Chloroform	C21-5BV-CLP	2.3	U	µg/kg	0%
Chloroform	C23-5BV	2.3	U	µg/kg	
Chloroform	C23-5BV-CLP	2.3	U	µg/kg	0%
Chloroform	C16-5BV	2.8	U	µg/kg	
Chloroform	C16-5BV-CLP	2.8	U	µg/kg	0%
Chloroform	C30-2BV	3.7	U	µg/kg	
Chloroform	C30-2BV-CLP	3.7	U	µg/kg	0%
Chloroform	C29-1BV	2.9	U	µg/kg	
Chloroform	C29-1BV-CLP	2.9	U	µg/kg	0%
Chloroform	C18-5BV	2	U	µg/kg	
Chloroform	C18-5BV-CLP	2	U	µg/kg	0%
Chloromethane	C27-2BV-D	6.2	U	µg/kg	
Chloromethane	C27-2BV-D-CLP	6.2	U	µg/kg	0%
Chloromethane	C24-1BV	6.6	U	µg/kg	
Chloromethane	C24-1BV-CLP	6.6	U	µg/kg	0%
Chloromethane	C17-5BV	5.8	U	µg/kg	
Chloromethane	C17-5BV-CLP	5.8	U	µg/kg	0%
Chloromethane	C27-2BV	5.2	U	µg/kg	
Chloromethane	C27-2BV-CLP	5.2	U	µg/kg	0%
Chloromethane	C25-5BV	6.9	U	µg/kg	
Chloromethane	C25-5BV-CLP	6.9	U	µg/kg	0%
Chloromethane	C22-5BV	6	U	µg/kg	
Chloromethane	C22-5BV-CLP	6	U	µg/kg	0%
Chloromethane	C21-5BV	5.7	U	µg/kg	
Chloromethane	C21-5BV-CLP	5.7	U	µg/kg	0%
Chloromethane	C23-5BV	5.8	U	µg/kg	
Chloromethane	C23-5BV-CLP	5.8	U	µg/kg	0%
Chloromethane	C16-5BV	7	U	µg/kg	
Chloromethane	C16-5BV-CLP	7	U	µg/kg	0%
Chloromethane	C30-2BV	9.3	U	µg/kg	
Chloromethane	C30-2BV-CLP	9.3	U	µg/kg	0%
Chloromethane	C29-1BV	7.4	U	µg/kg	
Chloromethane	C29-1BV-CLP	7.4	U	µg/kg	0%
Chloromethane	C18-5BV	5.1	U	µg/kg	
Chloromethane	C18-5BV-CLP	5.1	U	µg/kg	0%
cis-1,2-dichloroethene	C27-2BV-D	2.5	U	µg/kg	
cis-1,2-dichloroethene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
cis-1,2-dichloroethene	C24-1BV	2.7	U	µg/kg	
cis-1,2-dichloroethene	C24-1BV-CLP	2.7	U	µg/kg	0%
cis-1,2-dichloroethene	C17-5BV	2.3	U	µg/kg	
cis-1,2-dichloroethene	C17-5BV-CLP	2.3	U	µg/kg	0%
cis-1,2-dichloroethene	C27-2BV	2.1	U	µg/kg	
cis-1,2-dichloroethene	C27-2BV-CLP	2.1	U	µg/kg	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
cis-1,2-dichloroethene	C25-5BV	2.8	U	µg/kg	
cis-1,2-dichloroethene	C25-5BV-CLP	2.8	U	µg/kg	0%
cis-1,2-dichloroethene	C22-5BV	2.4	U	µg/kg	
cis-1,2-dichloroethene	C22-5BV-CLP	2.4	U	µg/kg	0%
cis-1,2-dichloroethene	C21-5BV	2.3	U	µg/kg	
cis-1,2-dichloroethene	C21-5BV-CLP	2.3	U	µg/kg	0%
cis-1,2-dichloroethene	C23-5BV	2.3	U	µg/kg	
cis-1,2-dichloroethene	C23-5BV-CLP	2.3	U	µg/kg	0%
cis-1,2-dichloroethene	C16-5BV	2.8	U	µg/kg	
cis-1,2-dichloroethene	C16-5BV-CLP	2.8	U	µg/kg	0%
cis-1,2-dichloroethene	C30-2BV	3.7	U	µg/kg	
cis-1,2-dichloroethene	C30-2BV-CLP	3.7	U	µg/kg	0%
cis-1,2-dichloroethene	C29-1BV	2.9	U	µg/kg	
cis-1,2-dichloroethene	C29-1BV-CLP	2.9	U	µg/kg	0%
cis-1,2-dichloroethene	C18-5BV	2	U	µg/kg	
cis-1,2-dichloroethene	C18-5BV-CLP	2	U	µg/kg	0%
cis-1,3-dichloropropene	C27-2BV-D-CLP	2.5	U	µg/kg	
cis-1,3-dichloropropene	C27-2BV-D	2.5	U	µg/kg	0%
cis-1,3-dichloropropene	C24-1BV	2.7	U	µg/kg	
cis-1,3-dichloropropene	C24-1BV-CLP	2.7	U	µg/kg	0%
cis-1,3-dichloropropene	C17-5BV	2.3	U	µg/kg	
cis-1,3-dichloropropene	C17-5BV-CLP	2.3	U	µg/kg	0%
cis-1,3-dichloropropene	C27-2BV	2.1	U	µg/kg	
cis-1,3-dichloropropene	C27-2BV-CLP	2.1	U	µg/kg	0%
cis-1,3-dichloropropene	C25-5BV	2.8	U	µg/kg	
cis-1,3-dichloropropene	C25-5BV-CLP	2.8	U	µg/kg	0%
cis-1,3-dichloropropene	C22-5BV	2.4	U	µg/kg	
cis-1,3-dichloropropene	C22-5BV-CLP	2.4	U	µg/kg	0%
cis-1,3-dichloropropene	C21-5BV	2.3	U	µg/kg	
cis-1,3-dichloropropene	C21-5BV-CLP	2.3	U	µg/kg	0%
cis-1,3-dichloropropene	C23-5BV	2.3	U	µg/kg	
cis-1,3-dichloropropene	C23-5BV-CLP	2.3	U	µg/kg	0%
cis-1,3-dichloropropene	C16-5BV	2.8	U	µg/kg	
cis-1,3-dichloropropene	C16-5BV-CLP	2.8	U	µg/kg	0%
cis-1,3-dichloropropene	C30-2BV	3.7	U	µg/kg	
cis-1,3-dichloropropene	C30-2BV-CLP	3.7	U	µg/kg	0%
cis-1,3-dichloropropene	C29-1BV	2.9	U	µg/kg	
cis-1,3-dichloropropene	C29-1BV-CLP	2.9	U	µg/kg	0%
cis-1,3-dichloropropene	C18-5BV	2	U	µg/kg	
cis-1,3-dichloropropene	C18-5BV-CLP	2	U	µg/kg	0%
Dibromochloromethane	C27-2BV-D	2.5	U	µg/kg	
Dibromochloromethane	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Dibromochloromethane	C24-1BV	2.7	U	µg/kg	
Dibromochloromethane	C24-1BV-CLP	2.7	U	µg/kg	0%
Dibromochloromethane	C17-5BV	2.3	U	µg/kg	
Dibromochloromethane	C17-5BV-CLP	2.3	U	µg/kg	0%
Dibromochloromethane	C27-2BV	2.1	U	µg/kg	
Dibromochloromethane	C27-2BV-CLP	2.1	U	µg/kg	0%
Dibromochloromethane	C25-5BV	2.8	U	µg/kg	
Dibromochloromethane	C25-5BV-CLP	2.8	U	µg/kg	0%
Dibromochloromethane	C22-5BV	2.4	U	µg/kg	
Dibromochloromethane	C22-5BV-CLP	2.4	U	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Dibromochloromethane	C21-5BV	2.3	U	µg/kg	
Dibromochloromethane	C21-5BV-CLP	2.3	U	µg/kg	0%
Dibromochloromethane	C23-5BV	2.3	U	µg/kg	
Dibromochloromethane	C23-5BV-CLP	2.3	U	µg/kg	0%
Dibromochloromethane	C16-5BV	2.8	U	µg/kg	
Dibromochloromethane	C16-5BV-CLP	2.8	U	µg/kg	0%
Dibromochloromethane	C30-2BV	3.7	U	µg/kg	
Dibromochloromethane	C30-2BV-CLP	3.7	U	µg/kg	0%
Dibromochloromethane	C29-1BV	2.9	U	µg/kg	
Dibromochloromethane	C29-1BV-CLP	2.9	U	µg/kg	0%
Dibromochloromethane	C18-5BV	2	U	µg/kg	
Dibromochloromethane	C18-5BV-CLP	2	U	µg/kg	0%
Ethylbenzene	C27-2BV-D	2.5	U	µg/kg	
Ethylbenzene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Ethylbenzene	C24-1BV	2.7	U	µg/kg	
Ethylbenzene	C24-1BV-CLP	2.7	U	µg/kg	0%
Ethylbenzene	C17-5BV	2.3	U	µg/kg	
Ethylbenzene	C17-5BV-CLP	2.3	U	µg/kg	0%
Ethylbenzene	C27-2BV	2.1	U	µg/kg	
Ethylbenzene	C27-2BV-CLP	2.1	UJ	µg/kg	0%
Ethylbenzene	C25-5BV	2.8	U	µg/kg	
Ethylbenzene	C25-5BV-CLP	2.8	U	µg/kg	0%
Ethylbenzene	C22-5BV	2.4	U	µg/kg	
Ethylbenzene	C22-5BV-CLP	2.4	U	µg/kg	0%
Ethylbenzene	C21-5BV	2.3	U	µg/kg	
Ethylbenzene	C21-5BV-CLP	2.3	U	µg/kg	0%
Ethylbenzene	C23-5BV	2.3	U	µg/kg	
Ethylbenzene	C23-5BV-CLP	2.3	U	µg/kg	0%
Ethylbenzene	C16-5BV	2.8	U	µg/kg	
Ethylbenzene	C16-5BV-CLP	2.8	U	µg/kg	0%
Ethylbenzene	C30-2BV	3.7	U	µg/kg	
Ethylbenzene	C30-2BV-CLP	3.7	UJ	µg/kg	0%
Ethylbenzene	C29-1BV	2.9	U	µg/kg	
Ethylbenzene	C29-1BV-CLP	2.9	U	µg/kg	0%
Ethylbenzene	C18-5BV	2	U	µg/kg	
Ethylbenzene	C18-5BV-CLP	2	U	µg/kg	0%
Methylene chloride	C27-2BV-D	6.2	U	µg/kg	
Methylene chloride	C27-2BV-D-CLP	6.2	UJ	µg/kg	0%
Methylene chloride	C24-1BV	6.6	U	µg/kg	
Methylene chloride	C24-1BV-CLP	6.6	UJ	µg/kg	0%
Methylene chloride	C17-5BV	5.8	U	µg/kg	
Methylene chloride	C17-5BV-CLP	5.8	UJ	µg/kg	0%
Methylene chloride	C27-2BV	5.2	U	µg/kg	
Methylene chloride	C27-2BV-CLP	5.2	UJ	µg/kg	0%
Methylene chloride	C25-5BV	6.9	U	µg/kg	
Methylene chloride	C25-5BV-CLP	6.9	UJ	µg/kg	0%
Methylene chloride	C22-5BV	6	U	µg/kg	
Methylene chloride	C22-5BV-CLP	6	UJ	µg/kg	0%
Methylene chloride	C21-5BV	5.7	U	µg/kg	
Methylene chloride	C21-5BV-CLP	5.7	UJ	µg/kg	0%
Methylene chloride	C23-5BV	5.8	U	µg/kg	
Methylene chloride	C23-5BV-CLP	5.8	UJ	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Methylene chloride	C16-5BV	7	U	µg/kg	
Methylene chloride	C16-5BV-CLP	7	UJ	µg/kg	0%
Methylene chloride	C30-2BV	9.3	U	µg/kg	
Methylene chloride	C30-2BV-CLP	9.3	UJ	µg/kg	0%
Methylene chloride	C29-1BV	22.2		µg/kg	
Methylene chloride	C29-1BV-CLP	22.2	J	µg/kg	0%
Methylene chloride	C18-5BV	5.1	U	µg/kg	
Methylene chloride	C18-5BV-CLP	5.1	UJ	µg/kg	0%
Styrene	C27-2BV-D	2.5	U	µg/kg	
Styrene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Styrene	C24-1BV	2.7	U	µg/kg	
Styrene	C24-1BV-CLP	2.7	U	µg/kg	0%
Styrene	C17-5BV	2.3	U	µg/kg	
Styrene	C17-5BV-CLP	2.3	U	µg/kg	0%
Styrene	C27-2BV	2.1	U	µg/kg	
Styrene	C27-2BV-CLP	2.1	UJ	µg/kg	0%
Styrene	C25-5BV	2.8	U	µg/kg	
Styrene	C25-5BV-CLP	2.8	U	µg/kg	0%
Styrene	C22-5BV	2.4	U	µg/kg	
Styrene	C22-5BV-CLP	2.4	U	µg/kg	0%
Styrene	C21-5BV	2.3	U	µg/kg	
Styrene	C21-5BV-CLP	2.3	U	µg/kg	0%
Styrene	C23-5BV	2.3	U	µg/kg	
Styrene	C23-5BV-CLP	2.3	U	µg/kg	0%
Styrene	C16-5BV	2.8	U	µg/kg	
Styrene	C16-5BV-CLP	2.8	U	µg/kg	0%
Styrene	C30-2BV	3.7	U	µg/kg	
Styrene	C30-2BV-CLP	3.7	UJ	µg/kg	0%
Styrene	C29-1BV	2.9	U	µg/kg	
Styrene	C29-1BV-CLP	2.9	U	µg/kg	0%
Styrene	C18-5BV	2	U	µg/kg	
Styrene	C18-5BV-CLP	2	U	µg/kg	0%
Tetrachloroethene	C27-2BV-D	2.5	U	µg/kg	
Tetrachloroethene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Tetrachloroethene	C24-1BV	2.7	U	µg/kg	
Tetrachloroethene	C24-1BV-CLP	2.7	U	µg/kg	0%
Tetrachloroethene	C17-5BV	2.3	U	µg/kg	
Tetrachloroethene	C17-5BV-CLP	2.3	U	µg/kg	0%
Tetrachloroethene	C27-2BV	2.1	U	µg/kg	
Tetrachloroethene	C27-2BV-CLP	2.1	UJ	µg/kg	0%
Tetrachloroethene	C25-5BV	2.8	U	µg/kg	
Tetrachloroethene	C25-5BV-CLP	2.8	U	µg/kg	0%
Tetrachloroethene	C22-5BV	2.4	U	µg/kg	
Tetrachloroethene	C22-5BV-CLP	2.4	U	µg/kg	0%
Tetrachloroethene	C21-5BV	2.3	U	µg/kg	
Tetrachloroethene	C21-5BV-CLP	2.3	U	µg/kg	0%
Tetrachloroethene	C23-5BV	2.3	U	µg/kg	
Tetrachloroethene	C23-5BV-CLP	2.3	U	µg/kg	0%
Tetrachloroethene	C16-5BV	2.8	U	µg/kg	
Tetrachloroethene	C16-5BV-CLP	2.8	U	µg/kg	0%
Tetrachloroethene	C30-2BV	3.7	U	µg/kg	
Tetrachloroethene	C30-2BV-CLP	3.7	UJ	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Tetrachloroethene	C29-1BV	2.9	U	µg/kg	
Tetrachloroethene	C29-1BV-CLP	2.9	U	µg/kg	0%
Tetrachloroethene	C18-5BV	2	U	µg/kg	
Tetrachloroethene	C18-5BV-CLP	2	U	µg/kg	0%
Toluene	C27-2BV-D	2.5	U	µg/kg	
Toluene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Toluene	C24-1BV	2.7	U	µg/kg	
Toluene	C24-1BV-CLP	2.7	U	µg/kg	0%
Toluene	C17-5BV	2.3	U	µg/kg	
Toluene	C17-5BV-CLP	2.3	U	µg/kg	0%
Toluene	C27-2BV	2.1	U	µg/kg	
Toluene	C27-2BV-CLP	2.1	UJ	µg/kg	0%
Toluene	C25-5BV	2.8	U	µg/kg	
Toluene	C25-5BV-CLP	2.8	U	µg/kg	0%
Toluene	C22-5BV	2.4	U	µg/kg	
Toluene	C22-5BV-CLP	2.4	U	µg/kg	0%
Toluene	C21-5BV	2.3	U	µg/kg	
Toluene	C21-5BV-CLP	2.3	U	µg/kg	0%
Toluene	C23-5BV	2.3	U	µg/kg	
Toluene	C23-5BV-CLP	2.3	U	µg/kg	0%
Toluene	C16-5BV	2.8	U	µg/kg	
Toluene	C16-5BV-CLP	2.8	U	µg/kg	0%
Toluene	C30-2BV	3.7	U	µg/kg	
Toluene	C30-2BV-CLP	3.7	UJ	µg/kg	0%
Toluene	C29-1BV	2.9	U	µg/kg	
Toluene	C29-1BV-CLP	2.9	U	µg/kg	0%
Toluene	C18-5BV	2	U	µg/kg	
Toluene	C18-5BV-CLP	2	U	µg/kg	0%
trans-1,2-dichloroethene	C27-2BV-D	2.5	U	µg/kg	
trans-1,2-dichloroethene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
trans-1,2-dichloroethene	C24-1BV	2.7	U	µg/kg	
trans-1,2-dichloroethene	C24-1BV-CLP	2.7	U	µg/kg	0%
trans-1,2-dichloroethene	C17-5BV	2.3	U	µg/kg	
trans-1,2-dichloroethene	C17-5BV-CLP	2.3	U	µg/kg	0%
trans-1,2-dichloroethene	C27-2BV	2.1	U	µg/kg	
trans-1,2-dichloroethene	C27-2BV-CLP	2.1	U	µg/kg	0%
trans-1,2-dichloroethene	C25-5BV	2.8	U	µg/kg	
trans-1,2-dichloroethene	C25-5BV-CLP	2.8	U	µg/kg	0%
trans-1,2-dichloroethene	C22-5BV	2.4	U	µg/kg	
trans-1,2-dichloroethene	C22-5BV-CLP	2.4	U	µg/kg	0%
trans-1,2-dichloroethene	C21-5BV	2.3	U	µg/kg	
trans-1,2-dichloroethene	C21-5BV-CLP	2.3	U	µg/kg	0%
trans-1,2-dichloroethene	C23-5BV	2.3	U	µg/kg	
trans-1,2-dichloroethene	C23-5BV-CLP	2.3	U	µg/kg	0%
trans-1,2-dichloroethene	C16-5BV	2.8	U	µg/kg	
trans-1,2-dichloroethene	C16-5BV-CLP	2.8	U	µg/kg	0%
trans-1,2-dichloroethene	C30-2BV	3.7	U	µg/kg	
trans-1,2-dichloroethene	C30-2BV-CLP	3.7	U	µg/kg	0%
trans-1,2-dichloroethene	C29-1BV	2.9	U	µg/kg	
trans-1,2-dichloroethene	C29-1BV-CLP	2.9	U	µg/kg	0%
trans-1,2-dichloroethene	C18-5BV	2	U	µg/kg	
trans-1,2-dichloroethene	C18-5BV-CLP	2	U	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
trans-1,3-dichloropropene	C27-2BV-D	2.5	U	µg/kg	
trans-1,3-dichloropropene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
trans-1,3-dichloropropene	C24-1BV	2.7	U	µg/kg	
trans-1,3-dichloropropene	C24-1BV-CLP	2.7	U	µg/kg	0%
trans-1,3-dichloropropene	C17-5BV	2.3	U	µg/kg	
trans-1,3-dichloropropene	C17-5BV-CLP	2.3	U	µg/kg	0%
trans-1,3-dichloropropene	C27-2BV	2.1	U	µg/kg	
trans-1,3-dichloropropene	C27-2BV-CLP	2.1	U	µg/kg	0%
trans-1,3-dichloropropene	C25-5BV	2.8	U	µg/kg	
trans-1,3-dichloropropene	C25-5BV-CLP	2.8	U	µg/kg	0%
trans-1,3-dichloropropene	C22-5BV	2.4	U	µg/kg	
trans-1,3-dichloropropene	C22-5BV-CLP	2.4	U	µg/kg	0%
trans-1,3-dichloropropene	C21-5BV	2.3	U	µg/kg	
trans-1,3-dichloropropene	C21-5BV-CLP	2.3	U	µg/kg	0%
trans-1,3-dichloropropene	C23-5BV	2.3	U	µg/kg	
trans-1,3-dichloropropene	C23-5BV-CLP	2.3	U	µg/kg	0%
trans-1,3-dichloropropene	C16-5BV	2.8	U	µg/kg	
trans-1,3-dichloropropene	C16-5BV-CLP	2.8	U	µg/kg	0%
trans-1,3-dichloropropene	C30-2BV	3.7	U	µg/kg	
trans-1,3-dichloropropene	C30-2BV-CLP	3.7	U	µg/kg	0%
trans-1,3-dichloropropene	C29-1BV	2.9	U	µg/kg	
trans-1,3-dichloropropene	C29-1BV-CLP	2.9	U	µg/kg	0%
trans-1,3-dichloropropene	C18-5BV	2	U	µg/kg	
trans-1,3-dichloropropene	C18-5BV-CLP	2	U	µg/kg	0%
Trichloroethene	C27-2BV-D	2.5	U	µg/kg	
Trichloroethene	C27-2BV-D-CLP	2.5	U	µg/kg	0%
Trichloroethene	C24-1BV	2.7	U	µg/kg	
Trichloroethene	C24-1BV-CLP	2.7	U	µg/kg	0%
Trichloroethene	C17-5BV	2.3	U	µg/kg	
Trichloroethene	C17-5BV-CLP	2.3	U	µg/kg	0%
Trichloroethene	C27-2BV	2.1	U	µg/kg	
Trichloroethene	C27-2BV-CLP	2.1	U	µg/kg	0%
Trichloroethene	C25-5BV	2.8	U	µg/kg	
Trichloroethene	C25-5BV-CLP	2.8	U	µg/kg	0%
Trichloroethene	C22-5BV	2.4	U	µg/kg	
Trichloroethene	C22-5BV-CLP	2.4	U	µg/kg	0%
Trichloroethene	C21-5BV	2.3	U	µg/kg	
Trichloroethene	C21-5BV-CLP	2.3	U	µg/kg	0%
Trichloroethene	C23-5BV	2.3	U	µg/kg	
Trichloroethene	C23-5BV-CLP	2.3	U	µg/kg	0%
Trichloroethene	C16-5BV	2.8	U	µg/kg	
Trichloroethene	C16-5BV-CLP	2.8	U	µg/kg	0%
Trichloroethene	C30-2BV	3.7	U	µg/kg	
Trichloroethene	C30-2BV-CLP	3.7	U	µg/kg	0%
Trichloroethene	C29-1BV	2.9	U	µg/kg	
Trichloroethene	C29-1BV-CLP	2.9	U	µg/kg	0%
Trichloroethene	C18-5BV	2	U	µg/kg	
Trichloroethene	C18-5BV-CLP	2	U	µg/kg	0%
Vinyl chloride	C27-2BV-D	6.2	U	µg/kg	
Vinyl chloride	C27-2BV-D-CLP	6.2	U	µg/kg	0%
Vinyl chloride	C24-1BV	6.6	U	µg/kg	
Vinyl chloride	C24-1BV-CLP	6.6	U	µg/kg	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Vinyl chloride	C17-5BV	5.8	U	µg/kg	
Vinyl chloride	C17-5BV-CLP	5.8	U	µg/kg	0%
Vinyl chloride	C27-2BV	5.2	U	µg/kg	
Vinyl chloride	C27-2BV-CLP	5.2	U	µg/kg	0%
Vinyl chloride	C25-5BV	6.9	U	µg/kg	
Vinyl chloride	C25-5BV-CLP	6.9	U	µg/kg	0%
Vinyl chloride	C22-5BV	6	U	µg/kg	
Vinyl chloride	C22-5BV-CLP	6	U	µg/kg	0%
Vinyl chloride	C21-5BV	5.7	U	µg/kg	
Vinyl chloride	C21-5BV-CLP	5.7	U	µg/kg	0%
Vinyl chloride	C23-5BV	5.8	U	µg/kg	
Vinyl chloride	C23-5BV-CLP	5.8	U	µg/kg	0%
Vinyl chloride	C16-5BV	7	U	µg/kg	
Vinyl chloride	C16-5BV-CLP	7	U	µg/kg	0%
Vinyl chloride	C30-2BV	9.3	U	µg/kg	
Vinyl chloride	C30-2BV-CLP	9.3	U	µg/kg	0%
Vinyl chloride	C29-1BV	7.4	U	µg/kg	
Vinyl chloride	C29-1BV-CLP	7.4	U	µg/kg	0%
Vinyl chloride	C18-5BV	5.1	U	µg/kg	
Vinyl chloride	C18-5BV-CLP	5.1	U	µg/kg	0%
Xylenes, total	C27-2BV-D	7.4	U	µg/kg	
Xylenes, total	C27-2BV-D-CLP	7.4	U	µg/kg	0%
Xylenes, total	C24-1BV	8	U	µg/kg	
Xylenes, total	C24-1BV-CLP	8	U	µg/kg	0%
Xylenes, total	C17-5BV	6.9	U	µg/kg	
Xylenes, total	C17-5BV-CLP	6.9	U	µg/kg	0%
Xylenes, total	C27-2BV	6.2	U	µg/kg	
Xylenes, total	C27-2BV-CLP	6.2	UJ	µg/kg	0%
Xylenes, total	C25-5BV	8.3	U	µg/kg	
Xylenes, total	C25-5BV-CLP	8.3	U	µg/kg	0%
Xylenes, total	C22-5BV	7.2	U	µg/kg	
Xylenes, total	C22-5BV-CLP	7.2	U	µg/kg	0%
Xylenes, total	C21-5BV	6.8	U	µg/kg	
Xylenes, total	C21-5BV-CLP	6.8	U	µg/kg	0%
Xylenes, total	C23-5BV	7	U	µg/kg	
Xylenes, total	C23-5BV-CLP	7	U	µg/kg	0%
Xylenes, total	C16-5BV	8.5	U	µg/kg	
Xylenes, total	C16-5BV-CLP	8.5	U	µg/kg	0%
Xylenes, total	C30-2BV	11	U	µg/kg	
Xylenes, total	C30-2BV-CLP	11	UJ	µg/kg	0%
Xylenes, total	C29-1BV	8.8	U	µg/kg	
Xylenes, total	C29-1BV-CLP	8.8	U	µg/kg	0%
Xylenes, total	C18-5BV	6.1	U	µg/kg	
Xylenes, total	C18-5BV-CLP	6.1	U	µg/kg	0%
AQUEOUS RESULTS					
1,1,1-trichloroethane	SSI-RB-04	2	U	µg/L	
1,1,1-trichloroethane	SSI-RB-04-CLP	2	UJ	µg/L	0%
1,1,1-trichloroethane	SSI-RB-05	2	U	µg/L	
1,1,1-trichloroethane	SSI-RB-05-CLP	2	UJ	µg/L	0%
1,1,1-trichloroethane	SSI-RB-06	2	U	µg/L	
1,1,1-trichloroethane	SSI-RB-06-CLP	2	UJ	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
1,1,1-trichloroethane	TB01-0728	2	U	µg/L	
1,1,1-trichloroethane	TB01-0728-CLP	2	UJ	µg/L	0%
1,1,1-trichloroethane	E07-GS-RB	2	U	µg/L	
1,1,1-trichloroethane	E07-GS-RB-CLP	2	UJ	µg/L	0%
1,1,1-trichloroethane	R07-GS-29	20	U	µg/L	
1,1,1-trichloroethane	R07-GS-29-CLP	20	UJ	µg/L	0%
1,1,1-trichloroethane	R07-GS-27	2	U	µg/L	
1,1,1-trichloroethane	R07-GS-27-CLP	2	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	SSI-RB-04	2	U	µg/L	
1,1,2,2-tetrachloroethane	SSI-RB-04-CLP	2	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	SSI-RB-05	2	U	µg/L	
1,1,2,2-tetrachloroethane	SSI-RB-05-CLP	2	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	SSI-RB-06	2	U	µg/L	
1,1,2,2-tetrachloroethane	SSI-RB-06-CLP	2	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	TB01-0728	2	U	µg/L	
1,1,2,2-tetrachloroethane	TB01-0728-CLP	2	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	E07-GS-RB	2	U	µg/L	
1,1,2,2-tetrachloroethane	E07-GS-RB-CLP	2	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	R07-GS-29	20	U	µg/L	
1,1,2,2-tetrachloroethane	R07-GS-29-CLP	20	UJ	µg/L	0%
1,1,2,2-tetrachloroethane	R07-GS-27	2	U	µg/L	
1,1,2,2-tetrachloroethane	R07-GS-27-CLP	2	UJ	µg/L	0%
1,1,2-trichloroethane	SSI-RB-04	2	U	µg/L	
1,1,2-trichloroethane	SSI-RB-04-CLP	2	U	µg/L	0%
1,1,2-trichloroethane	SSI-RB-05	2	U	µg/L	
1,1,2-trichloroethane	SSI-RB-05-CLP	2	U	µg/L	0%
1,1,2-trichloroethane	SSI-RB-06	2	U	µg/L	
1,1,2-trichloroethane	SSI-RB-06-CLP	2	U	µg/L	0%
1,1,2-trichloroethane	TB01-0728	2	U	µg/L	
1,1,2-trichloroethane	TB01-0728-CLP	2	U	µg/L	0%
1,1,2-trichloroethane	E07-GS-RB	2	U	µg/L	
1,1,2-trichloroethane	E07-GS-RB-CLP	2	U	µg/L	0%
1,1,2-trichloroethane	R07-GS-29	20	U	µg/L	
1,1,2-trichloroethane	R07-GS-29-CLP	20	U	µg/L	0%
1,1,2-trichloroethane	R07-GS-27	2	U	µg/L	
1,1,2-trichloroethane	R07-GS-27-CLP	2	U	µg/L	0%
1,1-dichloroethane	SSI-RB-04	2	U	µg/L	
1,1-dichloroethane	SSI-RB-04-CLP	2	U	µg/L	0%
1,1-dichloroethane	SSI-RB-05	2	U	µg/L	
1,1-dichloroethane	SSI-RB-05-CLP	2	U	µg/L	0%
1,1-dichloroethane	SSI-RB-06	2	U	µg/L	
1,1-dichloroethane	SSI-RB-06-CLP	2	U	µg/L	0%
1,1-dichloroethane	TB01-0728	2	U	µg/L	
1,1-dichloroethane	TB01-0728-CLP	2	U	µg/L	0%
1,1-dichloroethane	E07-GS-RB	2	U	µg/L	
1,1-dichloroethane	E07-GS-RB-CLP	2	U	µg/L	0%
1,1-dichloroethane	R07-GS-29	20	U	µg/L	
1,1-dichloroethane	R07-GS-29-CLP	20	U	µg/L	0%
1,1-dichloroethane	R07-GS-27	2	U	µg/L	
1,1-dichloroethane	R07-GS-27-CLP	2	U	µg/L	0%
1,1-dichloroethene	SSI-RB-04	2	U	µg/L	
1,1-dichloroethene	SSI-RB-04-CLP	2	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
1,1-dichloroethene	SSI-RB-05	2	U	µg/L	
1,1-dichloroethene	SSI-RB-05-CLP	2	U	µg/L	0%
1,1-dichloroethene	SSI-RB-06	2	U	µg/L	
1,1-dichloroethene	SSI-RB-06-CLP	2	U	µg/L	0%
1,1-dichloroethene	TB01-0728	2	U	µg/L	
1,1-dichloroethene	TB01-0728-CLP	2	U	µg/L	0%
1,1-dichloroethene	E07-GS-RB	2	U	µg/L	
1,1-dichloroethene	E07-GS-RB-CLP	2	U	µg/L	0%
1,1-dichloroethene	R07-GS-29	20	U	µg/L	
1,1-dichloroethene	R07-GS-29-CLP	20	U	µg/L	0%
1,1-dichloroethene	R07-GS-27	2	U	µg/L	
1,1-dichloroethene	R07-GS-27-CLP	2	U	µg/L	0%
1,2,4-trichlorobenzene	SSI-RB-04	10	U	µg/L	
1,2,4-trichlorobenzene	SSI-RB-04-CLP	10	U	µg/L	0%
1,2,4-trichlorobenzene	SSI-RB-05	10	U	µg/L	
1,2,4-trichlorobenzene	SSI-RB-05-CLP	10	U	µg/L	0%
1,2,4-trichlorobenzene	SSI-RB-06	10	U	µg/L	
1,2,4-trichlorobenzene	SSI-RB-06-CLP	10	U	µg/L	0%
1,2,4-trichlorobenzene	E07-GS-RB	10	U	µg/L	
1,2,4-trichlorobenzene	E07-GS-RB-CLP	10	U	µg/L	0%
1,2-dichlorobenzene	SSI-RB-04	10	U	µg/L	
1,2-dichlorobenzene	SSI-RB-04-CLP	10	U	µg/L	0%
1,2-dichlorobenzene	SSI-RB-05	10	U	µg/L	
1,2-dichlorobenzene	SSI-RB-05-CLP	10	U	µg/L	0%
1,2-dichlorobenzene	SSI-RB-06	10	U	µg/L	
1,2-dichlorobenzene	SSI-RB-06-CLP	10	U	µg/L	0%
1,2-dichlorobenzene	E07-GS-RB	10	U	µg/L	
1,2-dichlorobenzene	E07-GS-RB-CLP	10	U	µg/L	0%
1,2-dichloroethane	SSI-RB-04	2	U	µg/L	
1,2-dichloroethane	SSI-RB-04-CLP	2	UJ	µg/L	0%
1,2-dichloroethane	SSI-RB-05	2	U	µg/L	
1,2-dichloroethane	SSI-RB-05-CLP	2	UJ	µg/L	0%
1,2-dichloroethane	SSI-RB-06	2	U	µg/L	
1,2-dichloroethane	SSI-RB-06-CLP	2	UJ	µg/L	0%
1,2-dichloroethane	TB01-0728	2	U	µg/L	
1,2-dichloroethane	TB01-0728-CLP	2	UJ	µg/L	0%
1,2-dichloroethane	E07-GS-RB	2	U	µg/L	
1,2-dichloroethane	E07-GS-RB-CLP	2	UJ	µg/L	0%
1,2-dichloroethane	R07-GS-29	20	U	µg/L	
1,2-dichloroethane	R07-GS-29-CLP	20	UJ	µg/L	0%
1,2-dichloroethane	R07-GS-27	2	U	µg/L	
1,2-dichloroethane	R07-GS-27-CLP	2	UJ	µg/L	0%
1,2-dichloropropane	SSI-RB-04	2	U	µg/L	
1,2-dichloropropane	SSI-RB-04-CLP	2	U	µg/L	0%
1,2-dichloropropane	SSI-RB-05	2	U	µg/L	
1,2-dichloropropane	SSI-RB-05-CLP	2	U	µg/L	0%
1,2-dichloropropane	SSI-RB-06	2	U	µg/L	
1,2-dichloropropane	SSI-RB-06-CLP	2	U	µg/L	0%
1,2-dichloropropane	TB01-0728	2	U	µg/L	
1,2-dichloropropane	TB01-0728-CLP	2	U	µg/L	0%
1,2-dichloropropane	E07-GS-RB	2	U	µg/L	
1,2-dichloropropane	E07-GS-RB-CLP	2	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
1,2-dichloropropane	R07-GS-29	20	U	µg/L	
1,2-dichloropropane	R07-GS-29-CLP	20	U	µg/L	0%
1,2-dichloropropane	R07-GS-27	2	U	µg/L	
1,2-dichloropropane	R07-GS-27-CLP	2	U	µg/L	0%
1,3-dichlorobenzene	SSI-RB-04	10	U	µg/L	
1,3-dichlorobenzene	SSI-RB-04-CLP	10	U	µg/L	0%
1,3-dichlorobenzene	SSI-RB-05	10	U	µg/L	
1,3-dichlorobenzene	SSI-RB-05-CLP	10	U	µg/L	0%
1,3-dichlorobenzene	SSI-RB-06	10	U	µg/L	
1,3-dichlorobenzene	SSI-RB-06-CLP	10	U	µg/L	0%
1,3-dichlorobenzene	E07-GS-RB	10	U	µg/L	
1,3-dichlorobenzene	E07-GS-RB-CLP	10	U	µg/L	0%
1,4-dichlorobenzene	SSI-RB-04	10	U	µg/L	
1,4-dichlorobenzene	SSI-RB-04-CLP	10	U	µg/L	0%
1,4-dichlorobenzene	SSI-RB-05	10	U	µg/L	
1,4-dichlorobenzene	SSI-RB-05-CLP	10	U	µg/L	0%
1,4-dichlorobenzene	SSI-RB-06	10	U	µg/L	
1,4-dichlorobenzene	SSI-RB-06-CLP	10	U	µg/L	0%
1,4-dichlorobenzene	E07-GS-RB	10	U	µg/L	
1,4-dichlorobenzene	E07-GS-RB-CLP	10	U	µg/L	0%
2,4,5-trichlorophenol	SSI-RB-04	10	U	µg/L	
2,4,5-trichlorophenol	SSI-RB-04-CLP	10	U	µg/L	0%
2,4,5-trichlorophenol	SSI-RB-05	10	U	µg/L	
2,4,5-trichlorophenol	SSI-RB-05-CLP	10	U	µg/L	0%
2,4,5-trichlorophenol	SSI-RB-06	10	U	µg/L	
2,4,5-trichlorophenol	SSI-RB-06-CLP	10	U	µg/L	0%
2,4,5-trichlorophenol	E07-GS-RB	10	U	µg/L	
2,4,5-trichlorophenol	E07-GS-RB-CLP	10	U	µg/L	0%
2,4,6-trichlorophenol	SSI-RB-04	10	U	µg/L	
2,4,6-trichlorophenol	SSI-RB-04-CLP	10	U	µg/L	0%
2,4,6-trichlorophenol	SSI-RB-05	10	U	µg/L	
2,4,6-trichlorophenol	SSI-RB-05-CLP	10	U	µg/L	0%
2,4,6-trichlorophenol	SSI-RB-06	10	U	µg/L	
2,4,6-trichlorophenol	SSI-RB-06-CLP	10	U	µg/L	0%
2,4,6-trichlorophenol	E07-GS-RB	10	U	µg/L	
2,4,6-trichlorophenol	E07-GS-RB-CLP	10	U	µg/L	0%
2,4-dichlorophenol	SSI-RB-04	10	U	µg/L	
2,4-dichlorophenol	SSI-RB-04-CLP	10	U	µg/L	0%
2,4-dichlorophenol	SSI-RB-05	10	U	µg/L	
2,4-dichlorophenol	SSI-RB-05-CLP	10	U	µg/L	0%
2,4-dichlorophenol	SSI-RB-06	10	U	µg/L	
2,4-dichlorophenol	SSI-RB-06-CLP	10	U	µg/L	0%
2,4-dichlorophenol	E07-GS-RB	10	U	µg/L	
2,4-dichlorophenol	E07-GS-RB-CLP	10	U	µg/L	0%
2,4-dimethylphenol	SSI-RB-04	50	U	µg/L	
2,4-dimethylphenol	SSI-RB-04-CLP	50	U	µg/L	0%
2,4-dimethylphenol	SSI-RB-05	50	U	µg/L	
2,4-dimethylphenol	SSI-RB-05-CLP	50	U	µg/L	0%
2,4-dimethylphenol	SSI-RB-06	50	U	µg/L	
2,4-dimethylphenol	SSI-RB-06-CLP	50	U	µg/L	0%
2,4-dimethylphenol	E07-GS-RB	50	U	µg/L	
2,4-dimethylphenol	E07-GS-RB-CLP	50	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
2,4-dinitrophenol	SSI-RB-04	50	U	µg/L	
2,4-dinitrophenol	SSI-RB-04-CLP	50	U	µg/L	0%
2,4-dinitrophenol	SSI-RB-05	50	U	µg/L	
2,4-dinitrophenol	SSI-RB-05-CLP	50	U	µg/L	0%
2,4-dinitrophenol	SSI-RB-06	50	U	µg/L	
2,4-dinitrophenol	SSI-RB-06-CLP	50	U	µg/L	0%
2,4-dinitrophenol	E07-GS-RB	50	U	µg/L	
2,4-dinitrophenol	E07-GS-RB-CLP	50	U	µg/L	0%
2,4-dinitrotoluene	SSI-RB-04	10	U	µg/L	
2,4-dinitrotoluene	SSI-RB-04-CLP	10	U	µg/L	0%
2,4-dinitrotoluene	SSI-RB-05	10	U	µg/L	
2,4-dinitrotoluene	SSI-RB-05-CLP	10	U	µg/L	0%
2,4-dinitrotoluene	SSI-RB-06	10	U	µg/L	
2,4-dinitrotoluene	SSI-RB-06-CLP	10	U	µg/L	0%
2,4-dinitrotoluene	E07-GS-RB	10	U	µg/L	
2,4-dinitrotoluene	E07-GS-RB-CLP	10	U	µg/L	0%
2,6-dinitrotoluene	SSI-RB-04	10	U	µg/L	
2,6-dinitrotoluene	SSI-RB-04-CLP	10	U	µg/L	0%
2,6-dinitrotoluene	SSI-RB-05	10	U	µg/L	
2,6-dinitrotoluene	SSI-RB-05-CLP	10	U	µg/L	0%
2,6-dinitrotoluene	SSI-RB-06	10	U	µg/L	
2,6-dinitrotoluene	SSI-RB-06-CLP	10	U	µg/L	0%
2,6-dinitrotoluene	E07-GS-RB	10	U	µg/L	
2,6-dinitrotoluene	E07-GS-RB-CLP	10	U	µg/L	0%
2-butanone	SSI-RB-04	10	U	µg/L	
2-butanone	SSI-RB-04-CLP	10	UR	µg/L	0%
2-butanone	SSI-RB-05	10	U	µg/L	
2-butanone	SSI-RB-05-CLP	10	UR	µg/L	0%
2-butanone	SSI-RB-06	10	U	µg/L	
2-butanone	SSI-RB-06-CLP	10	UR	µg/L	0%
2-butanone	TB01-0728	10	U	µg/L	
2-butanone	TB01-0728-CLP	10	UR	µg/L	0%
2-butanone	E07-GS-RB	10	U	µg/L	
2-butanone	E07-GS-RB-CLP	10	UR	µg/L	0%
2-butanone	R07-GS-29	100	U	µg/L	
2-butanone	R07-GS-29-CLP	100	UR	µg/L	0%
2-butanone	R07-GS-27	10	U	µg/L	
2-butanone	R07-GS-27-CLP	10	UR	µg/L	0%
2-chloronaphthalene	SSI-RB-04	10	U	µg/L	
2-chloronaphthalene	SSI-RB-04-CLP	10	U	µg/L	0%
2-chloronaphthalene	SSI-RB-05	10	U	µg/L	
2-chloronaphthalene	SSI-RB-05-CLP	10	U	µg/L	0%
2-chloronaphthalene	SSI-RB-06	10	U	µg/L	
2-chloronaphthalene	SSI-RB-06-CLP	10	U	µg/L	0%
2-chloronaphthalene	E07-GS-RB	10	U	µg/L	
2-chloronaphthalene	E07-GS-RB-CLP	10	U	µg/L	0%
2-chlorophenol	SSI-RB-04	10	U	µg/L	
2-chlorophenol	SSI-RB-04-CLP	10	U	µg/L	0%
2-chlorophenol	SSI-RB-05	10	U	µg/L	
2-chlorophenol	SSI-RB-05-CLP	10	U	µg/L	0%
2-chlorophenol	SSI-RB-06	10	U	µg/L	
2-chlorophenol	SSI-RB-06-CLP	10	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
2-chlorophenol	E07-GS-RB	10	U	µg/L	
2-chlorophenol	E07-GS-RB-CLP	10	U	µg/L	0%
2-hexanone	SSI-RB-04	10	U	µg/L	
2-hexanone	SSI-RB-04-CLP	10	UJ	µg/L	0%
2-hexanone	SSI-RB-05	10	U	µg/L	
2-hexanone	SSI-RB-05-CLP	10	UJ	µg/L	0%
2-hexanone	SSI-RB-06	10	U	µg/L	
2-hexanone	SSI-RB-06-CLP	10	UJ	µg/L	0%
2-hexanone	TB01-0728	10	U	µg/L	
2-hexanone	TB01-0728-CLP	10	UJ	µg/L	0%
2-hexanone	E07-GS-RB	10	U	µg/L	
2-hexanone	E07-GS-RB-CLP	10	UJ	µg/L	0%
2-hexanone	R07-GS-29	100	U	µg/L	
2-hexanone	R07-GS-29-CLP	100	UJ	µg/L	0%
2-hexanone	R07-GS-27	10	U	µg/L	
2-hexanone	R07-GS-27-CLP	10	UJ	µg/L	0%
2-methyl-4,6-dinitrophenol	SSI-RB-04	10	U	µg/L	
2-methyl-4,6-dinitrophenol	SSI-RB-04-CLP	10	U	µg/L	0%
2-methyl-4,6-dinitrophenol	SSI-RB-05	10	U	µg/L	
2-methyl-4,6-dinitrophenol	SSI-RB-05-CLP	10	U	µg/L	0%
2-methyl-4,6-dinitrophenol	SSI-RB-06	10	U	µg/L	
2-methyl-4,6-dinitrophenol	SSI-RB-06-CLP	10	U	µg/L	0%
2-methyl-4,6-dinitrophenol	E07-GS-RB	10	U	µg/L	
2-methyl-4,6-dinitrophenol	E07-GS-RB-CLP	10	U	µg/L	0%
2-methylnaphthalene	SSI-RB-04	10	U	µg/L	
2-methylnaphthalene	SSI-RB-04-CLP	10	U	µg/L	0%
2-methylnaphthalene	SSI-RB-05	10	U	µg/L	
2-methylnaphthalene	SSI-RB-05-CLP	10	U	µg/L	0%
2-methylnaphthalene	SSI-RB-06	10	U	µg/L	
2-methylnaphthalene	SSI-RB-06-CLP	10	U	µg/L	0%
2-methylnaphthalene	E07-GS-RB	10	U	µg/L	
2-methylnaphthalene	E07-GS-RB-CLP	10	U	µg/L	0%
2-methylphenol	SSI-RB-04	10	U	µg/L	
2-methylphenol	SSI-RB-04-CLP	10	U	µg/L	0%
2-methylphenol	SSI-RB-05	10	U	µg/L	
2-methylphenol	SSI-RB-05-CLP	10	U	µg/L	0%
2-methylphenol	SSI-RB-06	10	U	µg/L	
2-methylphenol	SSI-RB-06-CLP	10	U	µg/L	0%
2-methylphenol	E07-GS-RB	10	U	µg/L	
2-methylphenol	E07-GS-RB-CLP	10	U	µg/L	0%
2-nitroaniline	SSI-RB-04	10	U	µg/L	
2-nitroaniline	SSI-RB-04-CLP	10	U	µg/L	0%
2-nitroaniline	SSI-RB-05	10	U	µg/L	
2-nitroaniline	SSI-RB-05-CLP	10	U	µg/L	0%
2-nitroaniline	SSI-RB-06	10	U	µg/L	
2-nitroaniline	SSI-RB-06-CLP	10	U	µg/L	0%
2-nitroaniline	E07-GS-RB	10	U	µg/L	
2-nitroaniline	E07-GS-RB-CLP	10	U	µg/L	0%
2-nitrophenol	SSI-RB-04	10	U	µg/L	
2-nitrophenol	SSI-RB-04-CLP	10	U	µg/L	0%
2-nitrophenol	SSI-RB-05	10	U	µg/L	
2-nitrophenol	SSI-RB-05-CLP	10	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
2-nitrophenol	SSI-RB-06	10	U	µg/L	
2-nitrophenol	SSI-RB-06-CLP	10	U	µg/L	0%
2-nitrophenol	E07-GS-RB	10	U	µg/L	
2-nitrophenol	E07-GS-RB-CLP	10	U	µg/L	0%
3,3'-dichlorobenzidine	SSI-RB-04	20	U	µg/L	
3,3'-dichlorobenzidine	SSI-RB-04-CLP	20	U	µg/L	0%
3,3'-dichlorobenzidine	SSI-RB-05	20	U	µg/L	
3,3'-dichlorobenzidine	SSI-RB-05-CLP	20	U	µg/L	0%
3,3'-dichlorobenzidine	SSI-RB-06	20	U	µg/L	
3,3'-dichlorobenzidine	SSI-RB-06-CLP	20	U	µg/L	0%
3,3'-dichlorobenzidine	E07-GS-RB	20	U	µg/L	
3,3'-dichlorobenzidine	E07-GS-RB-CLP	20	U	µg/L	0%
3,4-methylphenol	SSI-RB-04	10	U	µg/L	
3,4-methylphenol	SSI-RB-04-CLP	10	U	µg/L	0%
3,4-methylphenol	SSI-RB-05	10	U	µg/L	
3,4-methylphenol	SSI-RB-05-CLP	10	U	µg/L	0%
3,4-methylphenol	SSI-RB-06	10	U	µg/L	
3,4-methylphenol	SSI-RB-06-CLP	10	U	µg/L	0%
3,4-methylphenol	E07-GS-RB	10	U	µg/L	
3,4-methylphenol	E07-GS-RB-CLP	10	U	µg/L	0%
3-nitroaniline	SSI-RB-04	10	U	µg/L	
3-nitroaniline	SSI-RB-04-CLP	10	U	µg/L	0%
3-nitroaniline	SSI-RB-05	10	U	µg/L	
3-nitroaniline	SSI-RB-05-CLP	10	U	µg/L	0%
3-nitroaniline	SSI-RB-06	10	U	µg/L	
3-nitroaniline	SSI-RB-06-CLP	10	U	µg/L	0%
3-nitroaniline	E07-GS-RB	10	U	µg/L	
3-nitroaniline	E07-GS-RB-CLP	10	U	µg/L	0%
4-bromophenyl phenyl ether	SSI-RB-04	10	U	µg/L	
4-bromophenyl phenyl ether	SSI-RB-04-CLP	10	U	µg/L	0%
4-bromophenyl phenyl ether	SSI-RB-05	10	U	µg/L	
4-bromophenyl phenyl ether	SSI-RB-05-CLP	10	U	µg/L	0%
4-bromophenyl phenyl ether	SSI-RB-06	10	U	µg/L	
4-bromophenyl phenyl ether	SSI-RB-06-CLP	10	U	µg/L	0%
4-bromophenyl phenyl ether	E07-GS-RB	10	U	µg/L	
4-bromophenyl phenyl ether	E07-GS-RB-CLP	10	U	µg/L	0%
4-chloro-3-methylphenol	SSI-RB-04	20	U	µg/L	
4-chloro-3-methylphenol	SSI-RB-04-CLP	20	U	µg/L	0%
4-chloro-3-methylphenol	SSI-RB-05	20	U	µg/L	
4-chloro-3-methylphenol	SSI-RB-05-CLP	20	U	µg/L	0%
4-chloro-3-methylphenol	SSI-RB-06	20	U	µg/L	
4-chloro-3-methylphenol	SSI-RB-06-CLP	20	U	µg/L	0%
4-chloro-3-methylphenol	E07-GS-RB	20	U	µg/L	
4-chloro-3-methylphenol	E07-GS-RB-CLP	20	U	µg/L	0%
4-chloroaniline	SSI-RB-04	10	U	µg/L	
4-chloroaniline	SSI-RB-04-CLP	10	U	µg/L	0%
4-chloroaniline	SSI-RB-05	10	U	µg/L	
4-chloroaniline	SSI-RB-05-CLP	10	U	µg/L	0%
4-chloroaniline	SSI-RB-06	10	U	µg/L	
4-chloroaniline	SSI-RB-06-CLP	10	U	µg/L	0%
4-chloroaniline	E07-GS-RB	10	U	µg/L	
4-chloroaniline	E07-GS-RB-CLP	10	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
4-chlorophenyl phenyl ether	SSI-RB-04	10	U	µg/L	
4-chlorophenyl phenyl ether	SSI-RB-04-CLP	10	U	µg/L	0%
4-chlorophenyl phenyl ether	SSI-RB-05	10	U	µg/L	
4-chlorophenyl phenyl ether	SSI-RB-05-CLP	10	U	µg/L	0%
4-chlorophenyl phenyl ether	SSI-RB-06	10	U	µg/L	
4-chlorophenyl phenyl ether	SSI-RB-06-CLP	10	U	µg/L	0%
4-chlorophenyl phenyl ether	E07-GS-RB	10	U	µg/L	
4-chlorophenyl phenyl ether	E07-GS-RB-CLP	10	U	µg/L	0%
4-methyl-2-pentanone	SSI-RB-04	10	U	µg/L	
4-methyl-2-pentanone	SSI-RB-04-CLP	10	U	µg/L	0%
4-methyl-2-pentanone	SSI-RB-05	10	U	µg/L	
4-methyl-2-pentanone	SSI-RB-05-CLP	10	U	µg/L	0%
4-methyl-2-pentanone	SSI-RB-06	10	U	µg/L	
4-methyl-2-pentanone	SSI-RB-06-CLP	10	U	µg/L	0%
4-methyl-2-pentanone	TB01-0728	10	U	µg/L	
4-methyl-2-pentanone	TB01-0728-CLP	10	U	µg/L	0%
4-methyl-2-pentanone	E07-GS-RB	10	U	µg/L	
4-methyl-2-pentanone	E07-GS-RB-CLP	10	U	µg/L	0%
4-methyl-2-pentanone	R07-GS-29	100	U	µg/L	
4-methyl-2-pentanone	R07-GS-29-CLP	100	U	µg/L	0%
4-methyl-2-pentanone	R07-GS-27	10	U	µg/L	
4-methyl-2-pentanone	R07-GS-27-CLP	10	U	µg/L	0%
4-nitroaniline	SSI-RB-04	10	U	µg/L	
4-nitroaniline	SSI-RB-04-CLP	10	U	µg/L	0%
4-nitroaniline	SSI-RB-05	10	U	µg/L	
4-nitroaniline	SSI-RB-05-CLP	10	U	µg/L	0%
4-nitroaniline	SSI-RB-06	10	U	µg/L	
4-nitroaniline	SSI-RB-06-CLP	10	U	µg/L	0%
4-nitroaniline	E07-GS-RB	10	U	µg/L	
4-nitroaniline	E07-GS-RB-CLP	10	U	µg/L	0%
4-nitrophenol	SSI-RB-04	50	U	µg/L	
4-nitrophenol	SSI-RB-04-CLP	50	U	µg/L	0%
4-nitrophenol	SSI-RB-05	50	U	µg/L	
4-nitrophenol	SSI-RB-05-CLP	50	U	µg/L	0%
4-nitrophenol	SSI-RB-06	50	U	µg/L	
4-nitrophenol	SSI-RB-06-CLP	50	U	µg/L	0%
4-nitrophenol	E07-GS-RB	50	U	µg/L	
4-nitrophenol	E07-GS-RB-CLP	50	U	µg/L	0%
Acenaphthene	SSI-RB-04	10	U	µg/L	
Acenaphthene	SSI-RB-04-CLP	10	U	µg/L	0%
Acenaphthene	SSI-RB-05	10	U	µg/L	
Acenaphthene	SSI-RB-05-CLP	10	U	µg/L	0%
Acenaphthene	SSI-RB-06	10	U	µg/L	
Acenaphthene	SSI-RB-06-CLP	10	U	µg/L	0%
Acenaphthene	E07-GS-RB	10	U	µg/L	
Acenaphthene	E07-GS-RB-CLP	10	U	µg/L	0%
Acenaphthylene	SSI-RB-04	10	U	µg/L	
Acenaphthylene	SSI-RB-04-CLP	10	U	µg/L	0%
Acenaphthylene	SSI-RB-05	10	U	µg/L	
Acenaphthylene	SSI-RB-05-CLP	10	U	µg/L	0%
Acenaphthylene	SSI-RB-06	10	U	µg/L	
Acenaphthylene	SSI-RB-06-CLP	10	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Acenaphthylene	E07-GS-RB	10	U	µg/L	
Acenaphthylene	E07-GS-RB-CLP	10	U	µg/L	0%
Acetone	SSI-RB-04	50	U	µg/L	
Acetone	SSI-RB-04-CLP	50	UR	µg/L	0%
Acetone	SSI-RB-05	50	U	µg/L	
Acetone	SSI-RB-05-CLP	50	UR	µg/L	0%
Acetone	SSI-RB-06	50	U	µg/L	
Acetone	SSI-RB-06-CLP	50	UR	µg/L	0%
Acetone	TB01-0728	50	U	µg/L	
Acetone	TB01-0728-CLP	50	UR	µg/L	0%
Acetone	E07-GS-RB	50	U	µg/L	
Acetone	E07-GS-RB-CLP	50	UR	µg/L	0%
Acetone	R07-GS-29	500	U	µg/L	
Acetone	R07-GS-29-CLP	500	UR	µg/L	0%
Acetone	R07-GS-27	50	U	µg/L	
Acetone	R07-GS-27-CLP	50	UR	µg/L	0%
Aluminum	SSI-RB-04	53.8	U	µg/L	
Aluminum	SSI-RB-04-CLP	53.8	U	µg/L	0%
Aluminum	SSI-RB-05	43.4	U	µg/L	
Aluminum	SSI-RB-05-CLP	43.4	U	µg/L	0%
Aluminum	SSI-RB-06	52.1	U	µg/L	
Aluminum	SSI-RB-06-CLP	52.1	U	µg/L	0%
Aluminum	E07-GS-RB	60.6	U	µg/L	
Aluminum	E07-GS-RB-CLP	60.6	U	µg/L	0%
Anthracene	SSI-RB-04	10	U	µg/L	
Anthracene	SSI-RB-04-CLP	10	U	µg/L	0%
Anthracene	SSI-RB-05	10	U	µg/L	
Anthracene	SSI-RB-05-CLP	10	U	µg/L	0%
Anthracene	SSI-RB-06	10	U	µg/L	
Anthracene	SSI-RB-06-CLP	10	U	µg/L	0%
Anthracene	E07-GS-RB	10	U	µg/L	
Anthracene	E07-GS-RB-CLP	10	U	µg/L	0%
Antimony	SSI-RB-04	3.7	U	µg/L	
Antimony	SSI-RB-04-CLP	3.7	U	µg/L	0%
Antimony	SSI-RB-05	3.8	U	µg/L	
Antimony	SSI-RB-05-CLP	3.8	U	µg/L	0%
Antimony	SSI-RB-06	5.1		µg/L	
Antimony	SSI-RB-06-CLP	5.1		µg/L	0%
Antimony	E07-GS-RB	4		µg/L	
Antimony	E07-GS-RB-CLP	4		µg/L	0%
Arsenic	SSI-RB-04	3.1	U	µg/L	
Arsenic	SSI-RB-04-CLP	3.1	U	µg/L	0%
Arsenic	SSI-RB-05	3.1	U	µg/L	
Arsenic	SSI-RB-05-CLP	3.1	U	µg/L	0%
Arsenic	SSI-RB-06	3.1	U	µg/L	
Arsenic	SSI-RB-06-CLP	3.1	U	µg/L	0%
Arsenic	E07-GS-RB	3.1	U	µg/L	
Arsenic	E07-GS-RB-CLP	3.1	U	µg/L	0%
Barium	SSI-RB-04	0.4	U	µg/L	
Barium	SSI-RB-04-CLP	0.4	UJ	µg/L	0%
Barium	SSI-RB-05	0.47	U	µg/L	
Barium	SSI-RB-05-CLP	0.47	UJ	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Barium	SSI-RB-06	0.47	U	µg/L	
Barium	SSI-RB-06-CLP	0.47	UJ	µg/L	0%
Barium	E07-GS-RB	0.47	U	µg/L	
Barium	E07-GS-RB-CLP	0.47	UJ	µg/L	0%
Benzene	SSI-RB-04	2	U	µg/L	
Benzene	SSI-RB-04-CLP	2	U	µg/L	0%
Benzene	SSI-RB-05	2	U	µg/L	
Benzene	SSI-RB-05-CLP	2	U	µg/L	0%
Benzene	SSI-RB-06	2	U	µg/L	
Benzene	SSI-RB-06-CLP	2	U	µg/L	0%
Benzene	TB01-0728	2	U	µg/L	
Benzene	TB01-0728-CLP	2	U	µg/L	0%
Benzene	E07-GS-RB	2	U	µg/L	
Benzene	E07-GS-RB-CLP	2	U	µg/L	0%
Benzene	R07-GS-29	20	U	µg/L	
Benzene	R07-GS-29-CLP	20	U	µg/L	0%
Benzene	R07-GS-27	2	U	µg/L	
Benzene	R07-GS-27-CLP	2	U	µg/L	0%
Benzo(a)anthracene	SSI-RB-04	10	U	µg/L	
Benzo(a)anthracene	SSI-RB-04-CLP	10	U	µg/L	0%
Benzo(a)anthracene	SSI-RB-05	10	U	µg/L	
Benzo(a)anthracene	SSI-RB-05-CLP	10	U	µg/L	0%
Benzo(a)anthracene	SSI-RB-06	10	U	µg/L	
Benzo(a)anthracene	SSI-RB-06-CLP	10	U	µg/L	0%
Benzo(a)anthracene	E07-GS-RB	10	U	µg/L	
Benzo(a)anthracene	E07-GS-RB-CLP	10	U	µg/L	0%
Benzo(a)pyrene	SSI-RB-04	10	U	µg/L	
Benzo(a)pyrene	SSI-RB-04-CLP	10	U	µg/L	0%
Benzo(a)pyrene	SSI-RB-05	10	U	µg/L	
Benzo(a)pyrene	SSI-RB-05-CLP	10	U	µg/L	0%
Benzo(a)pyrene	SSI-RB-06	10	U	µg/L	
Benzo(a)pyrene	SSI-RB-06-CLP	10	U	µg/L	0%
Benzo(a)pyrene	E07-GS-RB	10	U	µg/L	
Benzo(a)pyrene	E07-GS-RB-CLP	10	U	µg/L	0%
Benzo(b)fluoranthene	SSI-RB-04	10	U	µg/L	
Benzo(b)fluoranthene	SSI-RB-04-CLP	10	U	µg/L	0%
Benzo(b)fluoranthene	SSI-RB-05	10	U	µg/L	
Benzo(b)fluoranthene	SSI-RB-05-CLP	10	U	µg/L	0%
Benzo(b)fluoranthene	SSI-RB-06	10	U	µg/L	
Benzo(b)fluoranthene	SSI-RB-06-CLP	10	U	µg/L	0%
Benzo(b)fluoranthene	E07-GS-RB	10	U	µg/L	
Benzo(b)fluoranthene	E07-GS-RB-CLP	10	U	µg/L	0%
Benzo(g,h,i)perylene	SSI-RB-04	10	U	µg/L	
Benzo(g,h,i)perylene	SSI-RB-04-CLP	10	U	µg/L	0%
Benzo(g,h,i)perylene	SSI-RB-05	10	U	µg/L	
Benzo(g,h,i)perylene	SSI-RB-05-CLP	10	U	µg/L	0%
Benzo(g,h,i)perylene	SSI-RB-06	10	U	µg/L	
Benzo(g,h,i)perylene	SSI-RB-06-CLP	10	U	µg/L	0%
Benzo(g,h,i)perylene	E07-GS-RB	10	U	µg/L	
Benzo(g,h,i)perylene	E07-GS-RB-CLP	10	U	µg/L	0%
Benzo(k)fluoranthene	SSI-RB-04	10	U	µg/L	
Benzo(k)fluoranthene	SSI-RB-04-CLP	10	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Benzo(k)fluoranthene	SSI-RB-05	10	U	µg/L	
Benzo(k)fluoranthene	SSI-RB-05-CLP	10	U	µg/L	0%
Benzo(k)fluoranthene	SSI-RB-06	10	U	µg/L	
Benzo(k)fluoranthene	SSI-RB-06-CLP	10	U	µg/L	0%
Benzo(k)fluoranthene	E07-GS-RB	10	U	µg/L	
Benzo(k)fluoranthene	E07-GS-RB-CLP	10	U	µg/L	0%
Beryllium	SSI-RB-04	0.58	U	µg/L	
Beryllium	SSI-RB-04-CLP	0.58	U	µg/L	0%
Beryllium	SSI-RB-05	0.2	U	µg/L	
Beryllium	SSI-RB-05-CLP	0.2	U	µg/L	0%
Beryllium	SSI-RB-06	0.65	U	µg/L	
Beryllium	SSI-RB-06-CLP	0.65	U	µg/L	0%
Beryllium	E07-GS-RB	0.77	U	µg/L	
Beryllium	E07-GS-RB-CLP	0.77	U	µg/L	0%
Bis(2-chloroethoxy)methane	SSI-RB-04	10	U	µg/L	
Bis(2-chloroethoxy)methane	SSI-RB-04-CLP	10	U	µg/L	0%
Bis(2-chloroethoxy)methane	SSI-RB-05	10	U	µg/L	
Bis(2-chloroethoxy)methane	SSI-RB-05-CLP	10	U	µg/L	0%
Bis(2-chloroethoxy)methane	SSI-RB-06	10	U	µg/L	
Bis(2-chloroethoxy)methane	SSI-RB-06-CLP	10	U	µg/L	0%
Bis(2-chloroethoxy)methane	E07-GS-RB	10	U	µg/L	
Bis(2-chloroethoxy)methane	E07-GS-RB-CLP	10	U	µg/L	0%
Bis(2-chloroethyl)ether	SSI-RB-04	10	U	µg/L	
Bis(2-chloroethyl)ether	SSI-RB-04-CLP	10	U	µg/L	0%
Bis(2-chloroethyl)ether	SSI-RB-05	10	U	µg/L	
Bis(2-chloroethyl)ether	SSI-RB-05-CLP	10	U	µg/L	0%
Bis(2-chloroethyl)ether	SSI-RB-06	10	U	µg/L	
Bis(2-chloroethyl)ether	SSI-RB-06-CLP	10	U	µg/L	0%
Bis(2-chloroethyl)ether	E07-GS-RB	10	U	µg/L	
Bis(2-chloroethyl)ether	E07-GS-RB-CLP	10	U	µg/L	0%
Bis(2-chloroisopropyl)ether	SSI-RB-04	10	U	µg/L	
Bis(2-chloroisopropyl)ether	SSI-RB-04-CLP	10	U	µg/L	0%
Bis(2-chloroisopropyl)ether	SSI-RB-05	10	U	µg/L	
Bis(2-chloroisopropyl)ether	SSI-RB-05-CLP	10	U	µg/L	0%
Bis(2-chloroisopropyl)ether	SSI-RB-06	10	U	µg/L	
Bis(2-chloroisopropyl)ether	SSI-RB-06-CLP	10	U	µg/L	0%
Bis(2-chloroisopropyl)ether	E07-GS-RB	10	U	µg/L	
Bis(2-chloroisopropyl)ether	E07-GS-RB-CLP	10	U	µg/L	0%
Bis(2-ethylhexyl)phthalate	SSI-RB-04	10	U	µg/L	
Bis(2-ethylhexyl)phthalate	SSI-RB-04-CLP	10	U	µg/L	0%
Bis(2-ethylhexyl)phthalate	SSI-RB-05	10	U	µg/L	
Bis(2-ethylhexyl)phthalate	SSI-RB-05-CLP	10	U	µg/L	0%
Bis(2-ethylhexyl)phthalate	SSI-RB-06	10	U	µg/L	
Bis(2-ethylhexyl)phthalate	SSI-RB-06-CLP	10	U	µg/L	0%
Bis(2-ethylhexyl)phthalate	E07-GS-RB	10	U	µg/L	
Bis(2-ethylhexyl)phthalate	E07-GS-RB-CLP	10	U	µg/L	0%
Bromodichloromethane	SSI-RB-04	2	U	µg/L	
Bromodichloromethane	SSI-RB-04-CLP	2	UJ	µg/L	0%
Bromodichloromethane	SSI-RB-05	2	U	µg/L	
Bromodichloromethane	SSI-RB-05-CLP	2	UJ	µg/L	0%
Bromodichloromethane	SSI-RB-06	2	U	µg/L	
Bromodichloromethane	SSI-RB-06-CLP	2	UJ	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Bromodichloromethane	TB01-0728	2	U	µg/L	
Bromodichloromethane	TB01-0728-CLP	2	UJ	µg/L	0%
Bromodichloromethane	E07-GS-RB	2	U	µg/L	
Bromodichloromethane	E07-GS-RB-CLP	2	UJ	µg/L	0%
Bromodichloromethane	R07-GS-29	20	U	µg/L	
Bromodichloromethane	R07-GS-29-CLP	20	UJ	µg/L	0%
Bromodichloromethane	R07-GS-27	2	U	µg/L	
Bromodichloromethane	R07-GS-27-CLP	2	UJ	µg/L	0%
Bromoform	SSI-RB-04	2	U	µg/L	
Bromoform	SSI-RB-04-CLP	2	UJ	µg/L	0%
Bromoform	SSI-RB-05	2	U	µg/L	
Bromoform	SSI-RB-05-CLP	2	UJ	µg/L	0%
Bromoform	SSI-RB-06	2	U	µg/L	
Bromoform	SSI-RB-06-CLP	2	UJ	µg/L	0%
Bromoform	TB01-0728	2	U	µg/L	
Bromoform	TB01-0728-CLP	2	UJ	µg/L	0%
Bromoform	E07-GS-RB	2	U	µg/L	
Bromoform	E07-GS-RB-CLP	2	UJ	µg/L	0%
Bromoform	R07-GS-29	20	U	µg/L	
Bromoform	R07-GS-29-CLP	20	UJ	µg/L	0%
Bromoform	R07-GS-27	2	U	µg/L	
Bromoform	R07-GS-27-CLP	2	UJ	µg/L	0%
Bromomethane	SSI-RB-04	5	U	µg/L	
Bromomethane	SSI-RB-04-CLP	5	UJ	µg/L	0%
Bromomethane	SSI-RB-05	5	U	µg/L	
Bromomethane	SSI-RB-05-CLP	5	UJ	µg/L	0%
Bromomethane	SSI-RB-06	5	U	µg/L	
Bromomethane	SSI-RB-06-CLP	5	UJ	µg/L	0%
Bromomethane	TB01-0728	5	U	µg/L	
Bromomethane	TB01-0728-CLP	5	UJ	µg/L	0%
Bromomethane	E07-GS-RB	5	U	µg/L	
Bromomethane	E07-GS-RB-CLP	5	UJ	µg/L	0%
Bromomethane	R07-GS-29	50	U	µg/L	
Bromomethane	R07-GS-29-CLP	50	UJ	µg/L	0%
Bromomethane	R07-GS-27	5	U	µg/L	
Bromomethane	R07-GS-27-CLP	5	UJ	µg/L	0%
Butyl benzyl phthalate	SSI-RB-04	10	U	µg/L	
Butyl benzyl phthalate	SSI-RB-04-CLP	10	U	µg/L	0%
Butyl benzyl phthalate	SSI-RB-05	10	U	µg/L	
Butyl benzyl phthalate	SSI-RB-05-CLP	10	U	µg/L	0%
Butyl benzyl phthalate	SSI-RB-06	10	U	µg/L	
Butyl benzyl phthalate	SSI-RB-06-CLP	10	U	µg/L	0%
Butyl benzyl phthalate	E07-GS-RB	10	U	µg/L	
Butyl benzyl phthalate	E07-GS-RB-CLP	10	U	µg/L	0%
Cadmium	SSI-RB-04	0.5	U	µg/L	
Cadmium	SSI-RB-04-CLP	0.5	U	µg/L	0%
Cadmium	SSI-RB-05	0.5	U	µg/L	
Cadmium	SSI-RB-05-CLP	0.5	U	µg/L	0%
Cadmium	SSI-RB-06	0.5	U	µg/L	
Cadmium	SSI-RB-06-CLP	0.5	U	µg/L	0%
Cadmium	E07-GS-RB	0.62		µg/L	
Cadmium	E07-GS-RB-CLP	0.62		µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Calcium	SSI-RB-04	24.3	U	µg/L	
Calcium	SSI-RB-04-CLP	24.3	U	µg/L	0%
Calcium	SSI-RB-05	113		µg/L	
Calcium	SSI-RB-05-CLP	113	J	µg/L	0%
Calcium	SSI-RB-06	230		µg/L	
Calcium	SSI-RB-06-CLP	230	J	µg/L	0%
Calcium	E07-GS-RB	42.4	U	µg/L	
Calcium	E07-GS-RB-CLP	42.4	U	µg/L	0%
Carbazole	SSI-RB-04	10	U	µg/L	
Carbazole	SSI-RB-04-CLP	10	U	µg/L	0%
Carbazole	SSI-RB-05	10	U	µg/L	
Carbazole	SSI-RB-05-CLP	10	U	µg/L	0%
Carbazole	SSI-RB-06	10	U	µg/L	
Carbazole	SSI-RB-06-CLP	10	U	µg/L	0%
Carbazole	E07-GS-RB	10	U	µg/L	
Carbazole	E07-GS-RB-CLP	10	U	µg/L	0%
Carbon disulfide	SSI-RB-04	10	U	µg/L	
Carbon disulfide	SSI-RB-04-CLP	10	U	µg/L	0%
Carbon disulfide	SSI-RB-05	10	U	µg/L	
Carbon disulfide	SSI-RB-05-CLP	10	U	µg/L	0%
Carbon disulfide	SSI-RB-06	10	U	µg/L	
Carbon disulfide	SSI-RB-06-CLP	10	U	µg/L	0%
Carbon disulfide	TB01-0728	10	U	µg/L	
Carbon disulfide	TB01-0728-CLP	10	U	µg/L	0%
Carbon disulfide	E07-GS-RB	10	U	µg/L	
Carbon disulfide	E07-GS-RB-CLP	10	U	µg/L	0%
Carbon disulfide	R07-GS-29	100	U	µg/L	
Carbon disulfide	R07-GS-29-CLP	100	U	µg/L	0%
Carbon disulfide	R07-GS-27	10	U	µg/L	
Carbon disulfide	R07-GS-27-CLP	10	U	µg/L	0%
Carbon tetrachloride	SSI-RB-04	2	U	µg/L	
Carbon tetrachloride	SSI-RB-04-CLP	2	UJ	µg/L	0%
Carbon tetrachloride	SSI-RB-05	2	U	µg/L	
Carbon tetrachloride	SSI-RB-05-CLP	2	UJ	µg/L	0%
Carbon tetrachloride	SSI-RB-06	2	U	µg/L	
Carbon tetrachloride	SSI-RB-06-CLP	2	UJ	µg/L	0%
Carbon tetrachloride	TB01-0728	2	U	µg/L	
Carbon tetrachloride	TB01-0728-CLP	2	UJ	µg/L	0%
Carbon tetrachloride	E07-GS-RB	2	U	µg/L	
Carbon tetrachloride	E07-GS-RB-CLP	2	UJ	µg/L	0%
Carbon tetrachloride	R07-GS-29	20	U	µg/L	
Carbon tetrachloride	R07-GS-29-CLP	20	UJ	µg/L	0%
Carbon tetrachloride	R07-GS-27	2	U	µg/L	
Carbon tetrachloride	R07-GS-27-CLP	2	UJ	µg/L	0%
Chlorobenzene	SSI-RB-04	2	U	µg/L	
Chlorobenzene	SSI-RB-04-CLP	2	U	µg/L	0%
Chlorobenzene	SSI-RB-05	2	U	µg/L	
Chlorobenzene	SSI-RB-05-CLP	2	U	µg/L	0%
Chlorobenzene	SSI-RB-06	2	U	µg/L	
Chlorobenzene	SSI-RB-06-CLP	2	U	µg/L	0%
Chlorobenzene	TB01-0728	2	U	µg/L	
Chlorobenzene	TB01-0728-CLP	2	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Chlorobenzene	E07-GS-RB	2	U	µg/L	
Chlorobenzene	E07-GS-RB-CLP	2	U	µg/L	0%
Chlorobenzene	R07-GS-29	20	U	µg/L	
Chlorobenzene	R07-GS-29-CLP	20	U	µg/L	0%
Chlorobenzene	R07-GS-27	2	U	µg/L	
Chlorobenzene	R07-GS-27-CLP	2	U	µg/L	0%
Chloroethane	SSI-RB-04	2	U	µg/L	
Chloroethane	SSI-RB-04-CLP	2	U	µg/L	0%
Chloroethane	SSI-RB-05	2	U	µg/L	
Chloroethane	SSI-RB-05-CLP	2	U	µg/L	0%
Chloroethane	SSI-RB-06	2	U	µg/L	
Chloroethane	SSI-RB-06-CLP	2	U	µg/L	0%
Chloroethane	TB01-0728	2	U	µg/L	
Chloroethane	TB01-0728-CLP	2	U	µg/L	0%
Chloroethane	E07-GS-RB	2	U	µg/L	
Chloroethane	E07-GS-RB-CLP	2	U	µg/L	0%
Chloroethane	R07-GS-29	20	U	µg/L	
Chloroethane	R07-GS-29-CLP	20	U	µg/L	0%
Chloroethane	R07-GS-27	2	U	µg/L	
Chloroethane	R07-GS-27-CLP	2	U	µg/L	0%
Chloroform	SSI-RB-04	2	U	µg/L	
Chloroform	SSI-RB-04-CLP	2	U	µg/L	0%
Chloroform	SSI-RB-05	2	U	µg/L	
Chloroform	SSI-RB-05-CLP	2	U	µg/L	0%
Chloroform	SSI-RB-06	2	U	µg/L	
Chloroform	SSI-RB-06-CLP	2	U	µg/L	0%
Chloroform	TB01-0728	2	U	µg/L	
Chloroform	TB01-0728-CLP	2	U	µg/L	0%
Chloroform	E07-GS-RB	2	U	µg/L	
Chloroform	E07-GS-RB-CLP	2	U	µg/L	0%
Chloroform	R07-GS-29	20	U	µg/L	
Chloroform	R07-GS-29-CLP	20	U	µg/L	0%
Chloroform	R07-GS-27	2	U	µg/L	
Chloroform	R07-GS-27-CLP	2	U	µg/L	0%
Chloromethane	SSI-RB-04	5	U	µg/L	
Chloromethane	SSI-RB-04-CLP	5	UJ	µg/L	0%
Chloromethane	SSI-RB-05	5	U	µg/L	
Chloromethane	SSI-RB-05-CLP	5	UJ	µg/L	0%
Chloromethane	SSI-RB-06	5	U	µg/L	
Chloromethane	SSI-RB-06-CLP	5	UJ	µg/L	0%
Chloromethane	TB01-0728	5	U	µg/L	
Chloromethane	TB01-0728-CLP	5	UJ	µg/L	0%
Chloromethane	E07-GS-RB	5	U	µg/L	
Chloromethane	E07-GS-RB-CLP	5	UJ	µg/L	0%
Chloromethane	R07-GS-29	50	U	µg/L	
Chloromethane	R07-GS-29-CLP	50	UJ	µg/L	0%
Chloromethane	R07-GS-27	5	U	µg/L	
Chloromethane	R07-GS-27-CLP	5	UJ	µg/L	0%
Chromium	SSI-RB-04	3.5		µg/L	
Chromium	SSI-RB-04-CLP	3.5		µg/L	0%
Chromium	SSI-RB-05	0.96	U	µg/L	
Chromium	SSI-RB-05-CLP	0.96	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Chromium	SSI-RB-06	3.3		µg/L	
Chromium	SSI-RB-06-CLP	3.3		µg/L	0%
Chromium	E07-GS-RB	1.8		µg/L	
Chromium	E07-GS-RB-CLP	1.8		µg/L	0%
Chrysene	SSI-RB-04	10	U	µg/L	
Chrysene	SSI-RB-04-CLP	10	U	µg/L	0%
Chrysene	SSI-RB-05	10	U	µg/L	
Chrysene	SSI-RB-05-CLP	10	U	µg/L	0%
Chrysene	SSI-RB-06	10	U	µg/L	
Chrysene	SSI-RB-06-CLP	10	U	µg/L	0%
Chrysene	E07-GS-RB	10	U	µg/L	
Chrysene	E07-GS-RB-CLP	10	U	µg/L	0%
cis-1,2-dichloroethene	SSI-RB-04	2	U	µg/L	
cis-1,2-dichloroethene	SSI-RB-04-CLP	2	U	µg/L	0%
cis-1,2-dichloroethene	SSI-RB-05	2	U	µg/L	
cis-1,2-dichloroethene	SSI-RB-05-CLP	2	U	µg/L	0%
cis-1,2-dichloroethene	SSI-RB-06	2	U	µg/L	
cis-1,2-dichloroethene	SSI-RB-06-CLP	2	U	µg/L	0%
cis-1,2-dichloroethene	TB01-0728	2	U	µg/L	
cis-1,2-dichloroethene	TB01-0728-CLP	2	U	µg/L	0%
cis-1,2-dichloroethene	E07-GS-RB	2	U	µg/L	
cis-1,2-dichloroethene	E07-GS-RB-CLP	2	U	µg/L	0%
cis-1,2-dichloroethene	R07-GS-29	20	U	µg/L	
cis-1,2-dichloroethene	R07-GS-29-CLP	20	U	µg/L	0%
cis-1,2-dichloroethene	R07-GS-27	4.9		µg/L	
cis-1,2-dichloroethene	R07-GS-27-CLP	4.9		µg/L	0%
cis-1,3-dichloropropene	SSI-RB-04	2	U	µg/L	
cis-1,3-dichloropropene	SSI-RB-04-CLP	2	U	µg/L	0%
cis-1,3-dichloropropene	SSI-RB-05	2	U	µg/L	
cis-1,3-dichloropropene	SSI-RB-05-CLP	2	U	µg/L	0%
cis-1,3-dichloropropene	SSI-RB-06	2	U	µg/L	
cis-1,3-dichloropropene	SSI-RB-06-CLP	2	U	µg/L	0%
cis-1,3-dichloropropene	TB01-0728	2	U	µg/L	
cis-1,3-dichloropropene	TB01-0728-CLP	2	U	µg/L	0%
cis-1,3-dichloropropene	E07-GS-RB	2	U	µg/L	
cis-1,3-dichloropropene	E07-GS-RB-CLP	2	U	µg/L	0%
cis-1,3-dichloropropene	R07-GS-29	20	U	µg/L	
cis-1,3-dichloropropene	R07-GS-29-CLP	20	U	µg/L	0%
cis-1,3-dichloropropene	R07-GS-27	2	U	µg/L	
cis-1,3-dichloropropene	R07-GS-27-CLP	2	U	µg/L	0%
Cobalt	SSI-RB-04	0.7	U	µg/L	
Cobalt	SSI-RB-04-CLP	0.7	U	µg/L	0%
Cobalt	SSI-RB-05	0.71	U	µg/L	
Cobalt	SSI-RB-05-CLP	0.71	U	µg/L	0%
Cobalt	SSI-RB-06	0.71	U	µg/L	
Cobalt	SSI-RB-06-CLP	0.71	U	µg/L	0%
Cobalt	E07-GS-RB	0.71	U	µg/L	
Cobalt	E07-GS-RB-CLP	0.71	U	µg/L	0%
Copper	SSI-RB-04	1.2	U	µg/L	
Copper	SSI-RB-04-CLP	1.2	U	µg/L	0%
Copper	SSI-RB-05	1.2	U	µg/L	
Copper	SSI-RB-05-CLP	1.2	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Copper	SSI-RB-06	8.3		µg/L	
Copper	SSI-RB-06-CLP	8.3		µg/L	0%
Copper	E07-GS-RB	1.2		µg/L	
Copper	E07-GS-RB-CLP	1.2		µg/L	0%
Dibenzo(a,h)anthracene	SSI-RB-04	10	U	µg/L	
Dibenzo(a,h)anthracene	SSI-RB-04-CLP	10	UJ	µg/L	0%
Dibenzo(a,h)anthracene	SSI-RB-05	10	U	µg/L	
Dibenzo(a,h)anthracene	SSI-RB-05-CLP	10	UJ	µg/L	0%
Dibenzo(a,h)anthracene	SSI-RB-06	10	U	µg/L	
Dibenzo(a,h)anthracene	SSI-RB-06-CLP	10	UJ	µg/L	0%
Dibenzo(a,h)anthracene	E07-GS-RB	10	U	µg/L	
Dibenzo(a,h)anthracene	E07-GS-RB-CLP	10	UJ	µg/L	0%
Dibenzofuran	SSI-RB-04	10	U	µg/L	
Dibenzofuran	SSI-RB-04-CLP	10	U	µg/L	0%
Dibenzofuran	SSI-RB-05	10	U	µg/L	
Dibenzofuran	SSI-RB-05-CLP	10	U	µg/L	0%
Dibenzofuran	SSI-RB-06	10	U	µg/L	
Dibenzofuran	SSI-RB-06-CLP	10	U	µg/L	0%
Dibenzofuran	E07-GS-RB	10	U	µg/L	
Dibenzofuran	E07-GS-RB-CLP	10	U	µg/L	0%
Dibromochloromethane	SSI-RB-04	2	U	µg/L	
Dibromochloromethane	SSI-RB-04-CLP	2	UJ	µg/L	0%
Dibromochloromethane	SSI-RB-05	2	U	µg/L	
Dibromochloromethane	SSI-RB-05-CLP	2	UJ	µg/L	0%
Dibromochloromethane	SSI-RB-06	2	U	µg/L	
Dibromochloromethane	SSI-RB-06-CLP	2	UJ	µg/L	0%
Dibromochloromethane	TB01-0728	2	U	µg/L	
Dibromochloromethane	TB01-0728-CLP	2	UJ	µg/L	0%
Dibromochloromethane	E07-GS-RB	2	U	µg/L	
Dibromochloromethane	E07-GS-RB-CLP	2	UJ	µg/L	0%
Dibromochloromethane	R07-GS-29	20	U	µg/L	
Dibromochloromethane	R07-GS-29-CLP	20	UJ	µg/L	0%
Dibromochloromethane	R07-GS-27	2	U	µg/L	
Dibromochloromethane	R07-GS-27-CLP	2	UJ	µg/L	0%
Diethyl phthalate	SSI-RB-04	10	U	µg/L	
Diethyl phthalate	SSI-RB-04-CLP	10	U	µg/L	0%
Diethyl phthalate	SSI-RB-05	10	U	µg/L	
Diethyl phthalate	SSI-RB-05-CLP	10	U	µg/L	0%
Diethyl phthalate	SSI-RB-06	10	U	µg/L	
Diethyl phthalate	SSI-RB-06-CLP	10	U	µg/L	0%
Diethyl phthalate	E07-GS-RB	10	U	µg/L	
Diethyl phthalate	E07-GS-RB-CLP	10	U	µg/L	0%
Dimethyl phthalate	SSI-RB-04	10	U	µg/L	
Dimethyl phthalate	SSI-RB-04-CLP	10	U	µg/L	0%
Dimethyl phthalate	SSI-RB-05	10	U	µg/L	
Dimethyl phthalate	SSI-RB-05-CLP	10	U	µg/L	0%
Dimethyl phthalate	SSI-RB-06	10	U	µg/L	
Dimethyl phthalate	SSI-RB-06-CLP	10	U	µg/L	0%
Dimethyl phthalate	E07-GS-RB	10	U	µg/L	
Dimethyl phthalate	E07-GS-RB-CLP	10	U	µg/L	0%
Di-n-butyl phthalate	SSI-RB-04	10	U	µg/L	
Di-n-butyl phthalate	SSI-RB-04-CLP	10	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Di-n-butyl phthalate	SSI-RB-05	10	U	µg/L	
Di-n-butyl phthalate	SSI-RB-05-CLP	10	U	µg/L	0%
Di-n-butyl phthalate	SSI-RB-06	10	U	µg/L	
Di-n-butyl phthalate	SSI-RB-06-CLP	10	U	µg/L	0%
Di-n-butyl phthalate	E07-GS-RB	10	U	µg/L	
Di-n-butyl phthalate	E07-GS-RB-CLP	10	U	µg/L	0%
Di-n-octyl phthalate	SSI-RB-04	10	U	µg/L	
Di-n-octyl phthalate	SSI-RB-04-CLP	10	U	µg/L	0%
Di-n-octyl phthalate	SSI-RB-05	10	U	µg/L	
Di-n-octyl phthalate	SSI-RB-05-CLP	10	U	µg/L	0%
Di-n-octyl phthalate	SSI-RB-06	10	U	µg/L	
Di-n-octyl phthalate	SSI-RB-06-CLP	10	U	µg/L	0%
Di-n-octyl phthalate	E07-GS-RB	10	U	µg/L	
Di-n-octyl phthalate	E07-GS-RB-CLP	10	U	µg/L	0%
Ethylbenzene	SSI-RB-04	2	U	µg/L	
Ethylbenzene	SSI-RB-04-CLP	2	U	µg/L	0%
Ethylbenzene	SSI-RB-05	2	U	µg/L	
Ethylbenzene	SSI-RB-05-CLP	2	U	µg/L	0%
Ethylbenzene	SSI-RB-06	2	U	µg/L	
Ethylbenzene	SSI-RB-06-CLP	2	U	µg/L	0%
Ethylbenzene	TB01-0728	2	U	µg/L	
Ethylbenzene	TB01-0728-CLP	2	U	µg/L	0%
Ethylbenzene	E07-GS-RB	2	U	µg/L	
Ethylbenzene	E07-GS-RB-CLP	2	U	µg/L	0%
Ethylbenzene	R07-GS-29	214		µg/L	
Ethylbenzene	R07-GS-29-CLP	214		µg/L	0%
Ethylbenzene	R07-GS-27	2	U	µg/L	
Ethylbenzene	R07-GS-27-CLP	2	U	µg/L	0%
Fluoranthene	SSI-RB-04	10	U	µg/L	
Fluoranthene	SSI-RB-04-CLP	10	U	µg/L	0%
Fluoranthene	SSI-RB-05	10	U	µg/L	
Fluoranthene	SSI-RB-05-CLP	10	U	µg/L	0%
Fluoranthene	SSI-RB-06	10	U	µg/L	
Fluoranthene	SSI-RB-06-CLP	10	U	µg/L	0%
Fluoranthene	E07-GS-RB	10	U	µg/L	
Fluoranthene	E07-GS-RB-CLP	10	U	µg/L	0%
Fluorene	SSI-RB-04	10	U	µg/L	
Fluorene	SSI-RB-04-CLP	10	U	µg/L	0%
Fluorene	SSI-RB-05	10	U	µg/L	
Fluorene	SSI-RB-05-CLP	10	U	µg/L	0%
Fluorene	SSI-RB-06	10	U	µg/L	
Fluorene	SSI-RB-06-CLP	10	U	µg/L	0%
Fluorene	E07-GS-RB	10	U	µg/L	
Fluorene	E07-GS-RB-CLP	10	U	µg/L	0%
Hexachlorobenzene	SSI-RB-04	10	U	µg/L	
Hexachlorobenzene	SSI-RB-04-CLP	10	U	µg/L	0%
Hexachlorobenzene	SSI-RB-05	10	U	µg/L	
Hexachlorobenzene	SSI-RB-05-CLP	10	U	µg/L	0%
Hexachlorobenzene	SSI-RB-06	10	U	µg/L	
Hexachlorobenzene	SSI-RB-06-CLP	10	U	µg/L	0%
Hexachlorobenzene	E07-GS-RB	10	U	µg/L	
Hexachlorobenzene	E07-GS-RB-CLP	10	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Hexachlorobutadiene	SSI-RB-04	10	U	µg/L	
Hexachlorobutadiene	SSI-RB-04-CLP	10	U	µg/L	0%
Hexachlorobutadiene	SSI-RB-05	10	U	µg/L	
Hexachlorobutadiene	SSI-RB-05-CLP	10	U	µg/L	0%
Hexachlorobutadiene	SSI-RB-06	10	U	µg/L	
Hexachlorobutadiene	SSI-RB-06-CLP	10	U	µg/L	0%
Hexachlorobutadiene	E07-GS-RB	10	U	µg/L	
Hexachlorobutadiene	E07-GS-RB-CLP	10	U	µg/L	0%
Hexachlorocyclopentadiene	SSI-RB-04	10	U	µg/L	
Hexachlorocyclopentadiene	SSI-RB-04-CLP	10	U	µg/L	0%
Hexachlorocyclopentadiene	SSI-RB-05	10	U	µg/L	
Hexachlorocyclopentadiene	SSI-RB-05-CLP	10	U	µg/L	0%
Hexachlorocyclopentadiene	SSI-RB-06	10	U	µg/L	
Hexachlorocyclopentadiene	SSI-RB-06-CLP	10	U	µg/L	0%
Hexachlorocyclopentadiene	E07-GS-RB	10	U	µg/L	
Hexachlorocyclopentadiene	E07-GS-RB-CLP	10	U	µg/L	0%
Hexachloroethane	SSI-RB-04	10	U	µg/L	
Hexachloroethane	SSI-RB-04-CLP	10	U	µg/L	0%
Hexachloroethane	SSI-RB-05	10	U	µg/L	
Hexachloroethane	SSI-RB-05-CLP	10	U	µg/L	0%
Hexachloroethane	SSI-RB-06	10	U	µg/L	
Hexachloroethane	SSI-RB-06-CLP	10	U	µg/L	0%
Hexachloroethane	E07-GS-RB	10	U	µg/L	
Hexachloroethane	E07-GS-RB-CLP	10	U	µg/L	0%
Indeno(1,2,3-cd)pyrene	SSI-RB-04	10	U	µg/L	
Indeno(1,2,3-cd)pyrene	SSI-RB-04-CLP	10	U	µg/L	0%
Indeno(1,2,3-cd)pyrene	SSI-RB-05	10	U	µg/L	
Indeno(1,2,3-cd)pyrene	SSI-RB-05-CLP	10	U	µg/L	0%
Indeno(1,2,3-cd)pyrene	SSI-RB-06	10	U	µg/L	
Indeno(1,2,3-cd)pyrene	SSI-RB-06-CLP	10	U	µg/L	0%
Indeno(1,2,3-cd)pyrene	E07-GS-RB	10	U	µg/L	
Indeno(1,2,3-cd)pyrene	E07-GS-RB-CLP	10	U	µg/L	0%
Iron	SSI-RB-04	79.1		µg/L	
Iron	SSI-RB-04-CLP	79.1		µg/L	0%
Iron	SSI-RB-05	34.1		µg/L	
Iron	SSI-RB-05-CLP	34.1		µg/L	0%
Iron	SSI-RB-06	66.8		µg/L	
Iron	SSI-RB-06-CLP	66.8		µg/L	0%
Iron	E07-GS-RB	80.3		µg/L	
Iron	E07-GS-RB-CLP	80.3		µg/L	0%
Isophorone	SSI-RB-04	10	U	µg/L	
Isophorone	SSI-RB-04-CLP	10	U	µg/L	0%
Isophorone	SSI-RB-05	10	U	µg/L	
Isophorone	SSI-RB-05-CLP	10	U	µg/L	0%
Isophorone	SSI-RB-06	10	U	µg/L	
Isophorone	SSI-RB-06-CLP	10	U	µg/L	0%
Isophorone	E07-GS-RB	10	U	µg/L	
Isophorone	E07-GS-RB-CLP	10	U	µg/L	0%
Lead	SSI-RB-04	2.1	U	µg/L	
Lead	SSI-RB-04-CLP	2.1	U	µg/L	0%
Lead	SSI-RB-05	2.1	U	µg/L	
Lead	SSI-RB-05-CLP	2.1	U	µg/L	0%

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RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Lead	SSI-RB-06	2.1	U	µg/L	
Lead	SSI-RB-06-CLP	2.1	U	µg/L	0%
Lead	E07-GS-RB	2.2		µg/L	
Lead	E07-GS-RB-CLP	2.2		µg/L	0%
Magnesium	SSI-RB-04	32.3	U	µg/L	
Magnesium	SSI-RB-04-CLP	32.3	U	µg/L	0%
Magnesium	SSI-RB-05	10	U	µg/L	
Magnesium	SSI-RB-05-CLP	10	U	µg/L	0%
Magnesium	SSI-RB-06	14.5	U	µg/L	
Magnesium	SSI-RB-06-CLP	14.5	U	µg/L	0%
Magnesium	E07-GS-RB	29.4	U	µg/L	
Magnesium	E07-GS-RB-CLP	29.4	U	µg/L	0%
Manganese	SSI-RB-04	0.39	U	µg/L	
Manganese	SSI-RB-04-CLP	0.39	U	µg/L	0%
Manganese	SSI-RB-05	0.77	U	µg/L	
Manganese	SSI-RB-05-CLP	0.77	U	µg/L	0%
Manganese	SSI-RB-06	2.3	U	µg/L	
Manganese	SSI-RB-06-CLP	2.3	U	µg/L	0%
Manganese	E07-GS-RB	3.5		µg/L	
Manganese	E07-GS-RB-CLP	3.5		µg/L	0%
Mercury	SSI-RB-04	0.25	U	µg/L	
Mercury	SSI-RB-04-CLP	0.25	U	µg/L	0%
Mercury	SSI-RB-05	0.25	U	µg/L	
Mercury	SSI-RB-05-CLP	0.25	U	µg/L	0%
Mercury	SSI-RB-06	0.25	U	µg/L	
Mercury	SSI-RB-06-CLP	0.25	U	µg/L	0%
Mercury	E07-GS-RB	0.25	U	µg/L	
Mercury	E07-GS-RB-CLP	0.25	U	µg/L	0%
Methylene chloride	SSI-RB-04	5	U	µg/L	
Methylene chloride	SSI-RB-04-CLP	5	U	µg/L	0%
Methylene chloride	SSI-RB-05	5	U	µg/L	
Methylene chloride	SSI-RB-05-CLP	5	U	µg/L	0%
Methylene chloride	SSI-RB-06	5	U	µg/L	
Methylene chloride	SSI-RB-06-CLP	5	U	µg/L	0%
Methylene chloride	TB01-0728	5	U	µg/L	
Methylene chloride	TB01-0728-CLP	5	U	µg/L	0%
Methylene chloride	E07-GS-RB	5	U	µg/L	
Methylene chloride	E07-GS-RB-CLP	5	U	µg/L	0%
Methylene chloride	R07-GS-29	50	U	µg/L	
Methylene chloride	R07-GS-29-CLP	50	U	µg/L	0%
Methylene chloride	R07-GS-27	5	U	µg/L	
Methylene chloride	R07-GS-27-CLP	5	U	µg/L	0%
Naphthalene	SSI-RB-04	10	U	µg/L	
Naphthalene	SSI-RB-04-CLP	10	U	µg/L	0%
Naphthalene	SSI-RB-05	10	U	µg/L	
Naphthalene	SSI-RB-05-CLP	10	U	µg/L	0%
Naphthalene	SSI-RB-06	10	U	µg/L	
Naphthalene	SSI-RB-06-CLP	10	U	µg/L	0%
Naphthalene	E07-GS-RB	10	U	µg/L	
Naphthalene	E07-GS-RB-CLP	10	U	µg/L	0%
Nickel	SSI-RB-04	1.6	U	µg/L	
Nickel	SSI-RB-04-CLP	1.6	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Nickel	SSI-RB-05	1.6	U	µg/L	
Nickel	SSI-RB-05-CLP	1.6	U	µg/L	0%
Nickel	SSI-RB-06	4.4		µg/L	
Nickel	SSI-RB-06-CLP	4.4		µg/L	0%
Nickel	E07-GS-RB	1.6	U	µg/L	
Nickel	E07-GS-RB-CLP	1.6	U	µg/L	0%
Nitrobenzene	SSI-RB-04	10	U	µg/L	
Nitrobenzene	SSI-RB-04-CLP	10	U	µg/L	0%
Nitrobenzene	SSI-RB-05	10	U	µg/L	
Nitrobenzene	SSI-RB-05-CLP	10	U	µg/L	0%
Nitrobenzene	SSI-RB-06	10	U	µg/L	
Nitrobenzene	SSI-RB-06-CLP	10	U	µg/L	0%
Nitrobenzene	E07-GS-RB	10	U	µg/L	
Nitrobenzene	E07-GS-RB-CLP	10	U	µg/L	0%
n-nitroso-di-n-propylamine	SSI-RB-04	10	U	µg/L	
n-nitroso-di-n-propylamine	SSI-RB-04-CLP	10	U	µg/L	0%
n-nitroso-di-n-propylamine	SSI-RB-05	10	U	µg/L	
n-nitroso-di-n-propylamine	SSI-RB-05-CLP	10	U	µg/L	0%
n-nitroso-di-n-propylamine	SSI-RB-06	10	U	µg/L	
n-nitroso-di-n-propylamine	SSI-RB-06-CLP	10	U	µg/L	0%
n-nitroso-di-n-propylamine	E07-GS-RB	10	U	µg/L	
n-nitroso-di-n-propylamine	E07-GS-RB-CLP	10	U	µg/L	0%
n-nitrosodiphenylamine	SSI-RB-04	10	U	µg/L	
n-nitrosodiphenylamine	SSI-RB-04-CLP	10	U	µg/L	0%
n-nitrosodiphenylamine	SSI-RB-05	10	U	µg/L	
n-nitrosodiphenylamine	SSI-RB-05-CLP	10	U	µg/L	0%
n-nitrosodiphenylamine	SSI-RB-06	10	U	µg/L	
n-nitrosodiphenylamine	SSI-RB-06-CLP	10	U	µg/L	0%
n-nitrosodiphenylamine	E07-GS-RB	10	U	µg/L	
n-nitrosodiphenylamine	E07-GS-RB-CLP	10	U	µg/L	0%
Pentachlorophenol	SSI-RB-04	50	U	µg/L	
Pentachlorophenol	SSI-RB-04-CLP	50	U	µg/L	0%
Pentachlorophenol	SSI-RB-05	50	U	µg/L	
Pentachlorophenol	SSI-RB-05-CLP	50	U	µg/L	0%
Pentachlorophenol	SSI-RB-06	50	U	µg/L	
Pentachlorophenol	SSI-RB-06-CLP	50	U	µg/L	0%
Pentachlorophenol	E07-GS-RB	50	U	µg/L	
Pentachlorophenol	E07-GS-RB-CLP	50	U	µg/L	0%
Phenanthrene	SSI-RB-04	10	U	µg/L	
Phenanthrene	SSI-RB-04-CLP	10	U	µg/L	0%
Phenanthrene	SSI-RB-05	10	U	µg/L	
Phenanthrene	SSI-RB-05-CLP	10	U	µg/L	0%
Phenanthrene	SSI-RB-06	10	U	µg/L	
Phenanthrene	SSI-RB-06-CLP	10	U	µg/L	0%
Phenanthrene	E07-GS-RB	10	U	µg/L	
Phenanthrene	E07-GS-RB-CLP	10	U	µg/L	0%
Phenol	SSI-RB-04	10	U	µg/L	
Phenol	SSI-RB-04-CLP	10	U	µg/L	0%
Phenol	SSI-RB-05	10	U	µg/L	
Phenol	SSI-RB-05-CLP	10	U	µg/L	0%
Phenol	SSI-RB-06	10	U	µg/L	
Phenol	SSI-RB-06-CLP	10	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Phenol	E07-GS-RB	10	U	µg/L	
Phenol	E07-GS-RB-CLP	10	U	µg/L	0%
Potassium	SSI-RB-04	146	U	µg/L	
Potassium	SSI-RB-04-CLP	146	U	µg/L	0%
Potassium	SSI-RB-05	132	U	µg/L	
Potassium	SSI-RB-05-CLP	132	U	µg/L	0%
Potassium	SSI-RB-06	133	U	µg/L	
Potassium	SSI-RB-06-CLP	133	U	µg/L	0%
Potassium	E07-GS-RB	145	U	µg/L	
Potassium	E07-GS-RB-CLP	145	U	µg/L	0%
Pyrene	SSI-RB-04	10	U	µg/L	
Pyrene	SSI-RB-04-CLP	10	U	µg/L	0%
Pyrene	SSI-RB-05	10	U	µg/L	
Pyrene	SSI-RB-05-CLP	10	U	µg/L	0%
Pyrene	SSI-RB-06	10	U	µg/L	
Pyrene	SSI-RB-06-CLP	10	U	µg/L	0%
Pyrene	E07-GS-RB	10	U	µg/L	
Pyrene	E07-GS-RB-CLP	10	U	µg/L	0%
Selenium	SSI-RB-04	2.3	U	µg/L	
Selenium	SSI-RB-04-CLP	2.3	U	µg/L	0%
Selenium	SSI-RB-05	2.3	U	µg/L	
Selenium	SSI-RB-05-CLP	2.3	U	µg/L	0%
Selenium	SSI-RB-06	2.3	U	µg/L	
Selenium	SSI-RB-06-CLP	2.3	U	µg/L	0%
Selenium	E07-GS-RB	2.3	U	µg/L	
Selenium	E07-GS-RB-CLP	2.3	U	µg/L	0%
Silver	SSI-RB-04	1.8	U	µg/L	
Silver	SSI-RB-04-CLP	1.8	U	µg/L	0%
Silver	SSI-RB-05	1.8	U	µg/L	
Silver	SSI-RB-05-CLP	1.8	U	µg/L	0%
Silver	SSI-RB-06	1.8	U	µg/L	
Silver	SSI-RB-06-CLP	1.8	U	µg/L	0%
Silver	E07-GS-RB	1.8	U	µg/L	
Silver	E07-GS-RB-CLP	1.8	U	µg/L	0%
Sodium	SSI-RB-04	330	U	µg/L	
Sodium	SSI-RB-04-CLP	330	U	µg/L	0%
Sodium	SSI-RB-05	330	U	µg/L	
Sodium	SSI-RB-05-CLP	330	U	µg/L	0%
Sodium	SSI-RB-06	330	U	µg/L	
Sodium	SSI-RB-06-CLP	330	U	µg/L	0%
Sodium	E07-GS-RB	386	U	µg/L	
Sodium	E07-GS-RB-CLP	386	U	µg/L	0%
Styrene	SSI-RB-04	2	U	µg/L	
Styrene	SSI-RB-04-CLP	2	U	µg/L	0%
Styrene	SSI-RB-05	2	U	µg/L	
Styrene	SSI-RB-05-CLP	2	U	µg/L	0%
Styrene	SSI-RB-06	2	U	µg/L	
Styrene	SSI-RB-06-CLP	2	U	µg/L	0%
Styrene	TB01-0728	2	U	µg/L	
Styrene	TB01-0728-CLP	2	U	µg/L	0%
Styrene	E07-GS-RB	2	U	µg/L	
Styrene	E07-GS-RB-CLP	2	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Styrene	R07-GS-29	20	U	µg/L	
Styrene	R07-GS-29-CLP	20	U	µg/L	0%
Styrene	R07-GS-27	2	U	µg/L	
Styrene	R07-GS-27-CLP	2	U	µg/L	0%
Tetrachloroethene	SSI-RB-04	2	U	µg/L	
Tetrachloroethene	SSI-RB-04-CLP	2	U	µg/L	0%
Tetrachloroethene	SSI-RB-05	2	U	µg/L	
Tetrachloroethene	SSI-RB-05-CLP	2	U	µg/L	0%
Tetrachloroethene	SSI-RB-06	2	U	µg/L	
Tetrachloroethene	SSI-RB-06-CLP	2	U	µg/L	0%
Tetrachloroethene	TB01-0728	2	U	µg/L	
Tetrachloroethene	TB01-0728-CLP	2	U	µg/L	0%
Tetrachloroethene	E07-GS-RB	2	U	µg/L	
Tetrachloroethene	E07-GS-RB-CLP	2	U	µg/L	0%
Tetrachloroethene	R07-GS-29	81.9		µg/L	
Tetrachloroethene	R07-GS-29-CLP	81.9		µg/L	0%
Tetrachloroethene	R07-GS-27	2	U	µg/L	
Tetrachloroethene	R07-GS-27-CLP	2	U	µg/L	0%
Thallium	SSI-RB-04	3.9	U	µg/L	
Thallium	SSI-RB-04-CLP	3.9	U	µg/L	0%
Thallium	SSI-RB-05	3.9	U	µg/L	
Thallium	SSI-RB-05-CLP	3.9	U	µg/L	0%
Thallium	SSI-RB-06	3.9	U	µg/L	
Thallium	SSI-RB-06-CLP	3.9	U	µg/L	0%
Thallium	E07-GS-RB	3.9	U	µg/L	
Thallium	E07-GS-RB-CLP	3.9	U	µg/L	0%
Tin	SSI-RB-04	11.6		µg/L	
Tin	SSI-RB-04-CLP	11.6		µg/L	0%
Tin	SSI-RB-05	6.5	U	µg/L	
Tin	SSI-RB-05-CLP	6.5	U	µg/L	0%
Tin	SSI-RB-06	15.6		µg/L	
Tin	SSI-RB-06-CLP	15.6		µg/L	0%
Tin	E07-GS-RB	26.3	U	µg/L	
Tin	E07-GS-RB-CLP	26.3	U	µg/L	0%
Toluene	SSI-RB-04	2	U	µg/L	
Toluene	SSI-RB-04-CLP	2	U	µg/L	0%
Toluene	SSI-RB-05	2	U	µg/L	
Toluene	SSI-RB-05-CLP	2	U	µg/L	0%
Toluene	SSI-RB-06	2	U	µg/L	
Toluene	SSI-RB-06-CLP	2	U	µg/L	0%
Toluene	TB01-0728	2	U	µg/L	
Toluene	TB01-0728-CLP	2	U	µg/L	0%
Toluene	E07-GS-RB	2	U	µg/L	
Toluene	E07-GS-RB-CLP	2	U	µg/L	0%
Toluene	R07-GS-29	20	U	µg/L	
Toluene	R07-GS-29-CLP	20	U	µg/L	0%
Toluene	R07-GS-27	2	U	µg/L	
Toluene	R07-GS-27-CLP	2	U	µg/L	0%
trans-1,2-dichloroethene	SSI-RB-04	2	U	µg/L	
trans-1,2-dichloroethene	SSI-RB-04-CLP	2	U	µg/L	0%
trans-1,2-dichloroethene	SSI-RB-05	2	U	µg/L	
trans-1,2-dichloroethene	SSI-RB-05-CLP	2	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
trans-1,2-dichloroethene	SSI-RB-06	2	U	µg/L	
trans-1,2-dichloroethene	SSI-RB-06-CLP	2	U	µg/L	0%
trans-1,2-dichloroethene	TB01-0728	2	U	µg/L	
trans-1,2-dichloroethene	TB01-0728-CLP	2	U	µg/L	0%
trans-1,2-dichloroethene	E07-GS-RB	2	U	µg/L	
trans-1,2-dichloroethene	E07-GS-RB-CLP	2	U	µg/L	0%
trans-1,2-dichloroethene	R07-GS-29	20	U	µg/L	
trans-1,2-dichloroethene	R07-GS-29-CLP	20	U	µg/L	0%
trans-1,2-dichloroethene	R07-GS-27	2	U	µg/L	
trans-1,2-dichloroethene	R07-GS-27-CLP	2	U	µg/L	0%
trans-1,3-dichloropropene	SSI-RB-04	2	U	µg/L	
trans-1,3-dichloropropene	SSI-RB-04-CLP	2	U	µg/L	0%
trans-1,3-dichloropropene	SSI-RB-05	2	U	µg/L	
trans-1,3-dichloropropene	SSI-RB-05-CLP	2	U	µg/L	0%
trans-1,3-dichloropropene	SSI-RB-06	2	U	µg/L	
trans-1,3-dichloropropene	SSI-RB-06-CLP	2	U	µg/L	0%
trans-1,3-dichloropropene	TB01-0728	2	U	µg/L	
trans-1,3-dichloropropene	TB01-0728-CLP	2	U	µg/L	0%
trans-1,3-dichloropropene	E07-GS-RB	2	U	µg/L	
trans-1,3-dichloropropene	E07-GS-RB-CLP	2	U	µg/L	0%
trans-1,3-dichloropropene	R07-GS-29	20	U	µg/L	
trans-1,3-dichloropropene	R07-GS-29-CLP	20	U	µg/L	0%
trans-1,3-dichloropropene	R07-GS-27	2	U	µg/L	
trans-1,3-dichloropropene	R07-GS-27-CLP	2	U	µg/L	0%
Trichloroethene	SSI-RB-04	2	U	µg/L	
Trichloroethene	SSI-RB-04-CLP	2	U	µg/L	0%
Trichloroethene	SSI-RB-05	2	U	µg/L	
Trichloroethene	SSI-RB-05-CLP	2	U	µg/L	0%
Trichloroethene	SSI-RB-06	2	U	µg/L	
Trichloroethene	SSI-RB-06-CLP	2	U	µg/L	0%
Trichloroethene	TB01-0728	2	U	µg/L	
Trichloroethene	TB01-0728-CLP	2	U	µg/L	0%
Trichloroethene	E07-GS-RB	2	U	µg/L	
Trichloroethene	E07-GS-RB-CLP	2	U	µg/L	0%
Trichloroethene	R07-GS-29	175		µg/L	
Trichloroethene	R07-GS-29-CLP	175		µg/L	0%
Trichloroethene	R07-GS-27	2	U	µg/L	
Trichloroethene	R07-GS-27-CLP	2	U	µg/L	0%
Vanadium	SSI-RB-04	1.1	U	µg/L	
Vanadium	SSI-RB-04-CLP	1.1	U	µg/L	0%
Vanadium	SSI-RB-05	1.1	U	µg/L	
Vanadium	SSI-RB-05-CLP	1.1	U	µg/L	0%
Vanadium	SSI-RB-06	1.1	U	µg/L	
Vanadium	SSI-RB-06-CLP	1.1	U	µg/L	0%
Vanadium	E07-GS-RB	1.1	U	µg/L	
Vanadium	E07-GS-RB-CLP	1.1	U	µg/L	0%
Vinyl chloride	SSI-RB-04	5	U	µg/L	
Vinyl chloride	SSI-RB-04-CLP	5	U	µg/L	0%
Vinyl chloride	SSI-RB-05	5	U	µg/L	
Vinyl chloride	SSI-RB-05-CLP	5	U	µg/L	0%
Vinyl chloride	SSI-RB-06	5	U	µg/L	
Vinyl chloride	SSI-RB-06-CLP	5	U	µg/L	0%

TABLE G-2

RELATIVE PERCENT DIFFERENCE BETWEEN THE TWO DATA SETS
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Parameter	Sample	Result	Qualifier	Units	RPD Result
Vinyl chloride	TB01-0728	5	U	µg/L	
Vinyl chloride	TB01-0728-CLP	5	U	µg/L	0%
Vinyl chloride	E07-GS-RB	5	U	µg/L	
Vinyl chloride	E07-GS-RB-CLP	5	U	µg/L	0%
Vinyl chloride	R07-GS-29	50	U	µg/L	
Vinyl chloride	R07-GS-29-CLP	50	U	µg/L	0%
Vinyl chloride	R07-GS-27	5	U	µg/L	
Vinyl chloride	R07-GS-27-CLP	5	U	µg/L	0%
Xylenes, total	SSI-RB-04	6	U	µg/L	
Xylenes, total	SSI-RB-04-CLP	6	U	µg/L	0%
Xylenes, total	SSI-RB-05	6	U	µg/L	
Xylenes, total	SSI-RB-05-CLP	6	U	µg/L	0%
Xylenes, total	SSI-RB-06	6	U	µg/L	
Xylenes, total	SSI-RB-06-CLP	6	U	µg/L	0%
Xylenes, total	TB01-0728	6	U	µg/L	
Xylenes, total	TB01-0728-CLP	6	U	µg/L	0%
Xylenes, total	E07-GS-RB	6	U	µg/L	
Xylenes, total	E07-GS-RB-CLP	6	U	µg/L	0%
Xylenes, total	R07-GS-29	139		µg/L	
Xylenes, total	R07-GS-29-CLP	139		µg/L	0%
Xylenes, total	R07-GS-27	6	U	µg/L	
Xylenes, total	R07-GS-27-CLP	6	U	µg/L	0%
Zinc	SSI-RB-04	143		µg/L	
Zinc	SSI-RB-04-CLP	143	J	µg/L	0%
Zinc	SSI-RB-05	99.8		µg/L	
Zinc	SSI-RB-05-CLP	99.8	J	µg/L	0%
Zinc	SSI-RB-06	157		µg/L	
Zinc	SSI-RB-06-CLP	157	J	µg/L	0%
Zinc	E07-GS-RB	299		µg/L	
Zinc	E07-GS-RB-CLP	299	J	µg/L	0%

TABLE G-3

COMPARISON OF THE AQUEOUS DATA SET FOR QUALIFIERS AFFECTED (PAGE 1 OF 2)

Parameter	Sample Name	Result	C of A Qualifier	CLP Qualifier
Volatile Organic Compounds (µg/L)				
1,1,1-trichloroethane	SSI-RB-04	2	U	UJ
1,1,1-trichloroethane	SSI-RB-05	2	U	UJ
1,1,1-trichloroethane	SSI-RB-06	2	U	UJ
1,1,1-trichloroethane	TB01-0728	2	U	UJ
1,1,1-trichloroethane	E07-GS-RB	2	U	UJ
1,1,1-trichloroethane	E07-GS-29	20	U	UJ
1,1,1-trichloroethane	E07-GS-27	2	U	UJ
1,1,2,2-tetrachloroethane	SSI-RB-04	2	U	UJ
1,1,2,2-tetrachloroethane	SSI-RB-05	2	U	UJ
1,1,2,2-tetrachloroethane	SSI-RB-06	2	U	UJ
1,1,2,2-tetrachloroethane	TB01-0728	2	U	UJ
1,1,2,2-tetrachloroethane	E07-GS-RB	2	U	UJ
1,1,2,2-tetrachloroethane	E07-GS-29	20	U	UJ
1,1,2,2-tetrachloroethane	E07-GS-27	2	U	UJ
1,2-dichloroethane	SSI-RB-04	2	U	UJ
1,2-dichloroethane	SSI-RB-05	2	U	UJ
1,2-dichloroethane	SSI-RB-06	2	U	UJ
1,2-dichloroethane	TB01-0728	2	U	UJ
1,2-dichloroethane	E07-GS-RB	2	U	UJ
1,2-dichloroethane	E07-GS-29	20	U	UJ
1,2-dichloroethane	E07-GS-27	2	U	UJ
2-butanone	SSI-RB-04	10	U	UR
2-butanone	SSI-RB-05	10	U	UR
2-butanone	SSI-RB-06	10	U	UR
2-butanone	TB01-0728	10	U	UR
2-butanone	E07-GS-RB	10	U	UR
2-butanone	E07-GS-29	100	U	UR
2-butanone	E07-GS-27	10	U	UR
2-hexanone	SSI-RB-04	10	U	UJ
2-hexanone	SSI-RB-05	10	U	UJ
2-hexanone	SSI-RB-06	10	U	UJ
2-hexanone	TB01-0728	10	U	UJ
2-hexanone	E07-GS-RB	10	U	UJ
2-hexanone	E07-GS-29	100	U	UJ
2-hexanone	E07-GS-27	10	U	UJ
Acetone	SSI-RB-04	50	U	UR
Acetone	SSI-RB-05	50	U	UR
Acetone	SSI-RB-06	50	U	UR
Acetone	TB01-0728	50	U	UR
Acetone	E07-GS-RB	50	U	UR
Acetone	E07-GS-29	500	U	UR
Acetone	E07-GS-27	50	U	UR
Bromodichloromethane	SSI-RB-04	2	U	UJ
Bromodichloromethane	SSI-RB-05	2	U	UJ
Bromodichloromethane	SSI-RB-06	2	U	UJ
Bromodichloromethane	TB01-0728	2	U	UJ
Bromodichloromethane	E07-GS-RB	2	U	UJ
Bromodichloromethane	E07-GS-29	20	U	UJ
Bromodichloromethane	E07-GS-27	2	U	UJ

TABLE G-3

COMPARISON OF THE AQUEOUS DATA SET FOR QUALIFIERS AFFECTED (PAGE 2 OF 2)

Parameter	Sample Name	Result	C of A Qualifier	CLP Qualifier
VOLATILE ORGANIC COMPOUNDS (µg/L)				
Bromoform	SSI-RB-04	2	U	UJ
Bromoform	SSI-RB-05	2	U	UJ
Bromoform	SSI-RB-06	2	U	UJ
Bromoform	TB01-0728	2	U	UJ
Bromoform	E07-GS-RB	2	U	UJ
Bromoform	E07-GS-29	20	U	UJ
Bromoform	E07-GS-27	2	U	UJ
Bromomethane	SSI-RB-04	5	U	UJ
Bromomethane	SSI-RB-05	5	U	UJ
Bromomethane	SSI-RB-06	5	U	UJ
Bromomethane	TB01-0728	5	U	UJ
Bromomethane	E07-GS-RB	5	U	UJ
Bromomethane	E07-GS-29	50	U	UJ
Bromomethane	E07-GS-27	5	U	UJ
Carbon tetrachloride	SSI-RB-04	2	U	UJ
Carbon tetrachloride	SSI-RB-05	2	U	UJ
Carbon tetrachloride	SSI-RB-06	2	U	UJ
Carbon tetrachloride	TB01-0728	2	U	UJ
Carbon tetrachloride	E07-GS-RB	2	U	UJ
Carbon tetrachloride	E07-GS-29	20	U	UJ
Carbon tetrachloride	E07-GS-27	2	U	UJ
Chloromethane	SSI-RB-04	5	U	UJ
Chloromethane	SSI-RB-05	5	U	UJ
Chloromethane	SSI-RB-06	5	U	UJ
Chloromethane	TB01-0728	5	U	UJ
Chloromethane	E07-GS-RB	5	U	UJ
Chloromethane	E07-GS-29	50	U	UJ
Chloromethane	E07-GS-27	5	U	UJ
Dibromochloromethane	SSI-RB-04	2	U	UJ
Dibromochloromethane	SSI-RB-05	2	U	UJ
Dibromochloromethane	SSI-RB-06	2	U	UJ
Dibromochloromethane	TB01-0728	2	U	UJ
Dibromochloromethane	E07-GS-RB	2	U	UJ
Dibromochloromethane	E07-GS-29	20	U	UJ
Dibromochloromethane	E07-GS-27	2	U	UJ
SEMI-VOLATILE ORGANIC COMPOUNDS (µg/L)				
Dibenzo(a,h)anthracene	SSI-RB-04	10	U	UJ
Dibenzo(a,h)anthracene	SSI-RB-05	10	U	UJ
Dibenzo(a,h)anthracene	SSI-RB-06	10	U	UJ
Dibenzo(a,h)anthracene	E07-GS-RB	10	U	UJ
INORGANICS (µg/L)				
Barium	SSI-RB-04	0.4	U	UJ
Barium	SSI-RB-05	0.47	U	UJ
Barium	SSI-RB-06	0.47	U	UJ
Barium	E07-GS-RB	0.47	U	UJ
Zinc	SSI-RB-04	143		J
Zinc	SSI-RB-05	99.8		J
Zinc	SSI-RB-06	157		J
Zinc	E07-GS-RB	299		J

TABLE G-4

COMPARISON OF THE SOIL DATA SET FOR QUALIFIERS AFFECTED (PAGE 1 OF 2)

Parameter	Sample Name	Result	C of A Qualifier	CLP Qualifier
VOLATILE ORGANIC COMPOUNDS (µg/kg)				
1,1,1-trichloroethane	C27-2BV	2.1	U	UJ
1,1,1-trichloroethane	C30-2BV	3.7	U	UJ
2-butanone	C16-5BV	14	U	UR
2-butanone	C17-5BV	12	U	UR
2-butanone	C18-5BV	10	U	UR
2-butanone	C21-5BV	11	U	UR
2-butanone	C22-5BV	12	U	UR
2-butanone	C23-5BV	12	U	UR
2-butanone	C24-1BV	13	U	UR
2-butanone	C25-5BV	14	U	UR
2-butanone	C27-2BV	10	U	UR
2-butanone	C27-2BV-D	12	U	UR
2-butanone	C29-1BV	15	U	UR
2-butanone	C30-2BV	19	U	UR
2-hexanone	C27-2BV	10	U	UJ
2-hexanone	C30-2BV	19	U	UJ
4-methyl-2-pentanone	C27-2BV	10	U	UJ
4-methyl-2-pentanone	C30-2BV	19	U	UJ
Acetone	C16-5BV	70	U	UR
Acetone	C17-5BV	58	U	UR
Acetone	C18-5BV	51	U	UR
Acetone	C21-5BV	57	U	UR
Acetone	C22-5BV	60	U	UR
Acetone	C23-5BV	58	U	UR
Acetone	C24-1BV	66	U	UR
Acetone	C25-5BV	69	U	UR
Acetone	C27-2BV	52	U	UR
Acetone	C27-2BV-D	62	U	UR
Acetone	C29-1BV	74	U	UR
Acetone	C30-2BV	93	U	UR
Bromomethane	C16-5BV	7	U	UJ
Bromomethane	C17-5BV	5.8	U	UJ
Bromomethane	C18-5BV	5.1	U	UJ
Bromomethane	C21-5BV	5.7	U	UJ
Bromomethane	C22-5BV	6	U	UJ
Bromomethane	C23-5BV	5.8	U	UJ
Bromomethane	C24-1BV	6.6	U	UJ
Bromomethane	C25-5BV	6.9	U	UJ
Bromomethane	C27-2BV	5.2	U	UJ
Bromomethane	C27-2BV-D	6.2	U	UJ
Bromomethane	C29-1BV	7.4	U	UJ
Bromomethane	C30-2BV	9.3	U	UJ
Chlorobenzene	C27-2BV	2.1	U	UJ
Chlorobenzene	C30-2BV	3.7	U	UJ
Ethylbenzene	C27-2BV	2.1	U	UJ
Ethylbenzene	C30-2BV	3.7	U	UJ

TABLE G-4

COMPARISON OF THE SOIL DATA SET FOR QUALIFIERS AFFECTED (PAGE 2 OF 2)

Parameter	Sample Name	Result	C of A Qualifier	CLP Qualifier
VOLATILE ORGANIC COMPOUNDS (µg/kg)				
Methylene chloride	C16-5BV	7	U	UJ
Methylene chloride	C17-5BV	5.8	U	UJ
Methylene chloride	C18-5BV	5.1	U	UJ
Methylene chloride	C21-5BV	5.7	U	UJ
Methylene chloride	C22-5BV	6	U	UJ
Methylene chloride	C23-5BV	5.8	U	UJ
Methylene chloride	C24-1BV	6.6	U	UJ
Methylene chloride	C25-5BV	6.9	U	UJ
Methylene chloride	C27-2BV	5.2	U	UJ
Methylene chloride	C27-2BV-D	6.2	U	UJ
Methylene chloride	C29-1BV	22.2		J
Methylene chloride	C30-2BV	9.3	U	UJ
Styrene	C27-2BV	2.1	U	UJ
Styrene	C30-2BV	3.7	U	UJ
Tetrachloroethene	C27-2BV	2.1	U	UJ
Tetrachloroethene	C30-2BV	3.7	U	UJ
Toluene	C27-2BV	2.1	U	UJ
Toluene	C30-2BV	3.7	U	UJ
Xylenes, total	C27-2BV	6.2	U	UJ
Xylenes, total	C30-2BV	11	U	UJ

APPENDIX H
STATISTICAL ANALYSIS

Statistical analysis was performed for samples taken at Hamaca Hawk Missile Site around SD-08, Truman Annex DRMO Storage Area, Truman Annex Building 103 Area, Truman Annex Buildings 102 and 104 Area, Truman Annex Building 223 Hazardous Waste Storage Area, and Truman Annex Building 223 Equipment Repair Shop where excavation sidewalls were not against an existing cap (road, concrete pad, or foundation). Samples taken at Hamaca Hawk Missile Site Sewage Lift Station, Hamaca Hawk Missile Site around SD-05, Truman Annex Building 261 Hazardous Material Storage Area, Truman Annex Seminole Battery, and Truman Annex Former Building 136 were not included in the statistical analysis since either all excavation sidewalls were against an existing cap or no media was available for sampling.

Upper confidence limits (UCLs) were calculated for each contaminant detected in confirmation sampling at the areas where statistical analysis was performed. The UCL listed for each contaminant is the percent confidence that levels of the contaminant are below the action level in that particular area. That is, if the UCL is 95%, there is a 5 out of 100 chance that a contaminant has been left on the site in excess of its action level.

TABLE H-1
HAMACA HAWK MISSILE SITE AREA AROUND SD-08

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
4,4'-DDD	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	4500		
4,4'-DDE	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	3000		
4,4'-DDT	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	3100		
Aldrin	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	60		
alpha-BHC	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	200		
alpha-Chlordane	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	490		
Aluminum	Count of Parameter	4	313.2009069	100.00%
	Average of half_res	529.5		
	StdDev of half_res	411.8337043		
	Max of ACTION LEVEL	75000		
Antimony	Count of Parameter	4	17866.97011	100.00%
	Average of half_res	0.21125		
	StdDev of half_res	0.0025		
	Max of ACTION LEVEL	26		
Arsenic	Count of Parameter	4	9.130485848	99.86%
	Average of half_res	0.84		
	StdDev of half_res	0.34525353		
	Max of ACTION LEVEL	2.66		
Barium	Count of Parameter	4	3150.438812	100.00%
	Average of half_res	15.85		
	StdDev of half_res	2.850146195		
	Max of ACTION LEVEL	5200		
Beryllium	Count of Parameter	4	8.660254038	99.84%
	Average of half_res	0.1		
	StdDev of half_res	0.02		
	Max of ACTION LEVEL	0.2		
beta-BHC	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	600		

TABLE H-1
HAMACA HAWK MISSILE SITE AREA AROUND SD-08

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
Cadmium	Count of Parameter	4	1835.050537	100.00%
	Average of half_res	0.045		
	StdDev of half_res	0.034880749		
	Max of ACTION LEVEL	37		
Calcium	Count of Parameter	4	-20.93803846	0.01%
	Average of half_res	366000		
	StdDev of half_res	30276.50354		
	Max of ACTION LEVEL	0		
Chromium	Count of Parameter	4	32.02648693	100.00%
	Average of half_res	15.7		
	StdDev of half_res	14.83464414		
	Max of ACTION LEVEL	290		
Cobalt	Count of Parameter	4	63630.17532	100.00%
	Average of half_res	0.165		
	StdDev of half_res	0.127932274		
	Max of ACTION LEVEL	4700		
Copper	Count of Parameter	4	4229.567539	100.00%
	Average of half_res	2.325		
	StdDev of half_res	1.268529332		
	Max of ACTION LEVEL	3100		
delta-BHC	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	23000		
Dieldrin	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	70		
Endosulfan sulfate	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	0		
Endosulfan-I	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	390000		
Endosulfan-II	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	390000		
Endrin	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	23000		
Endrin aldehyde	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	23000		

TABLE H-1
HAMACA HAWK MISSILE SITE AREA AROUND SD-08

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
Endrin ketone	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	0		
gamma-BHC (Lindane)	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	800		
gamma-Chlordane	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	490		
Heptachlor	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	200		
Heptachlor epoxide	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	100		
Iron	Count of Parameter	4	15.4652751	99.97%
	Average of half_res	341.25		
	StdDev of half_res	219.3724003		
	Max of ACTION LEVEL	2300		
Lead	Count of Parameter	4	468.1667859	100.00%
	Average of half_res	2.6825		
	StdDev of half_res	1.839898095		
	Max of ACTION LEVEL	500		
Magnesium	Count of Parameter	4	-4.02048839	1.38%
	Average of half_res	1765		
	StdDev of half_res	760.3727156		
	Max of ACTION LEVEL	0		
Manganese	Count of Parameter	4	196.6515973	100.00%
	Average of half_res	5.575		
	StdDev of half_res	3.209750769		
	Max of ACTION LEVEL	370		
Mercury	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0.025		
	StdDev of half_res	0		
	Max of ACTION LEVEL	23		
Methoxychlor	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	380000		
Nickel	Count of Parameter	4	674.2311243	100.00%
	Average of half_res	3.99		
	StdDev of half_res	3.843141076		
	Max of ACTION LEVEL	1500		

TABLE H-1
HAMACA HAWK MISSILE SITE AREA AROUND SD-08

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
Potassium	Count of Parameter	4	-3.674912032	1.74%
	Average of half_res	172.25		
	StdDev of half_res	81.18446075		
	Max of ACTION LEVEL	0		
Selenium	Count of Parameter	4	5814.633932	100.00%
	Average of half_res	1.0275		
	StdDev of half_res	0.115866302		
	Max of ACTION LEVEL	390		
Silver	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0.05		
	StdDev of half_res	0		
	Max of ACTION LEVEL	390		
Sodium	Count of Parameter	4	-8.946722078	0.15%
	Average of half_res	3122.5		
	StdDev of half_res	604.5039289		
	Max of ACTION LEVEL	0		
Thallium	Count of Parameter	4	920.5850042	100.00%
	Average of half_res	0.26125		
	StdDev of half_res	0.0025		
	Max of ACTION LEVEL	1.59		
Toxaphene	Count of Parameter	4	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of ACTION LEVEL	900		
Vanadium	Count of Parameter	4	1019.599093	100.00%
	Average of half_res	2.2		
	StdDev of half_res	0.828653526		
	Max of ACTION LEVEL	490		
Zinc	Count of Parameter	4	17272.92256	100.00%
	Average of half_res	5.45		
	StdDev of half_res	2.305789814		
	Max of ACTION LEVEL	23000		

* A result of #DIV/0 in either column is indicative of a nondetect. A nondetect causes the average result and the standard deviation for the parameter to have a value of zero, resulting in an invalid division (dividing by zero).

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
1,2,4-TRICHLOROBENZENE	Count of Parameter	37	33183.43	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	780000		
1,2-DICHLOROBENZENE	Count of Parameter	37	34885.57	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	820000		
1,3-DICHLOROBENZENE	Count of Parameter	37	72332.73	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	1700000		
1,4-DICHLOROBENZENE	Count of Parameter	37	310.7849	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	7500		
2,4,5-TRICHLOROPHENOL	Count of Parameter	37	302122.1	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	7100000		
2,4,6-TRICHLOROPHENOL	Count of Parameter	37	3693.795	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	87000		
2,4-DICHLOROPHENOL	Count of Parameter	37	9353.422	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	220000		
2,4-DIMETHYLPHENOL	Count of Parameter	37	77898.02	100.00%
	Average of half_res	490.4054054		
	StdDev of half_res	346.5692539		
	Max of action level	4500000		
2,4-DINITROPHENOL	Count of Parameter	37	2761.519	100.00%
	Average of half_res	490.4054054		
	StdDev of half_res	346.5692539		
	Max of action level	160000		
2,4-DINITROTOLUENE	Count of Parameter	37	5523.599	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	130000		
2,6-DINITROTOLUENE	Count of Parameter	37	3012.938	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	71000		
2-CHLORONAPHTHALENE	Count of Parameter	37	23821.64	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	560000		

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
2-CHLOROPHENOL	Count of Parameter	37	11906.64	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	280000		
2-METHYLNAPHTHALENE	Count of Parameter	37	40843.08	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	960000		
2-METHYLPHENOL	Count of Parameter	37	110631	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	2600000		
2-NITROANILINE	Count of Parameter	37	161.8474	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	4000		
2-NITROPHENOL	Count of Parameter	37	-8.36696	0.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	0		
3&4-METHYLPHENOL	Count of Parameter	37	14459.85	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	340000		
3,3'-DICHLOROBENZIDINE	Count of Parameter	37	21.7829	100.00%
	Average of half_res	393.2432432		
	StdDev of half_res	277.3065297		
	Max of action level	1400		
3-NITROANILINE	Count of Parameter	37	9778.958	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	230000		
4,6-DINITRO-2-METHYLPHENOL	Count of Parameter	31	-10.9256	0.00%
	Average of half_res	469.3548387		
	StdDev of half_res	235.2967698		
	Max of action level	0		
4,6-DINITRO-2-METHYLPHENOL	Count of Parameter	6	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of action level	0		
4-BROMOPHENYL PHENYL ETHER	Count of Parameter	37	191482.8	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	4500000		
4-CHLORO-3-METHYL PHENOL	Count of Parameter	6	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of action level	0		

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
4-CHLORO-3-METHYLPHENOL	Count of Parameter	31	-10.6276	0.00%
	Average of half_res	234.6774194		
	StdDev of half_res	120.9472026		
	Max of action level	0		
4-CHLOROANILINE	Count of Parameter	37	1012.919	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	24000		
4-CHLOROPHENYL PHENYL ETHER	Count of Parameter	37	-8.36696	0.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	0		
4-NITROANILINE	Count of Parameter	37	9778.958	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	230000		
4-NITROPHENOL	Count of Parameter	37	83091.78	100.00%
	Average of half_res	490.4054054		
	StdDev of half_res	346.5692539		
	Max of action level	4800000		
ACENAPHTHENE	Count of Parameter	37	119141.7	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	2800000		
ACENAPHTHYLENE	Count of Parameter	37	28502.54	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	670000		
ALUMINUM	Count of Parameter	39	456.0123	100.00%
	Average of half_res	419.3461538		
	StdDev of half_res	1008.187876		
	Max of action level	75000		
ANTHRACENE	Count of Parameter	37	851063.4	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	20000000		
ANTIMONY	Count of Parameter	39	31.65965	100.00%
	Average of half_res	1.006346154		
	StdDev of half_res	4.866484798		
	Max of action level	26		
ARSENIC	Count of Parameter	39	16.82906	100.00%
	Average of half_res	0.709935897		
	StdDev of half_res	0.714300469		
	Max of action level	2.66		
BARIUM	Count of Parameter	39	1008.311	100.00%
	Average of half_res	26.19487179		
	StdDev of half_res	31.6305852		
	Max of action level	5200		

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
BENZO(A)ANTHRACENE	Count of Parameter	37	40.36429	100.00%
	Average of half_res	211.0810811		
	StdDev of half_res	176.7283506		
	Max of action level	1400		
BENZO(A)PYRENE	Count of Parameter	37	-4.63293	0.00%
	Average of half_res	231.0405405		
	StdDev of half_res	169.7075253		
	Max of action level	100		
BENZO(B)FLUORANTHENE	Count of Parameter	37	40.10934	100.00%
	Average of half_res	235.0675676		
	StdDev of half_res	174.2635361		
	Max of action level	1400		
BENZO(G,H,I)PERYLENE	Count of Parameter	37	427.7446	100.00%
	Average of half_res	282.7297297		
	StdDev of half_res	192.4129888		
	Max of action level	14000		
BENZO(K)FLUORANTHENE	Count of Parameter	37	532.1116	100.00%
	Average of half_res	223.0135135		
	StdDev of half_res	155.3469453		
	Max of action level	14000		
BENZOIC ACID	Count of Parameter	6	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of action level	0		
BENZYL ALCOHOL	Count of Parameter	6	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of action level	0		
BERYLLIUM	Count of Parameter	39	23.7803	100.00%
	Average of half_res	0.060833333		
	StdDev of half_res	0.036075275		
	Max of action level	0.2		
BIS(2-CHLOROETHOXY)METHANE	Count of Parameter	37	7225.743	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	170000		
BIS(2-CHLOROETHYL)ETHER	Count of Parameter	37	12.90984	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	500		
BIS(2-CHLOROISOPROPYL) ETHER	Count of Parameter	31	2163.105	100.00%
	Average of half_res	234.6774194		
	StdDev of half_res	120.9472026		
	Max of action level	48000		
BIS(-CHLOROISOPROPYL)ETHER	Count of Parameter	6	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of action level	48000		

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
BIS(2-ETHYLHEXYL)PHTHALATE	Count of Parameter	37	2034.263	100.00%
	Average of half_res	196.6756757		
	StdDev of half_res	140.9944944		
	Max of action level	48000		
BUTYLBENZYL PHTHALATE	Count of Parameter	37	638295.4	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	15000000		
CADMIUM	Count of Parameter	39	112.3553	100.00%
	Average of half_res	0.497948718		
	StdDev of half_res	2.002698087		
	Max of action level	37		
CALCIUM	Count of Parameter	39	-30.6339	0.00%
	Average of half_res	317692.3077		
	StdDev of half_res	63928.78597		
	Max of action level	0		
CARBAZOLE	Count of Parameter	37	1778.884	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	42000		
CHROMIUM	Count of Parameter	39	321.023	100.00%
	Average of half_res	5.356410256		
	StdDev of half_res	5.465841047		
	Max of action level	290		
CHRYSENE	Count of Parameter	37	4369.655	100.00%
	Average of half_res	223.8243243		
	StdDev of half_res	191.9275115		
	Max of action level	140000		
COBALT	Count of Parameter	39	75485.84	100.00%
	Average of half_res	0.194551282		
	StdDev of half_res	0.383801052		
	Max of action level	4700		
COPPER	Count of Parameter	39	305.1375	100.00%
	Average of half_res	20.85282051		
	StdDev of half_res	62.20519541		
	Max of action level	3100		
DIBENZO(A,H)ANTHRACENE	Count of Parameter	37	-4.97232	0.00%
	Average of half_res	255.3243243		
	StdDev of half_res	187.4267344		
	Max of action level	100		
DIBENZOFURAN	Count of Parameter	37	10204.49	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	240000		
DIETHYL PHTHALATE	Count of Parameter	37	2382992	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	56000000		

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
DIMETHYL PHTHALATE	Count of Parameter	37	26808751	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	630000000		
DI-N-BUTYL PHTHALATE	Count of Parameter	37	310632.8	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	7300000		
DI-N-OCTYL PHTHALATE	Count of Parameter	37	62566.8	100.00%
	Average of half_res	201.6216216		
	StdDev of half_res	143.8269314		
	Max of action level	1500000		
FLUORANTHENE	Count of Parameter	37	61341.49	100.00%
	Average of half_res	241.4864865		
	StdDev of half_res	283.6343128		
	Max of action level	2900000		
FLUORENE	Count of Parameter	37	102120.2	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	2400000		
HEXACHLOROBENZENE	Count of Parameter	37	17.1652	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	600		
HEXACHLOROBUTADIENE	Count of Parameter	37	123.5492	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	3100		
HEXACHLOROCYCLOPENTADIENE	Count of Parameter	37	23396.11	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	550000		
HEXACHLOROETHANE	Count of Parameter	37	1140.58	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	27000		
INDENO(1,2,3-CD)PYRENE	Count of Parameter	37	37.48704	100.00%
	Average of half_res	251.7837838		
	StdDev of half_res	183.7781173		
	Max of action level	1400		
IRON	Count of Parameter	39	4.924018	100.00%
	Average of half_res	1027.889744		
	StdDev of half_res	1592.564		
	Max of action level	2300		
ISOPHORONE	Count of Parameter	37	28502.54	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	670000		

TABLE H-2
DRMO STORAGE AREA

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
LEAD	Count of Parameter	39	4.852282	100.00%
	Average of half_res	133.0115385		
	StdDev of half_res	466.2277997		
	Max of action level	500		
MAGNESIUM	Count of Parameter	39	-2.93777	0.28%
	Average of half_res	2419		
	StdDev of half_res	5075.857304		
	Max of action level	0		
MANGANESE	Count of Parameter	39	20.2306	100.00%
	Average of half_res	27.09487179		
	StdDev of half_res	104.4857443		
	Max of action level	370		
MERCURY	Count of Parameter	39	2017.619	100.00%
	Average of half_res	0.042171538		
	StdDev of half_res	0.070142873		
	Max of action level	23		
NAPHTHALENE	Count of Parameter	37	55311.3	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	1300000		
NICKEL	Count of Parameter	39	3991	100.00%
	Average of half_res	1.84		
	StdDev of half_res	2.314026452		
	Max of action level	1500		
NITROBENZENE	Count of Parameter	37	927.812	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	22000		
N-NITROSO-DI-N-PROPYLAMINE	Count of Parameter	37	-8.36696	0.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	0		
N-NITROSODIPHENYLAMINE	Count of Parameter	37	3098.045	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	73000		
PENTACHLOROPHENOL	Count of Parameter	37	85.95678	100.00%
	Average of half_res	487.3783784		
	StdDev of half_res	342.9133638		
	Max of action level	5400		
PHENANTHRENE	Count of Parameter	37	57199.85	100.00%
	Average of half_res	213.4324324		
	StdDev of half_res	178.2997695		
	Max of action level	1700000		
PHENOL	Count of Parameter	37	1446814	100.00%
	Average of half_res	196.6216216		
	StdDev of half_res	140.9986902		
	Max of action level	34000000		

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DRMO STORAGE AREA
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Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
POTASSIUM	Count of Parameter	39	-7.91462	0.00%
	Average of half_res	54.56282051		
	StdDev of half_res	42.49701184		
	Max of action level	0		
PYRENE	Count of Parameter	37	50027.85	100.00%
	Average of half_res	234.4459459		
	StdDev of half_res	263.8249047		
	Max of action level	2200000		
SELENIUM	Count of Parameter	39	9685.754	100.00%
	Average of half_res	0.772884615		
	StdDev of half_res	0.247720223		
	Max of action level	390		
SILVER	Count of Parameter	39	9288.828	100.00%
	Average of half_res	0.126602564		
	StdDev of half_res	0.258734577		
	Max of action level	390		
SODIUM	Count of Parameter	39	-33.676	0.00%
	Average of half_res	1681.025641		
	StdDev of half_res	307.7126554		
	Max of action level	0		
THALLIUM	Count of Parameter	39	381.6112	100.00%
	Average of half_res	0.239615385		
	StdDev of half_res	0.021813643		
	Max of action level	1.59		
TIN	Count of Parameter	37	35306.88	100.00%
	Average of half_res	4.925810811		
	StdDev of half_res	7.476459121		
	Max of action level	44000		
VANADIUM	Count of Parameter	39	1001.503	100.00%
	Average of half_res	2.523076923		
	StdDev of half_res	3.00050097		
	Max of action level	490		
ZINC	Count of Parameter	39	1122.613	100.00%
	Average of half_res	66.37692308		
	StdDev of half_res	125.9314694		
	Max of action level	23000		

* A result of #DIV/0 in either column is indicative of a nondetect. A nondetect causes the average result and the standard deviation for the parameter to have a value of zero, resulting in an invalid division (dividing by zero).

TABLE H-3
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Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
1,2,4-TRICHLOROBENZENE	Count of Parameter	5	11166.4	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	780000		
1,2-DICHLOROBENZENE	Count of Parameter	5	11739.2	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	820000		
1,3-DICHLOROBENZENE	Count of Parameter	5	24340.4	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	1700000		
1,4-DICHLOROBENZENE	Count of Parameter	5	104.576	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	7500		
2,4,5-TRICHLOROPHENOL	Count of Parameter	5	101666	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	7100000		
2,4,6-TRICHLOROPHENOL	Count of Parameter	5	1242.98	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	87000		
2,4-DICHLOROPHENOL	Count of Parameter	5	3147.48	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	220000		
2,4-DIMETHYLPHENOL	Count of Parameter	5	25448	100.00%
	Average of half_res	495		
	StdDev of half_res	353.6240942		
	Max of Action Level	4500000		
2,4-DINITROPHENOL	Count of Parameter	5	902.116	100.00%
	Average of half_res	495		
	StdDev of half_res	353.6240942		
	Max of Action Level	160000		
2,4-DINITROTOLUENE	Count of Parameter	5	1858.72	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	130000		
2,6-DINITROTOLUENE	Count of Parameter	5	1013.87	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	71000		
2-CHLORONAPHTHALENE	Count of Parameter	5	8016.12	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	560000		

TABLE H-3
BUILDINGS 102 AND 104

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
2-CHLOROPHENOL	Count of Parameter	5	4006.65	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	280000		
2-METHYLNAPHTHALENE	Count of Parameter	5	13743.9	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	960000		
2-METHYLPHENOL	Count of Parameter	5	37228	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	2600000		
2-NITROANILINE	Count of Parameter	5	54.4572	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	4000		
2-NITROPHENOL	Count of Parameter	5	-2.821	2.39%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	0		
3&4-METHYLPHENOL	Count of Parameter	5	4865.82	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	340000		
3,3'-DICHLOROBENZIDINE	Count of Parameter	5	7.09139	99.90%
	Average of half_res	397		
	StdDev of half_res	282.8780656		
	Max of Action Level	1400		
3-NITROANILINE	Count of Parameter	5	3290.67	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	230000		
4,6-DINITRO-2-METHYLPHENOL	Count of Parameter	4	-4.2437	1.20%
	Average of half_res	496.25		
	StdDev of half_res	202.5411481		
	Max of Action Level	0		
4,6-DINITRO-2-METHYLPHENOL	Count of Parameter	1	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	#DIV/0!		
	Max of Action Level	0		
4-BROMOPHENYL PHENYL ETHER	Count of Parameter	5	64435.1	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	4500000		
4-CHLORO-3-METHYLPHENOL	Count of Parameter	5	-2.821	2.39%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	0		

TABLE H-3
BUILDINGS 102 AND 104

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
4-CHLOROANILINE	Count of Parameter	5	340.848	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	24000		
4-CHLOROPHENYL PHENYL ETHER	Count of Parameter	5	-2.821	2.39%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	0		
4-NITROANILINE	Count of Parameter	5	3290.67	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	230000		
4-NITROPHENOL	Count of Parameter	5	27144.7	100.00%
	Average of half_res	495		
	StdDev of half_res	353.6240942		
	Max of Action Level	4800000		
ACENAPHTHENE	Count of Parameter	5	40091.9	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	2800000		
ACENAPHTHYLENE	Count of Parameter	5	9591.27	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	670000		
ALUMINUM	Count of Parameter	5	1108.42	100.00%
	Average of half_res	338		
	StdDev of half_res	134.7182245		
	Max of Action Level	75000		
ANTHRACENE	Count of Parameter	5	286388	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	20000000		
ANTIMONY	Count of Parameter	5	9053.69	100.00%
	Average of half_res	0.193		
	StdDev of half_res	0.005700877		
	Max of Action Level	26		
ARSENIC	Count of Parameter	5	10.1594	99.97%
	Average of half_res	0.982		
	StdDev of half_res	0.330333165		
	Max of Action Level	2.66		
BARIUM	Count of Parameter	5	2554.2	100.00%
	Average of half_res	21.36		
	StdDev of half_res	4.054996917		
	Max of Action Level	5200		
BENZO(A)ANTHRACENE	Count of Parameter	5	22.8162	100.00%
	Average of half_res	157.6		
	StdDev of half_res	108.9050045		
	Max of Action Level	1400		

TABLE H-3
BUILDINGS 102 AND 104

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
BENZO(A)PYRENE	Count of Parameter	5	-2.0397	5.55%
	Average of half_res	162.98		
	StdDev of half_res	61.7535586		
	Max of Action Level	100		
BENZO(B)FLUORANTHENE	Count of Parameter	5	22.1666	100.00%
	Average of half_res	165.6		
	StdDev of half_res	111.3745932		
	Max of Action Level	1400		
BENZO(G,H,I)PERYLENE	Count of Parameter	5	197.653	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	14000		
BENZO(K)FLUORANTHENE	Count of Parameter	5	251.128	100.00%
	Average of half_res	162		
	StdDev of half_res	110.2066241		
	Max of Action Level	14000		
BENZOIC ACID	Count of Parameter	1	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	#DIV/0!		
	Max of Action Level	0		
BENZYL ALCOHOL	Count of Parameter	1	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	#DIV/0!		
	Max of Action Level	0		
BERYLLIUM	Count of Parameter	5	11.805	99.99%
	Average of half_res	0.043		
	StdDev of half_res	0.026598872		
	Max of Action Level	0.2		
BIS(2-CHLOROETHOXY)METHANE	Count of Parameter	5	2431.5	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	170000		
BIS(2-CHLOROETHYL)ETHER	Count of Parameter	5	4.33882	99.39%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	500		
BIS(2-CHLOROISOPROPYL) ETHER	Count of Parameter	4	833.834	100.00%
	Average of half_res	246.25		
	StdDev of half_res	99.19467392		
	Max of Action Level	48000		
BIS(2-CHLOROISOPROPYL)ETHER	Count of Parameter	1	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	#DIV/0!		
	Max of Action Level	48000		
BIS(2-ETHYLHEXYL)PHTHALATE	Count of Parameter	5	684.517	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	48000		

TABLE H-3
BUILDINGS 102 AND 104

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
BUTYLBENZYL PHTHALATE	Count of Parameter	5	214790	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	15000000		
CADMIUM	Count of Parameter	5	138.175	100.00%
	Average of half_res	0.376		
	StdDev of half_res	0.530110837		
	Max of Action Level	37		
CALCIUM	Count of Parameter	5	-24.375	0.00%
	Average of half_res	328200		
	StdDev of half_res	26929.53769		
	Max of Action Level	0		
CARBAZOLE	Count of Parameter	5	598.6	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	42000		
CHROMIUM	Count of Parameter	5	68.007	100.00%
	Average of half_res	7.02		
	StdDev of half_res	8.322079067		
	Max of Action Level	290		
CHRYSENE	Count of Parameter	5	2533.19	100.00%
	Average of half_res	161.6		
	StdDev of half_res	110.4051629		
	Max of Action Level	140000		
COBALT	Count of Parameter	5	203076	100.00%
	Average of half_res	0.096		
	StdDev of half_res	0.046287147		
	Max of Action Level	4700		
COPPER	Count of Parameter	5	1454.75	100.00%
	Average of half_res	9.46		
	StdDev of half_res	4.248882206		
	Max of Action Level	3100		
DIBENZO(A,H)ANTHRACENE	Count of Parameter	5	-1.389	11.86%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	100		
DIBENZOFURAN	Count of Parameter	5	3433.87	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	240000		
DIETHYL PHTHALATE	Count of Parameter	5	801892	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	56000000		
DIMETHYL PHTHALATE	Count of Parameter	5	9021310	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	630000000		

TABLE H-3
BUILDINGS 102 AND 104

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
DI-N-BUTYL PHTHALATE	Count of Parameter	5	104530	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	7300000		
DI-N-OCTYL PHTHALATE	Count of Parameter	5	21476.5	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	1500000		
FLUORANTHENE	Count of Parameter	5	61438.5	100.00%
	Average of half_res	209.8		
	StdDev of half_res	94.39650417		
	Max of Action Level	2900000		
FLUORENE	Count of Parameter	5	34364.1	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	2400000		
HEXACHLOROBENZENE	Count of Parameter	5	5.77078	99.78%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	600		
HEXACHLOROBUTADIENE	Count of Parameter	5	41.5696	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	3100		
HEXACHLOROCYCLOPENTADIENE	Count of Parameter	5	7872.93	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	550000		
HEXACHLOROETHANE	Count of Parameter	5	383.807	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	27000		
INDENO(1,2,3-CD)PYRENE	Count of Parameter	5	17.2264	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	1400		
IRON	Count of Parameter	5	2.00804	94.25%
	Average of half_res	1337		
	StdDev of half_res	959.1462349		
	Max of Action Level	2300		
ISOPHORONE	Count of Parameter	5	9591.27	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	670000		
LEAD	Count of Parameter	5	15.5258	99.99%
	Average of half_res	70.34		
	StdDev of half_res	55.34779128		
	Max of Action Level	500		

TABLE H-3
BUILDINGS 102 AND 104
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Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
MAGNESIUM	Count of Parameter	5	-7.8735	0.07%
	Average of half_res	3150		
	StdDev of half_res	800.1562347		
	Max of Action Level	0		
MANGANESE	Count of Parameter	5	132.93	100.00%
	Average of half_res	11.04		
	StdDev of half_res	5.40074069		
	Max of Action Level	370		
MERCURY	Count of Parameter	5	2217.16	100.00%
	Average of half_res	0.0468		
	StdDev of half_res	0.020705072		
	Max of Action Level	23		
NAPHTHALENE	Count of Parameter	5	18612.6	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	1300000		
NICKEL	Count of Parameter	5	10088.6	100.00%
	Average of half_res	1.234		
	StdDev of half_res	0.297119505		
	Max of Action Level	1500		
NITROBENZENE	Count of Parameter	5	312.209	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	22000		
N-NITROSO-DI-N-PROPYLAMINE	Count of Parameter	5	-2.821	2.39%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	0		
N-NITROSODIPHENYLAMINE	Count of Parameter	5	1042.51	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	73000		
PENTACHLOROPHENOL	Count of Parameter	5	27.7413	100.00%
	Average of half_res	495		
	StdDev of half_res	353.6240942		
	Max of Action Level	5400		
PHENANTHRENE	Count of Parameter	5	24340.4	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	1700000		
PHENOL	Count of Parameter	5	486862	100.00%
	Average of half_res	197		
	StdDev of half_res	139.6692522		
	Max of Action Level	34000000		
POTASSIUM	Count of Parameter	5	-8.86	0.04%
	Average of half_res	58.5		
	StdDev of half_res	13.20549128		
	Max of Action Level	0		

TABLE H-3
BUILDINGS 102 AND 104

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
PYRENE	Count of Parameter	5	54195.9	100.00%
	Average of half_res	186.2		
	StdDev of half_res	81.18004681		
	Max of Action Level	2200000		
SELENIUM	Count of Parameter	5	4295.55	100.00%
	Average of half_res	0.607		
	StdDev of half_res	0.181300855		
	Max of Action Level	390		
SILVER	Count of Parameter	5	348785	100.00%
	Average of half_res	0.046		
	StdDev of half_res	0.002236068		
	Max of Action Level	390		
SODIUM	Count of Parameter	5	-32.829	0.00%
	Average of half_res	1980		
	StdDev of half_res	120.6233808		
	Max of Action Level	0		
THALLIUM	Count of Parameter	5	440.908	100.00%
	Average of half_res	0.24		
	StdDev of half_res	0.006123724		
	Max of Action Level	1.59		
TIN	Count of Parameter	5	16613.5	100.00%
	Average of half_res	7.98		
	StdDev of half_res	5.295941843		
	Max of Action Level	44000		
VANADIUM .	Count of Parameter	5	650.388	100.00%
	Average of half_res	3.62		
	StdDev of half_res	1.495660389		
	Max of Action Level	490		
ZINC	Count of Parameter	5	2585.5	100.00%
	Average of half_res	35.68		
	StdDev of half_res	17.76392412		
	Max of Action Level	23000		

* A result of #DIV/0 in either column is indicative of a nondetect. A nondetect causes the average result and the standard deviation for the parameter to have a value of zero, resulting in an invalid division (dividing by zero).

TABLE H-4
BUILDING 103

PARAMETER	DATA	TOTAL	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
1,2,4-TRICHLOROBENZENE	Count of Parameter	3	3440.43	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	780000		
1,2-DICHLOROBENZENE	Count of Parameter	3	3616.948	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	820000		
1,3-DICHLOROBENZENE	Count of Parameter	3	7500.351	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1700000		
1,4-DICHLOROBENZENE	Count of Parameter	3	31.42026	99.95%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	7500		
2,4,5-TRICHLOROPHENOL	Count of Parameter	3	31330.32	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	7100000		
2,4,6-TRICHLOROPHENOL	Count of Parameter	3	382.2504	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	87000		
2,4-DICHLOROPHENOL	Count of Parameter	3	969.1738	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	220000		
2,4-DIMETHYLPHENOL	Count of Parameter	3	7815.263	100.00%
	Average of half_res	960		
	StdDev of half_res	814.1252975		
	Max of ACTION LEVEL	4500000		
2,4-DINITROPHENOL	Count of Parameter	3	276.2677	100.00%
	Average of half_res	960		
	StdDev of half_res	814.1252975		
	Max of ACTION LEVEL	160000		
2,4-DINITROTOLUENE	Count of Parameter	3	572.0076	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	130000		
2,6-DINITROTOLUENE	Count of Parameter	3	311.6431	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	71000		
2-CHLORONAPHTHALENE	Count of Parameter	3	2469.579	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	560000		
2-CHLOROPHENOL	Count of Parameter	3	1233.951	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	280000		

TABLE H-4
BUILDING 103

PARAMETER	DATA	TOTAL	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
2-METHYLNAPHTHALENE	Count of Parameter	3	4234.763	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	960000		
2-METHYLPHENOL	Count of Parameter	3	11472.01	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	2600000		
2-NITROANILINE	Count of Parameter	3	15.97491	99.81%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	4000		
2-NITROPHENOL	Count of Parameter	3	-1.67692	11.78%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	0		
3&4-METHYLPHENOL	Count of Parameter	3	1498.729	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	340000		
3,3'-DICHLOROBENZIDINE	Count of Parameter	3	1.316102	84.06%
	Average of half_res	776.6666667		
	StdDev of half_res	669.8009655		
	Max of ACTION LEVEL	1400		
3-NITROANILINE	Count of Parameter	3	1013.303	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	230000		
4,6-DINITRO-2-METHYLPHENOL	Count of Parameter	3	-1.63985	12.14%
	Average of half_res	776.6666667		
	StdDev of half_res	669.8009655		
	Max of ACTION LEVEL	0		
4-BROMOPHENYL PHENYL ETHER	Count of Parameter	3	19856.63	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	4500000		
4-CHLORO-3-METHYLPHENOL	Count of Parameter	3	-1.67692	11.78%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	0		
4-CHLOROANILINE	Count of Parameter	3	104.2341	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	24000		
4-CHLOROPHENYL PHENYL ETHER	Count of Parameter	3	-1.67692	11.78%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	0		
4-NITROANILINE	Count of Parameter	3	1013.303	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	230000		

TABLE H-4
BUILDING 103

PARAMETER	DATA	TOTAL	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
4-NITROPHENOL	Count of Parameter	3	8336.392	100.00%
	Average of half_res	960		
	StdDev of half_res	814.1252975		
	Max of ACTION LEVEL	4800000		
ACENAPHTHENE	Count of Parameter	3	12354.6	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	2800000		
ACENAPHTHYLENE	Count of Parameter	3	2955.005	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	670000		
ANTHRACENE	Count of Parameter	3	88257.48	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	20000000		
AROCLOR-1016	Count of Parameter	3	2157.184	100.00%
	Average of half_res	19.33333333		
	StdDev of half_res	0.577350269		
	Max of ACTION LEVEL	900		
AROCLOR-1221	Count of Parameter	3	2157.184	100.00%
	Average of half_res	19.33333333		
	StdDev of half_res	0.577350269		
	Max of ACTION LEVEL	900		
AROCLOR-1232	Count of Parameter	3	2157.184	100.00%
	Average of half_res	19.33333333		
	StdDev of half_res	0.577350269		
	Max of ACTION LEVEL	900		
AROCLOR-1242	Count of Parameter	3	2157.184	100.00%
	Average of half_res	19.33333333		
	StdDev of half_res	0.577350269		
	Max of ACTION LEVEL	900		
AROCLOR-1248	Count of Parameter	3	2157.184	100.00%
	Average of half_res	19.33333333		
	StdDev of half_res	0.577350269		
	Max of ACTION LEVEL	900		
AROCLOR-1254	Count of Parameter	3	15.71017	99.80%
	Average of half_res	63		
	StdDev of half_res	75.34586916		
	Max of ACTION LEVEL	900		
AROCLOR-1260	Count of Parameter	3	2157.184	100.00%
	Average of half_res	19.33333333		
	StdDev of half_res	0.577350269		
	Max of ACTION LEVEL	900		
BENZO(A)ANTHRACENE	Count of Parameter	3	4.501217	97.70%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1400		
BENZO(A)PYRENE	Count of Parameter	3	-1.23563	17.10%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	100		

TABLE H-4
BUILDING 103

PARAMETER	DATA	TOTAL	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
BENZO(B)FLUORANTHENE	Count of Parameter	3	4.501217	97.70%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1400		
BENZO(G,H,I)PERYLENE	Count of Parameter	3	60.10449	99.99%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	14000		
BENZO(K)FLUORANTHENE	Count of Parameter	3	60.10449	99.99%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	14000		
BIS(2-CHLOROETHOXY)METHANE	Count of Parameter	3	748.5259	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	170000		
BIS(2-CHLOROETHYL)ETHER	Count of Parameter	3	0.529555	67.53%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	500		
BIS(2-CHLOROISOPROPYL) ETHER	Count of Parameter	3	210.1451	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	48000		
BIS(2-ETHYLHEXYL)PHTHALATE	Count of Parameter	3	210.1451	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	48000		
BUTYLBENZYL PHTHALATE	Count of Parameter	3	66192.69	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	15000000		
CARBAZOLE	Count of Parameter	3	183.6673	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	42000		
CHRYSENE	Count of Parameter	3	616.1372	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	140000		
DIBENZO(A,H)ANTHRACENE	Count of Parameter	3	-1.23563	17.10%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	100		
DIBENZOFURAN	Count of Parameter	3	1057.433	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	240000		
DIETHYL PHTHALATE	Count of Parameter	3	247124	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	56000000		

TABLE H-4
BUILDING 103

PARAMETER	DATA	TOTAL	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
DIMETHYL PHTHALATE	Count of Parameter	3	2780162	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	630000000		
DI-N-BUTYL PHTHALATE	Count of Parameter	3	32212.92	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	7300000		
DI-N-OCTYL PHTHALATE	Count of Parameter	3	6617.76	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1500000		
FLUORANTHENE	Count of Parameter	3	12795.9	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	2900000		
FLUORENE	Count of Parameter	3	10589.42	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	2400000		
HEXACHLOROBENZENE	Count of Parameter	3	0.970851	78.30%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	600		
HEXACHLOROBUTADIENE	Count of Parameter	3	12.00325	99.66%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	3100		
HEXACHLOROCYCLOPENTADIENE	Count of Parameter	3	2425.45	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	550000		
HEXACHLOROETHANE	Count of Parameter	3	117.4729	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	27000		
INDENO(1,2,3-CD)PYRENE	Count of Parameter	3	4.501217	97.70%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1400		
ISOPHORONE	Count of Parameter	3	2955.005	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	670000		
NAPHTHALENE	Count of Parameter	3	5735.168	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1300000		
NITROBENZENE	Count of Parameter	3	95.40815	99.99%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	22000		

TABLE H-4
BUILDING 103

PARAMETER	DATA	TOTAL	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
N-NITROSO-DI-N-PROPYLAMINE	Count of Parameter	3	-1.67692	11.78%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	0		
N-NITROSODIPHENYLAMINE	Count of Parameter	3	320.469	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	73000		
PENTACHLOROPHENOL	Count of Parameter	3	7.712705	99.18%
	Average of half_res	960		
	StdDev of half_res	814.1252975		
	Max of ACTION LEVEL	5400		
PHENANTHRENE	Count of Parameter	3	7500.351	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	1700000		
PHENOL	Count of Parameter	3	150038.9	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	34000000		
PYRENE	Count of Parameter	3	9706.83	100.00%
	Average of half_res	380		
	StdDev of half_res	320.4684072		
	Max of ACTION LEVEL	2200000		

* A result of #DIV/0 in either column is indicative of a nondetect. A nondetect causes the average result and the standard deviation for the parameter to have a value of zero, resulting in an invalid division (dividing by zero).

TABLE H-5
BUILDING 223 FORMER LUBE AREA
PAGE 1 OF 2

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
ALUMINUM	Count of Parameter	3	3189.029685	100.00%
	Average of half_res	301.3333333		
	StdDev of half_res	33.126022		
	Max of Action Levels	75000		
ANTIMONY	Count of Parameter	3	12647.53204	100.00%
	Average of half_res	0.183333333		
	StdDev of half_res	0.002886751		
	Max of Action Levels	26		
ARSENIC	Count of Parameter	3	3.146314394	95.60%
	Average of half_res	1.083333333		
	StdDev of half_res	0.708684227		
	Max of Action Levels	2.66		
BARIUM	Count of Parameter	3	76.17484364	99.99%
	Average of half_res	87.46666667		
	StdDev of half_res	94.91603307		
	Max of Action Levels	5200		
BERYLLIUM	Count of Parameter	3	31.11269837	99.95%
	Average of half_res	0.09		
	StdDev of half_res	0.005		
	Max of Action Levels	0.2		
CADMIUM	Count of Parameter	3	3421.985392	100.00%
	Average of half_res	0.038333333		
	StdDev of half_res	0.015275252		
	Max of Action Levels	37		
CALCIUM	Count of Parameter	3	-16.08395176	0.19%
	Average of half_res	376000		
	StdDev of half_res	33060.55051		
	Max of Action Levels	0		
CHROMIUM	Count of Parameter	3	286.0950201	100.00%
	Average of half_res	3.666666667		
	StdDev of half_res	1.415391583		
	Max of Action Levels	290		
COBALT	Count of Parameter	3	115123.895	100.00%
	Average of half_res	0.086666667		
	StdDev of half_res	0.057735027		
	Max of Action Levels	4700		
COPPER	Count of Parameter	3	1749.026037	100.00%
	Average of half_res	4.833333333		
	StdDev of half_res	2.502665246		
	Max of Action Levels	3100		
IRON	Count of Parameter	3	40.2955027	99.97%
	Average of half_res	388.3333333		
	StdDev of half_res	67.09197667		
	Max of Action Levels	2300		
LEAD	Count of Parameter	3	99.05973481	99.99%
	Average of half_res	11.36666667		
	StdDev of half_res	6.975910932		
	Max of Action Levels	500		

TABLE H-5
BUILDING 223 FORMER LUBE AREA
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Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
MAGNESIUM	Count of Parameter	3	-22.27476236	0.10%
	Average of half_res	1593.333333		
	StdDev of half_res	101.1599394		
	Max of Action Levels	0		
MANGANESE	Count of Parameter	3	698.2382856	100.00%
	Average of half_res	6.066666667		
	StdDev of half_res	0.73711148		
	Max of Action Levels	370		
MERCURY	Count of Parameter	3	160804.2193	100.00%
	Average of half_res	0.023183333		
	StdDev of half_res	0.000202073		
	Max of Action Levels	23		
NICKEL	Count of Parameter	3	28765.65227	100.00%
	Average of half_res	0.686666667		
	StdDev of half_res	0.073711148		
	Max of Action Levels	1500		
POTASSIUM	Count of Parameter	3	-20.31435209	0.12%
	Average of half_res	49.26666667		
	StdDev of half_res	3.429771615		
	Max of Action Levels	0		
SELENIUM	Count of Parameter	3	6114.273769	100.00%
	Average of half_res	0.89		
	StdDev of half_res	0.09		
	Max of Action Levels	390		
SILVER	Count of Parameter	3	#DIV/0!	#DIV/0!
	Average of half_res	0.045		
	StdDev of half_res	0		
	Max of Action Levels	390		
SODIUM	Count of Parameter	3	-20.29929883	0.12%
	Average of half_res	966.3333333		
	StdDev of half_res	67.32260641		
	Max of Action Levels	0		
THALLIUM	Count of Parameter	3	667.0777066	100.00%
	Average of half_res	0.228333333		
	StdDev of half_res	0.002886751		
	Max of Action Levels	1.59		
TIN	Count of Parameter	3	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of Action Levels	44000		
VANADIUM	Count of Parameter	3	5977.163221	100.00%
	Average of half_res	1.966666667		
	StdDev of half_res	0.115470054		
	Max of Action Levels	490		
ZINC	Count of Parameter	3	5965.674594	100.00%
	Average of half_res	9.566666667		
	StdDev of half_res	5.450076452		
	Max of Action Levels	23000		

* A result of #DIV/0 in either column is indicative of a nondetect. A nondetect causes the average result and the standard deviation for the parameter to have a value of zero, resulting in an invalid division (dividing by zero).

TABLE H-6
BUILDING 223 EQUIPMENT REPAIR SHOP

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
ALUMINUM	Count of Parameter	3	503.7667981	100.00%
	Average of half_res	356.3333333		
	StdDev of half_res	209.54554		
	Max of Action levels	75000		
ANTIMONY	Count of Parameter	3	12648.34854	100.00%
	Average of half_res	0.181666667		
	StdDev of half_res	0.002886751		
	Max of Action levels	26		
ARSENIC	Count of Parameter	3	13.57273657	99.73%
	Average of half_res	1.02		
	StdDev of half_res	0.170880075		
	Max of Action levels	2.66		
BARIUM	Count of Parameter	3	1663.902924	100.00%
	Average of half_res	21.36666667		
	StdDev of half_res	4.401514891		
	Max of Action levels	5200		
BERYLLIUM	Count of Parameter	3	49.80629144	99.98%
	Average of half_res	0.098333333		
	StdDev of half_res	0.002886751		
	Max of Action levels	0.2		
CADMIUM	Count of Parameter	3	495.9848994	100.00%
	Average of half_res	0.175		
	StdDev of half_res	0.105		
	Max of Action levels	37		
CALCIUM	Count of Parameter	3	-15.16699751	0.22%
	Average of half_res	352666.6667		
	StdDev of half_res	32883.63321		
	Max of Action levels	0		
CHROMIUM	Count of Parameter	3	120.2575869	100.00%
	Average of half_res	5.8		
	StdDev of half_res	3.342154993		
	Max of Action levels	290		
COBALT	Count of Parameter	3	84583.12925	100.00%
	Average of half_res	0.115		
	StdDev of half_res	0.078581168		
	Max of Action levels	4700		
COPPER	Count of Parameter	3	758.7303615	100.00%
	Average of half_res	15.06666667		
	StdDev of half_res	5.750072463		
	Max of Action levels	3100		
IRON	Count of Parameter	3	4.527193952	97.73%
	Average of half_res	830.3333333		
	StdDev of half_res	459.0973027		
	Max of Action levels	2300		
LEAD	Count of Parameter	3	48.3102388	99.98%
	Average of half_res	32.6		
	StdDev of half_res	13.68247054		
	Max of Action levels	500		
MAGNESIUM	Count of Parameter	3	-6.229414938	1.24%
	Average of half_res	1513.333333		
	StdDev of half_res	343.5597959		
	Max of Action levels	0		
MANGANESE	Count of Parameter	3	206.5752186	100.00%

TABLE H-6
BUILDING 223 EQUIPMENT REPAIR SHOP

Parameter	Data	Total	T SCORE*	CONFIDENCE THAT TRUE MEAN IS BELOW ACTION LEVEL*
	Average of half_res	9.133333333		
	StdDev of half_res	2.470492528		
	Max of Action levels	370		
MERCURY	Count of Parameter	3	1258.283234	100.00%
	Average of half_res	0.048816667		
	StdDev of half_res	0.025795365		
	Max of Action levels	23		
NICKEL	Count of Parameter	3	6594.427468	100.00%
	Average of half_res	1.066666667		
	StdDev of half_res	0.321455025		
	Max of Action levels	1500		
POTASSIUM	Count of Parameter	3	-17.26756905	0.17%
	Average of half_res	47.9		
	StdDev of half_res	3.923009049		
	Max of Action levels	0		
SELENIUM	Count of Parameter	3	4232.958763	100.00%
	Average of half_res	0.89		
	StdDev of half_res	0.13		
	Max of Action levels	390		
SILVER	Count of Parameter	3	72200.69769	100.00%
	Average of half_res	0.071666667		
	StdDev of half_res	0.007637626		
	Max of Action levels	390		
SODIUM	Count of Parameter	3	-4.085537601	2.75%
	Average of half_res	1278.666667		
	StdDev of half_res	442.6119444		
	Max of Action levels	0		
THALLIUM	Count of Parameter	3	386.0803025	100.00%
	Average of half_res	0.225		
	StdDev of half_res	0.005		
	Max of Action levels	1.59		
TIN	Count of Parameter	3	#DIV/0!	#DIV/0!
	Average of half_res	0		
	StdDev of half_res	0		
	Max of Action levels	44000		
VANADIUM	Count of Parameter	3	1213.031827	100.00%
	Average of half_res	2.266666667		
	StdDev of half_res	0.56862407		
	Max of Action levels	490		
ZINC	Count of Parameter	3	2432.464558	100.00%
	Average of half_res	28.76666667		
	StdDev of half_res	13.35527362		
	Max of Action levels	23000		

* A result of #DIV/0 in either column is indicative of a nondetect. A nondetect causes the average result and the standard deviation for the parameter to have a value of zero, resulting in an invalid division (dividing by zero).